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The Parliament of the Commonwealth of Australia

# Skills: Rural Australia's Need

**Inquiry into rural skills training and research**

House of Representatives  
Standing Committee on Agriculture, Fisheries and Forestry

February 2007  
Canberra

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## Foreword

A highly skilled rural workforce is vital to the economic future of Australia. Maintaining and enhancing those skills in a dynamic and highly competitive international environment requires investment in world class training, extension and research services. Only by making such investment will our rural industries remain at the forefront of agriculture and forestry internationally.

Despite this, the evidence received by the committee during the course of its inquiry indicated that there are severe skills shortages in rural industries and significant gaps in our capacity to respond to those shortages.

First and foremost are the negative perceptions surrounding agriculture and forestry. Although these are dynamic industries with strong prospects, they are widely perceived as sunset industries with little to offer ambitious and capable people. In truth, Australia's rural industries offer a wide diversity of career options, ranging from farm hands with the freedom to move within and between industries, through machine operators with specialised skills, to business managers and research scientists. Agriculture is not just farming and forestry is not just cutting down trees. The community needs to be educated as to the role agriculture and forestry play in our society and the diverse career prospects open to those who seek them.

A more coherent approach needs to be taken to the provision of rural skills training and education. The committee recommends the development of a national strategy on rural skills training, encompassing the school, vocational education and training, and higher education sectors. The strategy would rationalise providers, focus limited resources, and provide for greater articulation between the various sectors.

The committee also identified a need to reform the regulatory framework governing vocational education and training, at least as applied to rural skills training. The current framework is inflexible and unresponsive, and fails to take into account the particular needs of rural skills training in terms of costs, volumes and the informality of rural expertise. The framework has also failed to meet the

specific needs of individual rural industries leading some to take control of their own training needs. The very success of these initiatives demonstrates the need for change.

The need for increased investment in research and the dissemination of research outcomes through extension is a matter of priority. While Australian research in agriculture and forestry is world class, there is a concern that much of the research being done is not reaching farmers. The links between research and extension must therefore be enhanced. There is also concern that the research skill base is being undermined by an emphasis on short-term funding mechanisms and an ageing researcher population. The committee recommends a greater emphasis on long term research and greater stability of funding and employment for researchers.

The provision of rural extension services has undergone enormous change in recent times as State Governments move out of this field and private operators move in. There is a concern that this process of transition has created gaps in the availability of services and a loss of corporate memory and career opportunities amongst extension professionals. The committee has called for the development of a national extension framework to address these issues. The provision of high quality extension and advisory services is essential to the progress of rural and regional Australia.

My colleagues and I would like to thank all those who contributed to this inquiry. The submissions and evidence taken were of a particularly high standard, reflecting the knowledge and passion of participants for rural skills education and training.

**Alby Schultz MP**  
**Chair**





## Membership of the Committee

Chair            Mr Alby Schultz MP

Deputy Chair   The Hon Dick Adams MP

Members        Mr Martin Ferguson MP

Mr Gavan O'Connor MP

Mr Michael Ferguson MP

Mr Patrick Secker MP

Mr John Forrest MP

The Hon Wilson Tuckey MP

Mr Peter Lindsay MP (to 14 Feb 2007)

Mr Tony Windsor MP

Mrs Sophie Mirabella MP  
(from 14 Feb 2007)

## Committee Secretariat

<b>Secretary</b>	Mr Ian Dundas (to 11 Dec 2006)
	Ms Janet Holmes (from 12 Dec 2006)
<b>Inquiry Secretary</b>	Ms Jenny Cochran (Mar–Aug 2005; Dec 2005–Oct 2006)
	Mr Robert Little (Aug–Dec 2005)
	Dr Bill Pender (from 6 Oct 2006)
<b>Research Officer</b>	Dr Cathryn Ollif (June–Sept 2006)
<b>Administrative Officers</b>	Mrs Marlene Dundas
	Ms Gemma Baron
	Ms Jazmine De Roza



## Terms of reference

The committee is to inquire into and report on:

1. The availability and adequacy of education and research services in the agriculture sector, including access to vocational training and pathways from vocational education and training to tertiary education and work.
2. The skills needs of agricultural industries in Australia, including the expertise and capacity of industries to specify the skills-sets required for training, and the extent to which vocational training meets the needs of rural industries.
3. The provision of extension and advisory services to agricultural industries, including links and coordination between education, research and extension.
4. The role of the Australian government in supporting education, research and advisory programs to support the viability and sustainability of Australian agriculture.





## List of abbreviations

AACC	Australian Agricultural College Corporation
AAPTN	Australian Agriculture Training Providers Network
ABIF	Australian Beef Industry Foundation
ABRI	Agricultural Business Research Institute
ABS	Australian Bureau of Statistics
ACC	Area Consultative Committee
AFISC	Agri-Food Industry Skills Council
ANTA	Australian National Training Authority
ANZSIC	Australia New Zealand Standard Industry Classification
APEN	Australasia-Pacific Extension Network
AQF	Australian Qualifications Framework
AQIS	Australian Quarantine and Inspection Service
AQTF	Australian Quality Training Framework
ARWA	Agricultural Research Western Australia
ATC	Australian Technical College
AWI	Australian Wool Innovation Ltd

CCA	Cattle Council of Australia
CEO	Chief Executive Officer
CFI	Conservation Farmers Inc.
COAG	Council of Australian Governments
CRC	Cooperative Research Centre
CRDC	Cotton Research and Development Corporation
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DAFF	Department of Agriculture, Fisheries and Forestry
DCITA	Department of Communications, Information Technology and the Arts
DEST	Department of Education, Science and Training
DEWR	Department of Employment and Workplace Relations
DPI	Department of Primary Industries NSW
DPI&F	Department of Primary Industries & Fisheries, Queensland
GDP	Gross Domestic Product
GITN	Grains Industry Training Network
GOTAFE	Goulburn Ovens Institute of TAFE
GRDC	Grains Research and Development Corporation
GVP	Gross Value of Production
IAA	Irrigation Association of Australia
ICT	Information and communications technology
MLA	Meat and Livestock Australia
NAC	New Apprenticeships Centre
NFF	National Farmers' Federation

NMIT	Northern Melbourne Institute of TAFE
NRM	Natural resource management
OH&S	Occupational Health and Safety
P&C	Parents and Citizens' Association
QA	Quality assurance
QRITC	Queensland Rural Industry Training Council
RAC	Research Advisory Committee
R&D	Research and Development
RCC	Recognition of Current Competencies
RDB	Regional Development Board
RDC	Research and Development Corporation
RIRDC	Rural Industries Research and Development Corporation
RIST	Rural Industries Skill Training
RPL	Recognition of Prior Learning
RPTP	Rural Production Training Package
RTCA	Rural Training Council of Australia
RTO	Registered Training Organisation
RTP	Rural Industry Training Package
SBNA	School-Based New Apprenticeship
STA	State Training Authority
TAFE	Technical and Further Education
VCAH	Victorian College of Agriculture and Horticulture
VET	Vocational Education and Training
VETAB	VET Accreditation Board

VETiS	VET in Schools
VFF	Victorian Farmers Federation
VRD	Victoria River District
WAFarmers	Western Australian Farmers Federation





# List of recommendations

## 1 Rural Skills—A Critical Issue

### Recommendation 1

The committee recommends that the Australian Government consult with the states, territories and industry bodies to review and revise its Skills in Demand List survey so that it more accurately and comprehensively identifies the labour and skills needs at all levels in all sectors of agriculture and forestry, and that the Skills in Demand List be subject to annual review.

### Recommendation 2

The committee recommends that the Australian Government, in conjunction with State and Territory Governments and industry, formulate a national strategy for promoting the role of agriculture and forestry within Australian society, and the diverse career opportunities available within those industries.

### Recommendation 3

The committee recommends that the Australian Government, in conjunction with State and Territory Governments and industry, develop a national strategy for promoting agriculture and forestry in both primary and secondary schools.

### Recommendation 4

The committee recommends that the Australian Government coordinate programs with State and Territory Governments and industry aimed at enhancing the contribution of women to Australian agriculture and to facilitate their participation in rural skills training.

#### Recommendation 5

The committee recommends that the Australian Government, in conjunction with State and Territory Governments and industry, develop a strategy for utilising the knowledge and skills of older workers in rural industries – including training, extension and research services – and facilitate the transfer of knowledge and skills to younger generations.

#### Recommendation 6

The committee acknowledges the critical role of information and communications technology services to skill formation in rural areas and recommends that the Australian Government pays particular attention to the further development of information and communications technology services to rural and regional Australia, that includes access to high-speed broadband services to rural and remote communities.

## 2 Rural Skills Education and Training

#### Recommendation 7

The committee recommends that the Australian Government, in cooperation with State and Territory Governments, develop a national program for rural skills training in schools, with a view to ensuring:

- Stable and sustained funding of schools-based rural skills programs;
- Funding and incentives for the training and upgrading of agriculture teachers; and
- The creation of effective mechanisms for industry and community involvement in school-based rural skills training.

#### Recommendation 8

The committee recommends that the Australian Government, in conjunction with State and Territory Governments, develop a national framework for the reinvigoration of Australia's agricultural colleges, including:

- Stable and sustained funding for agricultural colleges in each state;
- Funding and incentives for national coordination of programs between colleges; and
- The creation of effective mechanisms for industry and community involvement in the development of curricula.

### Recommendation 9

The committee recommends that the Australian Government undertake a review of the Australian Apprenticeship scheme with a view to:

- Specifically allocating training funds and places to New Apprenticeships in rural skills;
- Altering funding arrangements to properly reflect the cost of providing training and supervision in rural skills;
- Extending funding and incentive payments to cover a broader range of qualifications; and
- Ensuring that there is rigorous quality control over training outcomes.

### Recommendation 10

The committee recommends that the Australian Government give urgent consideration to establishing agriculture courses at Australian Technical Colleges, and expanding the number of Colleges to cover regions principally associated with primary production.

### Recommendation 11

The committee recommends that the Australian Government give an immediate undertaking to continue FarmBis beyond its current expiry date in 2008.

### Recommendation 12

The committee recommends that the Australian Government, in conjunction with State and Territory Governments, achieve a nationally consistent approach to FarmBis funding, including:

- Extending FarmBis funding to rural employees;
- Extending FarmBis funding to Certificate III level courses; and
- Resuming FarmBis funding of ChemCert training.

### Recommendation 13

The committee recommends that the Australian Government develop a national strategy for facilitating industry initiatives in rural skills training, including a coordinating body and funding mechanism for industry initiatives, and the removal of bureaucratic impediments.

#### Recommendation 14

The committee recommends that the Australian Government review higher education in agriculture and forestry, with a view to:

- Increasing student numbers through scholarships and/or HECS exemptions;
- Rationalising the number of institutions providing courses in agriculture and forestry, and facilitating inter-campus cooperation and coordination; and
- Increasing the overall level of funding for courses in agriculture and forestry, and placing it on a sustained basis.

#### Recommendation 15

The committee recommends that the Australian Government, in conjunction with State and Territory Governments, universities and the VET sector, develop consistent and comprehensive pathways for the articulation of VET to university in rural skills training and education.

### 3 The Regulatory Framework for VET

#### Recommendation 16

The committee recommends that the Australian Government, in conjunction with State and Territory Governments, provides funding for VET training in rural skills to provide:

- Funding targeted specifically at rural skills training;
- A funding formula that takes into account the high cost/low volume nature of rural skills training; and
- A relaxation of competition policy as applied to organisations providing rural skills training.

#### Recommendation 17

The committee recommends that the Australian Government revise the Australian Quality Training Framework in order to allow greater flexibility in the appointment and accreditation of teachers and instructors in rural skills training courses, including appropriate prior recognition of skills and competencies.

**Recommendation 18**

The committee recommends that the Australian Government revise the Australian Quality Training Framework with a view to making the adoption of new training packages and competencies in rural skills faster and easier.

**Recommendation 19**

The committee recommends that the Australian Government revise the funding of the Agri-Food Industry Skills Council with a view to increasing funding and staffing to a level commensurate with its role.

**Recommendation 20**

The committee recommends that the Australian Government, in conjunction with State and Territory Governments, revises VET training in rural skills to provide:

- A training framework based on the attainment of individual competencies as well as formal qualifications;
- A funding formula that takes into account training in individual competencies as well as whole qualifications; and
- A reformulation of individual competencies to provide for courses more specifically targeted at particular skills and industries and of shorter duration.

**Recommendation 21**

The committee recommends that the Australian Government direct the Agri-Food Industry Skills Council to revise the Rural Production Training Package to allow for the nesting of competencies and qualifications.

**Recommendation 22**

The committee recommends that the Australian Government, in consultation with industry, develop a skills passport system for the recognition and transfer of skills in rural industries, and that reciprocal arrangements be undertaken with other countries to allow skills passport recognition across international borders.

**Recommendation 23**

The committee recommends that the Australian Government review rural skills training by the VET sector, in conjunction with its review of higher education in agriculture and forestry, with a view to:

- Reducing the number of organisations providing courses in rural skills training; and
- Increasing the overall level of funding for rural skills training, and placing it on a sustained basis.

**4 Availability and adequacy of research****Recommendation 24**

The committee recommends that the Australian Government substantially increase funding for research in Australia's agriculture and forestry industries, with a view to:

- Addressing long term research needs in the fields of basic and applied research;
- Providing stability and security for individuals and institutions involved in scientific research; and
- Providing incentives and career paths for those entering the research field.

**Recommendation 25**

The committee recommends that the Australian Government review its funding of the Cooperative Research Centre Program to provide greater funding certainty and support for those Centres with a proven track record of delivering research and practical outcomes.

**Recommendation 26**

The committee recommends that the Australian Government formally recognise the contribution of the beekeeping industry to Australian agriculture and horticulture by providing funding for the establishment of a CRC-style entity for beekeeping and pollination, including development costs in the areas of research, education and bee breeding.

**Recommendation 27**

The committee recommends that the Australian Government guarantees the long-term future of the honey bee quarantine facility currently housed in the Eastern Creek Quarantine Facility or makes alternative arrangements for a permanent site, as a matter of urgency.

## 5 Provision of extension and advisory services

### Recommendation 28

The committee recommends that the Australian Government, in conjunction with State and Territory Governments and industry, develop a national extension framework to coordinate the provision of agriculture extension services nationally, and define the roles and responsibilities of governments, industry and extension providers.

### Recommendation 29

The committee recommends that the Australian Government include a specific extension component in all funding arrangements for agricultural research organisations in receipt of federal funding, including rural Research and Development Corporations and Cooperative Research Centres. This funding should be provided in addition to, not at the expense of, research funding.





## Rural Skills—A Critical Issue

- 1.1 The need to maintain and enhance the skills of our rural workforce, our farmers and foresters and all who support them, is critical to the economic future of Australia. A skilled workforce, growing to meet the changing demands of rural industries, is vital for our international competitiveness. As Mr Guy Roth, CEO of the Cotton Catchment Communities Cooperative Research Centre, told the committee:

This is a very important issue that you are deliberating on. For the future of rural and regional Australia, the knowledge based economy is going to be very important. How are we going to stay competitive in the world market? Whether it is cotton, beef or whatever, we are going to have to further increase our yields to keep the profitability up. We are going to have to compete with Brazil and China and countries like that. One of the main ways we are going to be able to do that is through innovation, science, research and R&D. We need to put the farmers together. They are great innovators themselves. It has an outcome for the nation and really that is why we have to keep our foot on the accelerator.<sup>1</sup>

- 1.2 Rural industries are currently facing a skills shortage and skills gap as a result of a number of complex and inter-related issues.<sup>2</sup> A report on

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1 Mr Guy Roth, *Transcript of Evidence*, 9 March 2006, p. 21.

2 AFISC, *Industry Skills Report*, June 2005; National Farmers' Federation, *Labour Shortage Action Plan*, 21 September 2005; Rural Industry Working Group, 2001, *Skills needs now and in the future in the rural industry*, p. 9; DEST, *Industry Skills Report*, May 2006; Legislative Council Standing Committee on State Development, *Inquiry into skills shortages in rural and regional NSW*, Legislative Council of New South Wales, May 2006.

the nature and causes of skill shortages released by the Department of Education, Science and Training (DEST) in 2002 stated:

There is an ongoing need for replacement and improvement in the skill base because of the age and gender profile of the workforce, poor technology uptake and a range of education and training needs. It is also important to improve overall career paths and industry appeal.<sup>3</sup>

- 1.3 In addition to the significant and growing shortage of skilled and unskilled people, there are difficulties attracting and retaining young people, and training opportunities are reportedly inadequate and/or hard to access.<sup>4</sup> For instance, the range of jobs available, the quality of skills training and educational opportunities, and pay and conditions in rural and regional areas, are not as attractive as those in cities.<sup>5</sup>
- 1.4 Furthermore, in its report *Australia's farmers: past, present and future*, Land & Water Australia noted that the peak of retirement of the 'baby boomer' generation will occur between 2010 and 2015. This will have a significant impact on the structure of the Australian labour market. The report concluded:
- Demand for labour will remain relatively constant, while labour supply will slow and eventually decrease as a result of declining fertility driven by changing social values...The resulting shortage of labour will mean agriculture will need to compete against improving employment prospects for younger members of farm families.<sup>6</sup>
- 1.5 The seasonal nature of many agricultural industries, and the effect on social security entitlements of casual work, can also contribute to labour shortages in agriculture. This suggests the need for workers who are multi-skilled in a range of seasonal agricultural work, but may also require restructuring of work opportunities. In its 2002 report on the nature and causes of skill shortages, DEST noted that 'solutions to labour shortages in the industry cannot be separated from initiatives to improve career and occupational pathways'.<sup>7</sup>

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3 DEST, *Nature and Causes of Skill Shortages: Reflections from the Commonwealth National Industry Skills Initiatives Working Groups*, November 2002, p. 14.

4 AFISC, Submission no. 105, p. 3.

5 AFISC, Submission no. 105, p. 4.

6 Land & Water Australia, *Australia's farmers: past, present and future*, June 2005, pp. 33–4.

7 DEST, *Nature and Causes of Skill Shortages: Reflections from the Commonwealth National Industry Skills Initiatives Working Groups*, November 2002, p. 15.

- 1.6 Agriculture is continuing to change and is becoming more challenging. In its submission, the South Australian Division of the Australian Institute of Agricultural Science and Technology noted:

Commercial agriculture has become a more intellectually demanding management pursuit in technical, financial, environmental and social terms. New technologies require an appreciation of the background scientific principles for adoption, and a greater capacity to analyse the financial implications and risks.<sup>8</sup>

- 1.7 In its submission, the Agri-Food Industry Skills Council (AFISC) indicated that the future growth and viability of Australia's agriculture industries depends on a skilled and responsive workforce, the ability to attract and retain people, and the availability of better employment and training options in rural and regional Australia.<sup>9</sup>

## The agricultural workforce

- 1.8 Over the last few decades Australia's agricultural sector has been significantly affected by technological advances and innovation as well as changes in consumer demand, the impact of government policies, emerging environmental concerns, and trends in the terms of trade.<sup>10</sup> Within agriculture, there have been many changes with a trend towards fewer but larger farms, and a decline in the area of land in agricultural production.<sup>11</sup>
- 1.9 Despite the changes of recent decades, agriculture remains an important employer in rural and regional Australia and creates significant demand for training and education services in non-metropolitan areas. In 2001, agriculture accounted for almost 14 per cent of non-metropolitan employment,<sup>12</sup> spread across several sectors (see Table 1.1).

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8 South Australian Division of the Australian Institute of Agricultural Science and Technology, Submission no. 111, p. 2.

9 AFISC, Submission no. 105, p. 8.

10 Productivity Commission, 2005, *Trends in Australian Agriculture*, Research Paper, p. xvii.

11 Productivity Commission, 2005, *Trends in Australian Agriculture*, Research Paper, p. xxii. The decline in farm numbers in the last two decades to 2002-03 is about 25 per cent.

12 Productivity Commission, 2005, *Trends in Australian Agriculture*, Research Paper, p. 91.

Table 1.1 Agriculture employment, 2003-04\*

Industry/sector	Number employed 2003-04	Proportion of agriculture's workforce
	<i>'000 persons</i>	<i>%</i>
Agriculture	320	85.5
Horticulture and fruit growing	95	25.3
Grain, sheep and beef cattle	166	44.0
Dairy cattle	20	5.3
Poultry	10	2.6
Other livestock	10	2.7
Other crops	11	2.9
Services to agriculture	25	6.7
Forestry and logging	12	3.2
Commercial fishing	16	4.2
<b>Agriculture, Forestry and Fishing</b>	<b>375</b>	<b>100</b>

\* Employment data based on the average of the four consecutive quarters between August and May.

Source Productivity Commission, 2005, *Trends in Australian Agriculture, Research Paper, p. 88.*  
From ABS (Cat no. 6291.0.55.001)

1.10 The agricultural workforce has a number of distinctive features, including:

- a high proportion of self-employed, family and casual workers;
- long job tenure;
- a relatively old workforce;
- a high proportion of men to women;
- a low incidence of post-school qualifications; and
- low employee wages.<sup>13</sup>

1.11 According to the Productivity Commission, many of these features arise from the continuing dominance of family operated businesses. Specifically, 99 per cent of Australian farms are family owned and

13 AFISC, Submission no. 105, p. 6; Productivity Commission, 2005, *Trends in Australian Agriculture, Research Paper, p. xxxv.*

According to the Productivity Commission, the proportion of the agriculture workforce without post-school qualifications is around 20 percentage points higher than for the workforce generally, while for university training it is more than three times lower than that for the workforce in general.

In 2003, median weekly earnings for full-time paid employees in agriculture were around one third lower than those for all full-time employees, making agriculture workers the lowest paid workers in the economy on average.

- operated,<sup>14</sup> and the agricultural sector makes the greatest use of family labour.<sup>15</sup> This characteristic provides flexibility in the use of labour in terms of hours worked and engagement in off-farm work.<sup>16</sup>
- 1.12 The last 20 years have seen a decline in the proportion of employers, own account workers and contributing family workers employed in agriculture, and an increase in the proportion of employees. This can be partly explained by the trend towards larger farm sizes. However, demographic changes and other influences, such as more family members working off-farm, have also reduced the supply of family labour and increased the need for hired labour.<sup>17</sup>
- 1.13 The agriculture workforce is older than the Australian workforce in general, and the median age of farmers has increased significantly in the last two decades from 47 in 1986 to 51 years in 2001.<sup>18</sup> The findings of Land & Water Australia's report, *Australia's farmers: past, present and future*, suggest that the average age for farmers will continue to increase 'for at most another decade before a gentle decline commences'.<sup>19</sup> The combination of the ageing of the agriculture workforce with other trends, like the population drift away from rural areas, 'will make maintaining current employment levels a difficult task'.<sup>20</sup>
- 1.14 The factors contributing to the ageing of the agricultural workforce reflect that of the ageing of the Australian population in general, as well as the trend of fewer young people entering farming, and low exit rates at traditional retirement age.<sup>21</sup>
- 1.15 The position of women in the rural workforce has also undergone change. The female participation rate in agricultural industries has increased proportionately in the last two decades, rising from 26 to 31 per cent (women employed in full-time agriculture increasing from 12

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14 Productivity Commission, 2005, *Trends in Australian Agriculture*, Research Paper, p. xxxv.

15 Productivity Commission, 2005, *Trends in Australian Agriculture*, Research Paper, p. 99.

16 Productivity Commission, 2005, *Trends in Australian Agriculture*, Research Paper, p. xxxv.

17 Productivity Commission, 2005, *Trends in Australian Agriculture*, Research Paper, p. xxxvii.

18 ABS, 2003, *Living arrangements: Farming families*, 4102.0-Australian Social Trends, 2003, [www.abs.gov.au](http://www.abs.gov.au)

19 Land & Water Australia, *Australia's farmers: past, present and future*, June 2005, p. 24.

20 Rural Skills Australia, Submission no. 71, p. 9.

21 Productivity Commission, 2005, *Trends in Australian Agriculture*, Research Paper, p. xxxvii.

to 15 per cent, while those in part-time employment increased from 14 to 16 per cent).<sup>22</sup>

- 1.16 Despite this, between 1971 and 2001 there was a steady decline in the number of *young* women (aged 20–34) entering agriculture. Specifically, between 1996 and 2001 the number of young women entering agriculture was 70 per cent less than the number entering between 1971 and 1976. Furthermore, the rate of decline in entries of women is approximately double that of men.<sup>23</sup> In her submission, Dr Sandra Welsman observed that ‘across Australia regions have long reported the exodus of youth, especially young women who cannot find interesting, continuing work. They are followed by capable young men’.<sup>24</sup>
- 1.17 *Australia’s farmers: past, present and future* indicated that the ‘changing social role of women and increased expectations of education participation have permanently shifted patterns of entry to farming and retirement from farming’.<sup>25</sup> Moreover, ‘Fewer and fewer farm women identify with the traditional role of “farmer’s wife” and increasingly are likely to identify as a joint farm manager’ or are employed in professions outside rural industry.<sup>26</sup>
- 1.18 Off-farm employment has become increasingly important in maintaining family farm incomes. Women are ‘more likely than men to work off-farm’.<sup>27</sup> A 2005 Productivity Commission research paper, *Trends in Australian Agriculture*, stated that:

Between 1989–90 and 2002–03, the proportion of farm families deriving income from off-farm wages and salary increased from 30 to 45 per cent and average earnings from such

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22 Productivity Commission, 2005, *Trends in Australian Agriculture*, Research Paper, p. 102; Land & Water Australia, *Australia’s farmers: past, present and future*, June 2005, p. 33.

23 Land & Water Australia, *Australia’s farmers: past, present and future*, June 2005, pp. 1, 10–11.

24 Dr Sandra Welsman, Submission no. 12, p. 1. See also Dr Sandra Welsman, *Transcript of Evidence*, 7 September 2005, pp. 4–5.

25 Land & Water Australia, *Australia’s farmers: past, present and future*, June 2005, p. 31.

26 Land & Water Australia, *Australia’s farmers: past, present and future*, June 2005, p. 33; See also Rural Industry Working Group, 2001, *Skills needs now and in the future in the rural industry*, p. 21.

27 Productivity Commission, 2005, *Trends in Australian Agriculture*, Research Paper, pp. xxxvii–xxxviii; Rural Industry Working Group, 2001, *Skills needs now and in the future in the rural industry*, pp. 18, 21.

sources more than doubled, in real terms, rising from \$15 000 to \$33 500 per year.<sup>28</sup>

1.19 Other factors have also contributed to changes in the agricultural workforce. Periodic droughts have a substantial impact on agricultural output, with flow-on effects for employment. The Productivity Commission's *Trends in Australian Agriculture* states that the 2002–03 drought saw the loss of around 70 000 agricultural jobs, or a decline of around 15 per cent. This represents the largest employment shock since reliable statistics became available.<sup>29</sup>

## Education and training of the rural workforce

1.20 The agricultural workforce has a low incidence of post-school qualifications. Specifically, while the proportion of the agricultural workforce without post-school qualifications is around 20 per cent higher than for the workforce generally, university training is more than three times lower than that for the workforce generally (see Table 1.2).<sup>30</sup>

Table 1.2 Educational attainment in the Australian workforce, 1984, 1994, and 2004 (per cent)

Sector	University degree			Other post-school qualifications*			Without post-school qualifications		
	1984	1994	2004	1984	1994	2004	1984	1994	2004
<b>Agriculture, forestry and fishing</b>	<b>2.3</b>	<b>4.5</b>	<b>6.8</b>	<b>23.8</b>	<b>23.8</b>	<b>31.4</b>	<b>73.1</b>	<b>70.0</b>	<b>61.0</b>
Mining	8.1	14.4	17.3	44.8	35.8	46.7	47.1	49.8	35.3
Manufacturing	4.5	7.2	13.1	35.0	36.7	40.3	60.2	55.5	45.8
Services	11.7	16.5	24.3	35.5	32.5	34.1	51.1	48.4	40.7
Total	9.6	14.6	22.4	34.5	32.7	34.9	54.5	50.4	41.9

\* Other post-school qualifications include vocational training and all other non-university diplomas and certificates.

Source Productivity Commission, 2005, *Trends in Australian Agriculture*, Research Paper, p. 106. From ABS (Cat no. 6227.0) and unpublished ABS data.

1.21 Despite the low base of educational qualifications, there has been a strong growth in educational attainment in the agricultural workforce. As Table 1.2 indicates, post-school qualifications gained

28 Productivity Commission, 2005, *Trends in Australian Agriculture*, Research Paper, p. 87.

29 Productivity Commission, 2005, *Trends in Australian Agriculture*, Research Paper, pp. xxi, 87. In comparison, both the 1982–83 and 1994–95 droughts resulted in job losses of around 6000, or a decline of about one per cent.

30 Productivity Commission, 2005, *Trends in Australian Agriculture*, Research Paper, p. 106.

through vocational education and training rather than university is highly significant.<sup>31</sup> On the other hand, as AFISC noted in its submission, 'the number of VET students in agrifood-related courses decreased overall by 3% between 1998 and 2003'.<sup>32</sup>

- 1.22 These features of the agricultural workforce have implications for the policies and programs that can be developed to deliver training and development to improve productivity. There is a need to ensure skilled labour is available for rural enterprises as well as small scale businesses and family farms. In some respects the needs of family farms are similar to the needs of small business.<sup>33</sup> As the Queensland Rural Industries Training Council noted in its submission, these needs must be considered in the design and delivery of education and training packages:

Like many small businesses, the operators of rural enterprises tend to see training needs in terms of their personal needs rather than industry needs.<sup>34</sup>

- 1.23 Long term solutions will require a national integrated approach by governments and industry to ensure effective change in the attraction and retention of a skilled workforce to meet the demands of rural industries.<sup>35</sup> Moreover, skills development cannot be considered in isolation but as a critical driver of an integrated regional development and growth strategy.<sup>36</sup>

## Rural Skills Data

- 1.24 Addressing the specific skills needs of rural industries will also require the collection of comprehensive and consistent national data. The committee is concerned that the allocation of government resources to address Australia's skills shortages may not be either sufficient or appropriately targeted due to the inadequacy of current data collection and analysis.
- 1.25 The Department of Employment and Workplace Relations (DEWR) is the Australian government agency with prime portfolio responsibility

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31 Productivity Commission, 2005, *Trends in Australian Agriculture*, Research Paper, p. 106.

32 AFISC, Submission no. 105, p. 6.

33 Rural Industry Working Group, 2001, *Skills needs now and in the future in the rural industry*, p. 25.

34 Queensland Rural Industries Training Council, Submission no. 28, p. 5.

35 AFISC, *Industry Skills Report*, June 2005, p. 2.

36 AFISC, *Industry Skills Report*, June 2005, p. 9.



for monitoring skills in demand. Skills shortage assessments cover selected trades, professions, and information and communication technology skills, and result in the production of the ‘Skills in Demand List’. However, not all industries and occupations are covered.

- 1.26 The Government of Western Australia, in its submission to the committee, referred to the lack of data on rural industries and the shortcomings of the DEWR approach:

Some preliminary research to identify ‘official’ indicators of skills shortages within the sector of primary industries in Western Australia has revealed that there is limited reliable data available, both at a State and National level. The explanation seems in part to be that the Commonwealth Departments of Employment and Workplace Relations (DEWR) and Education, Science and Training (DEST) do not pick up on skills shortage in primary industries.<sup>37</sup>

- 1.27 The Government of Western Australia stated that the ‘reasoning given is that as employment in these industries is seasonal and because not enough workers hold post compulsory qualifications monitoring cannot be justified’.<sup>38</sup>

- 1.28 This lack of data is regarded by the Government of Western Australia to be ‘an obvious impediment to developing a clear understanding of training needs in the sector’.<sup>39</sup> In evidence before the committee, Mr Bruce Thorpe, of the Western Australian Department of Agriculture, stated:

...there does not seem to be a good process in place to capture data that is relevant for people to make the strategic decisions and investments that are needed to deal with the problem.<sup>40</sup>

- 1.29 A New South Wales parliamentary committee recently reported that the evidence it had seen clearly showed extensive skills shortages in rural and regional NSW across almost all sectors of the economy including agriculture sectors. However, the lack of data made it difficult to assess the problem:

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37 Government of Western Australia, Submission no. 19, pp. 1–2.

38 Government of Western Australia, Submission no. 19, p. 2.

39 Government of Western Australia, Submission no. 19, p. 2.

40 Mr Bruce Thorpe, *Transcript of Evidence*, 20 July 2005, p. 23.

...while the existence of the skills shortage is clear, its extent is largely unknown, due to the haphazard or anecdotal nature of the data. What detailed evidence is available is due largely to locally conducted skills audits, often initiated by RDBs, ACCs or local councils. The DEWR Skills Shortages Survey does not provide comprehensive, disaggregated information to show the extent of the skills shortages at a local or regional level.<sup>41</sup>

1.30 The need for better information was considered by the Senate Employment, Workplace Relations and Education References Committee, which recommended in 2003 that:

The Commonwealth, in conjunction with state and territory governments, develops a new, integrated, nationally consistent approach to the collection and reporting of the complete range of statistical information on the labour market and current and future skill needs. This would entail:

- agreement between all stakeholders on the relevant indicators of skill supply and demand, including underlying drivers, and consistent collection approaches;
- inclusion of information on skill shortages and regional labour markets; and
- inclusion of information on the skill needs of major resource and construction projects, from the earliest possible stage.

The National Centre for Vocational Education Research (NCVER) should be tasked with:

- facilitating this process in consultation with relevant Commonwealth agencies, state and territory governments, the Australian National Training Authority (ANTA) and industry, through industry skill councils; and
- developing a national database for recording the information and for permitting analysis of key trends, to be accessible to stakeholders and to the general public.

Updated information should also be continuously available through a website and disseminated in an annual report on the status of skill formation in Australia.<sup>42</sup>

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41 Legislative Council Standing Committee on State Development, *Inquiry into skills shortages in rural and regional NSW*, Legislative Council of New South Wales, May 2006, p. 32.

42 Senate Employment, Workplace Relations and Education References Committee, *Bridging the skills divide*, Commonwealth of Australia, November 2003, pp. 38–9.

- 1.31 This committee notes that three years later the Government is still to respond to the Senate committee report.
- 1.32 The DEWR 'Skills in Demand List' is not the only source of data available to governments. AFISC completed a national skills report in early 2005 following Australia-wide consultations with industry, enterprises, and government agencies. Specific skills shortages were identified across rural sectors including general farming, meat processing, the seafood industry, food processing and racing.<sup>43</sup>
- 1.33 The Department of Agriculture, Fisheries and Forestry (DAFF) advised the committee that it uses industry skills audits when reviewing and developing its programmes. This includes, for example, the review of skills and workforce issues identified in the AFISC Report.<sup>44</sup>

## Committee Conclusions

- 1.34 The committee believes that governments need to adopt a leadership role in identifying the priorities for the allocation of education and research resources according to skill demand and priority areas. To do so, it is necessary for governments to have comprehensive and consistent national data concerning skills shortages across the labour market and education and training services.
- 1.35 The collection and analysis of such data is essential to the development of appropriate policies and programs to address skills shortages from the local to national levels, and across industries and occupations. As the National Association of Forest Industries advised in relation to their industry, the collection of better data is a necessary first step:
- As a first step, an audit of the wood and paper products industry's current and projected future skills requirements is essential to the development of a strategy to address skills shortages in the industry. The current level of knowledge about the industry workforce is grossly inadequate.<sup>45</sup>
- 1.36 The work of groups such as AFISC is an important contribution, but the committee notes the central significance accorded the DEWR 'Skills in Demand List'. The committee also notes the concerns raised

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43 DEST, Submission no. 116, pp. 4-5; AFISC, *Industry Skills Report*, June 2005.

44 DAFF, Submission no. 115, p. 1.

45 National Association of Forest Industries, Submission no. 103, p. 7.

by the New South Wales Parliamentary Committee on State Development; and the committee agrees with the approach proposed by the Senate committee where it calls for the development of a new approach to the collection and reporting of the complete range of current and future skill needs. It is vitally important that this involve an industry by industry review for all rural sectors and an assessment of all levels of skills.

### Recommendation 1

- 1.37 **The committee recommends that the Australian Government consult with the states, territories and industry bodies to review and revise its Skills in Demand List survey so that it more accurately and comprehensively identifies the labour and skills needs at all levels in all sectors of agriculture and forestry, and that the Skills in Demand List be subject to annual review.**

## Getting people in—changing perceptions of agriculture

- 1.38 Training people in rural skills is vital, but the people have to be there to train. As Mr Arthur Blewitt, CEO of the Agri-Food Industry Skills Council, told the committee, 'worrying about skills is not terribly relevant unless you have people out there who want to work in those areas'.<sup>46</sup> Or as Mr Graham Truscott, General Manager of the Australian Beef Industry Foundation, put it, 'there is a people shortage first and a skills shortage second in the industry'.<sup>47</sup>
- 1.39 One of the critical issues facing Australian agriculture and forestry is convincing people that there are worthwhile careers to be had in those industries. Mr Julian Breheny, a research officer with the Western Australian Farmers Federation, noted that agriculture 'is seen as a sunset career or sunset industry',<sup>48</sup> while Dr Walter Cox, Chairman of the Board, Agricultural Research Western Australia,

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46 Mr Arthur Blewitt, *Transcript of Evidence*, 29 March 2006, pp. 1–2.

47 Mr Graham Truscott, *Transcript of Evidence*, 10 March 2006, p. 26.

48 Mr Julian Breheny, *Transcript of Evidence*, 20 July 2005, p. 8.

stated: 'Currently, agriculture is seen as a second-class career rather than as a first-choice career'.<sup>49</sup>

- 1.40 Part of the problem, as Mr Bruce Thorpe (Western Australian Department of Agriculture) explained, is the perception that agriculture is an industry beset by never-ending problems, such as drought, with the media focus being on casualties rather than success stories.<sup>50</sup> Mr Wayne Cornish, Chair of Rural Skills Australia, noted that industry itself was somewhat to blame for that:

I have to say that industry works very hard on not portraying a very attractive profile, to be frank, so it is somewhat understandable that careers advisers perhaps are not breaking their necks to recommend careers in agriculture and horticulture to young people when the industry itself says the things about itself that it does. That needs to be corrected, and some of us are working on that at the moment.<sup>51</sup>

- 1.41 For the forestry industry, the battle is over the perception that forestry is environmentally damaging and unsustainable. Dr Glen Kile, Executive Director of the Forest and Wood Products Research and Development Corporation, told the committee:

Even today, despite native forestry essentially being reduced to a cottage industry on mainland Australia, you will still see a lot of denigrating comments about forestry and forestry practices. Every artist and entertainer seems to believe it is their right to have a free kick about forestry, which does not help. These things get absorbed into the popular view of things of the world, and all native forestry tends to get equated with deforestation or logging of old growth and these sorts of images are created. That makes it less attractive for people to think about the industry. At those young ages when they are starting to make career decisions, they see forestry being associated with unsustainable practices and things, when actually the opposite is true. There is potential for government to help set a more positive image for that. Unfortunately, native forestry still tends to be a political football at both state and federal levels, as we have seen over

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49 Dr Walter Cox, *Transcript of Evidence*, 20 July 2005, p. 14.

50 Mr Bruce Thorpe, *Transcript of Evidence*, 20 July 2005, p. 24.

51 Mr Wayne Cornish, *Transcript of Evidence*, 10 August 2005, p. 4.

the last four or five years in New South Wales and other states.<sup>52</sup>

- 1.42 Another aspect of the problem was that young people, even those from rural backgrounds, no longer saw their future in agriculture. As Mr Bill Hamill, CEO of Rural Industries Skill Training (RIST), told the committee, most of them want to get off the farm:

I addressed a group of year 9s last year at Hawkesdale – you know where Hawkesdale is – and there were 150 year 9 students who came from all the little schools in the south-west of Victoria. Hawkesdale, for the committee's information, is right in the middle of a primary industries area. It is a little school, but it is surrounded by others, and they all came in for a year 9 vocational education day. I addressed them and asked, 'How many of you are going to pursue agriculture as a career in the future?' I asked in a nice way – I did not say it in those terms – and one hand went up out of 150 students. I said, 'Come on' – joke, joke – 'this is not right.' One hand stayed up. Then we had them in smaller groups, and I asked them in smaller groups. That one hand was still the only hand, because they all wanted to get away, they did not want to live the lives their mothers and fathers lived and all the different reasons. It was a frightening experience, because there was a group of people of whom you would think at least 20 or 30 per cent would want to go back on the farm, but, no, they want to get away.<sup>53</sup>

- 1.43 Two broad solutions were offered to address the image problem suffered by agriculture and forestry – to correct misconceptions within the broader community about the problems and prospects facing those industries; and to raise the profile of agriculture and forestry in schools, starting in primary school.
- 1.44 Correcting the image of agriculture within the wider community was seen as problematic. As Dr Peter Sale, Associate Professor of Agricultural Science at La Trobe University, explained, the mainstream media had little interest in good news stories, and getting funding to spread the word was difficult:

Let us face it, the free press are not going to do it. The press will not tell that positive story. There has to be intervention, I

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52 Dr Glen Kile, *Transcript of Evidence*, 14 November 2005, pp. 3–4.

53 Mr Bill Hamill, *Transcript of Evidence*, 8 February 2006, p. 13.

think, to get the balance because the system will not do it unassisted. We tried two years ago to get funding for a program to document about six to eight real success stories in the rural sector. We were going to use it for the Australian Institute of Agricultural Science and Technology. We were going to beam it across Australia and it was going to be a webcast type device. It was going to spread the word. It was going to let the world know that some exciting things are happening out there and there are some positive things. It is not just doom and gloom. That particular program was not funded, and a second attempt did not fund it. I think we have to get some intervention, otherwise we will just get the one-sided fairly negative story coming across.<sup>54</sup>

- 1.45 Professor Roger Swift, Executive Dean, Faculty of Natural Resources, Agriculture and Veterinary Science at the University of Queensland, also saw problems and the need to find a solution through promoting positive stories with the support of government:

We do not see the go-ahead images of an industry that is thriving. The beef industry is thriving. There are areas in fruit – the sugar industry happens to be thriving at the moment – but you seldom get that. I believe that there is an opportunity for an advertising campaign, not run by government but by AgForce or NFF, and perhaps with support from government funds, to actually talk about the range of job opportunities that might be in Rabobank in a city, not just sitting on the back of a tractor. There is a wide range of opportunities in a very wide range of industries, and many of them with potential to travel overseas.<sup>55</sup>

- 1.46 In evidence before the committee, Mr Colin Cook, South Australian Representative of the Australian Agriculture Training Providers Network, recommended ‘that the government considers a strong national promotion of the role of agriculture to school students’,<sup>56</sup> a call echoed by others. Mr Graeme Harris, vocational education teacher at Farrer Memorial Agricultural High School, stated:

Government has to get the message across that to be involved in agriculture research is a worthwhile, lifelong opportunity. People who attend university and get a degree in agriculture

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54 Dr Peter Sale, *Transcript of Evidence*, 14 November 2005, pp. 48–9.

55 Prof. Roger Swift, *Transcript of Evidence*, 24 May 2006, p. 3.

56 Mr Colin Cook, *Transcript of Evidence*, 14 November 2005, p. 80.

have the potential to earn significant salaries and have a very worthwhile and gainful life.<sup>57</sup>

- 1.47 Mr Hamill emphasised the need to address student perceptions at primary school, because 'by the time you get to years 11 and 12 you have probably got a preconceived view that agriculture is not a way to go. Very few people are going to quickly change their minds in year 11'.<sup>58</sup> He told the committee:

Agriculture is not farming. Agriculture is a dynamic industry, and there are a lot of career paths you can take from agriculture. So we have to address that – and not at year 12 or at university. We have to address it at year 5 and those lower levels by saying: 'This is an industry where you have a future. You can go forward. You can do it.' We have talked to the VFF et cetera about who is going to do it. Everyone keeps saying: 'They'll do it. They should do it.' But who is going to address this change of attitude in the young in the areas of schooling?<sup>59</sup>

- 1.48 One obstacle to overcome was the pervasive attitude in schools and communities that agriculture was for less able students. The committee heard that the current education and training system was in part responsible for the 'dumbing down' of agriculture. For instance, Rural Industries Skill Training stated in its submission:

The impact of the attitude within the school system that those wishing to pursue a skilled trade in agriculture are not intelligent enough to undertake higher education is self fulfilling. Farmers are complaining that skilled farm workers or young people who are capable of being skilled are in very short supply. The people that they are forced to take are not motivated because they see this as a last resort employment opportunity or they have limited intellectual capability which limits their potential to become skilled.<sup>60</sup>

- 1.49 Likewise, in his evidence before the committee Mr Hamill noted:

The key reason for the skills shortage in agriculture generally – and there is a general skills shortage right across Australia in a lot of industries – is the perception of

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57 Mr Graeme Harris, *Transcript of Evidence*, 9 March 2006, p. 9.

58 Mr Bill Hamill, *Transcript of Evidence*, 8 February 2006, p. 5.

59 Mr Bill Hamill, *Transcript of Evidence*, 8 February 2006, p. 2.

60 Rural Industries Skill Training, Submission no. 29, pp. 4-5.



agriculture as a blue-collar, non-skilled industry. This is one of the critical areas. It starts at schools. Many schools now have done away with agriculture in their curriculum and there are a lot fewer schools now offering it. I will just use the example of our Western District, which is the hub of what was probably the biggest wool-growing area in Australia. It is a rural area. I find consistently that, when children are not doing well at school, teachers and other people say: 'You're not doing well at school; go back on the farm.' That is a common statement that is made. I do not think it is only in our area; I am sure it is right across Australia. That gives the perception that, if you are not bright academically and you are not doing too well, you should go back on the farm.<sup>61</sup>

- 1.50 Another obstacle was the attitude of school careers advisors. Mr Simon Livingstone, the Principal of Marcus Oldham College, had found that 'careers councillors in many of the schools are pretty negative about agriculture'.<sup>62</sup> Mrs Sheila Thompson, Chair of the Queensland Rural Industry Training Council, expressed the view that many careers advisors were simply ignorant of agriculture:

I believe that quite often careers advisers just do not know enough about our particular industries and career paths. I am a bit different in my industry, which is nurseries, as I mentioned, from Mike's, which is cotton, because there is a career path and you can see where you are going – if you are in horticulture – but with agriculture it is a bit different. There needs to be a tremendous amount of educating of careers advisers across the board in Queensland so that we promote agriculture, horticulture and animal care et cetera as being very worthwhile careers – as you say, 'dumbing up'. We need to speak it up and speak positively at all times about our industries, because they are tremendous.<sup>63</sup>

## Committee Conclusions

- 1.51 The committee is deeply concerned about the negative perceptions surrounding Australia's agriculture and forestry industries and the negative impact these perceptions are having upon the rural workforce. The committee feels that it is time to redress the balance

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61 Mr Bill Hamill, *Transcript of Evidence*, 8 February 2006, p. 2.

62 Mr Simon Livingstone, *Transcript of Evidence*, 15 November 2005, p. 8.

63 Mrs Sheila Thompson, *Transcript of Evidence*, 10 April 2006, p. 20.

and put a positive image of these industries before the public. This is certainly a job for the industries involved, and one they must take up. In this vein, the committee notes the first recommendation of the National Farmers' Federation *Labour Shortage Action Plan*.<sup>64</sup> It is also a job for government, to ensure that our agriculture and forestry industries remain viable well into the future.

- 1.52 It is also important that school children, our future workforce, be given every opportunity to understand the role of agriculture and forestry in Australian society, and be given the opportunity to make an informed assessment of the desirability of agriculture and forestry as career prospects. The career opportunities are there if people know to take them.
- 1.53 Industry, schools, careers advisors and governments all have a role to play in promoting agriculture and forestry in schools. The committee is aware of DAFF involvement in 'promoting agriculture to schools as an alternative, viable science based education';<sup>65</sup> and the Australian Government's Career Advice Australia initiative, aimed at enhancing the quality and availability of careers counselling.<sup>66</sup> The committee is also aware of programs and initiatives organised at the State level, such as LandLearn in Victoria and AgAware in Queensland, to promote knowledge of agriculture in schools. Yet, there is no coordinated strategy at a national level specifically targeting agriculture and forestry in schools.
- 1.54 A national strategy is required to promote agriculture and forestry in schools. It needs to begin at primary school, educating children on the role of those industries in society and giving them an understanding of the roles they may play within those industries. As part of this process, children need to be given hands on experience of working with animals and plants in a productive environment, whether through farm visits or school farms. Similarly, secondary students need to be targeted with information which gives them an understanding of these industries and the career prospects that await them. Opportunities for hands on experience are vital.

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64 National Farmers' Federation, *Labour Shortage Action Plan*, 21 September 2005, p. 11.

65 Mr Ian Thompson, DAFF, *Transcript of Evidence*, 9 August 2006, pp. 6, 14.

66 Mr Ben Johnson, DEST, *Transcript of Evidence*, 16 August 2006, p. 2.

## Recommendation 2

- 1.55 **The committee recommends that the Australian Government, in conjunction with State and Territory Governments and industry, formulate a national strategy for promoting the role of agriculture and forestry within Australian society, and the diverse career opportunities available within those industries.**

## Recommendation 3

- 1.56 **The committee recommends that the Australian Government, in conjunction with State and Territory Governments and industry, develop a national strategy for promoting agriculture and forestry in both primary and secondary schools.**

## Holding on to people—making better use of what we've got

- 1.57 In a tight labour market, getting people into rural industries is only part of the story. We must also make better use of the resources available – expanding the role of women; making better use of the knowledge and experience of older workers and even retirees; coordinating the pool of available labour better; and making better use of information and communication technology (ICT).

## Women in agriculture

- 1.58 The committee notes that the importance of women in Australian agriculture is gaining greater recognition. The increasing significance of women's role was highlighted in the evidence of Ms Jillian Condell, a consultant with Conservation Farmers Inc. (CFI), who brought to the committee's attention the result of a survey conducted by CFI:

We did a survey of 40 women in this region – the partners of grain growers – and we discovered quite a number of very interesting facts. It was conducted under the CFI auspice and funded by the Grain Research and Development Corporation's Partners in Grain project. The overwhelming information that we got back was that a large majority of

women did the books and marketed the grain and the men exclusively grew the grain. There was quite a division in the labour that people do. There were some exceptions and they tended to be organisations – for instance, where a number of families were farming together. Often a mother or someone else would have responsibility for the business and there were daughters-in-law and so on who did not have that role. But overall the women largely had that role.<sup>67</sup>

- 1.59 Ms Wendy Newman, from the Western Australian Technology and Mining Industry Advisory Council, Government of Western Australia, saw women as a key to resolving skill shortages in rural Australia:

From another perspective, in terms of skills shortages I see a huge potential for women in the region. Women are an untapped resource, an underutilised resource and an unacknowledged and unrewarded element of the work force. There are huge opportunities there. On a practical level, there are opportunities to create more flexible learning processes. Our women tend to be more highly qualified than our male farmers. We need more flexible learning processes to enable those women to utilise their degrees and move on, adding value back into their businesses – and into the industry; the industry representation on board and decision-making bodies is not great.<sup>68</sup>

- 1.60 There are, however, significant barriers to women's participation in rural skills training. Ms Newman told the committee:

We are not seeing the incentive to create the flexibility required to meet the needs of women. It becomes complex because it is also about the huge distances that have to be travelled versus the immaturity of the technology to deliver courses. It is about a lack of things like child care and support systems to help those women undertake those kinds of courses.<sup>69</sup>

- 1.61 Ms Condell also emphasised the barriers facing women seeking training, and the trial program CFI had put in place to overcome them – using communications technology:

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67 Ms Jillian Condell, *Transcript of Evidence*, 11 April 2006, pp. 36–7.

68 Ms Wendy Newman, *Transcript of Evidence*, 20 July 2006, p. 25.

69 Ms Wendy Newman, *Transcript of Evidence*, 20 July 2006, p. 25.

The other thing we discovered from the survey was that women find a lot of training and extension not very user-friendly. Particularly in this region they travel quite some distance to attend training. They often find that the training is not tailored or relevant to their farming needs or their enterprises – so they have travelled for two or three hours to attend a seminar and the information they have received is not that useful to them.

Other barriers to them attending were child care, travel and other issues, yet these are the women who really need to be very sophisticated in their business management skills. We found no programs at all that direct education, training or extension at women in these roles, so we have set about developing a trial using a fairly innovative strategy involving teleconferencing. Women do not have to leave their farms and can dial in to attend a teleconference. The learning materials are sent to them via the internet.<sup>70</sup>

1.62 The results, she explained, were astounding:

Our goal was to measure what the sustainable change was for these women. They blew us away. It was not just for the women; they went back and taught the skills to their husbands and also took the skills into the local P&Cs. We thought, ‘This is a family benefit and a community benefit from one small trial that we have run so far.’ I think that women will really hold a leadership role in the future of farming. I think that the most sustainable changes in behaviour – I will go back to that one – can be brought about through the women.<sup>71</sup>

1.63 As Mr Michael Burgis, Executive Officer of CFI, explained:

...the key to getting some on-ground change is actually looking at the family unit as one. A lot of the training has been targeted just at the man and maybe his son. Family units these days are working very closely together, and the daughters of housewives are very important.<sup>72</sup>

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70 Ms Jillian Condell, *Transcript of Evidence*, 11 April 2006, p. 37; Conservation Farmers Inc., Submission no. 110, p. 2.

71 Ms Jillian Condell, *Transcript of Evidence*, 11 April 2006, p. 37.

72 Michael Burgis, *Transcript of Evidence*, 11 April 2006, p. 35.

- 1.64 The committee notes the work of governments and organisations to increase and support the participation of women in agriculture. For example, the work of the Grains Industry Training Network, which initiated the successful 'Women in Grains' project that 'encouraged women to be involved in skill development at a level which addressed their needs'.<sup>73</sup> The success of this program was such that the Grains Research and Development Corporation (GRDC) initiated the national program, 'Partners in Grain', based on the principles of 'Women in Grains'.<sup>74</sup>
- 1.65 The committee also notes the work undertaken by the CSIRO to boost the participation of women in training and research in natural resource management through the use of new knowledge based technologies. The CSIRO has also undertaken a pilot study on impediments to and opportunities for women's use of technology in rural areas.<sup>75</sup>
- 1.66 DAFF's Pathways to Participation Strategy (which now incorporates the Women in Rural Industries Program<sup>76</sup>), aims to increase the profile and contribution of women and young people working in rural industries. The new strategy seeks to build on the skills and knowledge of women in rural industries by providing training and development activities.<sup>77</sup> The Department advised that the strategy will 'help develop pathways to assist women to identify the actions, experiences and skills required for them to achieve their goal and enhance the opportunities available to women to participate in their industries'.<sup>78</sup> At the time of writing the Department was developing a communication campaign to address the importance of industries undertaking inclusive consultation and decision making. The

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73 Grains Industry Training Network, Submission no. 42, pp. 1-2.

74 Grains Industry Training Network, Submission no. 42, pp. 1-2; Conservation Farmers Inc., Submission no. 110, p. 2.

75 CSIRO, Submission no. 86, p. 7.

76 The DAFF submission states that the Women in Rural Industries Program acknowledged and celebrated rural women's achievements through the provision of individual skill development opportunities and the support of national rural women's non-government organisations. These opportunities enhanced the ability of rural women to contribute to and participate in rural industries. DAFF, Submission no. 66, p. 16.

77 The committee understands that the Government decided in the late 1990s to place a greater emphasis on young people involved in agriculture, fisheries and forestry. The new strategy seeks to address the current imbalance.

78 DAFF, Submission no. 115, p. 2.

campaign will also seek to increase the awareness of opportunities available for women to access support and training.<sup>79</sup>

- 1.67 The committee was also informed that in March 2006 the Department conducted a review of the women's initiatives under the industry Partnerships Programme. Subsequently, DAFF will remove technical barriers to female participation in new initiatives, and initiatives will be delivered in a participatory learning approach and in a format that encourages the involvement of women with children. Such strategies are already implemented in FarmBis.<sup>80</sup>
- 1.68 The committee also notes the importance of incentives such as the annual RIRDC Rural Women's Award, which is designed to recognise and encourage the vital contribution women make to rural Australia.<sup>81</sup>

## An ageing workforce

- 1.69 The principal concerns surrounding the ageing of the workforce are resistance to innovation and change, and the potential for large scale and widespread declines in knowledge and skill levels.
- 1.70 In its submission, Rural Industries Skills Training noted the level of resistance to formal training evident in older age cohorts:

A resistance to change and negative perception to training are characteristics of an ageing workforce. While there are exceptions to this (53% of RIST participants are over the age of 45) there are a significant number of older producers and rural employees who have not embraced training or undertaken any skills development programs. We estimate this number could be as high as 40%. The characteristics of this group are; earn a reasonable income from their operation to support lifestyle needs, are older males, usually well respected in the community, gather information from individual specialists (consultants), have a fear of

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79 DAFF, Submission no. 115, p. 2.

80 DAFF, Submission no. 115, pp. 3–4.

81 The RIRDC Rural Women's Award began in 2000 with the objective of increasing women's capacity to contribute to agriculture and rural Australia, by providing them with the support and resources to further develop their skills and abilities. While the Award acknowledges past achievement, it is clearly focused on supporting women with strong leadership skills, a positive vision for the future of agriculture and the potential to make a difference in their chosen field. The 2007 Award will provide a Bursary of \$10,000. See <<http://www.ruralwomensaward.gov.au/>>

participating in group activities because of their insecurity in their abilities and knowledge base, tend to employ people in their own mould and age group and they do not see training as important for themselves and staff.<sup>82</sup>

- 1.71 Nonetheless, RIST identified the upskilling of the older age cohort as essential to the long term viability of agriculture:

This group of rural producers and employees are critical to the medium to long term success of agriculture and maintaining and upgrading their skill levels is very important. Due to the current demographic age spread of people involved in agriculture it will be a requirement that this group maintains an active involvement in managing their farming operations for longer as there is evidence that there will be fewer people to replace them when they finally retire or die.

In other words there is a need to upgrade this group's skills, maintain their motivation in agriculture and increase their involvement in agriculture for a longer period to ensure that the productivity in the agricultural sector is maintained and is not impacted by the predicted skill shortage when this age group bubble goes out of the industry.<sup>83</sup>

- 1.72 The potential problems caused by the ageing workforce are exemplified by the apiary industry, which will be seriously affected by ageing and future retirements within its already small workforce.<sup>84</sup> In 2000–01, the average age of operators was 54 and these operators had 25 years of experience in the industry on average.<sup>85</sup> The committee was informed that 'best practice is restricted to a minority in the industry and that much of this know-how will be lost with the retirement of ageing beekeepers and queen breeders'.<sup>86</sup> The committee was also told that recruitment of skilled young people into the industry is inadequate.<sup>87</sup>

- 1.73 The ageing of the workforce will have an impact in the research area as well as across the agricultural workforce. In its submission, the
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82 Rural Industries Skills Training, Submission no. 29, pp. 5–6.

83 Rural Industries Skills Training, Submission no. 29, p. 6.

84 Queensland Rural Industry Training Council, Submission no. 28, p. 6.

85 Veronica Boero Rodriguez et al., 2003, *Honeybee Industry Survey*, RIRDC, Publication no. 03/039, p. vii.

86 Group of apiarists, Submission no. 99, p. 8.

87 Dr Max Whitten, Submission no. 11, p. 2.



School of Rural Science and Agriculture at the University of New England stated:

Researcher training is probably one area where industry will not necessarily identify future needs. The reality is that a high proportion of the agricultural research population are from the “baby boomer” generation and that in most areas of agricultural research **there has been little succession planning to provide either full time researchers or tertiary teachers for the future.**<sup>88</sup>

- 1.74 There are also implications for industry in the ageing of rural skills training and extension professionals. Mr Gregory Hallihan, Executive Officer of Primary Skills Victoria, explained:

With respect to the ageing farm cohort, the problem has been well canvassed, I am sure. What is less well appreciated is the issue of professional capital within training organisations and, for that matter, with the extension arms of the departments of primary industries in all states which have also been steadily depleted. In recent years, the loss of teaching expertise in both the industry environment and in the more formal training environment has exacerbated the problem associated with a lack of skilled work force. The pool of knowledge and breadth of industry understanding is becoming less comprehensive as the appreciably more technically skilled older cohort are replaced by often part time training operators with industry experience, but little time for preparation and increased levels of reporting protocols. They have a range of industry skills which are of great value, but may have a limited ability to communicate which can limit their capacity to act as trainers. The industry skills are not necessarily matched well to the technical craft of teaching.<sup>89</sup>

## Committee Conclusions

- 1.75 It is clear to the committee that understanding and supporting the role of women in agriculture is vital to securing a skilled workforce for the industry. Whilst some programs already exist, there needs to

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88 School of Rural Science and Agriculture, University of New England, Submission no. 47, p. 3.

89 Mr Gregory Hallihan, *Transcript of Evidence*, 14 November 2005, p. 12.

be a broader, whole of sector, approach to utilising and enhancing the skills and potential of women in rural Australia.

- 1.76 Moreover, considerable attention must be given to utilising the skills and abilities of older workers. An existing invaluable source of skills will be lost if the role and needs of older workers in an ageing workforce are not recognised and dealt with. Government and industry must actively seek ways to facilitate the ongoing contribution of older workers and ensure that skills are not simply lost to industry. There is a need to identify ways to better tap into their skills and knowledge and pass them onto future generations.

#### **Recommendation 4**

- 1.77 **The committee recommends that the Australian Government coordinate programs with State and Territory Governments and industry aimed at enhancing the contribution of women to Australian agriculture and to facilitate their participation in rural skills training.**

#### **Recommendation 5**

- 1.78 **The committee recommends that the Australian Government, in conjunction with State and Territory Governments and industry, develop a strategy for utilising the knowledge and skills of older workers in rural industries – including training, extension and research services – and facilitate the transfer of knowledge and skills to younger generations.**

### **Competing for labour**

- 1.79 The committee received evidence from a range of sources indicating that agriculture was losing skilled workers to other industries, especially mining. Mr Trevor De Landgraft, President of the Western Australian Farmers Federation (WAFarmers), highlighted the problem in his State, telling the committee: 'There is a mining boom

on at the moment and everyone is getting poached.’<sup>90</sup> In its submission, Conservation Farmers Inc. observed:

Northern NSW & Queensland agriculture is suffering from an explosion of mining activities and the resource boom in northern Australia. Skilled and unskilled labour is being attracted by the financial rewards the mining industry offers, coupled with consistent work hours and additional working allowances.<sup>91</sup>

- 1.80 Part of the problem was that agriculture could not compete with mining for skilled labour. Mr Ralph Leutton, Program Manager, Policy and Legislation for Cotton Australia, stated:

Why would you work on a farm when you can work on a mine which is an hour-and-a-half drive away – you can drive in and drive out for four days on and four days off – driving a truck getting \$100,000-plus a year? You get all your accommodation, food and keep given to you for \$70 a week. Why would you work on a farm? Right now we are facing the issue of another primary industry that is on a boom cycle and can afford to draw the staff away.<sup>92</sup>

- 1.81 The other part of the problem was that agricultural workers were ideally suited to the needs of the mining industry. As Mr De Landgraft explained:

What makes a good candidate for the mining industry is someone who is a good all-rounder, who has skills across a range, who can work alone and who knows the deal of living in an isolated area. Those independent people make perfect candidates for the mining industry...<sup>93</sup>

- 1.82 The National Farmers’ Federation (NFF) have adopted a strategy of integrating their labour requirements more closely with mining. In evidence before the committee, Mrs Denita Wawn, Workplace Relations Manager with the NFF, referring to the NFF’s *Labour Shortage Action Plan*, stated:

One thing we have certainly identified in the action plan is that, as an industry, we should not try to compete with the

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90 Mr Trevor De Landgraft, *Transcript of Evidence*, 20 July 2005, p. 2.

91 Conservation Farmers Inc., Submission no. 20, p. 2.

92 Mr Ralph Leutton, *Transcript of Evidence*, 20 October 2005, p. 95.

93 Mr Trevor De Landgraft, *Transcript of Evidence*, 20 July 2005, p. 2.

mining industry and so forth but work with them...it is about multiple skilling. Someone might have the skill capacity to work in agriculture for the peak season and the capacity to work in the mining industry or the tourism sector in between times. There is a rural competency program whereby you can undertake training in rural skills and also other skills from other training areas to become multiskilled to look at working in a number of industries. It is quite critical that regional industries work together in harmony as opposed to competing with each other, which obviously has an impact on wages and the like. So there is certainly capacity already in the skills area to look at multi-industry skilling, but I do not think we have pushed that as hard as we could, and that is mentioned in the action plan.<sup>94</sup>

1.83 Mr De Landgraftt also advocated a more cooperative approach:

But on the poaching side I have been trying to look at something a bit more innovative for agriculture. We have had some discussions with the local minister for education, Ljiljana Ravlich, and she complained also about the mining companies not putting sufficient money into training and pinching people. We think that perhaps there is a more innovative approach. Because, as I mentioned earlier, agriculturally trained people are perfect candidates, we should perhaps take advantage of that. The other side of the story is that parents are probably reluctant to send their kids off out into the bush to become farm labourers because there is no career path. So, if we had a situation whereby we could deliver certificate III to young people who come out to an agricultural area, teach them all about OH&S and give them grounding for all of their skills areas, then perhaps if they stayed – perhaps being bonded – in agriculture for three or four years, they would do a good service for us. It would make them good candidates to move on into mining, and mining might be the career path they were looking for.

The paydirt for us would be firstly that they would come out to us and 25 per cent would probably stay in agriculture because they liked it. Half of them may well go to mining, but probably half of those would come back. That is the other area where we lack in agriculture: those more senior people

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94 Mrs Denita Wawn, *Transcript of Evidence*, 10 August 2005, p. 8.

who could be farm managers coming back into agriculture. It would also be pretty valuable for us if, rather than see them as an antagonist or the opposition, we could perhaps work with the mining industry by developing some sort of a pact whereby we do some of the training, become a pathway, and rotate them back. The mining industry is cyclical like every other industry and those people would be looking for somewhere to go.<sup>95</sup>

- 1.84 Other witnesses, however, emphasised that it was not just money affecting people's decisions to leave agriculture – there was a need for the industry to modernise its management practices and align itself with the expectations of young people today. Dr Peter Wylie, of Horizon Rural Management, stated:

Farmers have to become very much more modern in outlook in the way they handle employees if they are going to survive. Retaining employees is the main thing, in the face of the much higher wages being paid by industry. We have gone down the track in our part of the world now. The mining industry have caught up with southern Queensland. They are building power stations and coalmines and offering people \$1,000 a week while farmers are only paying their workers \$700 a week. So farmers need to get a lot smarter in terms of keeping their labour. That is more important than trying to attract labour from the cities. The most important thing is to retain labour and not have it trot off to the coalmines.<sup>96</sup>

- 1.85 Dr John Taylor, the Director of Rangelands Australia, concurred. He explained:

One of the important things that producers need to think about these days is that if they have employees who are of generation Y, they have a whole new raft of expectations when they come to work for you. They expect fairly high levels of people management. They expect career opportunities. They expect developmental opportunities. If the farmer does not have the interpersonal skills, the knowledge or the foresight to provide both training opportunities and skilling opportunities then people will walk. There are some who are purely attracted to dollars but there are other motivators for people, and it has to be

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95 Mr Trevor De Landgraft, *Transcript of Evidence*, 20 July 2005, pp. 5–6.

96 Dr Peter Wylie, *Transcript of Evidence*, 11 April 2006, p. 9.

accepted that it is not just the dollars alone that suck people away.<sup>97</sup>

## Information and Communication Technology

- 1.86 Information and communication technology (ICT) has an important role to play in improving the speed and quality of communications in rural Australia, and increasing access to education and training services. There can be no doubt that high quality and reliable ICT would help offset some of the problems involved in delivering education and training services to agriculture, and simply allowing people spread over vast distances to effectively communicate. As Land & Water Australia observed in its submission: 'Information technology does help overcome barriers of distance and multiple access for people working in regional and rural Australia.'<sup>98</sup>
- 1.87 An Australian Bureau of Statistics report noted that in 2004–05, 56 per cent of approximately 129 900 farms used a computer as part of their business operations. Moreover, 53 per cent of farms (almost 70 000 properties) used the Internet as part of their business operations. The report also stated that 33 per cent of surveyed farms used a dial-up connection, 7 per cent used an Integrated Services Digital Network (ISDN) connection and 9 per cent used broadband. A strong relationship was identified between farm size and computer and internet usage. Specifically, the proportion of larger farms using a computer and the internet for business purposes was significantly higher than that for smaller farms.<sup>99</sup>
- 1.88 A report prepared for the Rural Industries Research and Development Corporation in 1999 highlighted the importance of ICT to rural industries:

The reality is that informal education and training is at least as important – if not more important – than formal award courses to the successful operation of Australian farming enterprises. The Internet is, of course, a major potential source of information and hence a major avenue for informal learning.<sup>100</sup>

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97 Dr John Taylor, *Transcript of Evidence*, 10 April 2006, p. 13.

98 Land & Water Australia, Submission no. 89, p. 11.

99 ABS, 2005, *Use of Information Technology on Farms*, cat no. 8150.0.

100 Jim Groves, 1999, *Online Education and Training for Australian Farmers*, RIRDC, Publication no. 99/4, p. vii.

- 1.89 It noted that 'given the potential role Internet delivery of education and training could play in achieving current rural policy goals' there was a strong argument for 'policy action to ensure that all rural and remote residents have equitable access to an acceptable standard of telecommunications service'.<sup>101</sup>
- 1.90 There are, however, significant barriers to the use of ICT in rural Australia. These barriers include: the inability to access the internet; poor connections or bandwidth limitations; education funding mechanisms; level of teacher awareness and training; and the level of community understanding (for example, the view that internet-based learning is inferior in quality to traditional delivery methods).<sup>102</sup>
- 1.91 For example, when discussing the participation of women in agricultural education and training, Ms Condell (Conservation Farmers Inc.) told the committee that 'part of a problem is that...these women actually have very slow dial-up speeds and very high dropout rates. We have a few who have satellite broadband':
- Our organisation has been looking at using Skype, an internet phone provider, to basically videoconference. We can put our materials up and we can use a whiteboard all at the same time and they can sit in their home offices. It is cutting edge technology, but they do not have the technology at the other end. What I find really frustrating about that is that a lot of those women actually have the ability to use the technology. They have been off and have got their degrees – they are teachers and nurses – they are actually able to use it, but there is nothing there for them to be able to do that. The slow broadband download leaves lags when you speak. If you are trying to actually teach someone something they lose concentration. It does not work. We have explored all that. We are ready to go, but the technology is not there.<sup>103</sup>
- 1.92 Other witnesses also highlighted lack of access to broadband as a barrier to using ICT.<sup>104</sup> The committee understands that poor ICT infrastructure and services to rural and remote Australia also
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101 Jim Groves, 1999, *Online Education and Training for Australian Farmers*, RIRDC, Publication no. 99/4, p. x.

102 Jim Groves, 1999, *Online Education and Training for Australian Farmers*, RIRDC, Publication no. 99/4, p. viii.

103 Ms Jillian Condell, *Transcript of Evidence*, 11 April 2005, p. 44.

104 Mrs Kay Bodman, Ms Wendy Newman, *Transcript of Evidence*, 20 July 2005, p. 33; Mrs Margaret Brown, *Transcript of Evidence*, 10 March 2006, p. 20; Queensland Rural Industry Training Council, Submission no. 28, p. 10.

contributes to the barriers indigenous people experience in accessing mainstream vocational education and extension programs. The Indigenous Land Corporation advised the committee that the 'lack of access to resources including equipment required for training purposes, computers, the internet and local libraries' needs to be addressed.<sup>105</sup>

- 1.93 To redress this problem, Mr Claude Gauchat, Executive Director of Avcare Ltd, called for 'financial resources to establish flexible delivery of rural skills training' including 'access to information technology such as bandwidth in rural areas for the emerging e-training sector'.<sup>106</sup>
- 1.94 The committee notes that the Australian Government has recognised this problem. In its submission, DEST acknowledged that 'to support the provision of quality education and training in rural areas, affordable and adequate bandwidth needs to be available at least to education institutions and preferably to the student's home desktop'. The Australian Government had already invested some \$80 million in the Australian Research and Education Network, providing 'high bandwidth capacity, both nationally and internationally, for Australian universities and research institutions'.<sup>107</sup>
- 1.95 The committee was also informed that DEST is discussing with the Department of Communications, Information Technology and the Arts (DCITA) potential funding under the Connect Australia program to enable adequate bandwidth to homes, and hence to students. In addition, DEST indicated that there may also be scope to fund joint projects which will provide better connectivity to a number of regional campuses.<sup>108</sup>

## Committee Conclusions

- 1.96 The committee believes that the provision of adequate ICT infrastructure and services should be a high priority for governments at all levels. Adequate ICT infrastructure across Australia addresses the basic right to equitable access to education, training and research opportunities. It would also facilitate improved linkages and coordination between government, industry, and education, research and extension services.

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105 Indigenous Land Corporation, Submission no. 50, p. 2.

106 Mr Claude Gauchat, *Transcript of Evidence*, 7 September 2005, p. 14.

107 DEST, Submission no. 94, p. 36.

108 DEST, Submission no. 116, p. 10.



- 1.97 Moreover, the committee believes that the Australian Government must recognise that access to high quality and reliable ICT in rural Australia is not just a matter of equity but is vitally important to the development of Australian agriculture and its future competitiveness. The Australian Government must increase its efforts to ensure the provision of adequate ICT infrastructure in rural and remote areas of Australia.

### **Recommendation 6**

- 1.98 **The committee acknowledges the critical role of information and communications technology services to skill formation in rural areas and recommends that the Australian Government pays particular attention to the further development of information and communications technology services to rural and regional Australia, that includes access to high-speed broadband services to rural and remote communities.**



## Rural Skills Education and Training

- 2.1 Education and training in rural skills is available through a range of educational pathways, ranging from school based training, through TAFE courses and other skills training, to university degrees. Some of the training remains unstructured and informal, in the time-honoured tradition of rural communities, but increasingly the emphasis is on formal training opportunities and the delivery of qualifications.
- 2.2 The principal education streams are:
- Vocational Education and Training (VET);
  - University.
- 2.3 This chapter will examine both these educational streams and the linkages between the two. The following chapter will look at the regulatory framework underpinning VET.

### **Vocational Education and Training**

- 2.4 VET in rural skills takes on a number of forms articulated through a variety of programs and institutions:
- Registered Training Organisations (RTOs), including TAFE;
  - Secondary Schools;
  - Agricultural Colleges; and
  - Australian Apprenticeships, usually in conjunction with schools or TAFE.

- 2.5 There are also structured formal and informal training opportunities for those already within industry, the principal federally-funded program for VET being FarmBis.
- 2.6 In addition, rural industries are increasingly taking the initiative in formulating training programs to meet their own needs, and to overcome perceived shortcomings within existing programs and institutions.

## RTOS/TAFE

- 2.7 TAFE and private RTOs are the main providers of education and training in rural skills outside the university sector. They operate in conjunction with schools, industry organisations, the Australian Apprenticeship scheme and FarmBis in the delivery of VET. Their role and operation is governed by the regulatory framework, and most of the problems that arise are due to the operation of the framework in conjunction with funding. The result, according to much of the evidence presented to the committee, is that RTOs, including TAFE, are failing to deliver what rural industries need – work ready employees with relevant skills.
- 2.8 The issues relating to RTOs and TAFE will be dealt with in the following chapter, as they relate directly to the operation of the regulatory framework surrounding VET.

## The Role of Schools

- 2.9 Vocational education and training undertaken at and through secondary schools is of growing importance in the delivery of rural skills. The main avenues to gaining rural skills in school include:
- work experience programs (mainly Year 10);
  - structured work placements (mainly Years 11 & 12);
  - VET in schools (VETiS) programs (Years 10, 11 & 12); and
  - school-based part-time Australian Apprenticeships (Years 11 & 12).<sup>1</sup>
- 2.10 In several states, dedicated agricultural high schools, such as Farrer (NSW) and Urrbrae (South Australia), also provide access to rural skills training.
- 2.11 The important role schools play, or should play, in developing rural skills was highlighted in the evidence presented to the committee. In its submission, the South Australian Farmers Federation stated:

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1 Rural Skills Australia, Submission no. 71, p. 4.

School-based traineeships must be encouraged to give young people a head start and the chance to taste the opportunities within the industry. VET in schools along with SBNA's [School-Based New Apprenticeships] are vital to build a young skilled workforce.<sup>2</sup>

2.12 Likewise, in its submission, the National Association of Agricultural Educators expressed the view that:

The development and maintenance of a strong Vocational Training sector within Secondary Schools and Colleges will lead to a trained workforce, with competencies that are relevant, up to date and can be provided in a cost effective manner. This lays down the stepping stones for life long learning and movement into and out of education as the need arises and at a time that suits the industry and the person.<sup>3</sup>

2.13 However, the evidence presented to the committee also indicated a number of significant barriers and problems associated with school-based rural skills training. In its submission, Primary Skills Victoria listed a range of concerns raised by secondary school teachers, including:

- The programs tend to be driven by individual teachers who have a passion for agriculture.
- There is no succession planning at the school level. Well run VETiS programs with high local credibility are often left high and dry when a teacher transfers, is promoted, or retires.
- Schools have often set up their own facilities for VETiS programs. This is particularly so for production horticulture. This situation does not encourage the involvement of industry or TAFE. Involving relevant TAFE institutes with VETiS where possible is generally seen as a positive. Students gain knowledge of the different pathways available to them and TAFE teachers usually have good local knowledge of career opportunities.
- School facilities are rarely of a commercial/industry standard.
- The links with industry vary considerably between schools.
- Funding, as with many VETiS programs, can be an issue and it is felt that the cost to students impacts on student participation.

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2 South Australian Farmers Federation, Submission no. 87, p. 6.

3 National Association of Agricultural Educators, Submission no. 44, p. 3.

- Schools that pool resources to run programs to achieve efficient class sizes are usually presented with transport issues.
- There is a perceived lack of appreciation in secondary schools of the philosophies behind the concept of competency based training and workplace training and assessment.
- There is a strong view that the SBNA market is being distorted by funding subsidies and the priority governments have placed on this program. The SBNA system has been introduced more to assist schools with their retention rates, rather than as a workforce program designed to meet industry needs.
- VETiS and SBNA present schools with many organisational problems that cannot be solved to their satisfaction. Problems such as understanding the training system, timetabling, disruption of school programs and funding.<sup>4</sup>

2.14 The need to meet the bureaucratic requirements of the training framework was seen as a significant problem. In its submission, the Western Australian Farmers Federation observed:

Of increasing concern to WAFarmers is the inflexibility of training packages in VET for schools. The bureaucracy of the formal education sector emphasises conformance to bureaucratic process rather than the required industry outcomes of trained, work-ready people. This has been to the detriment of pastoral care and upskilling that used to be provided. There has been much comment from educators in WA (and echoed around Australia) that quality teaching and learning programs are getting harder to deliver due to the flood of paperwork that has more to do with policy and procedure than achieving quality outcomes.<sup>5</sup>

2.15 In his submission, Mr Graeme Harris, teacher and VET coordinator at Farrer Memorial Agricultural High School and Secretary of the National Association of Agricultural Educators, noted the disparity between the VET and Higher School Certificate requirements of school-based training:

The requirement (at least in NSW) [is] that competency based vocational courses also have a HSC component to allow assessment in an optional external examination. This has resulted in the situation where the competencies being assessed are at AQTF II level and the HSC requirements are at a level equivalent

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4 Primary Skills Victoria, Submission no. 101, p. 5.

5 Western Australian Farmers Federation, Submission no. 92, p. 3.

of Cert IV! Thus classes have to have a much greater theoretical base than should be required for a Certificate II.<sup>6</sup>

- 2.16 He also identified some of the issues facing schools in the development and accreditation of courses:

An enormous disincentive to development of courses at a higher level such as AQTF III exists at present. Where schools have facilities, staff have the requisite industry experience, students already possess skills of at least a Certificate II level and rural employers need such students, barriers seem to be created in the bureaucracy and it would appear that some sectors such as TAFE view them as trying to take over "their patch". As VET Coordinator at Farrer MAHS I can describe some of these barriers to two courses we have developed and have been approved by the Tamworth RTO, NSW Department of Education and Training, NSW Board of Studies, are still awaiting approval from VETAB.<sup>7</sup>

- 2.17 Nonetheless, Mr Harris believed that freed from red tape and adequately supported, 'schools can be very responsive to the needs of their local students, and industry with which they often have close links'.<sup>8</sup> He stated:

The possibilities are exciting, the opportunities great and the likely outcomes substantial. This could be achieved by targeted special purpose funding for staff training, resources, release to permit assessment whilst students are on structured work placement, and some relief from the overzealous nature of some of the quality assurance mechanisms which appear to be paper based audits rather than industry assessment of the competency of the students completing the program.<sup>9</sup>

- 2.18 Another impediment to rural skills training in schools is the shortage of qualified teachers. In its submission, the National Association of Agricultural Educators stated that the 'training of Agricultural Teachers in some states has ceased and in others is in jeopardy, whilst the State Agricultural Teacher Associations are very concerned about the rapidly ageing population of Agriculture and VET teachers in all states'.<sup>10</sup> Upgrading the knowledge and skills of teachers was also highlighted as an issue:

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6 Mr Graeme Harris, Submission no. 32, p. 2.

7 Mr Graeme Harris, Submission no. 32, p. 2.

8 Mr Graeme Harris, Submission no. 32, p. 3.

9 Mr Graeme Harris, Submission no. 32, p. 4.

10 National Association of Agricultural Educators, Submission no. 44, p. 2.

Availability to access funds for teacher training and development in states varies depending upon the State and National priorities, for example Australian Government Quality Teaching Program Funding was accessed in NSW for a period of time but was not a priority in other states. This needs to be ongoing and national if the skill void in rural skills is to be met in the near future.<sup>11</sup>

- 2.19 In its submission, Australian Wool Innovation Ltd (AWI) stated that in many cases 'the standard of teaching and learning is the result of inadequate skill levels amongst teachers and trainers who are often unaware of current industry practices and technologies'. AWI highlighted its own efforts to correct this problem with its WoolPro in Schools Project. It also highlighted the need for government support of industry if such initiatives were to succeed:

WoolPro in Schools is a partnership between AWI and the WA Department of Agriculture that has provided in-service training to teachers and delivered industry information and management tools to improve the quality of agricultural education. In conjunction with the Australian Sheep Industry Cooperative Research Centre, AWI has recently completed a study into the feasibility of establishing the program nationally. Whilst the study found that a national program was feasible, it identified the need for support from a wider coalition of industry and government partners. AWI believes that DAFF should take a leadership role in establishing this program nationally.<sup>12</sup>

- 2.20 AWI argued that 'DAFF & DEST should be directed to work with state departments of primary industries to implement a national program based on the current AWI funded WoolPro in Schools Project'.<sup>13</sup>
- 2.21 In its submission, the Rural Training Council of Australia NSW observed that the success of VET in School programs relied 'heavily on industry support through the provision of work experience job placement and resources'.<sup>14</sup> The South Australian Farmers Federation also noted the importance of industry support, stating in its submission that 'industry needs to be encouraged to build partnerships with their local schools to assist in supporting education in agriculture'.<sup>15</sup>

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11 National Association of Agricultural Educators, Submission no. 44, p. 2.

12 Australian Wool Innovation Ltd, Submission no. 73, p. 3.

13 Australian Wool Innovation Ltd, Submission no. 73, p. 3.

14 Rural Training Council of Australia NSW, Submission no. 62, p. 6.

15 South Australian Farmers Federation, Submission no. 87, p. 6.



2.22 The difficulties associated with this, however, were highlighted by the experience of the central Queensland region sugar industry. In their submission, Messrs Jim Kirchner, Darrell McLennan and Michael Wood, explained:

The Central Region sugar industry has been actively involved in promoting rural school-based traineeships for the past five years, with limited success. The authors are unable to categorically state why this is the case but believes the barriers may include:

- Both employers and students consider the current school-based traineeship system to be onerous and a major time commitment;
- The rural workplace is hazardous and many employers are reluctant to take responsibility for a school student on the farm, particularly in a volunteer trainer role;
- Most rural enterprises are now a “one-person” operation and there is a reluctance to schedule daily tasks that cater for a trainee; and
- Reduced rural enterprise profit margins make it difficult for rural enterprise managers to provide this service as a volunteer as a school-based trainee is likely to result in reduced work efficiencies.<sup>16</sup>

2.23 The submission cited lack of willing volunteer growers to host students as the principal barrier to school-based work experience programs and suggested paying growers to deliver a small range of basic Certificate I competencies, thereby providing structure and recognised qualifications to students without undue burden to growers. The submission recommended establishing:

...a partnership between schools, RTOs and rural industry organisations to allow a more flexible rural enterprise work experience program to be provided, whereby participating students can be awarded qualifications from the Australian National Training Packages during their work experience. The participating employers will be remunerated for their training and assessment services by the RTO.<sup>17</sup>

2.24 There was also some concern expressed at the disparate outcomes between school-based and full time training. In its submission, the Winemakers’ Federation of Australia expressed concern that ‘VET in

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16 Messrs Jim Kirchner, Darrell McLennan and Michael Wood, Submission no. 84, p. 5.

17 Messrs Jim Kirchner, Darrell McLennan and Michael Wood, Submission no. 84, p. 6.

schools programs are devaluing certificate outcomes and potentially placing a barrier to employment for school leavers':<sup>18</sup>

The nominal period for completion of Wine Sector Training Package Certificate 1 for entry level, full time industry employees is 12 months, and 18–24 months for Certificate 2. VET in schools programs are enabling students to gain the same Certificate 1 and 2 qualifications while working in simulated or real environments for a maximum of 2 days per week in Years 11 and 12. This means the VET in schools students have at best worked half the time of full time employees (24 months x 2 days/week vs 18 months x 5 days/week), and yet they are awarded certificates claiming equal competence. Industrial arrangements of the large industry employers in particular link rates of pay to qualifications, obligating the employers to pay all people with certificate outcomes the relevant rate. The VET in schools students have only half the experience, which places a barrier to employment for them as employers are reluctant to pay equal amounts to less experienced employees.<sup>19</sup>

## Committee Conclusions

- 2.25 The committee is of the view that school-based rural skills training is vital to the future of Australian agriculture. School based training gives students with an interest in rural employment access to relevant industry experience while at school, to the benefit of both students and potential employers. It provides a meaningful first step upon a career and learning pathway.
- 2.26 Given this, it is essential that governments and industry cooperate to promote effective school-based skills training strategies, to ensure that training is effective, relevant, and properly funded. It is also vital that resources be put towards ensuring the ongoing availability of suitably trained and experienced teachers of agricultural science in the schools system.

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18 Winemakers' Federation of Australia, Submission no. 37, p. 8.

19 Winemakers' Federation of Australia, Submission no. 37, p. 9.

## Recommendation 7

- 2.27 **The committee recommends that the Australian Government, in cooperation with State and Territory Governments, develop a national program for rural skills training in schools, with a view to ensuring:**
- **Stable and sustained funding of schools-based rural skills programs;**
  - **Funding and incentives for the training and upgrading of agriculture teachers; and**
  - **The creation of effective mechanisms for industry and community involvement in school-based rural skills training.**

## Agricultural Colleges

2.28 Agricultural colleges have been the traditional pathway for training in rural skills in most parts of Australia. In its submission, the Rural Training Council of Australia NSW described agricultural colleges as ‘generally the most effective pathways for students moving from school to work or further study’.<sup>20</sup> Despite this, the success and survival of agricultural colleges across Australia has been a story of mixed fortunes.

2.29 In Western Australia, the focal point of agricultural education is the Western Australian College of Agriculture, which has five residential schools plus one other full-time program in campuses across the state. All sites have commercial size farms and extensive training and education facilities. Mr Garry Fischer, Manager, Agricultural Education, for the Western Australian Department of Education and Training, noted in evidence before the committee the increasing enrolments and high success rate of graduates as a measure of the popularity and success of the college. He told the committee:

The courses are unique. They bear a close relationship with the agriculture industry and the local community through long-established farm advisory councils. Every site has its own advisory council, which has industry representatives advising the school on the programs and the latest in best farming practice, so the students get exposed to those sorts of activities.<sup>21</sup>

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20 Rural Training Council of Australia NSW, Submission no. 62, p. 2.

21 Mr Garry Fischer, *Transcript of Evidence*, 20 July 2005, p. 26.

- 2.30 However, several submissions questioned the impact upon the WA College of Agriculture of the outcome of a review of post compulsory education, of principal concern being the reduction of four wholly school assessed subjects related to agriculture into a single subject.<sup>22</sup> In evidence before the committee, Mr De Landgraftt (WAFarmers) expressed concern that this decision could undermine Western Australia's otherwise exemplary model of agricultural education:

Within our agricultural colleges, there is a fear that, whilst they are rolling several subjects into one, the student is actually going to have to spend more time in a classroom to get an outcome. That is disturbing because the ag college is probably the shining light in the training system in Western Australia, whereby they get a good mix of secondary schooling and actual hands-on training.

The guys who come through the ag colleges and pick up certificates I and II in agriculture, and probably certificate I or II in perhaps engineering or electrical work, are very good people to go into the trades. Some of the bigger institutions looking for tradesmen in Western Australia go to our ag colleges to pick up those young guys. So the practically minded students are very valuable, and we would hate to see any change in the system end up putting too much focus on academia.<sup>23</sup>

- 2.31 Queensland also had a system of residential agricultural colleges, with four major campuses. There, however, agricultural colleges struggled to retain their reputation and relevance, resulting in a substantial renovation of the entire system under the auspices of the newly formed Australian Agricultural College Corporation. In its submission, the Queensland Government noted:

An examination of colleges in 2004 revealed that they had changed little over time despite the enormous change to industry, the economy and society generally. Colleges, for example, still expended almost their entire government grant funding on a traditional two year, entry-level program for school leavers. As a result, colleges had little capacity to respond to the other training demands of rural industries and local communities...

In July 2004, the Minister for Employment, Training and Industrial Relations announced a review of agricultural colleges in response to a growing number of corporate governance, financial

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22 National Association of Agricultural Educators, Submission no. 44, p. 1; Western Australian Farmers Federation, Submission no. 92, p. 3.

23 Mr Trevor De Landgraftt, *Transcript of Evidence*, 20 July 2005, p. 4.

management and training delivery problems. The extent of these problems was so great that the viability of two colleges was at considerable risk. Rural industries are worth over \$9 billion dollars to the Queensland economy and the Minister was not prepared to risk a decrease in the provision of training to the rural sector by the failure of one or more colleges.

The major findings of the review provide an overview of the problems confronting the colleges:

- delivery of training far in excess of requirements to entry-level students – over 50 per cent of students across the four colleges received two-and-a-half times the amount of training recommended under the national training package for the qualification in which they were enrolled
- a reluctance or inability to use funding to meet priority rural training needs within the regions in which individual colleges are located
- significant amounts of state public funding being used to train interstate students
- failure to meet commitments in relation to the delivery of training to apprentices and trainees through the User Choice Program
- inability to determine the true costs of fee-for-service training or farm production activity
- difficulties in complying with the requirements of the training regulatory environment

Subsequent to this review, serious financial concerns about the viability of the Dalby Agricultural College resulted in the Minister dismissing the College Board and appointing an administrator in its place.<sup>24</sup>

2.32 The result of the overhaul, from the perspective of the Queensland Government, has been the creation of new, forward looking, industry focused organisation that has the potential to service the needs of other states, not just Queensland.<sup>25</sup> In evidence to the committee, Mr Rod Camm, Executive Director of the Industry Development Division, Queensland Department of Employment and Training, stated:

In terms of the future, we envisage that the Australian agricultural college will lead our industry partnerships in this sector. There are two important strands. One is entry-level training for youth and the other is to improve the skills productivity and qualifications

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24 Queensland Government, Submission no. 51, pp. 3–4.

25 Queensland Government, Submission no. 51, p. 12.

profile for existing workers. We still consider entry level training in a residential setting a priority, but it is expensive and very few options exist around the country. It gives practical skills in realistic farm rural settings – many of the colleges certainly still have farms – and it helps avoid sending youth to cities. It establishes a very good peer network. The Australian Agricultural College Corporation is changing to better understand those needs and the broader needs of the rural sector.

With limited choices available regarding rural training, it is Queensland's position that other states and territories should consider outsourcing some of their rural training obligations to the Australian Agricultural College Corporation.<sup>26</sup>

- 2.33 Mr Ross Murray, Director, Education and Training, for the Australian Agricultural College Corporation, believed his organisation was well equipped to take VET in rural skills to a new level, combining competency-based training within coherent educational programs better designed to meet industry needs.<sup>27</sup>
- 2.34 In New South Wales, the system of agricultural colleges has also undergone significant change. Until recently New South Wales had two residential agricultural colleges, C B Alexander Agricultural College at Tocal in the Hunter Valley and the Murrumbidgee College of Agriculture at Yanco in the Riverina, operated by the NSW Department of Primary Industries (DPI). In December 2003, the Yanco campus ceased residential courses and now focuses on short courses. In 2006, Yanco became the Murrumbidgee Rural Studies Centre under the auspices of Tocal College.
- 2.35 The decision to cease residential courses at Yanco has been subject to criticism. In its submission, the NSW Farmers Association argued that the changes at Yanco 'removed options for future students in the southern and much of the western regions of the state to undertake agriculture related courses'. It also reduced the range of conditions that students could potentially be exposed to and the types of courses they could undertake:

While most of the courses previously available at the Murrumbidgee Agricultural College were offered through Tocal in 2004, there are factors that inhibit this learning. The differences in geographic conditions mean that practical learning is done in an environment that is substantially different from the farming

26 Mr Rod Camm, *Transcript of Evidence*, 10 April 2006, p. 53.

27 Mr Ross Murray, *Transcript of Evidence*, 11 April 2006, p. 60.

conditions faced in the south and west of the State. While some practical work in these areas is possible, this is not a substitute for daily exposure to particular geographic conditions. It has also meant that the specialisation in relation to irrigation/rangeland environments can not be adequately addressed.<sup>28</sup>

- 2.36 In its submission, the Isolated Children's Parents' Association of NSW also questioned the closure of residential courses at the Yanco campus, urging reconsideration of the decision and a firm commitment by the NSW Government to full-time residential training.<sup>29</sup>
- 2.37 Mrs Margo Duncan, Chair of the Advisory Council, Tocal Agricultural College, emphasised NSW DPI's strong commitment to agricultural education, and the work of the agricultural colleges in providing full-time, part-time and short course education and training.<sup>30</sup>
- 2.38 In Victoria, there has been a dramatic move away from the agricultural college model of rural education. In the mid 1990s, the Victorian College of Agriculture and Horticulture (VCAH), which had six campuses state-wide, was transferred from the state Department of Agriculture to the University of Melbourne.<sup>31</sup> A recent review of the VCAH by the University of Melbourne resulted in the decision, taken in consultation with the state government, to disband VCAH and incorporate its functions into the TAFE sector. Professor Francis Larkins, Deputy Vice-Chancellor (Research) and Dean of the Faculty of Land and Food Resources at the University of Melbourne, explained the decision in this way:

When colleges like Dookie, Longerenong, Glenormiston and McMillan were established, by and large they were the sole providers in Victoria of agriculture related education. They have found themselves subject to very significant competition from other TAFE providers which...have the capacity to offer a broader curriculum than, for example, Glenormiston or Longerenong...Longerenong offers agriculture related education but it cannot also offer to students courses in computer science, management and so on; whereas other TAFE institutes can offer a distribution of subjects. We have found that students – and this is

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28 NSW Farmers' Association, Submission no. 93, pp. 6–7.

29 Isolated Children's Parents' Association of NSW, Submission no. 18.

30 Mrs Margo Duncan, *Transcript of Evidence*, 21 October 2005, pp. 22–5.

31 Faculty of Land and Food Resources, University of Melbourne, Submission no. 68, p. 1.

true in higher education – like combined degrees and they are looking for a broader educational experience.<sup>32</sup>

- 2.39 The decision to disband VCAH has caused some consternation. In its submission, Primary Skills Victoria stated:

While campuses managed by the University of Melbourne provided relatively few programs at pre-vocational, operational level (Levels II and III), with the imminent closure of even these, it is hard to see alternative sites being provided and this will only further exacerbate the problem of young people obtaining training opportunities.<sup>33</sup>

- 2.40 Primary Skills Victoria foreshadowed a significant loss of facilities and training opportunities:

The recent decision of the University of Melbourne to withdraw from the delivery of TAFE programs was of concern in itself. Subsequent decisions to reallocate hours to a number of providers within a region have heightened concerns even more. Training markets are already thin, splitting delivery could lead to regional delivery becoming unsustainable in the foreseeable future and as has been pointed out earlier, the loss of associated facilities will deal a heavy blow to the ability of the state and industry to provide training to those wishing to enter the industry in the future.<sup>34</sup>

- 2.41 On the other hand, Mr Wayne Pappin, Head of the Department of Agriculture and Animal Science at the Northern Melbourne Institute of TAFE (NMIT), highlighted the success of his institution in delivering agricultural education:

It is important that we recognise that the Northern Melbourne Institute of TAFE is a major provider of agriculture training in Victoria, and probably one of the major providers of agriculture training in Australia. It provides training for a huge number of areas, not only aquaculture and a full suite of agriculture programs but also viticulture, wine making, animal studies, civil construction, transport distribution and warehousing – a whole gamut of areas in which we conduct training. As I said, it is a major provider of VET and rural studies training in Victoria.

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32 Professor Francis Larkins, *Transcript of Evidence*, 14 November 2005, p. 62.

33 Primary Skills Victoria, Submission no. 101, p. 3.

34 Primary Skills Victoria, Submission no. 101, p. 7.



Importantly, though, it is strategically located in the northern area of Melbourne to pick up the whole gamut of mixed farming activities as they operate around that part of Victoria and for the ease and convenience with which students can attend the campus and/or our thousand-acre broadacre farm that we operate near Whittlesea. It has extensive links with industry, training boards, networks and organisations that are all involved in agriculture of some sort or another. I believe that we have exceptional resources for the delivery of a whole range of training, in particular agriculture and aquaculture, and that includes the soon to be completed meat-processing and packaging plant at our Epping campus. As I mentioned, we have the thousand-acre broadacre farm near Whittlesea and a thousand-acre thoroughbred stud and vineyard at our Eden Park facilities. We have nurseries, wineries, vineyards, a herb farm, an aquaculture research facility and a fish farm. The training that we can offer is broad, particularly in the rural and agricultural areas.<sup>35</sup>

2.42 While acknowledging the success of NMIT in the delivery of agricultural training in Victoria, the committee also notes the evidence of several witnesses who highlighted the importance of agricultural colleges as a model for rural skills education. The South Australian Farmers Federation observed that the 'lack of specific post-secondary Agricultural Colleges' in South Australia 'limits the opportunities for rural training. Many students move interstate for this training'.<sup>36</sup>

2.43 Mr Colin Cook, South Australian Representative for the Australian Agriculture Training Providers Network, extolled the virtues of the Western Australian and New South Wales colleges:

We visited the Western Australian agricultural colleges environment because of the extremely good news coming out of WA with regard to their participation rates and the outcomes. I would have to say that the five agricultural colleges in WA, together with Tocal in New South Wales, are excellent models of how secondary age students are immersed in a training program that is totally about agriculture. It leaves the majority of the school based curriculum typical of most secondary schools alone and focuses on agriculture. The kids work, breathe and live a farming environment with exposure to many enterprises and they come away from those organisations really capable and enthused about

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35 Mr Wayne Pappin, *Transcript of Evidence*, 14 November 2005, p. 24.

36 South Australian Farmers Federation, Submission no. 87, p. 3.

agriculture as a career. I do not see that happening in lots of other states where agriculture is taught as a component of the normal curriculum, and it is almost like an add-on.<sup>37</sup>

2.44 He stated further that in South Australia:

We only have schools that teach the normal school curricula. We have schools like Urrbrae, Cleve and Lucindale which have a strong agricultural focus. They are our best exemplars, but they do not come near, from resource, staffing or outcomes implications, to the examples I gave with regard to Tocal and WA.<sup>38</sup>

2.45 Mr Gregory Hallihan, Executive Officer of Primary Skills Victoria, also praised the examples provided by Western Australia and New South Wales:

Western Australia is a good, solid example that has been there for a long time, particularly in respect of the changing weighting between urban versus rural participation and the fact that it is actually aggregating people together at years 11 and 12 into an agricultural career. When I say agriculture, it is a rural context, so you may not be on farm but you might be a service provider – you could be a welder, a fencer, a mechanic or any number of those. That is a good example to look at. Certainly in Victoria we do not have that capacity. Other states do, to varying degrees. New South Wales is a good example, where the ag colleges are still attached to the Department of Primary Industries or the ag department. Although it is not core business, I think out of this inquiry there needs to be a clear message that the two need to work more closely together, as in the silo of the ag departments and the silo of the education departments.<sup>39</sup>

2.46 In evidence before the committee, Mr Arthur Blewitt, CEO of AFISC, also praised the work of the agricultural colleges.<sup>40</sup>

2.47 Two important aspects of agricultural colleges were emphasised in the evidence. The first was the need for government support in the form of consistent funding regardless of fluctuations in student numbers. Mrs Duncan described the experience of Tocal College:

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37 Mr Colin Cook, *Transcript of Evidence*, 14 November 2006, p. 85.

38 Mr Colin Cook, *Transcript of Evidence*, 14 November 2006, p. 85.

39 Mr Gregory Hallihan, *Transcript of Evidence*, 14 November 2006, p. 15.

40 Mr Arthur Blewitt, *Transcript of Evidence*, 29 March 2006, p. 3.

At present the full-time courses are fully subscribed and applications are very strong for 2006. This has not always been the case. The numbers have fluctuated from time to time. We are not sure why these numbers fluctuate, but they do. Fortunately, New South Wales Agriculture, now the New South Wales Department of Primary Industries, have seen fit to support the college even when numbers have been down a little. This is particularly important. One of the problems that we are aware of occurs when agriculture is in a large comprehensive TAFE college. If the numbers go down, the agricultural student places are taken by other disciplines and never returned to agriculture. This continues to occur, so it is our understanding that the amount of full-time training delivered by TAFE in New South Wales is very much lower than it was 10 years ago.<sup>41</sup>

- 2.48 The other consideration was the need to support students in full-time residential courses. Mr Fischer (Western Australian Department of Education and Training) highlighted the withdrawal of funding for full time agricultural college students under the Assistance for Isolated Children Scheme in 1994, stating that this 'has prevented and continues to prevent many students from urban areas and rural towns from attending the WA College of Agriculture residential campuses because the families, many on low income, cannot afford the residential boarding fees'.<sup>42</sup> He urged the reintroduction of allowances:

We are contending that the courses offered at residential agricultural schools and colleges are unique; you cannot get that full-time agricultural education anywhere else. Reinstatement of the allowances for students attending the residential agricultural colleges that provide courses that are not available elsewhere in Western Australia would encourage more young people into the agricultural industry. Providing allowances for students to attend would not only benefit many rural students who cannot attend at the moment – they might be sons and daughters of low-income people – and keep them in the area, but it would also attract urban students to country areas, and hopefully they will stay in the country locations.<sup>43</sup>

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41 Mrs Margo Duncan, *Transcript of Evidence*, 21 October 2005, p. 23.

42 Mr Garry Fischer, *Transcript of Evidence*, 20 July 2005, p. 27.

43 Mr Garry Fischer, *Transcript of Evidence*, 20 July 2005, p. 28.

## Committee Conclusions

2.49 The Committee firmly believes that agricultural colleges provide an essential service in rural skills training and education, providing comprehensive and detailed training in a manner that other institutions cannot. Agricultural colleges have been the traditional grounding for industry leadership and further education in agriculture. Despite the problems faced by agricultural colleges in maintaining their relevance and sustaining their existence, the committee regards the success of the model in Western Australia and its reinvigoration in Queensland as testament to the relevance and value of agricultural colleges. The committee believes it is incumbent upon state and federal governments to ensure the survival and rebirth of Australia's agricultural colleges, with adequate funding and facilities.

### Recommendation 8

- 2.50 **The committee recommends that the Australian Government, in conjunction with State and Territory Governments, develop a national framework for the reinvigoration of Australia's agricultural colleges, including:**
- **Stable and sustained funding for agricultural colleges in each state;**
  - **Funding and incentives for national coordination of programs between colleges; and**
  - **The creation of effective mechanisms for industry and community involvement in the development of curricula.**

## Australian Apprenticeships

- 2.51 Australian Apprenticeships is the name given to a range of apprenticeships and traineeships providing a mixture of on-the-job and formal training to new starters and existing employees in industry. These include school based traineeships and apprenticeships in which students from year 10 upwards commence training while completing school.
- 2.52 Training and assessment occurs within the formal structure of industry training packages and the qualifications conform to the Australian Qualifications Framework. The formal training and assessment

component is provided by RTOs (including TAFE) in conjunction with employers.

- 2.53 A range of incentive payments are available to employers taking on trainees and apprentices. Australian Apprenticeships Centres (formerly New Apprenticeship Centres) are contracted by the Australian Government to provide administrative support for the Australian Apprenticeships programs, including administration of all Australian government incentive payments, and help match employers and apprentices.
- 2.54 The degree of distinction between traineeships and apprenticeships varies from state to state, but broadly speaking apprenticeships are structured programs of 3–4 years duration in traditional trades and traineeships are targeted programs of 1–2 years duration in non-trade occupations. While a Rural Operations New Apprenticeship covering a range of Certificate II and III qualifications has been developed,<sup>44</sup> most Australian Apprentices undergoing rural skills training are trainees.<sup>45</sup>
- 2.55 The success or otherwise of the Australian Apprenticeship system in rural skills training was a matter of some conjecture in the evidence put before the committee. Mr Alan Brown, Chair of the Rural Affairs Committee and Board Director, NSW Farmers' Association, believed traineeships were an important first step to training in rural skills, a critical entry point on a career pathway.<sup>46</sup> On the other hand, Mr Peter Berrisford, a former Assistant Director of the Wimmera Institute of TAFE and General Manager of TAFE, argued in his submission that 'workplace training in VET (apprenticeships and traineeships) is used as a cost saver and its quality is very problematic, especially in agriculture'.<sup>47</sup> Mr Keith Mutton, a TAFE teacher from NSW, was more forthright:

To summarise, competency based training is only as good as the person giving the training, and much of the competency based training is being given by people on the job, on the site, who are interested in cheap labour and getting the job done. They do not care whether or not the person is trained; all they want to do is get someone in and get the dollars. There are businesses around Tamworth that turn trainees over and over like sausages, and a lot of times they are not even interested in meeting their commitments when they are supposed to be off the job.

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44 DEST, Submission no. 94, p. 57.

45 Mrs Yvon Wigley, *Transcript of Evidence*, 10 April 2006, p. 19.

46 Mr Alan Brown, *Transcript of Evidence*, 20 October 2005, p. 75.

47 Mr Peter Berrisford, Submission no. 54, p. 3.

Competency based training is excellent if you have someone who is really committed to doing the job but it is very poor if you have not.<sup>48</sup>

- 2.56 Ms Condell (Conservation Farmers Inc.) strongly supported 'school based traineeships and traineeships in the agriculture sector generally':

I think it is a fantastic framework. It is a brilliant way to support young students before they leave school to go back to their properties, and if they want to go on to other tertiary education they receive credits – higher OPs and things like that – by doing their school based traineeships. It really is not a waste of time for anybody.<sup>49</sup>

- 2.57 However, she also acknowledged that traineeships in her region had been less than an unqualified success:

Unfortunately, in this region the system has been fairly poor. There has not been a seamless process. The agricultural colleges have been in disarray, so when farmers have decided to put a toe in the water they have received poor service. They have said: 'We've had a go at that. It doesn't work; let's not go there; it's too complex.' To get it going again in this region will be quite difficult, unfortunately.

Another thing we mentioned was the dissemination of information around traineeships, particularly agricultural traineeships. Traditionally, schools have not had a good base of people who understand what is required, so the guidance officers in schools lack professional development in this area. Another issue they have is that, when they do organise it, they are often very badly let down by the training providers.

I think we have seen a peak in this region – we got up to 60 students, I believe, and it is back down to about 16 or 17 at the moment. That is right across all training organisations, so it has not been wonderfully successful, which is a real pity because there is a fantastic framework there that could be great if it was well supported and well promoted. Farmers generally do not know about traineeships. Of those 40 women we surveyed, none of them knew that a \$4,000 incentive payment was available if they put on a trainee.<sup>50</sup>

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48 Mr Keith Mutton, *Transcript of Evidence*, 9 March 2006, p. 35.

49 Ms Jillian Condell, *Transcript of Evidence*, 11 April 2006, p. 39.

50 Ms Jillian Condell, *Transcript of Evidence*, 11 April 2006, pp. 39–40.

- 2.58 The importance of the incentive payments was emphasised by Mr De Landgraftt (WAFarmers), who stated that ‘without that subsidy very few traineeships would be delivered in rural areas, into the agricultural areas’.<sup>51</sup>
- 2.59 However, there was some concern expressed that the incentive payments stopped too early within the qualifications framework. In its submission, the NSW Department of Primary Industries noted that ‘incentives for youth training, particularly traineeships, are often difficult to apply and interpret for training organisations’:
- For example the current incentives for training are mainly for Certificate III, even though the needs in the industry extend beyond this level of qualification. It is difficult for a trainee to undertake the extra training desired, due to lack of incentives.<sup>52</sup>
- 2.60 The same point was made by the Murrumbidgee College of Agriculture Advisory Council and the C B Alexander Agricultural College, Tocal Advisory Council in their submission:
- The qualifications available and funded through the VET system are not necessarily in line with industry needs. For example traineeship incentives in NSW are currently for Certificate III only. This means that the higher order and more long-term natured training is not undertaken. Employers will not support their trainees to undertake Certificate IV training even though it’s in this area that the trainee should move for future employment.<sup>53</sup>
- 2.61 In evidence before the committee, Mrs Duncan (Tocal Agricultural College) explained:
- Traineeships usually run from certificate II to certificate IV. The provisions at the moment only allow funding support to occur for a student to be trained between two levels. Most newcomers therefore start at certificate II and receive it at certificate III after one or two years. There is no incentive for an employer or an employee for that trainee to continue their training to certificate IV. We have a system that is more intent on getting numbers through than on having high-level training. This is a real problem for our dairy apprenticeship program and, given the pressure that the dairy industry is under, this could, if we are not careful, see the

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51 Mr Trevor De Landgraftt, *Transcript of Evidence*, 20 July 2005, p. 5.

52 Department of Primary Industries NSW, Submission no. 91, p. 3.

53 Murrumbidgee College of Agriculture Advisory Council and CB Alexander Agricultural College, Tocal Advisory Council, Submission no. 22, p. 7.

numbers decline much further. Members should be aware of this issue and make amends so that traineeships can go through more than two levels. There is no reason why they should not go through to level V diploma.<sup>54</sup>

- 2.62 There was also a perception that incentive payments were simply being siphoned off by training providers. Ms Jann O'Connor, Training Development Manager for the Irrigation Association of Australia, stated:

The criteria for state government payments to an RTO to go towards the training become very problematic and, while I do not have evidence, I have heard stories that if you enrol in a course and you are not a trainee it is one price and if you are a trainee the price goes up. The payment which is given by the federal government as an incentive to the employer to put on a trainee is not being seen that way. It is seen as being the money that is there to actually train the person. While in some states there is some money which goes to the RTO to train them, generally that incentive payment gets sucked up. The reality is that the only incentive there for somebody to put on a trainee in irrigation is simply the fact that at the end of it they have somebody who is qualified – and who may then go off and work for somebody else. So it is a very difficult situation. I am sure that was never the intention of the incentive payment scheme, but that is how it is working out.<sup>55</sup>

- 2.63 A third problem was the perception that Australian Apprenticeship Centres were working to meet contractual objectives rather than meeting the needs of rural industries, targeting soft options to fill quotas. Mr Geoffrey Bloom, Executive Director of Rural Skills Australia, told the committee:

Part of the problem is that the Northern Territory NAC [New Apprenticeship Centre], for example, might have a target of 40 apprentices, and I think it will be under ANZSIC codes, so it is mining, agriculture and fishing. They can probably get those 40 apprentices in two or three big mining companies. Once they have achieved their target, they do not have to travel to VRD or one of the big stations to sign them up. They can post the stuff out. The second thing is that NACs only market their name; they only say they are a particular NAC. They do not market agricultural, dairy or specific apprenticeships. Some of them are doing a very good

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54 Mrs Margo Duncan, *Transcript of Evidence*, 21 October 2005, p. 23.

55 Ms Jann O'Connor, *Transcript of Evidence*, 20 October 2005, p. 20.



job, I might add, but others just market their name. I think the departmental statistics are that something like 85 per cent of employers come with a trainee under their arm to be signed up. So there is really only matching for about 15 per cent.<sup>56</sup>

- 2.64 A similar issue was raised by Mr Hallinan (Primary Skills Victoria), who argued that the driver for school based apprenticeships was the need to meet targets and quotas rather than meet training needs:

In some sense, if we had a really high participation in agriculture you would say that that was a benefit, even though the system is not working very well, in that at least they are engaged in agriculture and getting some taste for it. The fact is that they are not; they are tending to go to the softer, easier ones where they can gain experience. I would be surprised if this has not come out in some of the submissions, but the distortion is where subsidies are paid for school based new apprentices. That is seen as the driver for both the employer, and in this case very opportunistic new apprenticeship centres – it means they get their numbers ticked off. There has been a high intensity of activity pushing school based new apprentices within schools, which looks good on the government's numbers as far as, 'We have this many new apprentices engaged'. Many of them do not complete the apprenticeship because there is no way they can get through the apprenticeship in the period of time they are at school. Often it is really a way of gaining funding and satisfying other vocational outcomes within those secondary schools.<sup>57</sup>

- 2.65 Another problem identified with rural traineeships was the issue of supporting trainees spread over a wide geographical area employed in a diverse range of workplaces. Mr Malcolm McKay, College Director, Australian Agricultural College Corporation, observed:

I think one of the big problems is being able to service traineeships successfully in what is a very diverse workplace. It is quite different from servicing welding traineeships et cetera where they might be large organisations in metropolitan areas. These are dotted all over the countryside, there is generally only one trainee in an organisation and they are very diverse, so the actual physical difficulty of servicing them is quite a significant hold-back in being able to have a successful outcome. If you cannot service the students well, then the whole scheme gets a bad reputation.

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56 Mr Geoffrey Bloom, *Transcript of Evidence*, 10 August 2005, p. 12.

57 Mr Gregory Hallinan, *Transcript of Evidence*, 14 November 2005, p. 17.

Our philosophy is to try in the first instance to work with larger employers who do have a number of trainees, and we have been working with, for example, the Australian Agricultural Company and the Northern Australian Pastoral Company where they do take quite large numbers of new workers into their program and you can get some sort of concentration to be able to provide appropriate services to those students and those trainees while they are in employment. If you can then demonstrate a successful outcome, it is a much easier sell, if you like, to other farmers. If we can develop a model, we can service them reasonably.<sup>58</sup>

## Committee Conclusions

- 2.66 The committee is of the view that Australian Apprenticeships provide a valuable mechanism for structuring and funding training in rural skills. It is evident, however, that the scheme is not operating as effectively as it should in providing training to rural trainees and apprentices. The system of administration needs to be overhauled to ensure that funds and places are directed to where they are needed, and that training is conducted in an appropriate manner. The committee believes that a proportion of funding and places should be specifically dedicated to rural skills training.
- 2.67 Moreover, the committee agrees that the scope and duration of traineeships/apprenticeships should be extended to ensure that those who enter the pathway with a view to obtaining more advanced qualifications may do so, to their own benefit and to the benefit of industry more broadly. Furthermore, the system of funding needs to be overhauled to reflect the diverse and difficult circumstances under which rural training takes place.

### Recommendation 9

- 2.68 **The committee recommends that the Australian Government undertake a review of the Australian Apprenticeship scheme with a view to:**
- **Specifically allocating training funds and places to New Apprenticeships in rural skills;**
  - **Altering funding arrangements to properly reflect the cost of providing training and supervision in rural skills;**

- **Extending funding and incentive payments to cover a broader range of qualifications; and**
- **Ensuring that there is rigorous quality control over training outcomes.**

## Australian Technical Colleges

- 2.69 In September 2004, the Australian Government announced its decision to establish twenty-four Australian Technical Colleges (ATCs) as part of its broader strategy to address skills needs in the trades. The ATCs will operate as specialist senior secondary schools, providing education and technical training relevant to the trades, raising the profile of school based vocational training and strengthening the national training system. They are part of the Government's strategy to address industry skill needs and to ensure that high quality VET is valued as a career pathway. A majority of the campuses will be located in regional centres.<sup>59</sup> As at September 2006, five ATCs had commenced operations.<sup>60</sup>
- 2.70 The committee notes, however, that while this initiative will direct resources towards improving skills in regional areas, ATCs are directed at trade skills such as metalworking and engineering, automotive trades, building and construction, electrotechnology and commercial cookery, rather than rural skills per se. While some of these skills are used in rural industries, they do not go to the core skills and knowledge requirements of agriculture. In its submission, the NSW Farmers' Association questioned 'whether these new colleges will address skills shortages in rural and related industries'.<sup>61</sup> In its submission, Primary Skills Victoria expressed 'disappointment ... that agriculture was not listed as one of the sectors whose training needs were to be addressed through this initiative'.<sup>62</sup>
- 2.71 In evidence to the committee, Mr Cook (Australian Agriculture Training Providers Network) recommended that the Australian Government consider 'extrapolating the Australian technical colleges concept to incorporate Australian technical agricultural colleges in those states where effective agricultural training for secondary age students does not exist'.<sup>63</sup> Mr Hallihan (Primary Skills Victoria), suggested 'the establishment of year

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59 DEST, Submission no. 94, p. 49.

60 DEST, Submission no. 117, p. 4.

61 NSW Farmers' Association, Submission no. 93, p. 7.

62 Primary Skills Victoria, Submission no. 41, p. 1.

63 Mr Colin Cook, *Transcript of Evidence*, 14 November 2005, p. 80.

11 technical colleges consistent with the current policy direction of the federal government, which has left agriculture off as a high demand area':

It is suggested that these schools would have an integrated curriculum where agriculture is used as a driving force for delivery of core subjects – in other words, it is integrated, not just an add-on and a dag at the end of the sheep, excuse the pun – and will provide a pathway for students in urban and large city centres to aggregate together in what would otherwise be thin markets. This would provide a strategic link between programs now offered within secondary schools and the VET sector, namely the school-based new apprenticeships, Ag in High, years 11 and 12, and VET in schools, and successful students would then enter directly into apprenticeships or universities providing agriculture degrees.<sup>64</sup>

## Committee Conclusions

- 2.72 The committee welcomes the increase in training opportunities in traditional trade skills provided to regional areas through the ATCs, but believes that an opportunity is being lost to target shortages in rural skills. The establishment of ATCs has given the Australian Government an opportunity to provide an integrated framework for agricultural education in rural and regional Australia, to make the ATCs an example for how training in rural skills can be provided. The committee believes that the Australian Government should give urgent consideration to establishing agriculture courses at those ATCs with the closest links to rural areas, and give consideration to expanding the number of campuses to cover those regions, such as the Riverina, primarily concerned with agriculture.

### Recommendation 10

- 2.73 **The committee recommends that the Australian Government give urgent consideration to establishing agriculture courses at Australian Technical Colleges, and expanding the number of Colleges to cover regions principally associated with primary production.**

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64 Mr Gregory Hallihan, *Transcript of Evidence*, 14 November 2005, p. 12.

## FarmBis

- 2.74 The Australian Government's most important direct contribution to VET in rural industries is the Agriculture – Advancing Australia FarmBis program, which is jointly funded on a matching basis by the Commonwealth and the States. FarmBis is designed to:
- provide financial assistance (via subsidies) to primary producers to undertake business and natural resource management training and education activities;
  - forge collaborative partnerships between industry groups and other key stakeholders in the design and delivery of learning activities through seed funding of targeted industry education and training initiatives; and
  - encourage the development of a quality, competitive and diverse rural industry training sector.<sup>65</sup>
- 2.75 FarmBis aims to foster a culture of 'continuous learning' amongst primary producers, encouraging them to plan for their future training needs as part of their overall business planning. Education and training activities funded by FarmBis are directed at farm management related activities and include:
- general business management (including strategic planning);
  - financial management;
  - marketing;
  - human resource management (including leadership);
  - natural resource management; and
  - production management.
- 2.76 The first FarmBis program (1998–2001) was regarded as highly successful, with around 82 000 primary producers attending over 115 000 training activities. The second program (2001–04) had 72 000 new participants and 22 000 repeat participants attending some 145 000 activities. FarmBis III will run from July 2004 to June 2008. FarmBis surveys indicate that 92% of participants 'were able to incorporate their learning into the operation of their business enterprise'.<sup>66</sup>
- 2.77 In its submission, the Commonwealth Department of Agriculture, Fisheries and Forestry noted:

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65 DAFF, Submission no. 66, p. 8.

66 DAFF, Submission no. 66, p. 9.

A significant achievement of the program has been its impact on the way education and training is provided to primary producers. The rural training market has progressively responded to the demand driven FarmBis model by delivering activities that better suit the needs of producers both in terms of content and availability. The program's emphasis on short to medium courses delivered on a group training basis has proven to be very successful, with a growing number of producers participating in repeat learning activities after their initial experience.

The high recognition and wide support of the FarmBis program by primary producers across rural and regional Australia suggests that the Australian Government's investment in this program has been justified.<sup>67</sup>

- 2.78 The general view of FarmBis put to the committee was that it was a very useful and highly successful program. Rural Skills Australia urged that funding from all sources for FarmBis be maintained at current levels 'to ensure the continued participation of this important client group in further education and training, and to complement other training delivery activities involving current and future members of the rural workforce'.<sup>68</sup>
- 2.79 FarmBis was praised by both the Western Australian<sup>69</sup> and Queensland Governments in their submissions, with the Queensland Government stating:

Initiatives such as the DPI&F-managed FarmBis, which provides accredited and non-accredited training, allow primary producers to access information and training that meets their immediate needs and also provide an opportunity to identify the type of training sought by the agribusiness sector. FarmBis enables access to timely, flexible and customised responses to issues impacting on enterprise profitability and therefore provides an important aspect to overall training delivery.<sup>70</sup>

- 2.80 In his submission, Mr Peter Berrisford, stated that:

The structure of the FarmBis program has taken into account the two important issues associated with farmers and farm workers. These being, their lower than average education level and the fact

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67 DAFF, Submission no. 66, p. 9.

68 Rural Skills Australia, Submission no. 71, p. 2.

69 Government of Western Australia, Submission no. 19, p. 1; see also Mrs Kay Bodman, *Transcript of Evidence*, 20 July 2005, p. 30.

70 Queensland Government, Submission no. 51, p. 10.

that the average age of farmers and farm workers is in the high 50's...

FarmBis as a source of funding has become increasingly popular and is a well recognised badge for agricultural professional development and training. In recent years the FarmBis program has done a lot to encourage farmers and farm workers to undertake structured training.<sup>71</sup>

2.81 He also observed, however, that much of the training undertaken through FarmBis was not VET accredited and did 'not lead participants down the qualifications path except when they actually undertake a VET accredited course'.<sup>72</sup>

2.82 On the other hand, Mr Neale Price, National President of the Australasia-Pacific Extension Network (APEN), expressed the personal view that FarmBis had 'achieved next to nothing', largely producing training for training's sake:

From my point of view, the fact that there was a particular course that got between a 25 per cent and 90 per cent subsidy across the board was absolutely ludicrous. People did training for the sake of doing training, because they thought they would get something for nothing. There was little or no follow-up because, with the ability to get FarmBis, a lot of consultants jumped into areas and left. The glory of having people on the ground is that you have follow-up, that there is a relationship created between the person wanting to learn and the instructor. For my personal perspective, I believe that offering taxation incentives for farming and going back to the training guarantee levy or something like that would be a far better way of spending money than necessarily providing that level of support through FarmBis.<sup>73</sup>

2.83 Most of the criticism directed at FarmBis, however, came from those who supported the program, but wished to see it applied more broadly and/or more consistently across jurisdictions. In its submission, Rural Skills Australia advocated extending FarmBis to farm employees as well as farm managers as a way of addressing current and future skill shortages.<sup>74</sup>

2.84 Rural Industries Skill Training (RIST) argued for the extension of FarmBis to Certificate III training, in order to connect with the older age groups

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71 Mr Peter Berrisford, Submission no. 54, pp. 6-7.

72 Mr Peter Berrisford, Submission no. 54, p. 6.

73 Mr Neale Price, *Transcript of Evidence*, 11 April 2006, p. 33.

74 Rural Skills Australia, Submission no. 71, p. 5

and those lacking formal education, a call echoed by the NSW Department of Primary Industries in its submission.<sup>75</sup> In its submission, RIST stated:

Production type training is an area that attracts this group of farmers. They tend to feel more comfortable in the very basic type training particularly in growing pastures which equates to Certificate 3 which are lower level competencies than are currently supported by FarmBis and therefore they do not qualify for financial subsidy. Once they have participated in one activity they are more likely to become more involved in more advanced skill development programs.<sup>76</sup>

2.85 The Cattle Council of Australia also argued for extending FarmBis to Certificate III courses, and other training relevant to industry, such as ChemCert courses and training by Animal Health Australia.<sup>77</sup>

2.86 The removal of FarmBis funding for ChemCert courses was also highlighted in the submission of ChemCert Australia, which argued that the withdrawal of funding had had a significant effect on the uptake of ChemCert training. The submission called for the reintroduction of FarmBis funding for ChemCert training.<sup>78</sup> In her evidence before the committee, Dr Margaret Clarke, Executive Manager of ChemCert Australia, stated:

ChemCert training is the training for agriculture and veterinary chemical use on-farm. Until around 2001, ChemCert training was eligible for FarmBis funding. The situation varied somewhat between states, as you might expect, as to the exact year when it was dropped off. But across all states where it had been eligible for FarmBis funding, we had a massive reduction in training numbers, in the order of 30 to 40 per cent across states, the minute that funding was no longer available. What that meant in reality for the farmer was that the cost of their training went from around \$50 for a two-day course – which is what it was when FarmBis was there – to full cost recovery for them. It varies across states, but we say on average it is around \$300 for a two-day course, which for full cost recovery is very cheap, when you consider two-day training in remote areas. So we work very hard to keep costs down, but the impact of training costs changing from \$50 to \$300

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75 Department of Primary Industries NSW, Submission no. 91, p. 2.

76 Rural Industries Skill Training, Submission no. 29, p. 6.

77 Cattle Council of Australia, Submission no. 75, pp. 8–10.

78 ChemCert Australia, Submission no. 23, p. 5.



on average was very significant and had a very serious effect on the numbers of those who came through for training.<sup>79</sup>

- 2.87 In evidence before the committee, however, DAFF emphasised that the focus of FarmBis was deliberately placed upon management level training, with production related activities being left to other providers:

Our programs focus on management and some production skills. Other training providers focus on different points along the skills continuum. For example, state extension services are most strongly operational at the operational level and the production level; agricultural high schools are very strong at the operational level; and agribusiness operates across the whole spectrum but is perhaps fairly light-on at the management end of the spectrum. Increasingly, segments within this continuum of training have matured, particularly at the production level. We have deliberately enhanced our focus on providing training and skills development at the management level. This is demonstrated in the progressive shift in the focus of the FarmBis program, which provides assistance for training towards management level programs. I have seen, from looking at some of the submissions made to this inquiry, that there is a substantial body of commentators also saying that this is a gap in the farm sector. It is a gap that FarmBis is attempting to fill.<sup>80</sup>

- 2.88 Another criticism of FarmBis was the inconsistent approach to funding across the various States. Mr Bill Hamill, CEO of Rural Industries Skill Training, noted that 'a farmer gets a better subsidy in South Australia than in Victoria. They get none in New South Wales'.<sup>81</sup> As Mr David Galvin, General Manager of the Indigenous Land Corporation, explained to the committee, this could make utilising FarmBis across jurisdictions difficult and frustrating:

As we have just said, we have not been able to tap into FarmBis nationally. While the grant funding is being provided to state and territory governments, each state and territory government has its own way of doing things. I have previously taken these issues up with the secretary of the Department of Agriculture, Fisheries and Forestry and I have been told it is quite difficult once the money has been provided. From our perspective, because the program has been so successful and is based on the rural skills and

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79 Dr Margaret Clarke, *Transcript of Evidence*, 7 September 2005, p. 15.

80 Mr Ian Thompson, DAFF, *Transcript of Evidence*, 9 August 2006, p. 2.

81 Mr Bill Hamill, *Transcript of Evidence*, 8 February 2006, p. 10.

industry...we would like to see it being rolled out nationally and in a consistent fashion.<sup>82</sup>

- 2.89 Mr Samuel Inglis, Director of Corporate Training, Marcus Oldham College, also highlighted the limitations of FarmBis, urging a single national system for registration:

Taking FarmBis as an example, we run a national leadership program here every year and attract 35 to 40 people from all around Australia. In order to run that program we have to register it across six different states. The registration process is different for each state, so we have virtually said, 'If you want to come down and do the course, you apply for the funds.' It tends to get unwieldily. The other thing is that we are missing out on the transferability of a lot of these programs. If we develop an initiative here, why can't we transfer it to Queensland and deliver it? Why can't we take it to Western Australia and deliver it? FarmBis is limiting that to a certain degree, it tends to become far more localised. The local governments manage it and run it.<sup>83</sup>

- 2.90 The apiary industry had a particular issue with the lack of national consistency – that they were not necessarily recognised as primary producers for the purposes of FarmBis funding. In its submission, the Australian Honey Bee Industry Council noted:

Many of the existing State FarmBis forms ask respondents to indicate whether they operate a commercial farm or fishing venture. Apiarists are primary producers without actually owning or managing a farm property. This has led to some confusion with FarmBis personnel refusing funding to beekeepers who can not indicate that they operate a commercial farm.<sup>84</sup>

- 2.91 In evidence before the committee, Mr Stephen Ware, Executive Director of the Australian Honey Bee Industry Council, stated:

The other issue we have raised is FarmBis funding. We are an industry that in the past has been heavily reliant on FarmBis funding to provide training. The reason for that is that there has been a lack of RTOs and resources in the education area. Some of that is being addressed by the fact that the industry, at long last, has developed its own competency standards. But we have had all sorts of problems with FarmBis as far as its administration goes

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82 Mr David Galvin, *Transcript of Evidence*, 7 December 2005, p. 5.

83 Mr Samuel Inglis, *Transcript of Evidence*, 15 November 2005, p. 7.

84 Australian Honey Bee Industry Council, Submission no. 79, p. 5.

and the differences in administration between the states and even the recognition of the apiary industry as an industry. One of the states did not even recognise apiarists as primary producers. The other aspect of having part-time beekeepers who go on to become full-time commercial beekeepers is an issue when some states do not even recognise them. We believe that, if nothing else, this inquiry should recognise that there is a real need for the FarmBis system to be overhauled and developed along the lines of supporting and identifying the needs of particular industries and using the funding to the best effect for both the industry and communities' resources.<sup>85</sup>

2.92 In their submissions, both the Cattle Council of Australia and Australian Wool Innovation Ltd urged a nationally consistent approach to FarmBis funding.<sup>86</sup>

2.93 A particular grievance was the withdrawal of New South Wales from the FarmBis program, and the substitution of FarmBis with Pro-Farm, an initiative of the NSW Government.<sup>87</sup> The NSW Farmers' Association regarded the ending of FarmBis funding and the initiation of Pro-Farm as a disaster:

There was no reference to the future of FarmBis in the NSW Budget handed down 24 May 2005. The NSW Government announced two days later that FarmBis III would not be implemented in NSW, meaning that NSW farmers would be the only farmers in the country not to have access to this very popular program.

The NSW Government has since announced that it will introduce an alternate 'agricultural education strategy' with a \$5.8m budget allocation, which will include:

- Residential courses and distance education for students, leading to Certificate and Diploma qualifications;
- A pilot program to provide specialized short courses for part-time farmers; and
- The creation of 'Pro-Farm', a series of short courses for farmers and agribusiness professionals.

The Association was not at any stage consulted by the NSW Government prior to the announcement of this alternate

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85 Mr Stephen Ware, *Transcript of Evidence*, 20 October 2005, p. 25.

86 Cattle Council of Australia, Submission no. 75, p. 6; Australian Wool Innovation Ltd, Submission no. 73, p. 3.

87 Department of Primary Industries NSW, Submission no. 91, pp. 1, 5.

'agricultural education strategy'. In fact, despite the new program being scheduled to commence 1 July 2005, as at late June 2005, the Association had still not seen any detail on the new approach, other than a basic overview listed in a media release from the Minister for Primary Industries.

The Association has grave concerns about this new strategy. It should be noted that the \$5.8m allocation covers all three aspects of the package. It would therefore appear that only a small portion of these funds will go towards those courses that will be subsidised, as the Department of Primary Industries has since advised that not all courses will attract a subsidy. The \$15 million previously allocated by the Federal Government for FarmBis III in NSW is now lost for the training agenda. Moreover, industry was not consulted at any stage about this proposal, which could effectively lead to a monopoly in the training field in NSW.<sup>88</sup>

- 2.94 The Cattle Council of Australia also questioned the wisdom of the NSW Government's decision to withdraw from FarmBis, stating in its submission:

It is therefore most distressing for CCA to note the apparent withdrawal from Farmbis by the NSW government, and would caution that this decision will have adverse impacts on the NSW economy. The timing of such a decision is also deleterious, given at a time when producers are struggling with drought management, and without strong incentives may lack the resources to participate in training.<sup>89</sup>

- 2.95 Mrs Margaret Brown, representing the Country Women's Association of NSW, stated in evidence:

Our members think that the wiping away of FarmBis to put in Profarm is a disaster because Profarm offers courses that whoever the providers are think farmers should want to do. FarmBis asked farmers what sorts of courses they wanted.<sup>90</sup>

## Committee Conclusions

- 2.96 The committee is of the opinion that FarmBis has been a valuable conduit for training funding for rural industries, and believes the Australian Government should make a long term commitment to the program to give
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88 NSW Farmers' Association, Submission no. 93, p. 10.

89 Cattle Council of Australia, Submission no. 75, p. 6.

90 Mrs Margaret Brown, *Transcript of Evidence*, 10 March 2006, p. 24.

certainty to industry. The committee advocates extending FarmBis funding to a greater range of courses, such as those at a Certificate III level, and to cover farm employees as well as managers. This will allow FarmBis to provide incentives and opportunities for a greater number of people to undergo formal training. The committee also supports resuming FarmBis funding of ChemCert courses.

- 2.97 The need for national consistency in FarmBis funding is obvious. The different criteria and levels of funding for training between States is an obstacle to cross border and national initiatives. Added to that is the decision of the New South Wales Government to withdraw from FarmBis, leaving that State's producers without access to that funding at all. Either a nationally consistent approach must be achieved, or the administration of FarmBis funds should be undertaken directly by the Commonwealth.

### **Recommendation 11**

- 2.98 **The committee recommends that the Australian Government give an immediate undertaking to continue FarmBis beyond its current expiry date in 2008.**

### **Recommendation 12**

- 2.99 **The committee recommends that the Australian Government, in conjunction with State and Territory Governments, achieve a nationally consistent approach to FarmBis funding, including:**
- **Extending FarmBis funding to rural employees;**
  - **Extending FarmBis funding to Certificate III level courses; and**
  - **Resuming FarmBis funding of ChemCert training.**

## **Industry Initiatives**

- 2.100 Frustration with VET and RTOs not meeting industry requirements has led several industry groups to develop training courses and packages on their own initiative. The best known of these is Cotton Basics, the packaging and branding of a set of basic competencies directly relevant to the cotton industry. In its submission, Cotton Australia stated:

Cotton Australia in an attempt to overcome this dis-enfranchising of the employer took a decision some two years ago to adjust the agenda and have the VET system work for the industry. Therefore to attract the attention of the employer, the concept of talking in terms of using the jargon: e.g.

***Certificate II in Agricultural Production***

*With Modules RTCA2705A Work effectively in the industry and RTC2801A Participate in workplace communications,*

has been dropped in favour of having a simply branded position called –

**“Cotton Basics”.**

As with an industry recognised *ChemCert Certificate*, the employer will recognise immediately that a young person who presents themselves with a *Cotton Basics Certificate* can do just that – undertake basic operations on a cotton farm – e.g. start a tractor, start a siphon, knows some first aid, etc. There also exist the opportunity to have on the reverse side of the *Cotton Basics Certificate* the particular “jargon” description as currently utilised; but in small print and of use only to the bureaucratic process – not to the employer.<sup>91</sup>

- 2.101 Cotton Australia is already looking at more advanced training packages – cotton intermediate and cotton advanced – to further develop the industry’s training structure.<sup>92</sup> It has also developed Cotton Plus, essentially Cotton Basics but with additional competencies relating to other industries. As Mr Ralph Leutton, Program Manager, Policy and Legislation for Cotton Australia, explained, it was a jargon free passport for farmers to recognise skills and workers moving within and between industries:

...as an offshoot of Cotton Basics we have a derivative called Cotton Plus. It is cotton plus cropping, horticulture or cattle. He can have his Cotton Basics training and some added training if he wishes. He might say: ‘I’m going to travel. I’m heading south and I’ll end up in the horticulture area. I might do a couple of modules and get those competencies added to my cotton basic.’ So he will end up with a Cotton Plus. It is another piece of paper that says ‘Cotton Plus’. When he turns up at the farm in your area, he has his Cotton Basics and his Cotton Plus and that is all he has to say.

91 Cotton Australia Ltd, Submission no. 59, pp. 2–3.

92 Mr Ralph Leutton, *Transcript of Evidence*, 20 October 2005, pp. 86, 87.

The farmer will recognise it and say, 'This guy's Cotton Plus has orcharding in it. Let's get to work. He knows how to start a tractor. He knows how to use a fogger. He can do some spraying for us.'<sup>93</sup>

- 2.102 The Cotton Basics formula is seen as a model for other industries. Mr Graeme Harris, Secretary of the National Association of Agricultural Educators, regarded such branded packages as a way forward

It allows industry to recognise and be confident of the training that is provided because they see it is relevant and it is directly for their particular course. For the trainers it means that they also see relevance because they have links directly into particular industry rather than talking in generic terms.<sup>94</sup>

- 2.103 Mr Niel Jacobsen, Project Manager for the NSW Rural and Related Industries Skill Advisory Committee, agreed, recommending that:

...industry itself...develop programs based around the units of competency, possibly around industry accreditation programs, as, for instance, the cotton industry has done with Cotton Basics. It seemed to capture the imagination of the New South Wales Department of Education and Training, which funded some resources for the development of that. I think if we could link the formal training structures to industry accreditation rather than qualifications that might be a way to go as well.<sup>95</sup>

- 2.104 Other examples of industry bodies developing training packages themselves include AgForce in Queensland,<sup>96</sup> and the Australian Dairy Industry.<sup>97</sup> Indeed, as Mr Robert Poole, Deputy Chief Executive Officer and Policy Director, Australian Dairy Farmers Ltd, told the committee, the dairy industry in Victoria has taken substantial steps towards controlling its own training needs:

Since forwarding the submission, two profound things have happened to us in the dairy industry. We have completed a priority setting process which has reconfirmed skills development as the absolute fundamental of our success. I cannot stress it any more strongly in terms of the direction and the energies that we plan to put into skill development. It is the absolute foundation we believe of the future success of dairying. That is not just on farm; it

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93 Mr Ralph Leutton, *Transcript of Evidence*, 20 October 2005, p. 90.

94 Mr Graeme Harris, *Transcript of Evidence*, 9 March 2006, p. 42.

95 Mr Niel Jacobsen, *Transcript of Evidence*, 21 October 2005, p. 2.

96 Mrs Wendy Allen, *Transcript of Evidence*, 11 April 2006, p. 11.

97 Australian Dairy Farmers Ltd, Submission no. 72, p. 7.

is at the service provision level and also at the research level. The next most or equally profound thing that has happened is the fact that, with the withdrawal of the University of Melbourne from vocational education training here in Victoria, through the review that I described earlier, we made a decision as an industry to bid for those dairy hours. That constitutes 80 per cent of the hours in the state of Victoria, which is the main dairy state. We did that in a consortium through our service provider, Dairy Australia, and in a joint venture with GOTAFE – Goulburn Ovens TAFE. We were successful in that bid, and as a result, through GOTAFE and Dairy Australia, the dairy industry successfully now controls 80 per cent of the vocational hours in Victoria. It is something we are very happy about and it describes the lengths to which we are prepared to go to influence education and training directly in the dairy industry.<sup>98</sup>

2.105 Mr Poole explained:

We were not prepared to let dairy training disappear into the TAFE sector where we feel the outcomes of that were too funding driven, too input driven, not outcomes driven. We felt that the learning packages in the TAFE system were becoming less attractive to the dairy industry day by day. The decision of the University of Melbourne to withdraw was a once in a lifetime opportunity for us, and we went to great lengths to grab control of those hours.<sup>99</sup>

2.106 Another example of industry taking control of training is the Grains Industry Training Network (GITN) in Victoria, which acts as a broker, identifying training needs and those best able to fulfil them, and bringing them together. In its submission, GITN noted that it 'has worked tirelessly to gain cooperation between the service providers to ensure what is needed is provided. The outcomes from this are that the most appropriate trainers are accessed, programs are delivered that meet identified needs'.<sup>100</sup> GITN claimed a number of successes through this approach:

For example GITN introduced Farmer Updates into Victoria and developed a range of Workshops such as Financial Analysis, Succession Planning, Snail Management, Share Farming and Leasing. GITN was responsible for the first Company Directors Course to be delivered outside the metropolitan area. It initiated

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98 Mr Robert Poole, *Transcript of Evidence*, 14 November 2005, p. 69.

99 Mr Robert Poole, *Transcript of Evidence*, 14 November 2005, p. 69.

100 Grains Industry Training Network, Submission no. 42, p. 2.



and delivered the very successful Women in Grains project, which encouraged women to be involved in skill development at a level which addressed their needs. The success of this program was such [that] Grains Research and Development Corporation (GRDC) initiated a national program Partners in Grain based on the principles of Women in Grains.<sup>101</sup>

2.107 GITN also developed and delivered a Course in Header Operations, 'using VET Competencies, accessing state of the art equipment through an agreement with CASE IH and employing a person with considerable expertise to deliver the industry training'. The course was delivered under the auspices of a TAFE provider to ensure that students received a Statement of Attainment.<sup>102</sup> GITN attributed the success of the program to the following attributes:

- its development was driven by industry
- it was developed in response to an identified industry skill shortage
- it was put in place within six months
- it was a short course 240 hours in total covering on the job and off the job training
- it was aligned with the National Competencies
- it gave people an employable skill
- it used state of the art equipment and a person with industry expertise
- it was delivered at a time and in a method that suited the students and the trainer.<sup>103</sup>

2.108 In 2005, GITN also developed a Spray Management Program, to be delivered in various locations throughout Victoria.<sup>104</sup>

2.109 In her evidence before the committee, Ms Nickie Berrisford, Executive Officer of GITN, emphasised that the work of organising the training and funding for the training was undertaken by a committee consisting of growers working on a voluntary basis. The task of putting together a program such as the grain headers course was difficult and time consuming. Nonetheless, the results were worthwhile:

It was a huge amount of effort and I think if our producers had not been passionate about it we would have said, 'Let it go.' We got funding and last year we put 24 young people through that

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101 Grains Industry Training Network, Submission no. 42, pp. 1-2.

102 Grains Industry Training Network, Submission no. 42, p. 2.

103 Grains Industry Training Network, Submission no. 42, p. 3.

104 Grains Industry Training Network, Submission no. 42, p. 3.

program. Every one of them got employment. Yes, there are jobs and that was really positive. We have been through the same process this year, spending hours writing applications for funding, which we successfully got. We have put another 24 young people through, all of whom have been offered work. We have also broken the back; we have made a deal now for CASE IH to support that by allowing access into their facilities and access to their technical people. We have the combination of top quality machinery – they are using the latest machinery – the technical expertise and the expertise from the contractor, who can tell you all the stories about canola when it is a few inches high and how to set up the machine for that.

We had a member of CASE IH at our last meeting and he said, 'We can see you are not fly-by-nighters; what else can we do to help you?' We have also introduced a one-day program for experienced operators, farmers who are saying, 'Why are all these young people getting this wonderful knowledge? We want it as well.' We have just had three different workshops with 60 people.<sup>105</sup>

- 2.110 The really important thing, Ms Berrisford told the committee, is that this training is driven by the industry.<sup>106</sup>

## Committee Conclusions

- 2.111 The way several industry and producer groups have taken the initiative to develop and package courses directly relevant to their needs has impressed the committee. There is no doubt that such initiatives have real potential to address many of the perceived shortcomings in the current training framework. Cotton Basics is a model for what can be done when industry puts time and resources into identifying and addressing its own training requirements. The work of GITN also shows what can be achieved on a more local scale with limited resources. Both are an example of what industry *should* be doing.
- 2.112 Nonetheless, there is clearly a role for government in facilitating the work of industry to provide for its own training needs, by minimising the amount of bureaucracy surrounding rural skills training and providing funding assistance for industry initiatives. This would be particularly beneficial for smaller industries, such as the honeybee industry, where wide dispersion leads to a lack of critical mass of funds and personnel.

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105 Ms Nickie Berrisford, *Transcript of Evidence*, 15 November 2005, pp. 16–17.

106 Ms Nickie Berrisford, *Transcript of Evidence*, 15 November 2005, p. 18.

Government could also play a coordinating role to prevent different industry groups from 'reinventing the wheel' through lack of communication and coordination.

### **Recommendation 13**

- 2.113 **The committee recommends that the Australian Government develop a national strategy for facilitating industry initiatives in rural skills training, including a coordinating body and funding mechanism for industry initiatives, and the removal of bureaucratic impediments.**

## **Universities**

- 2.114 The importance of university level education to the future of the agricultural sector was emphasised in the submission of the Faculty of Natural Resources, Agriculture and Veterinary Science at the University of Queensland. It noted both the decline in the number of students enrolling in agriculture courses, the long-term impact of this trend, and the key role of the Australian Government in addressing this trend. The submission stated:

An ongoing supply of graduates in agriculture is vital to the long term viability, international competitiveness and sustainability of agriculture in production, environmental and socio-economic terms. The prolonged decline in undergraduate enrolments means that skills shortages and knowledge deficits will emerge as significant constraints to agricultural productivity in the very near future. It must be remembered that lead times to overcome such constraints will be lengthy.

Strong and active Agricultural Faculties that are well-equipped, well-resourced and able to respond to changing employment needs are essential to provide suitably skilled graduates from undergraduate and postgraduate programs. As the single largest source of funds that support University education in agriculture,

the Australian Government has a key role in optimising delivery of education programs.<sup>107</sup>

- 2.115 In its submission, the Department of Agricultural Sciences at La Trobe University identified both the decline in demand for agricultural courses and the impact of lower entrance scores on the quality of the student cohort. Paradoxically, this was occurring at a time of high demand for graduates in agricultural science.<sup>108</sup>
- 2.116 Factors identified as contributing to the decline in student numbers included:
- comparatively poor image of agriculture, and related industries such as forestry;
  - comparatively low starting and ongoing remuneration for graduates;
  - unwillingness to work in rural or remote locations and other factors relating to lifestyle; and
  - the belief that agriculture was a declining industry with poor career prospects.<sup>109</sup>
- 2.117 Declining enrolments were placing rural science faculties at universities under considerable stress, as lower student numbers contributed to lower funding, leading to loss of critical mass of staff and reduced curriculum options, placing the very existence of agriculture and forestry schools at risk. Dr Peter Sale, Associate Professor, Agricultural Science, La Trobe University, put the matter succinctly:

In our department or school, we were savagely cut in 1997 after a year of low intake. Really, it was touch and go whether we would survive. That year the music department was wiped out; we survived, and now we are slowly recovering. However, at La Trobe, the earth sciences department got the chop. Their numbers went down and they no longer exist. If this continues at La Trobe or wherever and the numbers go down, eventually we will get the chop.<sup>110</sup>

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107 Faculty of Natural Resources, Agriculture and Veterinary Science, University of Queensland, Submission no. 77, p. 12.

108 Department of Agricultural Sciences, La Trobe University, Submission no. 60, p. 2.

109 Faculty of Natural Resources, Agriculture and Veterinary Science, University of Queensland, Submission no. 77, p. 3; Department of Agricultural Sciences, La Trobe University, Submission no. 60, p. 2.

110 Dr Peter Sale, *Transcript of Evidence*, 14 November 2005, p. 50.

- 2.118 The need to address the problem of declining enrolments was forcefully presented to the committee by Mr Poole (Australian Dairy Farmers Ltd). He told the committee:

...one area of great concern for us is the degree level training in agriculture. We have a strong sense that it is drying up to a trickle. Those people who are developing those skills through degree level agricultural courses are going into higher paid areas like banking and management, and we feel there is a potential crisis coming – and I will use those words, because we have discussed this a lot at ADF – in terms of this next generation of service providers in areas like agronomy and business management and specialist agricultural service providers.<sup>111</sup>

- 2.119 Part of the solution to this problem lies in improving the image of agriculture generally, and in highlighting to potential students their career prospects as graduates (see Chapter 1). One way of doing this specific to the higher education sector is the provision of scholarships. In its submission, the Department of Agricultural Sciences at La Trobe University suggested:

Provision of attractive scholarships to assist students to undertake tertiary studies in areas of graduate demand would add significantly to the promotion strategy. Perhaps there might be a special allocation of scholarships to students from regional areas to enable them to attend university. Such strategies have been successful overseas and can compensate for the additional costs of supporting rural students in either regional or city based campuses.<sup>112</sup>

- 2.120 Dr John Taylor, Director of Rangelands Australia, concurred, arguing that ‘even partial scholarships would make a significant difference’, and that we should not underestimate the importance of financial assistance in attracting students from rural and regional areas.<sup>113</sup>

- 2.121 There is, however, another aspect to this equation, the oversupply of courses by institutions competing for a strictly limited student market. Professor Margaret Sedgley, Executive Dean, Faculty of the Sciences, University of New England, told the committee:

A review came out about 12 years ago which suggested that Australia needed to rationalise the number of agriculture faculties

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111 Mr Robert Poole, *Transcript of Evidence*, 14 November 2005, p. 72.

112 Department of Agricultural Sciences, La Trobe University, Submission no. 60, p. 7.

113 Dr John Taylor, *Transcript of Evidence*, 10 April 2006, p. 2.

across the country. That was based on the numbers required by the industry and, of course, the relationship between critical mass of teaching facilities, academic staff and so on in relation to the numbers of students required by the industry. I think there is no doubt that that finding was correct in view of the situation that pertained then. In fact, what happened, as you are probably aware, was that there was a proliferation of agriculture courses across the country. What is happening now is very interesting in that there is, as you pointed out, a decline in the number. To put it quite bluntly, this is economic reality. Because of the nature of our funding, we need to have a critical mass of students to support our academic staff. Frankly, in the area of agriculture, that is not possible across the spectrum of tertiary institutions that we have in Australia.<sup>114</sup>

2.122 According to Professor Sedgley:

I think we have to face up to the fact that we are going to have to specialise. We will have to have a few sites which are particularly strong. This of course means a mind shift with regard to our student body. Australian students traditionally tend not to move for their tertiary education. I think this is something which will have to change. Increasingly, it is having to change because of the shortage of faculties across the country.<sup>115</sup>

2.123 In evidence before the committee, Professor Roger Swift, Executive Dean, Faculty of Natural Resources, Agriculture and Veterinary Science, University of Queensland, argued for strong action from the Australian Government to concentrate the agricultural resources of the university sector into a few key institutions:

We understand there are lots of problems here, and you will get down to issues about Central Queensland University or Southern Cross University and, 'We're an independent organisation; we can do what we want.' I would start from the point that there is a certain number of students doing agriculture. That brings with them a certain amount of money. What is the best way to use that, if you look at the model in that way? The best way is to get really good, well-resources faculties, with a breadth of disciplines and several people in those disciplines. It does a disservice to those students to teach 10 or 20 with two people who know a little bit about something and not much about all the rest. I think that is not

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114 Prof. Margaret Sedgley, *Transcript of Evidence*, 10 March 2006, p. 3.

115 Prof. Margaret Sedgley, *Transcript of Evidence*, 10 March 2006, pp. 3-4.

the way to go. It would mean actively saying, 'We will not be funding you to do agriculture in this institution.' Whether an institution then wishes to continue with its own money, that is up to them. They would be foolish, but they might. That is typically the way that the UK operated: 'You can do as much geology as you want; you won't get any money from the university funding council.' It would have to be quite brutal in some areas –<sup>116</sup>

- 2.124 Professor Richard Williams, Professor in Horticulture, School of Agronomy and Horticulture, University of Queensland, emphasised that this would not necessarily mean concentrating all the facilities involved in agriculture at the tertiary level into a few select campuses. Rather he noted that there would be increased specialisation and interconnectivity between campuses and institutions:

We are not really going back to what we had a decade to 20 years ago; there are two important differences in what we see. Twenty years ago you had a smaller number of institutions each doing their own thing and trying to do everything. We would not see that in this model. First, they would be a network working together in terms of teaching and using the technology et cetera. Secondly, there would be a fair degree of specialisation. Specialisation in terms of teaching becomes possible now because of the technology.<sup>117</sup>

- 2.125 Professor Sedgley also promoted the concepts of partnerships between universities in the teaching of courses, highlighting the University of New England's close association with the University of Newcastle. She also described the development of curriculum material in conjunction with the Australian Sheep Industry Cooperative Research Centre, potentially providing course materials to any other agriculture faculty in Australia.<sup>118</sup>

- 2.126 Nonetheless, Professor Swift emphasised that the selection of the hub and spokes of this decentralised model needed to be determined by government and a fairly ruthless process followed if it was to succeed:

You take out certain groups of them, people who are not performing or are not worth funding. You are simply brutal and say, 'You stop, you are the centre, and you and you can be spokes

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116 Prof. Roger Swift, *Transcript of Evidence*, 24 May 2006, p. 5.

117 Prof. Richard Williams, *Transcript of Evidence*, 24 May 2006, p. 7.

118 Prof. Margaret Sedgley, *Transcript of Evidence*, 10 March 2006, pp. 4-5.

of the centre.' That will cause a lot of upset, but if we are not prepared to take it on, we will not go forward.<sup>119</sup>

- 2.127 Likewise, Mr Geoffrey Thomas, President, South Australian Division, Australian Institute of Agricultural Science and Technology, urged that the rationalisation of agricultural education take place at government direction:

Politically, there are a lot more brownie points, I can tell you, in taking a proactive stance on this one and providing some direction than there are in saying, 'Let nature take its course.' I believe that letting nature take its course will be a disaster. Many of the faculties will disappear. They will disappear for all the wrong reasons and we will slowly end up with major gaps in the service provision.<sup>120</sup>

## Committee Conclusions

- 2.128 It is evident to the committee that there needs to be a reinvigoration of forestry and agricultural science in Australian universities. Firstly, a strategy needs to be put in place to encourage undergraduate and post graduate study in agriculture and forestry. One mechanism could be to introduce a range of scholarships for students undertaking agriculture and forestry courses. Another mechanism is simply to exempt such courses from the Higher Education Contribution Scheme (HECS), in recognition of the important contribution of agriculture and forestry to the national economy.
- 2.129 Secondly, there needs to be a concentration of resources in a few select institutions. The Government must in effect 'pick winners' and then resource them to provide a high standard of education in agriculture and forestry. The funding must be provided regardless of fluctuations in student numbers, and resources must be maintained to ensure quality of outcomes. This will no doubt cause substantial pain during the period of adjustment, as institutions lose funding and courses are closed. The result will be a small number of highly effective institutions, capable of attracting students from around the world.

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119 Prof. Roger Swift, *Transcript of Evidence*, 24 May 2006, p. 7.

120 Mr Geoffrey Thomas, *Transcript of Evidence*, 31 May 2006, pp. 5-6.



## Recommendation 14

- 2.130 **The committee recommends that the Australian Government review higher education in agriculture and forestry, with a view to:**
- **Increasing student numbers through scholarships and/or HECS exemptions;**
  - **Rationalising the number of institutions providing courses in agriculture and forestry, and facilitating inter-campus cooperation and coordination; and**
  - **Increasing the overall level of funding for courses in agriculture and forestry, and placing it on a sustained basis.**

## Articulation from VET to University

- 2.131 A significant issue identified in the evidence presented to the committee was the problematic pathway between VET and university. In its submission, the Rural Training Council of Australia NSW noted the erosion of access between the two levels of education:

It is widely acknowledged that where pathways from vocational education to university do exist, these are being significantly eroded. It appears that the primary driver for reducing the number of course exemptions in degree programs is the reduction in funding that the university receives for that student.<sup>121</sup>

- 2.132 In its submission, the Tasmanian Government identified the need for 'greater flexibility within Universities towards the recognition of VET qualifications and other relevant experience'.<sup>122</sup> The DEST submission noted that much of the articulation between VET and universities is based on agreements made between institutions at a local level, and that currently 'many such agreements exist between institutions and there is evidence of increasing formal articulation from VET to higher

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121 Rural Training Council of Australia NSW, Submission no. 62, p. 2.

122 Government of Tasmania, Submission no. 96, p. 2.

education'.<sup>123</sup> However, the University of Queensland identified some significant barriers to defining pathways between VET and university:

There needs to be more interaction between the VET and University sectors to improve the opportunity for articulation from VET to University programs while maintaining the quality and academic integrity of University programs. There is a significant problem of mapping VET sector courses and competencies onto University requirements to show equivalence of learning outcomes leading to credit for University courses. The profusion of skills modules, units of competencies and the like with multiple combinations that can be taken in the VET sector mean that establishment of credit arrangements for articulation to University programs is difficult. The University of Queensland had formal arrangements with the Agricultural Colleges of Queensland. Changes in the Agricultural Colleges curricula mean that these arrangements are no longer tenable.<sup>124</sup>

2.133 As a response, the University of Queensland suggested:

A comprehensive National data base of academic and skills outcomes from the VET sector may help Universities assess articulation credit. An option could include an annual review, and in Queensland could be achieved by an annual meeting of the University, TAFE and AACC to review arrangements.<sup>125</sup>

2.134 Addressing the same issue from the perspective of the VET sector, Mr Ross Murray (Australian Agricultural College Corporation) acknowledged the problems associated with the incompatibility of VET assessment and university entry requirements, and the need to establish effective mechanisms through which articulation between education sectors could be achieved.<sup>126</sup> The problem is, however, that education at school, VET and university levels are aimed at fundamentally different outcomes assessed according to fundamentally different criteria. As Mr McKay (Australian Agricultural College Corporation) told the committee:

If you look at a high school certificate, it basically says that it ought to be the entry level to an undergraduate degree, a bachelor's degree. It is the entry level to a diploma degree in the

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123 DEST, Submission no. 94, p. 28.

124 Faculty of Natural Resources, Agriculture and Veterinary Science, University of Queensland, Submission no. 77, p. 9.

125 Faculty of Natural Resources, Agriculture and Veterinary Science, University of Queensland, Submission no. 77, p. 9.

126 Mr Ross Murray, *Transcript of Evidence*, 11 April 2006, pp. 50-1.

higher education sector. It is the entry level to a diploma in the vocational education sector, and because a diploma in the educational sector sits above a certificate IV there is a reverse assumption that somehow or other a high school certificate should therefore be equivalent to a certificate IV. When you are looking at those very practical skill based levels of the certificate III, which is supposedly equivalent to an apprenticeship, you have a situation where you are saying that a high school person who has done no skills training in this area somehow has equivalent qualifications to an apprentice who has done four years of skills training in their particular area. You are not comparing apples with apples.

If you try to put VET sector training back into schools and then do this reverse assessment, you will come up with the wrong answer. We have this difficulty all the time within the agriculture sector, which is very much manual skills based. To get even a certificate III level being completed in high school is very difficult to achieve because they just cannot get the practical experience to give them the skills that are necessary for that certificate III qualification. So it really highlights the fact that it is not comparing apples with apples and that there is a need to identify what it is we are achieving in each of those areas, what the skill sets are, what the knowledge bases are and then how you build that bridge across to this other system which is trying to create some other type of outcome.<sup>127</sup>

- 2.135 Both Mr McKay and Mr Murray were confident that the capacity was there to build bridges between the sectors. Indeed, Mr Murray emphasised that the Australian Agricultural College Corporation was already working to achieve that outcome.<sup>128</sup>

## Committee Conclusions

- 2.136 In the committee's view, it is essential that mechanisms exist to allow for easy and effective articulation of students from VET to university. This is particularly important in rural industries where inevitably a significant proportion of university students will be drawn from the VET sector. While acknowledging the existence of effective local arrangements, it is

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127 Mr Malcolm McKay, *Transcript of Evidence*, 11 April 2006, p. 57.

128 Messrs Ross Murray & Malcolm McKay, *Transcript of Evidence*, 11 April 2006, p. 57.

clear that the process of articulation needs to be more widespread and consistent, capable of being conducted on a national basis.

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**Recommendation 15**

- 2.137 **The committee recommends that the Australian Government, in conjunction with State and Territory Governments, universities and the VET sector, develop consistent and comprehensive pathways for the articulation of VET to university in rural skills training and education.**

## The Regulatory Framework for VET

- 3.1 Vocational Education and Training in the rural sector is provided within the framework of Rural Industry Training Packages (RTPs). Development and review of RTPs is primarily the responsibility of the Agri-Food Industry Skills Council, formed and managed under the auspices of the Commonwealth Department of Education, Science and Training.
- 3.2 RTPs conform to the Australian Qualifications Framework (AQF), a unified system of national qualifications for schools, VET and universities. The range of qualifications applying to VET under AQF include Certificates I-IV, covering basic vocational skills to more advanced trade skills; and Diplomas and Advanced Diplomas, designed to include high level trade skills and a level of subject knowledge allowing independent operation.
- 3.3 Providers of VET must be Registered Training Organisations (RTOs), and abide by the provisions of the Australian Quality Training Framework (AQTF), which governs assessment, teacher accreditation and auditing standards within the VET sector. AQTF requires RTOs to operate within AQF.
- 3.4 There are currently six RTPs, covering:
  - Rural Production;
  - Australian Meat Industry;
  - Animal Care and Management;
  - Conservation and Land Management;
  - Racing Industry; and

- Sugar Milling.<sup>1</sup>
- 3.5 The Rural Production Training Package – RTE03 – covers a range of subject areas directly related to rural production, including:
- Beef Cattle Production
  - Dairy
  - Grain Production
  - Pig Production
  - Poultry Production
  - Rural Business Management
  - Sheep/Wool Production
  - Sugar Cane Production
  - Cotton Production
  - Goat production
  - Horse Breeding
  - Rural Merchandising<sup>2</sup>
- 3.6 Qualifications in these areas range from Certificate I to Advanced Diploma. There are also a number of separate competencies covered by individual units. In addition, over sixty new units of competency are in the process of being finalised, providing a variety of new qualifications in sectors including alpacas, beekeeping, deer, emergency disease response, fertilisers, mushrooms, olives and organic production.<sup>3</sup>

## **Problems with the Regulatory Framework**

- 3.7 A range of significant problems with the regulatory framework underpinning VET was identified during the course of the inquiry. Evidence was received that the framework had made the VET sector too bureaucratic, inflexible and unresponsive to the needs of industry; and that providers were responding to the requirements of the system rather than the needs of industry, or were simply guided by their own profit or
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1 DEST, Submission no. 94, p. 73, Appendix H.

2 DEST, Submission no. 94, p. 73, Appendix H.

3 Rural Skills Australia, Submission no. 71, p. 3 and Attachment A.

survival. The compliance and audit requirements within the framework were widely regarded as burdensome, but at the same time a poor guarantee of quality assurance; while the qualification requirements for teachers placed unnecessary and unproductive limitations upon who could and could not provide training. The evidence also indicated that the emphasis on qualifications within the framework was being pursued at the expense of usable skills; while the use of generic competencies was undermining the effectiveness of training packages and producing poor outcomes.

- 3.8 The result was a focus on process rather than outcomes, on achieving qualifications rather than imparting skills, on the needs of the training providers rather than those receiving the training and those ultimately demanding the skills – the employers. Mr Leutton (Cotton Australia) told the committee:

...while we have this very detailed training structure in this country, we have lost total sight of the client for that – the client being the employer. I believe that right now we have an alphabet soup of jargon that is confusing the client, the employer on the farm, to the point where he does not know anything about training, does not understand training and just goes and finds what he can where he can – or where she can.

As Cotton Australia a couple of years ago we got quite concerned with this because we were trying to match what was required of us by the bureaucratic agenda and not delivering the numbers, and we could not work out why this was the case.<sup>4</sup>

- 3.9 Mr Leutton noted that training had become package driven, rather than being driven by the needs of industry:

If you look at the packages we have got, like the conservation and land management package and some of the other packages around, we are so caught up in that package structure and in the jargon. The registered training organisations – the RTOs, the TAFEs and those structures – are so caught up with the package that if you walk up to them and...you say, 'I'd like to get this person trained in these things,' they will say: 'Oh, here's a package for that. The person has to go through this.' You lose sight straightaway.<sup>5</sup>

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4 Mr Ralph Leutton, *Transcript of Evidence*, 20 October 2005, p. 85.

5 Mr Ralph Leutton, *Transcript of Evidence*, 20 October 2005, p. 88.

- 3.10 Mr Harris (National Association of Agricultural Educators) explained that the bureaucratic nature of the regulatory framework was no better from an educators point of view:

...the paperwork warfare is enormous and escalating all the time. There is no provision of time in the staffing to schools to allow people to deal with that, so it has to come out of the supplementary staffing that schools might have, or it means that other subjects have to disappear or the teacher does it in their own time. In my case, I administer the operation of the training conducted by seven staff in primary industries at certificate II and III across a Board of Studies HSC subject in primary industries and two school developed courses in grain and beef. For that I get one hour per fortnight in that allocation, and it is not enough...

To be able to undertake the course, with the Australian Quality Training Framework it is my understanding that to be a trainer you have to have a qualification at the same level as you are teaching as well as have industry experience and the certificate IV workplace assessment, which was referred to in another submission. Each of those units has to be accredited externally, so you have to find another organisation which is registered to offer that certificate and those individual units. You then have to submit to a process where either you undertake the course on offer that they have for each unit or you apply for recognition of prior learning.

That requires a submission of evidence and an interview under an assessment scheme with, I think it is called, HORTUS, which is an acronym for various assessment methods. That requires a large amount of presentation of information. So not only do you have to have information for each unit of competency, you have to have information for the individual elements of competency within that unit and industry recognition. I had to assemble recognition from a number of primary producers for whom I had worked as well as the fact that I had coordinated the cropping program here at the school for some 23 or 24 years. It was rather demeaning to have to apply for recognition for something that you have been running above an AQF III level for a long time.<sup>6</sup>

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6 Mr Graeme Harris, *Transcript of Evidence*, 9 March 2006, pp. 44-5.



- 3.11 Mr Harris explained that this exercise in accreditation involved roughly 600 pages of documentation – ‘It was a large A4 box crammed to the top, and then we had to send supplementary material’.<sup>7</sup>
- 3.12 The result of this increasing bureaucratisation of VET was a loss of confidence in the system. In its submission, the Queensland Government noted that the ‘training and education needs of the agricultural sector appear to be diverging from the training and education provisions under the scope of the Australian Qualifications Framework (AQF)’. The consequence of that is that ‘the agricultural sector is seeking training, extension and advisory services that are not necessarily aligned to the AQF’. The submission noted that this situation was placing ‘an impost on training providers, research and development agencies and industry groups as they attempt to bridge the gap’.<sup>8</sup>
- 3.13 Mr Julian Breheny, Research Officer for the Western Australian Farmers Federation, also observed the increasing divergence between framework and training needs, the paradox that the most up-to-date training often fell outside the system of credentials.<sup>9</sup>
- 3.14 The Department of Primary Industries in NSW argued in its submission that ‘VET training is becoming more and more regulated and atomised resulting in much effort and resources going into recording minutiae, rather than in training students’. DPI believed that the ‘sanctions and systems that are now in place through AQTF are in many ways a disincentive for the application of accredited training across rural areas’.<sup>10</sup>
- 3.15 Finally, the Rural Training Council of Australia NSW (RTCA NSW) observed:
- The overarching bureaucracy established by the various State Training Authorities is extremely input oriented. The time spent by Registered Training Organisations (RTOs) meeting Australian Quality Training Framework (AQTF) requirements impacts on their ability to focus on developing and delivering effective, up-to-date training programs. System imposed difficulties include:
- The amount of paperwork required to change their scope of registration (add a new “course”)
  - Quality assurance (paper trail) requirements

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7 Mr Graeme Harris, *Transcript of Evidence*, 9 March 2006, p. 45.

8 Queensland Government, Submission no. 51, pp. 7–8.

9 Mr Julian Breheny, *Transcript of Evidence*, 20 July 2005, p. 7.

10 Department of Primary Industries NSW, Submission no. 91, p. 3.

- Variable accreditation requirements e.g. NSW TAFE is self accrediting whereas private RTOs and even the state school system must apply for accreditation through the regulatory body
- The additional burden placed on the school system by the respective bureaucracies is significant.<sup>11</sup>

3.16 In the committee's view, the weight of criticism and the variety of sources from which the criticism derives indicates that there are serious problems with the current regulatory regime surrounding VET in Australia. The nature of these problems and their impact in rural skills training will be examined below.

### A provider driven system

3.17 A major complaint against the current VET framework was that it allowed/forced RTOs to focus on their own needs rather than the needs of the client. Rural Skills Australia identified funding arrangements as the main impediment to the provision of training in rural skills. Its submission stated:

Undoubtedly the most significant impediment to greater rural industry participation in education and training, and a continuing major concern of industry is an ongoing reluctance of governments at all levels to acknowledge and commit the required additional resources to adequately service thin rural training markets across wide geographical areas. Many agencies/service providers looking to provide services in rural and remote locations often receive payments based on the costs of providing similar services in major regional centres or metropolitan areas.<sup>12</sup>

3.18 The consequence of these funding difficulties was that the provision of training services was biased against training in rural skills:

Increasingly there is a tendency for many service providers to meet the needs of local (town/city based) industries to satisfy contractual requirements, often at the expense of rural and remote client groups. This is clearly evident in the approaches adopted by some Job Network providers, New Apprenticeships Centres (NACs) and Registered Training Organisations (RTOs).<sup>13</sup>

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11 Rural Training Council of Australia NSW, Submission no. 62, p. 2.

12 Rural Skills Australia, Submission no. 71, p. 9.

13 Rural Skills Australia, Submission no. 71, p. 9.

- 3.19 As noted in the submission of the Nursery & Garden Industry Australia, it could also lead to inconsistency in the quality and standard of the training available:

The quality of training demonstrated by the National Training Package is not standard across the industry. A rural training provider can instruct a Certificate in Horticulture, only selecting the competencies it wants to teach, based on resources available. The skills requirement may not necessarily be the consideration. Alternatively a training provider in a metropolitan location (with access to greater resources) can elect to teach more comprehensive and resource-intensive competencies at the same attainment level.<sup>14</sup>

- 3.20 This difficulty in getting adequate funding to cover the higher costs of training in rural areas was also highlighted in the evidence of the Western Australian Farmers Federation, itself an RTO. Mr De Landgraftt (WAFarmers) explained:

One of the other main areas of difficulty as an RTO is that where we want to work, which is to deliver training into the work force – and that is where we are getting our demand from – we cannot get proper compensation for doing that. The structure of the payment for RTOs is based on student contact hours. If you have a classroom full of people and an establishment in town, you can get everyone in, keep them in one spot and deliver quite economically. If you are trying to deliver a certificate II to a young trainee out on somebody's farm at Salmon Gums, you will spend more time travelling to deliver that training than you will delivering the training. So the training does not get provided because we cannot afford to go out and do it.<sup>15</sup>

- 3.21 The same pressures confronted the public sector. In its submission, Primary Skills Victoria stated that:

The focus on balancing the budget can lead to public providers of TAFE becoming introspective and hence unresponsive. The annual focus is on committing or locking in all Student Contact Hours to predetermined usually full time programs rather than taking on the harder-to-deliver short courses.<sup>16</sup>

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14 Nursery & Garden Industry Australia, Submission no. 74, p. 3.

15 Mr Trevor De Landgraftt, *Transcript of Evidence*, 20 July 2005, pp. 2–3.

16 Primary Skills Victoria, Submission no. 101, p. 9.

- 3.22 According to Primary Skills Victoria, the funding system for VET was distorting outcomes:

Emphasis is placed on students completing the whole qualification because funding and the training package rules ordain this. Added to this there is also the tendency for administrations to enrol participants for the full quota of hours within the Purchasing Guide to take full benefit of the state government's funding model. This results in extended program length and as such is counterproductive since it is unattractive to young people who are seeking a pathway to employment in the agricultural sector. In addition this strategy is a disincentive to industry as a means of upgrading the skills of their existing workers. Flexibility in provision is also restricted because of the tendency for the public providers to concentrate on the full-time cohort at the expense of industry staff and owner/managers requiring service outside of normal trading hours.<sup>17</sup>

- 3.23 In its submission, the Northern Melbourne Institute of TAFE (NMIT) confirmed the bias in funding towards the 'new entrant/full qualification' cohort, as against existing workers in industry and older age cohorts seeking a career change. NMIT's submission stated that 'to be viable in the long term, an RTO must generally ensure the new entrant/full qualification cohort is well represented', and that 'NMIT is no exception to this requirement'.<sup>18</sup>

- 3.24 The funding pressures applied by government policy were exacerbated by two factors particularly affecting rural skills training – thin markets and the tyranny of distance – both of which contributed to costs and lowered returns. Primary Skills Victoria noted:

TAFE institutes, particularly those delivering to the rural sector are often faced with very thin training markets and receive no extra funding to compensate for this or the delivery of accredited short courses to part time students. Part-time delivery is recognised within the system as being far more expensive to conduct than training for full time students.<sup>19</sup>

- 3.25 Mr Wayne Cornish, Chair of Rural Skills Australia, also highlighted the problems facing RTOs:

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17 Primary Skills Victoria, Submission no. 101, p. 10.

18 Northern Melbourne Institute of TAFE, Submission no. 26, p. 2.

19 Primary Skills Victoria, Submission no. 101, p. 10.

One thing I can say quite clearly to you about RTO provision is that it suffers from that distance tyranny thing that I was talking about a while ago. If you are in a capital city or even close to one, or in a major or reasonable sized regional centre, you can usually get any amount of RTOs to perform tasks. When FarmBis courses, for instance, are being set up, they are specific courses. You need specialists in an area to undertake that activity. The closer you are to big regional or capital cities, the easier that task is. The further you go out, usually, the greater the need for the learning and the harder it is to get the RTO that will actually travel as a service provider and provide that level of facility within the community. It might only be half a dozen people requiring that upskilling. It might be business management or it could be anything. The further you get away, the greater the need in all areas – the greater the need for the training, the greater the need for the RTO and the greater the need for the people who work under the RTO framework.<sup>20</sup>

- 3.26 The problem of thin markets was further exacerbated by the impact of competition policy, which restricted the level of cooperation between public institutions operating in the same market. Primary Skills Victoria noted that where economies of scale may have been achieved through cooperation between institutions, this was not permitted. This contributed to criticism that training providers tended to offer broad qualifications rather than targeted training.<sup>21</sup> The problem with competition policy was also raised in the evidence of Mr Peter Berrisford. He told the committee:

The blocker is that you might need 16 in order to deliver to an actual class, but if you can only get eight and your competitor 20 miles down the road has another eight neither of you can do it and you are not allowed to talk about doing it together, whereas if you took away the problem of the competition policy you could talk about doing it together, get your cooperation going and achieve efficiency. It would be a much better situation. You would not lose from the point of view of safeguards because they would have to report on the fact that they ran this course for eight students. The way they did it was to work with another organisation who ran it for eight. They joined together and split the delivery.<sup>22</sup>

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20 Mr Wayne Cornish, *Transcript of Evidence*, 10 August 2005, p. 15.

21 Primary Skills Victoria, Submission no. 101, p. 10.

22 Mr Peter Berrisford, *Transcript of Evidence*, 15 November 2005, p. 26.

- 3.27 Aside from the difficulties imposed by the regulatory environment, RTOs also face increasing commercial pressures. This was also increasing the bias away from training in rural skills in rural and regional Australia. Mr Jolyon Burnett, CEO of the Irrigation Association of Australia (IAA), stated in evidence:

Clearly there is a lack of access to quality training in rural and regional Australia. One of the reasons is that, with the freeing up of the training industry and, if you like, the breaking of the monopoly of TAFEs – the opening up of training to registered private training organisations – there is a clear profit motive for these organisations. That is certainly not a criticism, but it means that they need a critical mass of activity, of students going through any courses that they provide, to make it viable for them to run a course. Rural Australia has increasingly fewer people across a very wide scope and the same is true of irrigation, so it has been very difficult for us to be able to work with RTOs...to get a critical mass for them to feel confident that they can run a course and make it commercially or economically viable for them.

Part of it is just the nature of it. The commercial RTOs that are operating throughout regional Australia are looking for high-volume courses to deliver. The higher the volume the better their financial outcome. The sorts of programs that we are looking at running are not high-volume. The sorts of courses that are doing well include the rural operations course. A lot of regional councils are putting their staff through that course because there are elements of occupational health and safety. It is a fairly broad course and a lot of their staff can go through and pick up a range of skills. That is an example of where it works well. But for much more specific courses, like the irrigation ones, we are finding that they are coming to us, they are registering, they are including these courses in their scopes, but they are not delivering, because they have no confidence that they can make it work.<sup>23</sup>

- 3.28 RTOs were selecting training tasks on the basis of profitability rather than social or economic utility:

The RTOs are getting very good at cherry-picking the incentives that are out there and tailoring a program that maximises the incentive but does not necessarily maximise the outcome. So you get urban based RTOs providing services to rural people, flying out to areas and...sucking up that incentive payment. It is all

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23 Mr Jolyon Burnett, *Transcript of Evidence*, 20 October 2005, p. 13.

about fitting what they are capable of in with where the incentives are, it is not about actually imparting skills and training these people.<sup>24</sup>

- 3.29 As part of this trend, Conservation Farmers Inc. noted in their submission an increasing move towards city-based training providers with little feel for the needs of rural clients:

Many of the Registered Training Organisation offices are city based and have little capability or capacity to understand the training needs of western rural businesses and so are unable to differentiate the value of the training or the quality of the program provider, or conversely, the inadequacy of a program and its provider. Many of these RTOs have excellent contacts in the city and are well versed in “accredited training” systems and their requirements. They are better able to access funding but do not always have the understanding of the rural clients. Effectively they can become overly focussed with “bums on seats” and less concerned about whether the client found the training has a productivity benefit. There is an assumption that accredited training must supply a productivity outcome. We would point out that this is indirect measurement and may not be true in all cases.<sup>25</sup>

- 3.30 The combined impact of all these pressures is that RTOs are often failing to deliver what is needed in rural industries. In its submission, CFI highlighted the experience of grain farmers who have had exposure to the VET sector: ‘they are disconcerted to discover the skill sets provided by TAFE and other RTOs are not what is required to operate effectively in the grain industry’.<sup>26</sup> The consequence of this disillusionment with VET is a trend for industries and rural communities to provide training for themselves (see chapter 2).

## Committee Conclusions

- 3.31 In the committee’s view, the principal cause of provider-driven RTOs is a funding regime that has not been designed to address the specific problems of delivering VET in rural skills. Funding is inadequate, in that it fails to address the high unit costs of rural skills training. The funding regime also fails to take into account fluctuations in student numbers over time. Moreover, there is no specific funding for rural skills training – rural

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24 Mr Jolyon Burnett, *Transcript of Evidence*, 20 October 2005, p. 21.

25 Conservation Farmers Inc., Submission no. 20, p. 2.

26 Conservation Farmers Inc., Submission no. 110, p. 1.

skills compete for funds with high volume/low cost alternatives, with the inevitable results.

- 3.32 The committee believes that training in rural skills is essential to the welfare of the Australian economy, that specific funding must be targeted at rural skills training free from the usual caveats of competition between courses and between institutions. This targeted funding must be provided on the assumption that rural training is inherently high cost and low volume, and will place burdens of time and travel upon providers not encountered in other types of training. Moreover, organisations must be free to act cooperatively to ensure that cost effective training can be delivered without compromising quality.

### **Recommendation 16**

- 3.33 **The committee recommends that the Australian Government, in conjunction with State and Territory Governments, provides funding for VET training in rural skills to provide:**
- **Funding targeted specifically at rural skills training;**
  - **A funding formula that takes into account the high cost/low volume nature of rural skills training; and**
  - **A relaxation of competition policy as applied to organisations providing rural skills training.**

## **Compliance and Audit**

- 3.34 In addition to the funding difficulties confronting VET providers, evidence was presented to the committee indicating that much of the attention of providers was focussed on negotiating the audit and compliance regimes under AQTF, a task which was doubly frustrating because the audit and compliance regimes were regarded as both burdensome and ineffectual. In its submission, the Winemakers' Federation of Australia stated:

Feedback indicates that the VET quality assurance processes are becoming increasingly onerous in their demands on RTO's and employers, but are not delivering better quality outcomes. This is primarily because the QA system is based on desk top/paper trail audits. Examples of compromises include:



- Considerable variation in the evidence requirements for assessment as competent;
- Considerable variation in the evidence requirements for recognition of current competence;
- RTO's using trainers/assessors who have no industry experience;
- A certificate for competence being mailed to a person who had only attended one class and had not completed any of the required assignments;
- Assessment not occurring "over time and a range of events to ensure that the candidate can consistently perform to the standards expected in the workplace";
- STA complaints resolution processes that have no provision for input from employers or industry associations, only from students and RTO's; and
- The grape and wine industry peak body for learning and skill development (Winetac) has not been approached for input into QA processes from any STA in the past 6 years.<sup>27</sup>

3.35 Reinforcing this point, Mr Michael Schaefer, of the Australian Agriculture Training Providers Network, told the committee:

...ANTA and now DEST have introduced a national system of compliance to the Australian Qualifications Training Framework, AQTF. This involves a series of regular and rigorous audits. The audits place significant time constraints on RTO delivery teams but still do not directly assess the quality, relevance or methodology of actual teaching and assessment. More and more now we are finding that RTOs are bogged down with compliance driven activities rather than outcome driven activities – that is, educational outcomes where we are achieving quality skills and training with our participants – which therefore inhibits teacher effectiveness.<sup>28</sup>

3.36 Much of this burden was focused on procedural minutiae rather than educational outcomes:

We have situations where, under the AQTF, we have extraordinary requirements. For instance, where people are handing out materials to students – whether it is information about the subject or an excursion, whatever – pages have to be numbered, version controls, dates, all sorts of things like that. Ironically, the audits do not even audit the currency of the

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27 Winemakers' Federation of Australia, Submission no. 37, p. 15.

28 Mr Michael Schaefer, *Transcript of Evidence*, 14 November 2005, p. 81.

information; they audit whether we have a date on the bottom and the name of the person. The focus on quality of delivery and the materials being used for that delivery to support the delivery, or even 360-degree feedback audit where you would actually interview students or employers of those students to see how good they are, those things seem to be completely left out of the audit.<sup>29</sup>

- 3.37 Mr Keith Mutton, a TAFE teacher from NSW, argued that in fact all we are doing is auditing the paperwork to see it is filled out correctly, noting that 'it is becoming more and more prescriptive and tight that way, but skills-wise it is abysmal':

Organisations get audited all the time. What they are being audited for is whether they have ticked that box; whether their assessment is valid. What is not audited to any great extent is this: the auditors do not go onto the job and say to Freddie Nerks there, 'Freddie, you have been assessed that you can actually operate a chainsaw. Could you just pick that up and do a cross cut on that log for me?'<sup>30</sup>

- 3.38 Similar concerns were raised in the Queensland Government's submission, where the view was expressed that current performance indicators were producing undesirable outcomes – training directed at fulfilling performance criteria rather than producing meaningful results. The submission stated:

Performance indicators currently used, principally Annual Hours Curriculum (AHC), provide too crude a measure of performance to be meaningful. AHC's simply measure output, and the simplistic assumption that "more is better" may well be driving behaviours that are undesirable – namely, training for the sake of training.<sup>31</sup>

- 3.39 Mr Schaefer recommended a new audit process focused on outcomes rather than inputs:

A recommended strategy for this would be, first, that DEST be encouraged to direct the state agencies to adopt audit procedures which relate to the quality and continuous improvement of actual delivery and assessment – this is what the recipients of training would want rather than a paper trail; and, second, that networks

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29 Mr Michael Schaefer, *Transcript of Evidence*, 14 November 2005, p. 82.

30 Mr Keith Mutton, *Transcript of Evidence*, 9 March 2006, p. 37.

31 Queensland Government, Submission no. 51, p. 12.

such as the AATPN or end users be consulted in the construction of a more appropriate audit process.<sup>32</sup>

- 3.40 In response to these concerns, representatives of DEST informed the committee that governments were aware of the concerns about the compliance and audit procedures, and that these procedures were currently under review by COAG.<sup>33</sup>

## Committee Conclusions

- 3.41 The committee is gratified that this problem has been acknowledged by governments and is being addressed. The current regime is clearly distorting the priorities of RTOs and soaking up time and resources for little apparent result. Audits must focus upon training outcomes. Compliance procedures must allow training providers to focus upon providing training rather than completing paperwork. Some form of industry consultation is required in establishing a new regime, and mechanisms should be put in place for periodic review of compliance and audit procedures.

## AQTF and teachers

- 3.42 Another serious issue confronting the management of the regulatory framework is its direct impact on teaching. The AQTF specifically requires minimum qualifications in skill areas and formal training/teaching qualifications. As Mr Hamill (RIST) explained to the committee:

Under the Australian Quality Training Framework, which we operate under, they must have a certificate IV in workplace assessment training and they must be skilled. For instance, if we are getting them to deliver pasture, they must have educational qualifications, and we mainly insist on a degree level in that field. So they have had tertiary education in that specific field. If someone was a vet and we wanted them to deliver pasture, we could not do it. They could deliver animal health, but they could not deliver pasture. It is a pretty strict requirement of the Australian Quality Training Framework that you have to comply with and the resources back this up.<sup>34</sup>

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32 Mr Michael Schaefer, *Transcript of Evidence*, 14 November 2005, p. 81.

33 Ms Rebecca Cross, DEST, *Transcript of Evidence*, 16 August 2006, p. 16.

34 Mr Bill Hamill, *Transcript of Evidence*, 8 February 2006, p. 9.

- 3.43 In evidence before the committee, DAFF defended these stringent requirements as a guarantee of quality.<sup>35</sup> Yet, the result for rural industries is that those with skills to impart do not necessarily have qualifications, whereas those with qualifications do not necessarily have skills to impart. According to Mr Hamill, the consequences are less than optimal from the perspective of training outcomes:

We would like to have some of the progressive farmers as our deliverers and we look for them. The issue that we will face as a provider of training because of our delivery model is the new certificate IV and workplace assessment. Certificate IV in workplace assessment training was revamped in December. It finished in December and there is a new one coming out which is nearly at a diploma level. It is a lot more difficult to get. Under AQTF you must have that to deliver training. That is one of the obstacles. I do not think it should be done away with, because you need that. People who are delivering accredited training need it. But it is going to be an obstacle for us in getting those sorts of people. They will say, 'Look, I'm running my farm and I'm doing it really successfully,' and we would love to get them. But they may say, 'I have to spend six months getting this certificate IV and then I mightn't have time to deliver.' So there is an obstacle there, but we would like to have them because they are the people who relate better to farmers.

**I would rather get someone who has a lot of experience and train them in education than get an educationalist and try to train them in agriculture. That is the way we work. We will bend over backwards if we have someone who has practical, hands-on experience and can talk to and relate to farmers. We will work on the education side. We will work on the administration and the theory and all of that stuff. We can help them there. But you cannot get an educationalist and try to teach them agriculture.**<sup>36</sup>

- 3.44 In evidence before the committee, Mr Richard Belfield, an experienced rural earthmoving and civil construction operator, workplace trainer, and industry journalist, made a similar point, stating:

There has to be a practical as well as a theoretical side to these people, because we are demanding so much of them. I think that we do need formal training. Then it is a bit like the chicken and the

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35 Mr Ian Thompson, DAFF, *Transcript of Evidence*, 9 August 2006, p. 10.

36 Mr Bill Hamill, *Transcript of Evidence*, 8 February 2006, p. 11. Emphasis added.

egg: where are our trainers going to come from? We do not have any.<sup>37</sup>

- 3.45 Several examples of the obstacles facing RTOs seeking accreditation were put to the committee. Mr De Landgraftt (WAFarmers) described his organisation's experience with meeting the requirements to become an RTO:

Yes, we are a registered training organisation. We originally failed the audit and now we are having to correct those areas. I will give you an instance of what happens. Right from the start of the process of inducting and employing a trainer out in the field, you have a mountain of paperwork, competencies and areas that you have to satisfy. As an RTO, one of the areas that we fell down on was, for instance, demonstrating that the people we had training for us were trained and were able to do the job. Whilst we thought it was fairly basic, having seen their references and qualifications and knowing that they were training within the system when we put them on, we failed to demonstrate that we had thoroughly checked these people out. We did not demonstrate that we had sighted, say, the references and we had not documented the fact that we had checked the references. Because we did not document that we had checked or have a process to double-check the system, the fact that we knew, because we were in the industry, that they were out there training and giving satisfactory results was not enough. That was not what our industry was used to; it was something quite foreign. So I can understand why an RTO struggles to get going and why ordinary people who are not heavily resourced and not in the industry have major barriers in becoming trainers.<sup>38</sup>

- 3.46 Mr Jacobsen (NSW Rural and Related Industries Skill Advisory Committee) highlighted the experience of the Farrer Memorial Agricultural High School:

...they were trying to increase their scope to deliver – I think it was – grains and beef at certificate III level at school. In the process to have the teachers reaccredited, they had to have their qualifications recognised again at certificate III level, even though most of them have an agriculture degree, run their own businesses on the side or are still involved in the family farm. Quite clearly they are able to demonstrate to anyone who goes there that they

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37 Mr Richard Belfield, *Transcript of Evidence*, 10 March 2006, p. 34.

38 Mr Trevor De Landgraftt, *Transcript of Evidence*, 20 July 2005, p. 2.

are running a successful enterprise, in that they have a breeding program and they sell stock from there. Yet they had to go through this bureaucratic process to satisfy this certificate III requirement. To me, that was very costly for the school and very time consuming. And from all reports the regulatory body, VETAB, asked for some information and then kept coming back to them for more information, so it seems as though they did not really know what they needed either. It was a bit of a concern for us.<sup>39</sup>

- 3.47 The potential consequences for VET were highlighted by Mrs Yvon Wigley, Executive Officer of the Queensland Rural Industry Training Council (QRITC) – a reduction in the number of providers and a gradual diminution of expertise:

Quite often you might say that the ATQF standard says that you have to have this and you have to have that and, even though there might be a 'but', it is not always easy to meet that. In the rural industry is it better to have a highly qualified person delivering something in a theoretical way than to have someone developing the work skills for us? Gradually, what we have noticed in Queensland, is that our RTOs have dwindled in number. We have a smaller number each year of RTOs who are able to meet all those guidelines. Surprisingly enough, in the research we have done, we have found that, like farmers, training providers are getting older and they are not being replaced by anyone younger. A lot of their time is spent on administrative work, particularly if they have what we call a user choice contract. A lot of their time is spent on that when they could be out delivering in better circumstances than they do.<sup>40</sup>

- 3.48 In his evidence, Mr Belfield identified remuneration as a critical issue in attracting experienced industry operators into training:

There are people out there in the industry who, with a bit of help, could be turned into trainers but your first question is: what are we going to pay them? If you are going to offer them \$35,000 a year, you know what is going to happen, don't you? We are not going to get them. The first thing is that they are going to have to be paid a lot more money than what I think the system will offer them.<sup>41</sup>

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39 Mr Niel Jacobsen, *Transcript of Evidence*, 21 October 2005, p. 3.

40 Mrs Yvon Wigley, *Transcript of Evidence*, 10 April 2006, p. 16.

41 Mr Richard Belfield, *Transcript of Evidence*, 10 March 2006, pp. 35–6.

- 3.49 At the end of the day, as Mr Keith Mutton put it: 'No-one is going to do part-time teaching for \$59 an hour one night a week for 10 weeks if they have to go to a six-month AQF IV training course to get it.'<sup>42</sup>

## Committee Conclusions

- 3.50 The committee is of the view that a more flexible approach to training qualifications needs to be taken in rural skills training. Quite often the best people to provide training lack formal qualifications. Others have qualifications, but not necessarily those required under AQTF. The verification and compliance process acts as a positive disincentive to potential training providers.
- 3.51 There needs to be a mechanism by which accredited training providers can access the expertise of non-accredited people. One solution is to allow formally qualified teachers to operate in conjunction with instructors whose skills are known but not formally recognised. Another would be to allow accredited training providers to certify people as competent to instruct on particular courses. Once again, the focus should be on outcomes.

### Recommendation 17

- 3.52 **The committee recommends that the Australian Government revise the Australian Quality Training Framework in order to allow greater flexibility in the appointment and accreditation of teachers and instructors in rural skills training courses, including appropriate prior recognition of skills and competencies.**

## Inflexible and Unresponsive

- 3.53 Another problem identified in evidence presented to the committee was the lack of flexibility and responsiveness in the training packages and the system for reviewing those training packages. In its submission, the Queensland Government noted that 'despite significant industry input into the development of training packages, there is considerable

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42 Mr Keith Mutton, *Transcript of Evidence*, 9 March 2006, p. 34.

feedback from industry concerned with the inflexibility of packaging rules'.<sup>43</sup>

- 3.54 This problem has significant implications for the ability of the VET sector to respond to changing needs. In its submission, the Northern Melbourne Institute of TAFE stated:

Training packages do not appear to be able to respond quickly to changed needs. While it is acknowledged that some changes take place with great speed it is nevertheless the case that the ANTA processes for continuous improvement of training packages has not yet resulted in any category 1 or category 2 changes for any of the training packages servicing the rural industries over a period of two years. The process appears both too slow and too cumbersome. Work on the 14 new sectors commenced by RTCA [Rural Training Council of Australia] in the period following the release of RTE03 Rural Production is still not complete. It appears in our view that the continuation of the core business of national industry training advisory bodies, which is the maintenance of training packages, has had limited support from the federal government in the change to Industry Skills Councils. RTOs rely on the outputs of national training advisory bodies to guide the training they do. A failure of the national training package to keep RTOs up to date with changes within the industries has serious ramifications for RTOs.<sup>44</sup>

- 3.55 The result, according to the Queensland Rural Industry Training Council, is that in order to keep up with current practices and technology, farmers were being forced to train themselves rather than rely on VET. Focussing on the uptake of precision farming, QRITC noted – 'They are driven by economic circumstances to convert to the technique and learn by trial and error because there are not sufficient formal training opportunities.'<sup>45</sup>

- 3.56 Mr Michael McCosker, a member of QRITC, highlighted the difficulties for industry in getting relevant and up-to-date training through VET:

We seem to be spending a lot of time putting out fires within our industry groups. To give you an idea of the technology that we have adopted over the last, let us say, five years in my enterprise we have changed our cattle breed, for example, to a Wagyu breed

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43 Queensland Government, Submission no. 51, p. 8.

44 Northern Melbourne Institute of TAFE, Submission no. 26, p. 7.

45 Queensland Rural Industry Training Council, Submission no. 28, p. 2.



to try to meet export demands. To do this we have had to adopt artificial breeding. We have had to do DNA testing with our herd and to learn new supplementary feeding techniques and that sort of thing to meet market demands.

With our cotton enterprise we have adopted genetic technology – Bollguard cotton and Roundup Ready cotton, for example. We have had lots and lots of changes in varieties of cotton and that sort of thing. We have had to change irrigation practices, because of the demands on us, and also for efficiencies economically. We have adopted techniques of improved fertilisation and that sort of thing with our farming techniques. We have adopted minimum tillage and stubble retention – all to improve our bottom line. We have adopted GPS technology, so we have two centimetre accuracy with our farming system so we can accurately place seed and also we can meet a lot of the NRM outcomes that we were just talking about.

All this has been put upon us in the last four or five years. Producers spend half their time trying to catch up on and learn all this new technology. The trouble is that we are not getting it through vocational training; we are getting it through getting out there and struggling and learning ourselves. The education network is just not working for us.<sup>46</sup>

- 3.57 Similar concerns were raised from the point of view of a training provider by Dr Peter Wylie of Horizon Rural Management. He noted that the amount of work involved in preparing courses inevitably rendered them obsolete before they were delivered:

I have an advanced diploma in rural business management course in 1½ filing cabinets. It is probably 3,000 or 4,000 pages. That is mostly done in my spare time, but it probably would have cost thousands and thousands of dollars. One of the problems is that by the time you have finished it, it is out of date. The colleges have a worse situation in that by the time they have finished their program it is probably five years out of date. There is a bit of a problem with the development of courses and accredited programs.<sup>47</sup>

- 3.58 In evidence before the committee, Mr Darren Bayley, Chair of the National Conservation and Land Management Training Providers

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46 Mr Michael McCosker, *Transcript of Evidence*, 10 April 2006, pp. 22–3.

47 Dr Peter Wylie, *Transcript of Evidence*, 11 April 2006, p. 6.

Network, proposed an abbreviated process for dealing with minor modifications to training packages, such as changes to or inclusion of individual competencies. He suggested that courses developed by training providers with industry backing get rapid accreditation, in 'six months or even 10 months':

We would support anything that would speed up the process of review and the making of minor modifications. The review of training packages involves two things. One is reviewing the whole training package for its currency and its value. There should also be another system separate from that which deals with minor modifications. If a training organisation says that there is an extra competency that they would like to include for certain reasons, and if they have industry backing, then that should be taken on board and put into the training package almost immediately or with minimal fuss rather than trying to link every minor modification with a larger process of review, which is very onerous and slow and means going out to all the states and territories and undertaking a lot of consultation. The process itself absorbs a lot of resources but we could do a lot to fast track improvements in the training package so we are more responsive to industry needs, and we would support anything that would move us in that direction.<sup>48</sup>

- 3.59 Of particular concern to several witnesses was the delay in implementing new training packages to fill perceived gaps in the current Rural Production Training Package – RTE03, developed under the auspices of the Australian National Training Authority (ANTA), and subsequently the responsibility of AFISC. Mr Andrew Coulthard, Operations Manager, Faculty of Earth Science, Northern Melbourne Institute of TAFE, told the committee:

One of the other issues is that there are a lot of sectors in primary industry that actually do not have a training package. The ostriches to a certain extent – but they are in a dilemma in that industry – and goats are covered. We are the only one delivering nationally what we call the Velvet Accreditation Scheme. We have been trying for a long time to get that program, so in the end in frustration we threw our hands up and the state of Victoria developed that program. All those deer farmers out there are harvesting velvet, which is a high-priced commodity at the moment, and we have developed the program and are doing that

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48 Mr Darren Bayley, *Transcript of Evidence*, 21 October 2005, p. 16.

nationally now. Apiary was another one: they actually listed 10 sectors for which they were going to write new training packages for two years ago, and we are still waiting on those.<sup>49</sup>

- 3.60 The representatives of Animal Health Australia were particularly concerned at the delay, for they were operating the new training package without formal accreditation. Dr Robert Keogh, Director of Programs with Animal Health Australia, said in evidence:

We started an involvement in the development of these emergency disease competencies with the Rural Training Council of Australia, which was then the responsible party. That was part of the RTE03 package that Lorna [Dr Lorna Citer, Training Services Manager, Animal Health Australia] mentioned. I was on the steering committee for that package. During the course of that, responsibility changed from the RTCA to the Agrifood Industry Skills Council. Both from an Animal Health Australia interest and as a member of the steering committee, the transition seemed to have gone quite smoothly. I recall that we completed the drafting of the package in the fourth quarter of 2004. So the package, as far as the steering committee and Animal Health Australia was concerned, was tied up and ready to be considered by whatever the next level was and endorsed from the first quarter of 2005.

Our disappointment and concern – but we do not know where it lies – is that 15 months later that course and those competencies have, as we understand it, yet to be formally accredited. That is a difficulty for us because, as Lorna has indicated, we are doing this training with people and we hope that one of the incentives is that they get an accredited competency out of it. Until the training is accredited, we are on the verge of a misrepresentation. Our frustration is with the fact that 15 months down the track that process has not been completed. We do not know when it will be but, as has been indicated here, the need for training goes on and we are flying a little bit blind.<sup>50</sup>

- 3.61 Dr Lorna Citer, Training Services Manager, Animal Health Australia, in her evidence, highlighted the wider training credibility issues surrounding such problems, and the need to resolve them:

We are partnering a registered training organisation. If I could just take up from what Dr Keogh said, we finished drafting in

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49 Mr Andrew Coulthard, *Transcript of Evidence*, 14 November 2005, pp. 30-1.

50 Dr Robert Keogh, *Transcript of Evidence*, 15 February 2006, pp. 8-9.

December 2004. We went through a public consultation and validation of the competency standards in March 2005 and, in fact, convened a meeting of our interested members to attend plus invited the public to a validation meeting in Canberra. Our understanding was that the competency standards would be progressed quite quickly to DEST. One of the challenges has been the move from RTCA to AFISC at the same time as we have had ANTA moving to DEST. But we are now advised that DEST has changed some requirements and that the draft competency standards, which we are working with as if they are endorsed, have now got to undergo some additional review. We do not believe the review will impact the actual content, because it is looking at the employability skills and we are not immediate post-secondary training. At the end of the day, we are working with an RTO and we are following all the processes required for people to get a qualification. The RTO, at some inconvenience to it, has agreed to delay the issuance of the qualifications until endorsement has occurred. I think you are right: to the doubters of competency based accredited training it adds fuel to their fire. We are trying to operate within a federally agreed national training framework.<sup>51</sup>

- 3.62 Ms Jane Brownbill, Senior Manager, AFISC, responded to the specific concerns of Animal Health Australia, stating:

That training package was part of a project that is nearly complete. It was part of a project where we were undertaking work for units of competency for 10 different sectors. It was one of the 10 sectors, with things like mushrooms, bees and goats – a lot of our emerging industries. There was a hold-up with getting those competencies endorsed, because we needed to ensure that the employability skills are embedded in the training package and the new competencies. We have just completed that work. We are hoping that training package will be with the National Quality Council by June, and ready for people to start using it by July.<sup>52</sup>

- 3.63 Ms Rebecca Cross, Group Manager, Industry Skills Development Group, DEST, responded to the same concerns in the following way:

I am not aware of there being any more delays than previously in terms of that endorsement process. There have been some delays in putting packages out to the system. That has been the result of

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51 Dr Lorna Citer, *Transcript of Evidence*, 15 February 2006, p. 9.

52 Ms Jane Brownbill, *Transcript of Evidence*, 29 March 2006, p. 7.

the transition from one organisation to a new organisation. Most of the delays are brought about by the fact that to get a national training package up we require it to be signed off by all states and territories, along with employers and unions. That process to get people with quite different interests to reach agreement can in some cases take longer than anyone would like. I know that it can be a lengthy process, but that is so that we can get views from all the relevant parties and make sure that those views are properly incorporated in the training package design. I am not specifically aware of it taking any longer than it used to, other than a few teething issues in putting packages out to the public, and those issues were simply transition issues in the function moving from one organisation to another.<sup>53</sup>

- 3.64 The broader problem of slow development and review times for RTPs was addressed in its evidence by AFISC. It is seeking to implement a more streamlined accreditation and review process – a continuous improvement model – to speed up the process. According to Ms Brownbill, this would ‘ensure that the validation and consultation processes are done more efficiently and effectively but also ensure that we can get training packages to Department of Education, Science and Training more quickly for updates so that we can stay in line with what the current industry needs are’.<sup>54</sup> She noted, however, that the ultimate success of the accreditation process depended on the actions of others as well:

I think, quite frankly, some pressure needs to be put on the process of endorsement through the Department of Education, Science and Training and the state training authorities, and then through to the National Quality Council. That is a three-month process. We are hoping that our continuous improvement model will streamline things at our end, but we also need to look at streamlining at the other end.<sup>55</sup>

- 3.65 There was also some concern expressed at the capacity of AFISC to carry out its role. In its submission, Australian Wool Innovation Ltd expressed the view that the ‘AgriFood Skills Council (AFSC) has unrealistic terms of reference which span over 140 different rural and related industry sectors, a scope of operations made all the more unrealistic by

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53 Ms Rebecca Cross, DEST, *Transcript of Evidence*, 16 August 2006, p. 12.

54 Ms Jane Brownbill, *Transcript of Evidence*, 29 March 2006, p. 7.

55 Ms Jane Brownbill, *Transcript of Evidence*, 29 March 2006, p. 10.

inadequate current levels of funding'.<sup>56</sup> Similarly, in her evidence before the committee, Ms Nickie Berrisford (GITN) stated:

I must admit I have some extreme concerns at the moment with the role that the Agrifoods Industry Skills Council has, the amount of industries that it has responsibility for and the number of people there. I was at an industry champions activity last week and there is such a small number of people trying to take on board huge industry issues. If you are trying to take on board information from so many industries it is a bit of a concern about where that might go.<sup>57</sup>

3.66 The evidence from AFISC as to their current funding and staffing levels indicates to the committee that the concerns of AFISC's critics are not entirely misplaced. AFISC CEO, Mr Arthur Blewitt, stated:

On the funding side, we are provided a basic budget by DEST. We regard it as pretty much a seed budget. We tried to get supplementary funds, and we get that from other government departments. For example, we just did some work for the Department of Agriculture, Fisheries and Forestry on food auditing. Our industries are not terribly good at funds for enterprises like ours. Critically, we certainly could do with more funds, but I suspect that the government is unlikely at the moment, in terms of the current model, to do that until we have demonstrated our worth and, importantly, delivered some goods, which we are in good shape to do...

The other thing is that Jane [Brownbill] and I spend far too much time on the road. We have something in the order of eight staff and funding arrangements that run out next June when our initial three-year term runs out. I have to tell you that attracting people in Canberra, a very well paid city with government jobs and big super, to our small companies is extremely difficult.

... Secondly, we have a 14-person board to service as well as standing committees and other processes. We struggle to keep that up. I suppose there is a particular emphasis on Jane and me to get to industry, to understand industry and to feed that back through and hope that the rest of the processes of governance – which are in good shape – run themselves. But there is enormous pressure in

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56 Australian Wool Innovation Ltd, Submission no. 73, p. 2.

57 Ms Nickie Berrisford, *Transcript of Evidence*, 15 November 2005, p. 21.

running a business, doing our core job – which we talked about today – and, critically, doing it within a fairly confined budget.<sup>58</sup>

## Committee Conclusions

- 3.67 It is evident to the committee that there are serious problems with the responsiveness and flexibility of rural skills training packages. There appears to be a bureaucratic culture of protecting the integrity of the framework which is actually undermining confidence in the system. Once again the committee must stress that the integrity of the system depends first and foremost on successful outcomes.
- 3.68 There is a clear need for greater responsiveness in the development of new competencies and the modification of existing ones. The committee agrees with the evidence presented that where packages are developed by accredited training providers with the collaboration and approval of industry that should be sufficient to fulfil the requirements of course accreditation. If problems are subsequently identified, the opportunity can be taken to review accreditation then.
- 3.69 The committee also observes that given its central role in the development and accreditation of training packages, AFISC appears to be seriously under-resourced. The committee is of the view that a significant increase in funding and staff is required in order to allow AFISC to effectively carry out its role.

### **Recommendation 18**

- 3.70 **The committee recommends that the Australian Government revise the Australian Quality Training Framework with a view to making the adoption of new training packages and competencies in rural skills faster and easier.**

### **Recommendation 19**

- 3.71 **The committee recommends that the Australian Government revise the funding of the Agri-Food Industry Skills Council with a view to increasing funding and staffing to a level commensurate with its role.**

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58 Mr Arthur Blewitt, *Transcript of Evidence*, 29 March 2006, p. 13.

## Qualifications v. Skills

- 3.72 Another problem identified with the regulatory framework was the emphasis on qualifications rather than skills. In its submission, the Rural Training Council of Australia NSW noted:

Most current training funding models require a full qualification outcome rather than a more flexible unit of competency funding strategy. This greatly limits the uptake of training and appears at odds with the User Choice principles under the ATQF. Also, these models do not address the well documented learning preference of rural industries. This creates a disadvantage for rural industries when compared to the level of public funding that is accessed by other industry groups.<sup>59</sup>

- 3.73 In their submissions, both RTCA NSW and NMIT observe that this model fails to take into account the preferred learning strategies of farmers and existing rural workers, being primarily directed at new entrants to training, and fails to take account of the seasonal and operation needs of the rural workforce. <sup>60</sup> Mr Schaefer (Australian Agriculture Training Providers Network) told the committee:

Consistent advice from industry is that the provision of short, just-in-time skill sets training to match shortages is required. That is, less focus on full qualifications and more focus on short courses matching to improving (a) profitability, (b) employability, (c) safety, and (d) legislative compliance, which obviously has big financial implications. Our recommended strategy would be that more appropriate funding models be applied to the provision of required short-course training.<sup>61</sup>

- 3.74 Mr McKay (Australian Agricultural College Corporation) also made the point that full qualifications were not meeting industry needs:

Trying to sell a qualification to many rural producers is not exactly their immediate need. Their immediate need is a set of skills for themselves or for their employees. There is great emphasis on whole qualifications, because whole qualifications are easily measured and they go onto the OECD tables and all those sorts of things. They are all very good outcomes that people should try to obtain. But in the short term if you cannot actually get them

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59 Rural Training Council of Australia NSW, Submission no. 62, p. 2.

60 Rural Training Council of Australia NSW, Submission no. 62, p. 4; Northern Melbourne Institute of TAFE, Submission no. 26, pp. 7-8.

61 Mr Michael Schaefer, *Transcript of Evidence*, 14 November 2005, p. 81.



started on a pathway you have actually had a negative effect, not a positive one.<sup>62</sup>

- 3.75 The problem facing training providers, however, was that they were locked into a funding model directed at qualifications. Professor Peter Gregg, Chief Scientist, Cotton Catchment Communities Cooperative Research Centre, explained:

The minimum we can now give is a diploma course, which is eight units, and many people in the cotton industry, being busy people, are saying, 'I don't want to sign up for such a long, protracted course.' On the other hand, we are getting quite a lot of people doing both the cotton certificate and the grain certificate, which is modelled on the cotton certificate, and coming out with qualifications relevant to both those industries. But, on the other hand, I think we are losing a lot of people. That is the feedback we are getting from students: a lot of people are being put off by the fact that they have to enrol in a course that is eight units.<sup>63</sup>

- 3.76 Over and over again, the need for greater flexibility in terms of skills and qualifications was emphasised in the evidence presented to the committee. Mr Murray (Australian Agricultural College Corporation) noted the absence of a close connection between qualifications and industry needs, and urged a focus on vocational outcomes rather than qualifications:

There are two issues here: the qualifications and individual competencies may not meet their organisational needs; and, if you try to deliver a full qualification to an employee, it may not meet his organisational roles. Very few workers in agriculture have the same job level expectations at all levels within one qualification in all areas. For instance, someone might be a financial manager and have nothing to do with the stock or whatever else, or they may be involved in the stock but not do the books or the farm management side. I believe we need to be able to supply the vocational outcomes initially to meet their direct and immediate needs and then use the other processes we are talking about by which we can take those individuals to, or encourage the employer to subsidise them in, the uptake of a full qualification.<sup>64</sup>

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62 Mr Malcolm McKay, *Transcript of Evidence*, 11 April 2006, p. 52.

63 Prof. Peter Gregg, *Transcript of Evidence*, 9 March 2006, pp. 20-1.

64 Mr Ross Murray, *Transcript of Evidence*, 11 April 2006, p. 54.

- 3.77 The solution, according to Mr McKay, was closer collaboration with industry within the context of a more flexible and user friendly framework:

We believe the way forward in the process should be to seek out with these regional industry type groups what are the skill sets that they need for their employees and to deliver those skill sets in terms of competencies which are actually part qualifications. Employers will support their employees to gain those competencies because they are immediately related to their enterprise needs at the time. A whole qualification contains a whole lot of competencies that they do not see the immediate need for in their enterprise, and therefore they do not have the same level of support for those activities.

We think we need a two-pronged approach. One is a set of skills that meets those industry needs and those enterprise needs which are focused on the employers. The RTOs like ourselves should then take on the responsibility of targeting those individuals who are part qualified and making quite clear to them the pathways they could take to fill in those gaps and get the qualification. It is a catchy-catchy process to get on board employers who will support the employees getting to a certain way along the qualification and to then switch the emphasis to the individual getting the qualification. At the moment all the emphasis is on the full qualification and trying to promote that end of the spectrum. It is somewhat counterproductive in lots of cases.<sup>65</sup>

- 3.78 The solution put to the committee was to focus on competencies – skills – rather than qualifications, allowing individuals and industries to ‘cherry pick’ from the range of available training packages those particular competencies that they regarded as relevant to them. Funding for training would follow the same model. In his evidence before the committee, Mr Jacobsen (NSW Rural and Related Industries Skill Advisory Committee) stated:

With regard to funding for training, I think the most significant alteration I would make to the system would be to fund training for rural industries on the basis of units of competency, as opposed to whole qualifications, because rural industries seem to like to cherry-pick from the training package the training they need. They are not particularly interested in the full qualification. That is what the training is based on at the moment. It is focused

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65 Mr Malcolm McKay, *Transcript of Evidence*, 11 April 2006, pp. 52–3.

on the old type of TAFE delivery where you turn up two days or two nights a week. That does not take into account production demands, work demands or seasonal variations. With regard to funding, that would be the big one.<sup>66</sup>

3.79 A number of submissions and witnesses supported this proposition. In its submission, RTCA NSW argued that ‘funding of RTOs should be based on the delivery of units of competency rather than a full qualification’.<sup>67</sup> In evidence before the committee, Mr Leutton (Cotton Australia) described what he called a ‘supermarket of competencies’ from which industries could create their own training packages relevant to their needs, citing the example of the cotton industry’s Cotton Basics package.<sup>68</sup>

3.80 Mr Harris (National Association of Agricultural Educators) also endorsed the competency approach for its flexibility, but warned against using it to boost bureaucratic targets:

Competency based training, where you mark students off, is a great idea. If they already have those competencies then you just tick them off and you move on to others. You are not locked into doing a two- or three-year apprenticeship. If you already know 1½ years worth of work and you can be marked off for it, mark it off. Then you can complete the rest of it in six months and go and do something else. I see some great advantages in competency based assessment, provided all parties are aware of what the level of competency is at which they have been assessed and as long as it is not a system which could be perverted because of requirements to get a certain amount of fodder over the wall.<sup>69</sup>

3.81 One problem identified with this approach is that even individual competencies can be too broad. In its submission, Primary Skills Victoria noted:

In examining the individual competencies of the RPTP one, *RTC2307A – Operate machinery and equipment* is a good example which illustrates some of the problems associated with the generic nature of many competencies. It covers the operation of all farm machinery. However, the skills required for driving a tractor with trailed attached equipment are completely different to those

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66 Mr Niel Jacobsen, *Transcript of Evidence*, 21 October 2005, p. 2.

67 Rural Training Council of Australia NSW, Submission no. 62, p. 6.

68 Mr Ralph Leutton, *Transcript of Evidence*, 20 October 2005, pp. 89, 86.

69 Mr Graeme Harris, *Transcript of Evidence*, 9 March 2006, pp. 48-9.

required for operating machinery such as harvesters and clearly need to be acquired separately. This is an example of generic competency delivery which does not allow adequate skills development for different equipment in different contexts.<sup>70</sup>

- 3.82 Similar concerns were raised in his submission by Mr Peter Berrisford, who argued that some competencies were far too long:

Research shows that as a general rule the length of the units of competency in the Rural Training Package are far too long to enable any easy packaging of them into the short sharp courses the industry is looking for...

The fact that a competency could be so complex that it is 260 hours long defies belief. I would recommend that as a general rule that 40 hours be the limit for any competency.<sup>71</sup>

- 3.83 He stated in evidence:

Within that rural training package, the idea is that qualifications are built up by doing competencies. Some of the competencies they describe are 260 hours long. That is not a competency; that is a whole course. Sewing a crop has all these activities you have to do that should be divided up into each one so that it is much easier and more flexible for providers to deliver and easier for students to package their qualification together. No-one will try it if it is 260 hours because it is too long – you cannot fit it in.<sup>72</sup>

## Committee Conclusions

- 3.84 The committee is in full agreement with the view that the focus in rural skills training should be on skills rather than qualifications. It notes that the response of industry to the focus on qualifications rather than skills under the current framework has been to design its own training packages to better fulfil its needs. Clearly, training packages need to be better aligned to industry needs, the focus should be on competencies rather than broader qualifications, and competencies should be broken down to make them more easily digested by the rural workforce. This will result in better targeted training without any diminution of quality.

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70 Primary Skills Victoria, Submission no. 101, p. 10.

71 Mr Peter Berrisford, Submission no. 54, pp. 10–11.

72 Mr Peter Berrisford, *Transcript of Evidence*, 15 November 2005, pp. 25–6.

**Recommendation 20**

3.85 **The committee recommends that the Australian Government, in conjunction with State and Territory Governments, revises VET training in rural skills to provide:**

- **A training framework based on the attainment of individual competencies as well as formal qualifications;**
- **A funding formula that takes into account training in individual competencies as well as whole qualifications; and**
- **A reformulation of individual competencies to provide for courses more specifically targeted at particular skills and industries and of shorter duration.**

## Generic Competencies

3.86 One of the aspects of training emphasised in the evidence received by the committee was the desire of employers for training that made employees work ready. Mrs Wendy Allen, Manager, Training and Corporate Partners, for AgForce in Queensland, told the committee:

There is a difference between doing the course, getting the tick and coming out of it and being competent and industry ready. That has been a big issue in Queensland. There has been a lot of discussion about overservicing and using a lot of training hours to get those students ready to be employed. To me that means there has to be a readjustment of their training course. Maybe they should have a year in the college, a year out as a practical component and then come back and finish it off. The industry needs people ready to be employed – useful young people who can actually go onto the farm, start working and be a useful component of the farm. Farmers do not have the time to be doing all the training on their farm. They are busy keeping their enterprises going and dealing with a whole range of other things such as the drought. I think having the young people industry ready will make a big difference.<sup>73</sup>

3.87 There was considerable concern, however, that current training packages were not producing ‘work-ready’ staff. In evidence before the

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73 Mrs Wendy Allen, *Transcript of Evidence*, 11 April 2006, p. 14.

committee, Mr Darren Bayley (National Conservation and Land Management Training Providers Network) stated:

Industry needs to be able to identify the skill sets and qualification structures in its training package. With the current trend in vocational training towards generic competencies and competency standards that have abstract wording and imprecise language, I think we risk alienating industry groups and devaluing the academic transcripts that individuals take to future employers.<sup>74</sup>

3.88 In its submission, Australian Dairy Farmers Ltd questioned the quality of VET, particularly the increasing reliance on generic competencies:

In a qualitative sense, too, education services are often inadequate. Several problems can be found here: moves from specialist to generic courses; inflexible curricula; failure to harness available expertise; slow response times; limited use of adult education approaches; and lack of attention by industry.

Reducing investment by governments and poor enrolments in specialist courses have the inevitable result of searches for more "efficient" ways of provision, generally through creating generic courses to suit a wider range of industries, thereby expecting to attract a larger number of participants. Unless creatively designed and marketed, generic courses are often perceived as less relevant. Such perceptions are underlined when curricula leave little room for rapid adaptation to current needs and opportunities, and when providers take many months and even years to design and offer new courses based on emergent needs. While providers must accept some of the responsibility for this, industry's silence is also a critical factor. If industry does not effectively and persistently promote its needs to providers, they might sensibly resort to centralised design and production and reduce resources.<sup>75</sup>

3.89 Nursery & Garden Industry Australia also questioned the value of the current packages and competencies, arguing that training providers must ensure a transfer of skill level enabling participants to perform activities adequately and with confidence, something which was not necessarily occurring now:

This industry's definition of competency can broadly be considered as the transfer of skill that enables a participant to perform a task to its maximum. Where no transfer of the required

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74 Mr Darren Bayley, *Transcript of Evidence*, 21 October 2005, p. 13.

75 Australian Dairy Farmers Ltd, Submission no. 72, p. 5.

skill has occurred, the competency is deemed to not have been achieved.

Using this definition the current national training packages are not truly competency-based, but more related to hours attended in training. An apprentice can obtain a Certificate IV in Horticulture, but not be competent enough to work unsupervised in a nursery. This again raises the issue of skills transfer and the expectation of competency.

Furthermore, national packages seem to endorse the transfer of skills that only allow participants to execute a task to a minimum, not at best practise, which is industry's expectation.<sup>76</sup>

- 3.90 The National Conservation and Land Management Training Providers Network also expressed concerned about the impact of generic competencies – this time from the perspective of RTOs:

At higher Australian Qualification Training Framework (AQTF) levels (certificate 4 and above) there is a focus on generic management skills while there is a lack of higher level technical skills. To improve training outcomes, ANTA needs to abandon its commitment to more generic units and provide more detail in its competencies. Registered Training Organisations (RTOs) rely on training packages for their training specifications (their intended purpose). More and more generic units provide RTOs with less and less in the way of training and assessment specifications, which will lead to poorer training outcomes where generic units of competency are used in technical skill areas. Generic units are acceptable and are best used in business and communication fields.<sup>77</sup>

- 3.91 AFISC is aware of both the significance and extent of this problem. Mr Blewitt (AFISC) told the committee that his organisation was undertaking a review of the training packages with a view to rationalising the training packages – 'clean them up and make them understandable so that they are more applicable directly to industry driven needs'.<sup>78</sup> This rationalisation was intended to target 'soft skills':

**Ms Brownbill** – I think you are right. I know that what we are doing in the area of rationalisation and duplication across our

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76 Nursery & Garden Industry Australia, Submission no. 74, pp. 3-4.

77 National Conservation and Land Management Training Providers Network, Submission no. 17, p. 2.

78 Mr Arthur Blewitt, *Transcript of Evidence*, 29 March 2006, p. 4.

industries is looking at what we could call soft skills. Occupational health and safety, communications and teamwork are very important skills. We are looking at rationalising them down so that, when an employer or organisation needs somebody to do a job, the real, technical skills that they need are more easily available for that person to actually get their hands on using those competencies. What I heard in Queensland yesterday was that some of the TAFEs up there are filling up the certificate II in rural operations with all of these soft skills, which are easy to deliver, and then for the rest of it they do not actually have to get their hands dirty with the more technical skills. Freddy still comes out with a certificate II in rural operations, but it is not as technically focused. That is something we believe is not right. Another story we heard was of an arboriculturalist who came out with a certificate III in –

**Mr Blewitt** – They cut down trees.

**Ms Brownbill** – Arboriculturalists cut down trees; that is what they do. This kid came out with a certificate III, which is like a trade qualification – but he had never been up a tree. This is a problem.

**Mr Blewitt** – That comes back to your point, that we have to watch that we do not dumb-down this process.

**Ms Brownbill** – That is right.<sup>79</sup>

- 3.92 Nonetheless, considerable concern has been expressed that the ANTA/AFISC rationalisation of competencies will lead to a further loss of specificity and the creation of more generic competencies, to the detriment of industry and RTOs alike.<sup>80</sup>

## Committee Conclusions

- 3.93 The committee shares industry concerns about generic competencies. The failure to target specific industry needs and the focus upon 'soft skills' is undermining industry confidence in the VET system. The committee acknowledges that AFISC has undertaken a program to address these concerns, identifying areas of duplication, 'rationalising' rural skills competencies to make them 'more applicable directly to industry driven

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79 Ms Jane Brownbill & Mr Arthur Blewitt, *Transcript of Evidence*, 29 March 2006, pp. 15–16.

80 National Agriculture Training Provider Network, Submission no. 25, p. 2; Mr William Kinsey, *Transcript of Evidence*, 14 November 2005, p. 81; Primary Skills Victoria, Submission no. 101, pp. 10–11; Northern Melbourne Institute of TAFE, Submission no. 26, p. 8.



needs'. The committee appreciates that there is a fine line between making training so industry specific that each industry in effect ends up reinventing the wheel and making training so broad that it fails to meet the specific needs of any industry. It is to be hoped that in reviewing the training packages AFISC strikes the right balance between the two.

## Solutions

- 3.94 The committee notes that aside from those recommendations already highlighted, a number of suggestions were made which would enhance the flexibility and responsiveness of the VET framework and the overall performance of the VET sector. These were the mutually complementary concepts of a skill passport, nesting of qualifications and recognition of prior learning; and the rationalisation of providers within the VET sector.

## Skills Passport

- 3.95 A 'skills passport' is a document which would enable rural workers to obtain skills in one location and have them recognised in another, a whole range of skills being accumulated and documented over time in a manner that can be easily verified – by the presentation of their skills passport. As Mr De Landgraftt (WAFarmers) told the committee:

This has been thought about by better people than me – what they call the 'skills passport'. It has never really got going. We have had a go at firing it up here, and Rural Skills Australia have had a bit of a go at getting it going. I really think it is time we bit the bullet on it. If someone comes casually onto a farm they do become quite competent in those areas in quite a short period of time, but we do not certificate them for that. If you did get that theoretical stamp on your passport for having attained those competencies, the next one you roll onto might be fruit picking, shearing or whatever. If you end up with enough stamps on there, you should be qualified as a tradesman. Obviously, you would have a system whereby certain skills were required and perhaps there would be some form of external auditing or testing to verify it.<sup>81</sup>

- 3.96 The concept was being tried in Queensland, where, Mr Rod Camm, Executive Director, Industry Development Division, of the Queensland Department of Employment and Training, noted that it allowed seasonal

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81 Mr Trevor De Landgraftt, *Transcript of Evidence*, 20 July 2005, p. 10.

workers to 'buy into work and then buy out' while still having their skills recognised.<sup>82</sup> The Queensland Rural Industry Training Council has actively promoted the concept 'as a means of preparing workers to take advantage of the diversity of agricultural employment opportunities that arise, generally on a seasonal basis'.<sup>83</sup> Mrs Denita Wawn, Workplace Relations Manager for the National Farmers Federation, told the committee that the NFF had also discussed a skills passport, for 'both Australians and international workers'.<sup>84</sup>

3.97 In answer to questions put by the committee, DEST advised of work it had undertaken along these lines, stating:

In 2004 DEST funded a national strategic project with the former Australian National Training Authority (ANTA) titled 'Development of a Strategy to support the Universal Recognition of Employability Skills', which found that a skills portfolio model should be applied to the schools, higher education, VTE and community sectors.

DEST subsequently funded Education.au to develop and trial an employability skills e-portfolio prototype designed to match the look of the my future website during 2005. The Australian Government provided funding of \$200,000 for the development of this e-portfolio trial.

The trial e-portfolio enabled each student to record his or her employability skills and create a tool to collate skills and achievements. The e-portfolio website was trialed in SA and the ACT with adjustments made in response to trial outcomes.

Implementation options are being considered alongside other significant employability skills activities including the embedding of the Employability Skills Framework into training packages and issues raised about how to recognise employability skills in school students in the consultation on the possible introduction of an Australian Certificate of Education.<sup>85</sup>

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82 Mr Rod Camm, *Transcript of Evidence*, 10 April 2006, p. 57.

83 Queensland Rural Industry Training Council, Submission no. 28, p. 5.

84 Mrs Denita Wawn, *Transcript of Evidence*, 10 August 2005, p. 13.

85 DEST, Submission no. 116, p. 11.

## Nesting

- 3.98 A similar concept is that of 'nesting', whereby different competencies and levels of qualification are integrated with one another. In its submission, Primary Skills Victoria noted that if nesting were available it would 'allow and encourage short accredited courses to be designed, which on completion would be credited towards higher qualifications'. Moreover, nesting 'encourages the development of pathways and ensures that practical skills at operator level are integrated with the requisite background knowledge components' of higher qualifications.<sup>86</sup> But, as Primary Skills Victoria noted, nesting arrangements were not included in the structure of the Rural Production Training Package:

The stand-alone concept of an integrated competency was a concept championed by the Rural Training Council of Australia which developed the original Agriculture Training Package. However, the lack of nesting discourages those in the industry from seeking to undertake further formal training and gain higher qualifications. To currently complete a full Diploma program having previously completed 800 hours or more of Certificate III training followed by up to 1200 hours for a Certificate IV, still requires a further 715 to 1760 hours totalling a possible 3760 nominal hours of training according to the current Purchasing Guide.<sup>87</sup>

- 3.99 The lack of provision for nesting within the Rural Production Training Package was identified as a serious shortcoming by several witnesses. In his evidence before the committee, Mr Peter Berrisford stated:

The way the national rural training package was set up is the problem. It needs extensive revision so that you can achieve things such as nesting, which other industries have. A nesting arrangement is where, for example, the diploma qualification is up here and all the others fit in underneath it. There might be 2,000 hours of study to get the diploma, and the others sit in underneath it. At the moment each one is an individual qualification. When you do one you do not necessarily gain any points for the next one. They are individually defined. I think that package needs a lot of work and the industry is being delivered a disservice with that particular package.<sup>88</sup>

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86 Primary Skills Victoria, Submission no. 101, p. 9.

87 Primary Skills Victoria, Submission no. 101, p. 9.

88 Mr Peter Berrisford, *Transcript of Evidence*, 15 November 2005, p. 25.

- 3.100 Mr Hallihan (Primary Skills Victoria) argued that the absence of nesting was a significant disincentive to pursue training:

In the national system there was a policy decision in the development of training packages in the agricultural sector that anyone should be able to enter the training system from any level. That meant that, if someone chose to come in at a certificate IV/V level, they did not need to build a qualification from the lower levels up. There is some good commonsense in that. However, in practical terms, it negates against itself where someone cannot engage in a cert II – traditionally the level at high schools – and then do a cert III or IV and have everything they have learned added together to get their diploma or their cert IV or cert III. Nesting does not exist within our training package, and it requires a cooperative RTO or school to accredit and map any previous learning – whether it be through certificates or lifelong learning – to tick off and get them advanced status in their further qualifications. So, in principle it works well; in practice it does not. We have people having to do a lot more hours than they otherwise would need to do, which disengages farmers particularly from the qualification.<sup>89</sup>

- 3.101 In its submission, the Northern Melbourne Institute of TAFE advocated nesting as a way of creating greater flexibility and meeting the needs of a wider range of potential trainees:

NMIT also suggests that training package qualifications and packaging rules in the rural industries may be better designed to allow for ongoing skills development through life through providing better linkages between qualifications at different levels and without requiring individuals to commence totally different qualifications at the next AQF level if they wish to proceed. While it may appear that the advice of industry at the local level (wanting short courses) is contradictory to that presented in the training package (with a focus on the completion of full qualifications) it is possible for an RTO to cater for the needs of both existing workforce and new entrants.<sup>90</sup>

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89 Mr Gregory Hallihan, *Transcript of Evidence*, 14 November 2005, p. 15.

90 Northern Melbourne Institute of TAFE, Submission no. 26, p. 8.

## Recognition of Prior Learning

- 3.102 Recognition of Prior Learning (RPL) and Recognition of Current Competencies (RCC) are widely acknowledged as a valuable way of recognising skill and encouraging training. In its submission DPI NSW observed that the 'formal recognition of a producer's skill will encourage confidence in either seeking alternative employment or being more positive about the future of farming as a profession'.<sup>91</sup> DPI has undertaken RPL programs for farmers, 'which have been well regarded':

RPL is seen as a way of raising the self confidence and self esteem in the rural community, especially in times of severe adjustment and change. This has been of great assistance to farmers – particularly in the dairy industry – given the changes which have occurred in recent years following deregulation.<sup>92</sup>

- 3.103 As DPI acknowledged, however, to date RPL 'has not been fully used to support adult training'.<sup>93</sup>

- 3.104 The importance and the difficulties associated with RCC and RPL were also recognised by Rural Skills Australia. Its submission stated:

It should be noted that opportunities may exist for persons to seek formal recognition of their skills, knowledge and capacities through Recognition of Current Competencies (RCC) or Recognition of Prior Learning (RPL) processes regardless of where the knowledge, skills and capacities were acquired, through previous training, work or life experiences. It is widely recognised that progress towards establishing readily accessible, user friendly and affordable RPL or RCC processes for farmers and their employees has generally been slow. Further development activity is urgently required to facilitate and encourage greater industry and RTO involvement with RPL or RCC processes so that skills are better identified for legislative, quality assurance and other purposes.<sup>94</sup>

- 3.105 The principle obstacles to RPL appear to be cost and complexity. In evidence before the committee, Mr Peter Arkle, Rural Affairs Manager, National Farmers' Federation, stated:

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91 Department of Primary Industries NSW, Submission no. 91, p. 3.

92 Department of Primary Industries NSW, Submission no. 91, p. 7.

93 Department of Primary Industries NSW, Submission no. 91, p. 3.

94 Rural Skills Australia, Submission no. 71, p. 4.

The broader question of recognition of prior learning is a real one and is certainly something that we have covered in detail in our labour shortage action plan. Once again, huge costs are involved in the RPL process – seeking the assessment, documenting through paper records and other means of substantiating your competence. It is a terribly bureaucratic process that is tied up with a lot of red tape. There is certainly a lot of scope there to free up, to achieve some greater flexibility in how those skills are recognised. The reality for our industry is that in those peak times, be it harvest on a grain farm or a horticultural enterprise, we cannot afford to be knocking back labour on the basis of whether or not they have got formal qualifications. We need to streamline that process and get the tick-off that we need in a legal sense as quickly as we can. That needs to be simplified. There is some good work going on in the department on that. It is certainly an area where we need to focus on going forward.<sup>95</sup>

- 3.106 In similar vein, Mrs Wigley (Queensland Rural Industry Training Council) told the committee:

We made a concerted effort in 2000 to make sure that our rural industries, particularly, became the RPL places. We were told originally that it would never work, but in the last five years we have had RPLd something like 880 rural producers. But, when we have gone backwards, most of them have said that the process, even at that high level, has been so convoluted and so time consuming for people that quite often they would have been better off enrolling in a course. At that scale, it sounds all right, but it is even worse at the lower scales when you want to be RPLd at, say, a level 3, which is a beginning trades labourer level. The reports we get back are that it is more convoluted at that level.<sup>96</sup>

- 3.107 Mr William Kinsey, representing the Australian Agriculture Training Providers Network, emphasised that RPL was time consuming and expensive and needed to be adequately funded:

Recognition of prior learning, or skills recognition, is an important component of the national training package delivery. It enables farmers and others to be trained in areas that they do not already know rather than in skills that they already have. Skills recognition can be time consuming and expensive, almost as much as conventional training, and yet is not usually funded

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95 Mr Peter Arkle, *Transcript of Evidence*, 10 August 2005, pp. 6–7.

96 Mrs Yvon Wigley, *Transcript of Evidence*, 10 April 2006, pp. 16–17.

accordingly. There is very little funding at times for skills recognition for farmers compared with traditional programs. Our recommended strategy in this area would be that RPL is recommended by government as a necessary tool for the effective delivery of national training packages and funded accordingly.<sup>97</sup>

- 3.108 Mr Wayne Cornish, the Chair of Rural Skills Australia, argued strongly for dedicated RPL assessors to replace RTOs:

The first part of the question was: how do you start solving this recognition of prior learning stuff? My view – it is a private view – is that there needs to be a group of dedicated assessors put in place because, at the moment, if you want to be assessed, it costs an arm and a leg. You have to go to an RTO of some description, and they rob of you blind. There needs to be a process which is affordable. I personally believe that having a dedicated group of assessors for this specific purpose in Australia would cut a significant amount of cost out of it.<sup>98</sup>

- 3.109 In evidence presented to the committee, DEST acknowledged the importance of and difficulties surrounding RPL, noting that COAG had agreed to implement a contractual obligation upon public funded RTOs and assessment centres ‘to offer all workers entering training a quick and simple process to recognise their existing skills’, commencing 1 January 2007. DEST also noted that COAG had also agreed to establish a three year RPL program from 1 July 2006 to build the training system’s capacity to deliver quality RPL and drive good practice. The program would assist RTOs and assessment centres to provide streamlined skills assessment and recognition processes and assist individuals and employers to access better information about RPL.<sup>99</sup>

## Committee Conclusions

- 3.110 The committee believes that RPL and RCC are vital components of skills training and recognition in rural industries, and welcomes the COAG initiative to ensure that RPL and RCC operate to better effect in the future.
- 3.111 The committee is also of the view that skills passports and nesting have the potential to provide much more flexibility in the transmission of rural skills. Nesting will make it possible for people to move in and between different levels of the training framework more easily. A skills passport

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97 Mr William Kinsey, *Transcript of Evidence*, 14 November 2005, p. 81.

98 Mr Wayne Cornish, *Transcript of Evidence*, 10 August 2005, pp. 9–10.

99 DEST, Submission no. 116, pp. 8–9.

will provide formal recognition for skills acquired through formal training and informally, providing a flexible means for people to move within and between industries while having their skills recognised, and provide a formal mechanism for RPL into the future. A skills passport also has the potential to allow workers to have their skills recognised while moving between countries, giving workers greater access to employment opportunities and employers access to a larger pool of work ready employees.

### **Recommendation 21**

- 3.112 The committee recommends that the Australian Government direct the Agri-Food Industry Skills Council to revise the Rural Production Training Package to allow for the nesting of competencies and qualifications.**

### **Recommendation 22**

- 3.113 The committee recommends that the Australian Government, in consultation with industry, develop a skills passport system for the recognition and transfer of skills in rural industries, and that reciprocal arrangements be undertaken with other countries to allow skills passport recognition across international borders.**

## **Rationalising providers**

- 3.114 The committee notes that several submissions called for a rationalisation of the VET sector, with one submission urging the creation of a national strategy for rural training and education across all sectors. In its submission, the Faculty of Land and Food Resources at the University of Melbourne recommended that:

It would be in the best interest of delivering quality agricultural and related education programs in Victoria if there were fewer than the present 19 TAFE Institutes and several other private providers offering VET courses. A reduction in the number of



providers would increase the concentration of resources and contribute to a well coordinated State-wide delivery system.<sup>100</sup>

- 3.115 The submission from the School of Rural Science and Agriculture at the University of New England, argued that ‘present education services for agriculture are being rapidly eroded as resources are too thinly spread across a large number of providers’.<sup>101</sup> In its submission, the Faculty of Natural Resources, Agriculture and Veterinary Science at the University of Queensland stated:

Agricultural education is over-serviced, leading to unproductive competition and undesirable fragmentation of offerings limiting the ability of the overall system to mount new and innovative programs. Modern technology and emerging pedagogy and delivery paradigms may assist, but could also limit developments of critical mass of staff by maintaining dispersal of staff among institutions.

For vocational training, the large number of TAFE and other colleges/private providers offering agriculture leads to similar fragmentation so viable centres of training in selected aspects of agriculture are unlikely to emerge. Low student demand in individual colleges/campuses leads to an inability to provide adequate staff and other resources for these institutions, with the attendant risk of decline in standards and level of learning and skills acquisition by students.<sup>102</sup>

- 3.116 The submission further argued that the ‘optimum configuration of institutions’ – including universities – ‘can only come from a national review and planning process that transcends institutional and political demarcation issues and extends beyond short term political considerations’:<sup>103</sup>

The Faculty contends that agricultural education will be best served by a national plan for vocational and tertiary education implemented through well-funded and well-equipped institutions that have the benefits of critical mass in their areas of activity – this

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100 Faculty of Land and Food Resources, University of Melbourne, Submission no. 68, p. 1.

101 School of Rural Science and Agriculture, University of New England, Submission no. 47, p.1.

102 Faculty of Natural Resources, Agriculture and Veterinary Science, University of Queensland, Submission no. 77, p. 4.

103 Faculty of Natural Resources, Agriculture and Veterinary Science, University of Queensland, Submission no. 77, p. 4.

means a reduced number of institutions offering agriculture is inevitable.<sup>104</sup>

## Committee Conclusions

- 3.117 As with the university sector (see chapter 2), the committee can see the rationale for rationalising the VET sector. Concentrating resources within institutions which can provide a critical mass of facilities and teaching staff will ensure the survival of high quality, industry relevant, rural skills training. As with universities, funding must be provided regardless of fluctuations in student numbers and resources must be maintained to ensure quality of outcomes. The diversity of training organisations and the diverse needs of industries and regions will make this rationalisation process a difficult one, requiring a balancing of interests between school-based VET, agricultural colleges, TAFE and private RTOs. It also makes sense to conduct a review of VET provision in conjunction with a review of rural skills provision at university level, as part of a process of more closely linking the two. The committee is therefore of the view that a broad review of rural skills training across all sectors should be undertaken with a view to producing fewer, but better resourced, providers.

### Recommendation 23

- 3.118 **The committee recommends that the Australian Government review rural skills training by the VET sector, in conjunction with its review of higher education in agriculture and forestry, with a view to:**
- **Reducing the number of organisations providing courses in rural skills training; and**
  - **Increasing the overall level of funding for rural skills training, and placing it on a sustained basis.**

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104 Faculty of Natural Resources, Agriculture and Veterinary Science, University of Queensland, Submission no. 77, p. 3.

## Availability and adequacy of research

- 4.1 Australia has a world class system of agricultural research and development, with organisations such as CSIRO, the rural Research and Development Corporations (RDCs), Cooperative Research Centres (CRCs), State agriculture departments, universities and private entities all contributing. Addressing the issue of research, Dr Walter Cox, Chairman of the Board of Agricultural Research Western Australia (ARWA), acknowledged the positive contribution of both the CRCs and CSIRO, stating:

The cooperative research centres have been outstanding, in the main. The CSIRO National Research Flagship programs are supportive and emphasise the most relevant parts of research that is required.<sup>1</sup>

- 4.2 Highlighting the role of the RDCs, Dr Peter Carberry, Group Leader of the Agricultural Landscapes Program, Sustainable Ecosystems, CSIRO, stated:

Australia is the envy of most of the world in how we organise our R&D funding and delivery. They envy us because we have R&D corporations such as the Grains R&D Corporation and the Cotton R&D Corporation, which are industry based, as well as issue based R&D corporations like Land and Water Australia. GRDC in the northern region, for instance, have research advisory committees that collect issues from landholders that feed back into GRDC's priority-setting process.

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1 Dr Walter Cox, *Transcript of Evidence*, 20 July 2005, p. 14.

For instance, I am a member of the Darling Downs RAC and there is a CSIRO nominee on each of those RAC committees.<sup>2</sup>

- 4.3 In the same vein, Mr Andrew Campbell, the Executive Director of Land & Water Australia, told the committee:

...I believe we have a rural R&D model which is the world's best, consisting of the R&D corporations with their very close engagement with industry. That close engagement with industry has a big bearing on the extent to which the research is taken up within industry and it also ensures that generally you are trying to answer the right questions. You are actually answering questions that people are asking and not questions that no-one has asked, so the relevance of the research is good. It has a very strong track record in delivering a very good return on levy payers' and taxpayers' investments.<sup>3</sup>

- 4.4 CRCs also play an important role, bringing together expertise from industry, universities and the scientific community, including CSIRO, in collaborative research ventures. In its submission, CSIRO endorsed the continuation of the CRC program;<sup>4</sup> while in evidence before the committee, Dr John Taylor, the Director of Rangelands Australia, stated:

I have a lot of faith in the CRCs generally, particularly in the way in which they are linking research groups like CSIRO, industry groups and so on. There are lots of positives coming out of that.<sup>5</sup>

- 4.5 In its submission, the Australian Cotton CRC argued that the 'CRC framework is an excellent model for collaborative R&D, delivering proven excellence in research adoption, education, training, independence and integrity with industry partners'. It also stated that:

The CRC framework leads to collaboration and synergies among research providers and with industry partner. Hence, duplication is avoided, with the benefit of the CRC's access to specialized skills and resources across State and industry boundaries.

It is our contention that the CRC framework and investment by the Commonwealth (DEST) provides the glue, stimulates

2 Dr Peter Carberry, *Transcript of Evidence*, 10 April 2006, p. 46.

3 Mr Andrew Campbell, *Transcript of Evidence*, 17 August 2005, p. 1.

4 CSIRO, Submission no. 86, p. 8.

5 Dr John Taylor, *Transcript of Evidence*, 10 April 2006, p. 9.

the synergistic benefits and accelerates innovation and adoption by a number of years, because it sees environment and communities as directly related to the industry's bottom line.<sup>6</sup>

- 4.6 The level of research collaboration was a positive development highlighted in the submission of the Faculty of Natural Resources, Agriculture and Veterinary Science at the University of Queensland, which argued that 'recent moves towards greater collaboration among providers of research services need to be enhanced':

The capacity to undertake agricultural research has been made possible, in part, by strong support from the rural industries funding agencies. Other providers of agricultural research are CSIRO, State Departments of Agriculture, and more recently private sector research providers. There has been a trend for closer cooperation between Universities, relevant State Departments and CSIRO in the provision of research and research training in agriculture, including co-investment in research facilities in most States. Both Federal and State governments have supported this integration and co-location. The CRC Program and Australian Research Council Centres Program have also provided research services to agriculture.<sup>7</sup>

- 4.7 In its submission, the CSIRO noted the increasing level of collaboration with the university sector in various fields of rural research, including joint ventures and joint supervision of research students.<sup>8</sup>
- 4.8 Although this evidence shows that Australia has a potentially very strong agricultural research sector, the evidence presented to the committee also identified significant problems, including funding, problems accessing sufficient numbers of qualified staff, and the gap between research and extension (this issue will be addressed in Chapter 5, Provision of extension and advisory services).

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6 Australian Cotton Cooperative Research Centre, Submission no. 56, p. 4.

7 Faculty of Natural Resources, Agriculture and Veterinary Science, University of Queensland, Submission no. 77, p. 7.

8 CSIRO, Submission no. 86, pp. 5-6.

## Funding

- 4.9 The evidence presented to the committee indicated that there were significant problems in the level and method of funding for agricultural research. In its submission, the Faculty of Land and Food Resources at the University of Melbourne noted the impact of funding on research:

The agriculture-related research undertaken is generally of high quality, but limited funding has restricted the quantity of research undertaken to underpin Australian industry which is faced with strong international competition.<sup>9</sup>

- 4.10 The submission from the Department of Agricultural Sciences at La Trobe University, while acknowledging the success of initiatives such as CRCs, also highlighted the impact of increasing competition for research funds and declining overall investment:

However, this optimistic note is tempered by the general decline in applied agricultural research at all levels in Australia over the last 20 years. This is most noticeable in the reduction in this type of research effort by the CSIRO and the loss of regional research centres operated by both the CSIRO and State Departments of Agriculture. As a result there is a strong concentration of research in a few areas that are of obvious and critical importance (salinity) or have a very large potential to change agricultural practices (biotechnology). Although these judgements are not wrong and certainly these areas must be a priority, there has been a tendency to forget basic questions such as improving farm operations through extension services and continuing to improve management of diseases and pests...

This type of on-farm and applied research used to be a major part of the ambit of State Departments of Agriculture and CSIRO but in the current competitive environment the research effort has moved to more strategic and 'technology driven' areas of research which are attracting the bulk of research funding.<sup>10</sup>

- 4.11 A similar tale can be told in the forestry industry. In its submission, the Forest and Wood Products RDC noted that:

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9 Faculty of Land and Food Resources, University of Melbourne, Submission no. 68, p. 2.

10 Department of Agricultural Sciences, La Trobe University, Submission no. 60, pp. 5-6.

The Corporation commissioned a report on investment in forest industries R and D that was published in 2004... This report showed that over the last 20 years overall investment in forest industries R and D had declined by around 27% in real terms with a decline in forest research of around 20% and forest products research of 40%. Commonwealth investment declined by 9%, State agencies 22%, companies 30% and Universities increased by 27%...

The response to declining investment has in the main been downsizing and loss of capability in the sector although it must be said that change has also led to improvements in research efficiency through better focused R and D and substitution of labour with capital. There is also a greater reliance on external and competitive funding that, while not necessarily negative, increases the challenge for maintaining a viable research capacity in a long run business such as forestry. Whilst [it] cannot be readily quantified there is a long term decline in our R and D capacity and ability to innovate in the sector through R and D. Whilst the report... covers the period to 2001/2002 the trends identified have continued over the last 3 years (e.g. CSIRO Forestry and Forest Products staff numbers appear to have reduced by 20% over that period).<sup>11</sup>

- 4.12 One problem was the short duration of research funding, three years in many cases, or seven for CRCs. Mr Graeme Harris, Vocational Education Teacher at Farrer Memorial Agricultural High School and Secretary of the National Association of Agricultural Educators, told the committee:

One of the problems that people who go into research have is that, because their research is funded usually on a triennium, if they introduce a project and start to run it, they do it for the first two years and then during the last year of their project they are developing the submission so that they can get follow-on funding for the next three years. That makes it very difficult for people such as workers in the CSIRO to maintain their professional life. Perhaps a model that operated on a longer time scale might be more appropriate in agriculture. It is quite different to other industries such as manufacturing,

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11 Forest and Wood Products Research and Development Corporation, Submission no. 13, p. 2.

where you develop a new gadget, you introduce it, you turn it on and it runs. It does not work that way in agriculture; there is a much longer lead time.<sup>12</sup>

- 4.13 Mr Guy Roth, CEO of the Cotton Catchment Communities CRC (formerly Australian Cotton CRC), also highlighted the problems of short research funding timeframes, citing the case of CRCs:

They run for seven years, and that is one of the strengths. Within the CRC and the various places where we get funds, we are often caught in a three-year funding cycle. That has major implications for our staff and keeping them there. If you are a staff member in a small country town and you know that your grant is running out, and there is some review going on within your organisation as well, you feel a bit insecure. If a better opportunity comes up, you are mad if you do not take it. The seven-year time frame for the CRCs is better. The rebidding process at the end is very resource intensive. That was a huge cost to us in time and, in a way, distracted us from what we should have been doing in our CRC for the last two years. It was all about renewal and getting another one up.<sup>13</sup>

- 4.14 Another problem was the constant competition for funds. In its submission, the Faculty of Natural Resources, Agriculture and Veterinary Science at the University of Queensland stated:

Reduction in funding for educational institutions and the competitive grant system for research has fostered competition between research providers. Attempts by Universities to supplement funding with research grants can bring them into competition with other organisations seeking funds from the same source.<sup>14</sup>

- 4.15 Professor Peter Gregg, the Cotton Catchment Communities CRC's Chief Scientist, added:

...there is a general perception among people who make decisions on which CRCs get funded that the more times you have been funded the higher the bar is going to be next time. While I can understand that, it does mean that the

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12 Mr Graeme Harris, *Transcript of Evidence*, 9 March 2006, p. 9.

13 Mr Guy Roth, *Transcript of Evidence*, 9 March 2006, pp. 19–20.

14 Faculty of Natural Resources, Agriculture and Veterinary Science, University of Queensland, Submission no. 77, p. 11.



contribution, the special role that the CRC has played in cotton education, is in one sense a strength but in another sense a weakness, because we recognise that sooner or later they are going to put the bar too high. Nobody can jump over it. My comment would be: is that philosophy that you have to get bigger, better and more different every time you have a CRC the right way to go or not?<sup>15</sup>

- 4.16 Addressing the issue of funding timeframes in its submission, the Faculty of Natural Resources, Agriculture and Veterinary Science at the University of Queensland highlighted the fact that Australia's current pre-eminence in agriculture was the result of far-sighted research investment in decades past:

Australia's agricultural industries remain globally competitive, which could lead to the mistaken conclusion that research services are adequate. Australia's present position reflects the substantial investment in agricultural research from the 1950s to around the mid-1980s. Investment in agricultural research since the mid-1980s has declined in real terms, and needs to be increased across the University, CSIRO, State Department and the private sector, or the competitive position of agriculture will be eroded. Reasons for the recent decline in research investment in agriculture include exponential growth in the molecular sciences (molecular biology, molecular genetics) which have provided technology to revolutionise agricultural industries.<sup>16</sup>

- 4.17 In evidence before the committee the same point was made by Professor Francis Larkins, Deputy Vice-Chancellor (Research) and Dean of the Faculty of Land and Food Resources at the University of Melbourne:

I mentioned about the productivity of cows. For example, on average now cows produce twice as much milk as they used to some 30 or 40 years ago. That has not happened by accident, and it did not happen overnight. There has been progressive selective breeding. We have enough examples to recognise that the dividend may be 15 or 20 years away, but you have to make the investment now. That is always hard when there are short-term pressures. It is a very mature

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15 Prof. Peter Gregg, *Transcript of Evidence*, 9 March 2006, p. 20.

16 Faculty of Natural Resources, Agriculture and Veterinary Science, University of Queensland, Submission no. 77, p. 8.

industry on one level that I believe we are dealing with here, so there are examples of outstanding research 20 years ago that are now paying a dividend for the industry. We need to take that into consideration. You really cannot have all your research with a very short-term industry mission focus. You have to have some which is much broader. It is a matter of striking a balance between those two. I guess it has been pressure, but in the Rural Industry Research and Development Corporation, there has been a trend to fund less of what some people call the discovery, blue-sky research. All we are saying is, it is in the national interest to keep a balance.<sup>17</sup>

- 4.18 In its submission, the Faculty of Land and Food Resources at the University of Melbourne argued that:

The Australian Government should be encouraged to increase funding support for both rural skills programs and quality research initiatives that are held to be in the national interest. There is a particular role to play in the support of basic longer-term research not directly aligned to short-term industry needs.<sup>18</sup>

- 4.19 The submission from the Department of Agricultural Sciences at La Trobe University emphasised the loss of resources in applied research:

The major area of agricultural research that has suffered losses over many years is applied on-farm studies that assist in the management of farm operations. This extension research has been partly taken over by private consultancy but only in areas where farm profits can pay for the advice. Competitive grants in on-farm extension studies could be managed through the current rural industry research corporations and/or through a new organization that might target farm sustainability as its primary focus. The current drought and the continuing problems of water use and allocation, salinity and the long term impact of farm practices would all justify a more integrated approach to research funding.<sup>19</sup>

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17 Prof. Francis Larkins, *Transcript of Evidence*, 14 November 2005, p. 66.

18 Faculty of Land and Food Resources, University of Melbourne, Submission no. 68, p. 1.

19 Department of Agricultural Sciences, La Trobe University, Submission no. 60, p. 8.

- 4.20 In evidence before the committee, Dr Richard Sandeman and Dr Peter Sale, of the Department of Agricultural Sciences at La Trobe University, highlighted the impact of funding changes on the operations of the CSIRO:

**Dr Sandeman** – ...[The CSIRO] got rid of various divisions and pushed them together, and that meant losses of people, and they moved people out of the Sydney labs for various sorts of agricultural research and put them up at Armidale, and that lost more people. It has been on the books for a long time; it is just a matter of making more fuss about it at the moment.

**Dr Sale** – It seems too that CSIRO does research on where the funding is from. If the funding ceases in that area and it starts over there, everybody swings across. It is sort of stop-start, depending on the funding. Everybody is short of cash, so that is the way it unfolds. There is not a lot of long-term strategic funding support to pursue goals like blowflies and what have you.<sup>20</sup>

## Staffing

- 4.21 Another theme running through the evidence was the difficulty in obtaining suitably qualified research staff. In evidence before the committee, Dr Cox (ARWA), stated:

To emphasise the point again, there is a massive shift in skills away from agriculture at the professional level into the mining sector and the industries that support the mining sector. The National Water Initiative, another federal government initiative, is under way. There is an absolute shortage of people who have skills in things like hydrology and the water sciences. There is such a demand for those people that we need to get extra people into university programs or at-work type programs to ensure we have a skill base. In my day-to-day role as Chairman of the Environmental Protection Authority, I see an absolute shortage of environmental scientists at present. We can get good young graduates, but it is very hard to get anybody with any experience. As a consequence, we have problems

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20 Dr Richard Sandeman & Dr Peter Sale, *Transcript of Evidence*, 14 November 2005, p. 52.

servicing the industries that are currently booming, particularly the mining industry.<sup>21</sup>

- 4.22 He argued strongly for government leadership in arresting the decline in interest in agricultural science and science generally in schools and universities:

We have a series of recommendations; perhaps your committee can make recommendations to the federal parliament or federal government. One of those is about strengthening interest in the sciences. The problem I have expounded is not unique to agriculture; it is very much in the other sciences as well. Enrolments are declining and, without that scientific base, our innovation and productivity are going to suffer. There is also a leadership role – I emphasise that it is a leadership role – for the federal government to talk up agriculture as being very important to our economy, with new agriculture being the leading edge of our economy, and careers in agriculture being satisfying to individuals as well as adding to the capacity of the community.<sup>22</sup>

- 4.23 The CSIRO also noted the significant decline in the number of qualified researchers coming through the universities, arguing in its submission that this is a critical issue that must be addressed:

The decline in the number and academic standard of students attending Australian universities to study agricultural subjects has created a flow-on effect for CSIRO Divisions with rural research activity; in short, there is a very limited supply of suitably skilled research scientists emerging from higher degree programs run by the Australian tertiary sector.

While the supply of Australian-trained rural researchers in agriculture or natural resource management has become increasingly restricted, the demand for skilled professionals has continued to grow. In particular, CSIRO has struggled to recruit staff with well-developed skills in research innovation and a capacity to operate in cross-disciplinary teams.

Biological or physical scientists with a depth in one or more disciplines, a capacity to work in partnerships with social and economic researchers, and an ability to deploy their skills and knowledge in real-world situations continue to be in short

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21 Dr Walter Cox, *Transcript of Evidence*, 20 July 2005, p. 14.

22 Dr Walter Cox, *Transcript of Evidence*, 20 July 2005, p. 14.

supply. CSIRO has attempted to fill positions via increased emphasis on international recruitment. International recruitment brings with it many positives and is a necessary feature of globally competitive research institutions; however, CSIRO believes it needs to be balanced with a healthy flow of Australian-trained higher degree graduates to ensure maximum effectiveness of our research and educational institutions.<sup>23</sup>

- 4.24 In its submission, the Faculty of Natural Resources, Agriculture and Veterinary Science at the University of Queensland argued strongly for greater institutional and financial support for postgraduate research:

Development of research skills in biophysical and socio-economic disciplines must remain an integral part of postgraduate training in agriculture. Australian Universities have a strong reputation in Research Higher Degree training, and increasingly staff of relevant State Departments and CSIRO participate in advisory teams. The Faculty emphasises the need for enhanced support of these programs through existing mechanisms. For example, prospective Research Higher Degree (Masters, PhD) candidates often cite the low value of stipends and scholarships compared to salaries and benefits available in employment, even as new graduates, as a disincentive to undertaking postgraduate study. Increases in stipend and scholarship value are needed to attract the next generation of agricultural researchers and educators.<sup>24</sup>

- 4.25 The submission of the School of Rural Science and Agriculture at the University of New England argued for the need to maintain a critical mass of scientific expertise amongst agricultural scientists:

Research training is best done in an environment where there are interactions with practising agricultural scientists (eg CSIRO and NSW DPI) and across disciplinary opportunities created by a Faculty with industry involvement. The most effective education and training at all levels is done in a context of “research led” education. It is also clear that **there is a need for a critical mass of individuals in any one discipline to facilitate an effective and efficient team of**

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23 CSIRO, Submission no. 86, pp. 4-5.

24 Faculty of Natural Resources, Agriculture and Veterinary Science, University of Queensland, Submission no. 77, p. 6.

**postgraduate students and researchers.** Such teams develop agricultural specialists with the capacity for independent, skills-based problem solving rather than individuals whose decisions are 'recipe' based. It is our belief that current changes in tertiary education are facilitating the loss of critical mass in many agricultural disciplines and that there is a real risk that assessment of institution-wide research performance may well threaten universities whose research focus is primarily agricultural and natural resource focused. Soil science was specifically mentioned in the terms of reference and is a good case in point with the critical mass of soil scientists being eroded at all tertiary institutions teaching agriculture.<sup>25</sup>

- 4.26 At present that 'critical mass' was under threat through generational change:

Researcher training is probably one area where industry will not necessarily identify future needs. The reality is that a high proportion of the agricultural research population are from the "baby boomer" generation and that in most areas of agricultural research **there has been little succession planning to provide either full time researchers or tertiary teachers for the future.**<sup>26</sup>

## Committee Conclusions

- 4.27 The committee notes that while there have been a number of positive developments in the field of rural research, these changes have not been unproblematic. There has also been a steady decline in funding for rural research over the past decade and, in some cases, competition for research funds has created situations which are not beneficial for rural research. The committee believes that the Australian Government and State Governments need to provide leadership in funding research and that the Australian Government should increase its funding support for long term research activities.
- 4.28 The committee acknowledges the importance of the Rural Research and Development Corporations, Cooperative Research Centres and the CSIRO to rural research and recommends to the government that

25 School of Rural Science and Agriculture, University of New England, Submission no. 47, p. 2.

26 School of Rural Science and Agriculture, University of New England, Submission no. 47, p. 3.

it consider increasing funding to these entities. There is also a strong case for increasing the research funding and profile of rural science faculties at Australia's universities.

- 4.29 In particular, the committee is of the view that CRCs should be given more certainty in their funding. The committee agrees that it is necessary to regularly review the CRC program to ensure that high quality and relevant research is given priority. However, the current approach to funding constrains the potential of CRCs to deliver support to primary industries. The need to enter into lengthy, resource intensive, competitive bidding processes should be reviewed. CRCs with a proven track record of delivering research and practical outcomes should be able to roll-over from one funding round to the next.
- 4.30 Increased funding and greater certainty of funding will have a positive effect on the job security and career prospects of rural science researchers. It will also provide a positive incentive for prospective researchers wishing to enter the fields of agriculture and forestry. It is important, however, to provide institutional and financial support for postgraduate and postdoctoral research students in keeping with the significance of their work. Positive incentives must be provided for the next generation of researchers to come through.

## **Recommendation 24**

- 4.31 **The committee recommends that the Australian Government substantially increase funding for research in Australia's agriculture and forestry industries, with a view to:**
- **Addressing long term research needs in the fields of basic and applied research;**
  - **Providing stability and security for individuals and institutions involved in scientific research; and**
  - **Providing incentives and career paths for those entering the research field.**

## Recommendation 25

- 4.32 **The committee recommends that the Australian Government review its funding of the Cooperative Research Centre Program to provide greater funding certainty and support for those Centres with a proven track record of delivering research and practical outcomes.**

## Research Needs of the Honey Bee Industry

- 4.33 The honey bee makes a significant contribution to Australian agriculture. In his submission to the committee, Dr Max Whitten noted that the apiary industry contributes an estimated \$60 million annually to GDP; however, this figure is small compared to the importance of the 'free' pollination services provided by honey bees to Australian agriculture. Around 60 per cent of Australian crops are estimated to be dependent to some extent on honey bees for pollination. If pollination services were suddenly withdrawn, the immediate impact would be a loss to agriculture of some \$2 billion annually, and a loss of 11,000 jobs.<sup>27</sup> In his evidence to the committee, Mr Anthony Eden, President of the Tamworth branch of the NSW Apiarists Association, noted:

Bees are the prime pollinator for our agricultural system...Without those bees, you do not have food. It is as basic as that ...

...If we do not have a healthy apiary industry this country is going to be in dire straits.<sup>28</sup>

- 4.34 While paid pollination services are in their infancy in Australia, the potential exists for the further development of paid pollination services provided by beekeepers to crop growers in Australia. In evidence before the committee, Mr John Rhodes, of the NSW Department of Primary Industries, explained:

The potential for a large increase in the development of a paid pollination service provided by beekeepers to crop growers in Australia is high. Recent studies in New South Wales have shown a 16 per cent increase in lint yield for honey bee pollinated cotton. This represents an increase in value of

27 Dr Max Whitten, Submission no. 11, p. 1.

28 Mr Anthony Eden, *Transcript of Evidence*, 9 March 2006, p. 25.



about \$550 per hectare for the cotton grower. If the beekeeper were to put hives on a property he would receive payment of about \$150 per hectare for the use of his beehives. So the cotton grower benefits and the beekeeper benefits. Almond trees are 100 per cent dependent on insect pollination and the projected requirements for the expanding almond crop in Australia is 150,000 hives by the year 2010. The beekeeping industry is likely to have difficulties in meeting this requirement without some sort of support, probably from the government, in research and education.<sup>29</sup>

- 4.35 Mr Rhodes observed that the benefits to both beekeepers and crop growers if paid pollination is incorporated into crop management are considerable. For example, honey bee pollination results in a crop being pollinated in a shorter period of time, allowing the crop to be harvested earlier:

Whereas a crop might take, say, six weeks to produce a certain volume of crop, if you were to put bees in you could get that same volume in maybe three weeks. You would have shortened the overall life of that crop by three weeks. The benefits to the crop grower can then be measured in terms of reduced water and pesticide use – using less irrigated water and applying less pesticide. The crop volume produced is still the same but the benefits are measured in another form.<sup>30</sup>

- 4.36 The committee also heard from Mr Donald Keith, former chairman of Capilano Honey, that if research funding were available significant benefits could be achieved by the honey bee industry in the area of alternative health products:

The development of the medical industry side of honey has the potential to provide ongoing and enormous financial benefits to the industry. The problem we are facing is that the company developing these products is focusing on medical products rather than alternative health products, and the cost of getting medical products into the medical system is enormous, largely because of the cost of clinical studies. That is another area where the research funding could be utilised.<sup>31</sup>

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29 Mr John Rhodes, *Transcript of Evidence*, 9 March 2006, p. 24.

30 Mr John Rhodes, *Transcript of Evidence*, 9 March 2006, p. 24.

31 Mr Donald Keith, *Transcript of Evidence*, 10 April 2006, p. 29.

- 4.37 In addition to its potential, the apiary industry faces several threats. The major threat currently faced by beekeepers is the increasing risk to the industry of incursions from overseas of pests such as the small hive beetle and the varroa mite.<sup>32</sup> Introduced pests have the ability to decimate the industry, so research is urgently needed to develop lines of bees that show a tolerance or resistance to these mites. The varroa mite has recently been responsible for the decimation of the honey bee industry in parts of the United States.
- 4.38 In its submission, the Australian Honey Bee Industry Council noted that increased research is also necessary to meet the demand by consumers and food regulators for traceability and improved food security. A range of improved management strategies need to be researched and developed to meet this demand.<sup>33</sup>
- 4.39 An ageing beekeeper population combined with low levels of education and training facilities for the beekeeping industry were also threatening the viability of the industry. As Mr Rhodes explained:
- ... there is an ageing population of beekeepers and low incomes being received for honey compared to the high cost of production. Beekeepers involved in pollination and other parts of the industry all have to depend on honey production as their staple income. The number of education services available is quite low. There has been a reduction in the availability of government finances for advisory and support services.<sup>34</sup>
- 4.40 In his submission, Dr Whitten noted that research has played an important role over the past five decades in supporting the beekeeping industry and assisting it to remain competitive:
- Significant contributions have come in the areas of disease diagnosis and management, genetic improvement of commercial strains of honeybee, efficient pollination practices, and general hive management. Studies on the impact of feral bees in natural ecosystems have also been important.<sup>35</sup>

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32 Centre for International Economics, *Future directions for the Australian honeybee industry*, September 2005, p. xii.

33 Australian Honey Bee Industry Council, Submission No. 79, p. 4.

34 Mr John Rhodes, *Transcript of Evidence*, 9 March 2006, p. 24.

35 Dr Max Whitten, Submission no. 11, pp. 2-3.

- 4.41 Despite the potential benefits from and threats to the apiary industry, however, the training and research needs of the honeybee industry in Australia were identified in the evidence received by the committee as a serious problem.
- 4.42 Honey bee research and development is funded primarily by a statutory levy on honey sales at 0.8 cents per kilogram (the industry levy currently amounts to around \$200,000 annually<sup>36</sup>). The levy is matched by Commonwealth funding on a dollar-for-dollar basis up to 0.5% of industry GVP.<sup>37</sup> If honey sales drop due to externalities such as bush fires or drought, then the amount of available funds for research decreases. In its submission, the Australian Honey Bee Industry Council suggested to the committee that the issue of averaging or maintaining government funding in adverse seasonal conditions is one that should be addressed by the government.<sup>38</sup>
- 4.43 Within the industry there is a strong belief that research funding is disproportionate to the contribution of the beekeeping industry to the sustainability and viability of Australian agriculture and horticulture. In its submission, Australian Queen Bee Exporters Pty Ltd suggested to the committee that because of the beekeeping industry's unique contribution to agriculture, a 3:1 (government: industry) contribution would allow for more meaningful research to be carried out by this small but vital industry.<sup>39</sup>
- 4.44 In evidence before the committee, Dr Whitten argued that the government should explore as a matter of urgency the possibility of establishing a pollination and apicultural CRC to assist beekeeping and pollination research.<sup>40</sup> In its submission, Australian Queen Bee Exporters Pty Ltd indicated that a single well funded research centre could also provide learning opportunities for future researchers, extension officers and entrepreneurial beekeepers and it could fulfil the educational needs of the industry.<sup>41</sup>
- 4.45 Dr Whitten estimated that to get a research centre as described above underway the government would need to contribute between two and three million dollars.<sup>42</sup> The Australian Weeds Management CRC

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36 Dr Max Whitten, *Transcript of Evidence*, 10 April 2006, p. 33.

37 Australian Honey Bee Industry Council, Submission no. 79, p. 3.

38 Australian Honey Bee Industry Council, Submission no. 79, p. 4.

39 Australian Queen Bee Exporters Pty Ltd, Submission no. 81, pp. 1, 3.

40 Dr Max Whitten, *Transcript of Evidence*, 10 April 2006, p. 31.

41 Australian Queen Bee Exporters Pty Ltd, Submission no. 81, p. 3.

42 Dr Max Whitten, *Transcript of Evidence*, 10 April 2006, p. 33.

was put forward as a suitable model for a rural based apiculture CRC. It was suggested that the research centre could generate a 'critical mass of interactions' if it were to be:

... a cooperative and sort of virtual centre based around one institution like, say, the University of Western Sydney but with links with Sydney University and the Waite with Queensland, much like the CRC model.<sup>43</sup>

4.46 The committee heard that the University of Western Sydney (Hawkesbury) would be an appropriate location for a pollination and apiculture research centre due to its proximity to the AQIS bee quarantine facility at Eastern Creek.<sup>44</sup>

4.47 However, the committee has heard that the existence of the AQIS bee quarantine facility at Eastern Creek may be under threat of closure, as the lease expires in 2010 and the facilities have been on-sold. The committee has been advised that this facility has played a key role over the past 25 years in reducing the risk of bee diseases entering Australia while giving access to valuable breeding stock from overseas. Its loss would be a serious blow to the long term viability of the beekeeping industry, with significant flow-on impacts to other primary producers through the collapse of pollination services. If no guarantee for continuation of the lease at the Eastern Creek quarantine facilities exists beyond 2010, then there is an urgent need to consider the biosecurity arrangements for the beekeeping industry.<sup>45</sup>

## Committee Conclusions

4.48 The committee was convinced by the evidence it received from various stakeholders in the honey bee industry, both in written submissions and during hearings, that the honey bee industry plays an important role in the continuation of a healthy agriculture industry.

4.49 The committee agrees that there is an urgent need for adequate funding to be made available so that a research CRC can be created to address the serious threats facing the industry today.

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43 Dr Max Whitten, *Transcript of Evidence*, 10 April 2006, p. 33.

44 Australian Queen Bee Exporters Pty Ltd, Submission no. 81, p. 1.

45 Dr Max Whitten, Correspondence, 28 July 2006.

- 4.50 The committee would also like to see a government-sponsored committee representing all stakeholders convened to address the issue of access for bee keepers to national parks.

#### **Recommendation 26**

- 4.51 **The committee recommends that the Australian Government formally recognises the contribution of the beekeeping industry to Australian agriculture and horticulture by providing funding for the establishment of a CRC-style entity for beekeeping and pollination, including development costs in the areas of research, education and bee breeding.**

#### **Recommendation 27**

- 4.52 **The committee recommends that the Australian Government guarantees the long-term future of the honey bee quarantine facility currently housed in the Eastern Creek Quarantine Facility or makes alternative arrangements for a permanent site, as a matter of urgency.**



## Provision of extension and advisory services

- 5.1 Extension services have undergone radical change over the last two decades. There have been positive changes – increased use of information and communication technology; direct participation by industry; and increased private sector service provision. There have also been negative changes – a decline in State Government rural extension services, usually driven by the need to cut costs whatever the consequences; a loss of corporate memory as departmental extension officers move on; and a failure to coordinate disparate service providers. There has also been a loss of focus upon the central purpose of extension – providing knowledge and skills to farmers to make their operations more productive and sustainable in a manner accessible to them. As Mr Graham Truscott, General Manager of the Australian Beef Industry Foundation (ABIF), explained:

You can have all of the wonderful high-tech methods of extension out in rural Australia, but rural Australia operates with people. It is people to people. The best way to get a message to a farmer is for his neighbour to tell him. That is how directly communication works in the bush. If their neighbour tells them, they are much more likely to believe it than if anybody else told them. Therefore, you have to establish champions who are the neighbours. Therefore, you have to be able to educate the champions, and to do that you have to have people on the ground to do that

education. It is a direct building of those skills to be able to achieve this vision.<sup>1</sup>

## From Public to Private Extension Services

5.2 Agricultural extension services in Australia have historically been based within State agricultural departments, but this support has been progressively declining over the last two decades and private companies have been playing an increasingly significant role in the provision of extension and advisory services. The extent to which State Governments have disengaged from extension varies from State to State. The response to this disengagement, and the expanding role of the private sector, has also been quite varied.

5.3 In Western Australia, the Government has largely withdrawn from the provision of extension services. Nonetheless, as the Western Australian Government noted in its submission, 'this State has well developed extension networks based primarily in the private sector'.<sup>2</sup> In evidence before the committee, Mr Bruce Thorpe, of the Western Australian Department of Agriculture, explained:

At the farm management level, whilst the department withdrew from this area quite some time ago, the extension network here has been very well taken over by the private sector providers. There is a very extensive network in this state, probably more so than others, that works closely with the farming sector. The farmers are paying for that service.<sup>3</sup>

5.4 Dr Reuben Rose, General Manager, Livestock Production Innovation for Meat and Livestock Australia, was also unconcerned about the withdrawal of State Governments from extension. Industry needed extension services, but who provided them was not an issue:

To give you an idea, South Australia and Western Australia have almost no extension staff left. New South Wales has significant extension capacity, as has Victoria and Queensland. Everyone has a slightly different approach to this whole area. South Australia has not had any extension staff for a long time. The sky has not fallen in; people are still making money in South Australia, I believe.

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1 Mr Graham Truscott, *Transcript of Evidence*, 10 March 2006, p. 32.

2 Government of Western Australia, Submission no. 19, p. 2.

3 Mr Bruce Thorpe, *Transcript of Evidence*, 20 July 2005, p. 33.



I think it is a really difficult area, because a lot of this is driven by history and politics, but it is clear to me that a good extension capability, particularly a good private sector extension capability, is a key for the future prosperity of the industry. We have to have people with the skills to help producers make change. I am not convinced that it is through funding or extension staff but encouraging the emergence of the private sector to help work with people... We work with the state departments, we work with some of the private sector providers and we work with the Landmarks and the Elders to try to make sure that that information is getting out, and people are going to use that in different ways.<sup>4</sup>

- 5.5 In his submission, Dr Peter Wylie, of the agricultural consulting firm Horizon Rural Management, argued that government extension services had become 'irrelevant and increasingly overshadowed by private sector advisors':

In most rural areas, private sector advisers outnumber government advisers by 4 or 5 to 1 and many private advisers visit as many farms in a day as the government extension officer might visit in a week.<sup>5</sup>

- 5.6 In its submission, CSIRO outlined for the committee how the traditional path from research to development to extension is increasingly being replaced by a more dynamic interaction chain which includes public research agencies, educational institutions, private agri-business, self-organised rural industry groups and a broad set of community organisations.<sup>6</sup>

- 5.7 On the other hand, Mr Peter Arkle, Rural Affairs Manager with the National Farmers' Federation, indicated that the withdrawal of State extension services was leaving a gap which the private sector had been unable to fill:

Probably where things are failing – it is not a political witch-hunt – is that we have certainly seen cutbacks in state extension services, public provision of those services. Maybe that is a reflection of a change in the times, but it is fair to say that the farming population has not shifted to the notion of commercial advisory services to any great extent. We will always have those progressive producers who are willing to pay. There is a large

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4 Dr Reuben Rose, *Transcript of Evidence*, 20 October 2005, p. 5.

5 Dr Peter Wylie, Submission no. 16, p. 3.

6 CSIRO, Submission no. 86, p. 8.

body of producers who probably, to be honest, with the phasing out of public extension services are missing out on this advice that they so critically need.<sup>7</sup>

- 5.8 Significantly, given developments in that State, the Western Australian Farmers Federation was also concerned about the trend towards private provision of extension services:

The perception of agricultural information as a public good, and subject to market failure, has provided the prime argument in policy debates since the 1960s for the continued provision of government extension services. The increasing industrialisation of agriculture, with a consequent increased emphasis on the potential for commercial provision of these services, has resulted in a questioning of the public-good nature of much agricultural information.

It is argued that much agricultural information still has public good characteristics and that market failure can occur even with services clearly deemed to be private goods.

This is supported by overseas experience, which indicates that areas of market failure are a reality as extension services are privatised. It raises the concern that some state governments may go too far down the road of privatisation of extension, neglecting important issues which would not be picked up by the private sector.

There is also concern about the weakening of research/extension links. Loss of feedback from farmers to researchers could become a problem as state public-sector agencies cut back on production-oriented extension.<sup>8</sup>

- 5.9 The submission concluded that:

If agricultural extension is to become dependent on commercial priorities then the directions pursued may not be economically efficient from the point of view of society as a whole, or may be contrary to other goals related to social welfare or the environment.<sup>9</sup>

- 5.10 One major concern was the cost of and access to extension services on a cost-recovery basis, whether public or private. In its submission, the
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7 Mr Peter Arkle, *Transcript of Evidence*, 10 August 2005, p. 18.

8 Western Australian Farmers Federation, Submission no. 92, p. 5.

9 Western Australian Farmers Federation, Submission no. 92, p. 5.

Australasia-Pacific Extension Network (APEN), representing some 500 extension practitioners in Australia, Asia and New Zealand, noted that:

Extension agencies in Australia have trended toward cost-recovery, fee-for-service, and privatisation of extension services. Gradual policy change in the 1990's saw state departments subject to processes of review and re-structuring that affected the nature of service provision. The trend towards privatisation seems to have also been influenced by:

- a. the declining relative importance of agriculture in the economy;
- b. budget pressures on governments, as well as;
- c. the increasing influence of economists' theories and prescriptions.

State agencies have frantically investigated ways of enhancing income or shifting functions to the private sector. While there has been little resistance to full-recovery pricing for training sessions or learning aides, there are few examples of successful fee-for-service options. It seems that landholders facing the decision of paying comparable rates for public agency advice or private consultants, typically favour the private sector. As agencies privatise services mixed results are occurring.<sup>10</sup>

- 5.11 The Queensland Government, in its submission, also expressed concern about cost and access to extension services, this time those provided by RDCs, arguing that producers were in effect paying for them twice:

There is need for greater transparency in the way extension services are funded as they move to fee-for-service. It is appropriate that research and development corporations have a greater role in supporting the uptake of innovative practices resulting from research and development without further cost impost on industry. There is a perception that the research and development corporations, which receive significant funding via industry levies, have resulted in industry paying twice – firstly for the cost of the research and development component, via levies, and secondly, for their utilisation of extension services.<sup>11</sup>

- 5.12 On the other hand, Conservation Farmers Inc. noted in its submission that State Governments were not above using funds sourced from RDCs to

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10 Australasia-Pacific Extension Network, Submission no. 52, p. 4.

11 Queensland Government, Submission no. 51, p. 10.

undertake research and extension, then selling the products to raise revenue:

State agricultural departments continue to under-resource research and extension in Agriculture and have directed their staff to source 'external funds' from R&D organisations such as GRDC, RIRDC, CRDC etc. This creates a shift of research fiscal responsibility from the States to Federal government. There is so much competition for these 'external funds' that it has become unhealthy and is to the detriment of agriculture, with state agency bodies seeking to fund internal positions and people rather than research issues. It has also created a "turf protection" mentality, leading to poor communication and a lack of co-operation within the research community. To add further instability to the effective use of the R&D dollar allocations, state departments apply their own costs for doing business to the external funds which erodes the value of the research funds by as much as 30-38%. State agencies secure much of the R&D funds and many of the outputs become action learning modules (ALM'S) for training. Many departments have few mechanisms to engage farmers and allocate limited finances to complete the task. The departments then seek the aid and support of grower groups and consultants to deliver the training, but fail to adequately finance the training coordination. In some cases they expect to be paid to participate and deliver the training messages.<sup>12</sup>

- 5.13 In its submission, Land & Water Australia also identified several concerns relating to the decline in State extension services, especially in regard to natural resource management (NRM). Land & Water Australia observed that there had been 'a marked shift in expenditure on extension (broadly defined) from the States to the Commonwealth over the last fifteen years'. It noted that, 'Commonwealth funding of facilitators and coordinators through Landcare, the Natural Heritage Trust and the National Action Plan has played important roles in facilitating community involvement and on-ground activities funded through these large national programs'.<sup>13</sup>
- 5.14 Land & Water Australia also noted that there 'has been a gradual disinvestment in the underlying extensions profession', including training, career paths and institutional support. The result was that:

The remaining advisors and the new facilitators are often relatively young and even if well qualified in the sciences, they

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12 Conservation Farmers Inc., Submission no. 20, p. 2.

13 Land & Water Australia, Submission no. 89, p. 2.

lack significant experience. Most are on short term tenure, suffer from inadequate professional support (there are very few experienced extension staff remaining within departments/agencies above them), have poor training opportunities (nowhere to go and little support for further education) and consequently, limited career paths. The predominance of short-term contract work, high levels of staff turnover and loss of good people from the sector results in institutional amnesia and lack of support for people in the field. It also means that it is not easy to find out what is being done/has been done elsewhere, and what lessons have been learned. Regional NRM staff feel as if wheels are being reinvented all over Australia.<sup>14</sup>

- 5.15 The lack of overall coordination in the organisation and delivery of extension services was also of concern to APEN. In evidence before the committee, Mr John James, past president of APEN, emphasised the fragmentation in the provision of extension services, noting that ‘We are reinventing the wheel many times over’:

I believe it is a more fragmented system now, especially where you have national, state and now regional bodies. If you look at the regional bodies, there does not seem to be a lot of coordination, networking or sharing of information going on between each of those within each state, let alone across the country. So we are not learning from our mistakes and what we can do better.<sup>15</sup>

- 5.16 His colleague, Mr Greg Leach, identified a significant loss of capacity and continuity of service in the transition away from State Government extension:

I think, from a state agency standpoint, we have not identified well enough the role of extension in the market failure and public good domain. There has been a gross shift in the role of extension from the state agency to the regional bodies without, I believe, a great deal of coordination and thought about the coherency and continuity of that effort. With the shift from state agency to regional bodies, there has been a concurrent loss by the agency of institutional capital in terms of the capacities of rural people to work with natural resource management issues. There is an issue of lost capacity.

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14 Land & Water Australia, Submission no. 89, p. 2.

15 Mr John James, *Transcript of Evidence*, 11 April 2006, p. 31.

One of the real big issues in terms of the ability of the regional body to deal with the public good area is their inability, because they have very limited funding, to attract the professionals who have longer term relationships in these areas and credibility and standing. They are more able to attract the short-term employees. There seems to be a fair deal of institutional churn and roll-over and that has a fair impact on meeting the public good issues. From my agency's standpoint we have a few challenges ahead of us in meeting that public good area in terms of extension and non-coercive change support. We are pretty sharp and we are getting sharper in terms of regulation, legislation and compliance but we still have quite a gulf to address in terms of the non-coercive support.<sup>16</sup>

- 5.17 In response to these issues, APEN advocated the creation of a National Extension Framework. The proposed framework would define the roles and responsibilities of extension providers, identify the needs of clients and providers, and create a system of national coordination of extension services.<sup>17</sup> A similar proposition, focussing upon natural resource management, was put by Land & Water Australia in its submission, which stated:

Land & Water Australia remains of the view that the job of achieving landscape-scale adoption of more sustainable land management practices requires highly skilled intermediaries between science and practice. There is a need to consider how some of the key issues can be addressed in a coordinated and integrated manner, perhaps through a framework for rural extension that examines and establishes:

- differences and similarities in drivers between extension for commercial agriculture and for natural resource management;
- the role of governments in extension and responsibilities between levels of government;
- supporting development of appropriate skills and training and competency standards for NRM extension;
- clarity and consistency in the role of universities and other training institutions and providers;
- career structures or other impediments to building and maintaining NRM extension capacity; and

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16 Mr Greg Leach, *Transcript of Evidence*, 11 April 2006, pp. 29–30.

17 Australasia-Pacific Extension Network, Submission no. 52, pp. 3, 9–11.

- mechanisms to promote NRM delivery as part of commercial extension activities.<sup>18</sup>

## Research and Extension

5.18 The vital link between research and extension was emphasised in the evidence presented to the committee. Research was important to improve production and environmental management – it's purpose to make Australian agriculture more competitive and sustainable. There was little point to research, however, unless primary producers had effective access to information in a form they could readily utilise. Hence extension. As Dr Rose explained to the committee, referring to the activities of Meat and Livestock Australia:

The core activities of MLA focus on improving market access, building demand for Australian meat and conducting R&D to provide a competitive advantage for the Australian red meat industry. It is in that context of providing competitive advantage that MLA undertakes its rural skills training and research initiatives. We firmly believe that the R&D outcomes are ineffective until they are communicated and delivered to producers. Our producers keep on saying to us there is no sense in leaving this research on the shelf. We commit around 20 per cent of our total budget of around \$36 million this year to communication and research adoption initiatives.<sup>19</sup>

5.19 The evidence presented to the committee indicated that the link between research and extension was not operating as effectively as it could or should. In its submission, Rural Industries Skill Training stated:

In reality there is limited knowledge sharing of research findings within the general rural community and ultimately to the end producer. There are cupboards of finished research projects sitting on shelves across Australia where the findings have never been conveyed to the end user (farmers).<sup>20</sup>

5.20 In its submission, CFI observed:

There is a low level uptake of research outcome by farmers as a whole. The most obvious reason for this failure is the missing step between the completion of research by the scientific community

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18 Land & Water Australia, Submission no. 89, p. 3.

19 Dr Reuben Rose, *Transcript of Evidence*, 20 October 2005, p. 1.

20 Rural Industries Skill Training, Submission no. 29, p. 7.

and the farmer's ability to visualise the uptake process and the associated productivity benefits.<sup>21</sup>

5.21 This communications gap between researchers and farmers is principally the consequence of underinvestment in extension and a failure to match research findings to the practical needs of farmers:

- Communications staffs recruited from education and extension areas quickly learn that 'marketing' is not an acceptable term in government service sectors as no one wants to be seen as 'commercial'. They usually produce brochures, CD, websites, education manuals and write articles. Most farmers work long physical days and have little enough time for reading long technical articles or assimilate comprehensive CDs and manuals. Essentially it means much of the extension information being produced is not being read or implemented on the ground.
- Older male farmers spend little time on computers and hardly ever browse a website unless they absolutely have to. Recommending them to large complex websites rarely meets their needs. They rely a great deal on their spouse to source electronic material.
- Farmers mostly avoid classroom formats, preferring to learn by doing or seeing in a field context. Yet 'power point' seminars are still the preferred way for researchers to communicate with farmers.
- What farmers say they want is someone they can talk to, help them interpret the information overload; someone who understands the holistic nature of their operation. Yet they are told time and again that 'one on one' extension is no longer an option.<sup>22</sup>

5.22 CFI believes that change will only come from real engagement, and providing relevant material illustrating the steps for change:

Farmers must see the need for themselves and not have it pushed on them. There must be a person contact that understands the area and can demonstrate the economic benefits of any research with farm validated examples. All the practical steps and costs must be in place.<sup>23</sup>

5.23 CFI also identified a gap in funding, with most of the extension dollars being spent on research staff and little spent on extension, the result being that 'we are making significant advances in technology, but little of it is

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21 Conservation Farmers Inc., Submission no. 110, p. 4.

22 Conservation Farmers Inc., Submission no. 110, p. 5.

23 Conservation Farmers Inc., Submission no. 110, p. 5.



being applied'.<sup>24</sup> CFI believed that there needed to be far greater accountability in the funding of research in terms of uptake of research and innovation:

Many research organisations have strategic plans that purport to engage the research issues with their stakeholders, but in reality offer few solutions at a farm level, due to the inadequate understanding of the research impacts at a micro level. For example, a farming system weed such as Fleabane threatens the very existence of No-till farming systems and another, named Lippia, is impacting seriously by eroding waterways and grazing lands. Current research undertaken by CRCs and other research institutions is directed at a macro level and few actions and solutions are being offered to manage the weeds at ground level. Lippia has been researched for 30 years yet there are no adequate on-ground solutions; a point of frustration for farmers in the Nth NSW and SE Qld regions. An annual critique of key research outcomes should be established matching the milestones and outputs. The success of the research outputs should be recorded by reviewing the adoption and usefulness to the industry and stakeholders.<sup>25</sup>

5.24 According to Rural Industries Skill Training, the way forward was to incorporate extension into research, and tie funding for extension to research funding:

Improved skill development within an industry needs effective and relevant research, however this research needs to include an extension and training component within the research project to allow for the dissemination of this information to the wider rural community. Sufficient funding needs to be dedicated to research projects which require extension to ensure that appropriate training programs can be developed from the research findings.<sup>26</sup>

5.25 Focussing on the work of RDCs, Mrs Margo Duncan, Chair of the Advisory Council for Tocal Agricultural College, made the same point to the committee, highlighting the excellent work undertaken by some RDCs to turn research into practice:

Research and development corporations were established many years ago to support research and development in particular

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24 Conservation Farmers Inc., Submission no. 20, p. 1.

25 Conservation Farmers Inc., Submission no. 20, p. 1.

26 Rural Industries Skill Training, Submission no. 29, pp. 7-8.

industries. They have been focused very much on research. The development side, which should include training, has received little emphasis. It is therefore necessary that these corporations put more funds into training and supporting training. The recent move in Victoria, where Dairy Australia has stepped in and assisted with dairy training in Victoria, should be a way ahead for training in other industries.

The council does not want to appear too critical of research and development corporations, as they have done an excellent job within the way their charter has been interpreted in the past. The skills crisis that is now enveloping rural industries would suggest that their charter needs to be broadened and their funding extended further to add value to the existing funding from government for agricultural training. However, there has been some excellent support for training from research and development corporations. For example, the Grains Research and Development Corporation supports full-time vocational education and training scholarships for students in agricultural colleges. The Cotton Research and Development Corporation is taking an active role in planning for future training in the cotton industry.

It is therefore suggested that research and development corporations use funds to add to what DEST provides for traineeships and other training. This would not be a large amount of funding but, if targeted well, it could really assist the promotion and delivery of training for rural skills across Australia. If some discretionary funds are not introduced into the system, nothing will change and in fact less and less rural training will occur. This is an excellent opportunity for the research and development corporations.<sup>27</sup>

- 5.26 In its submission, the Australian Cotton Cooperative Research Centre highlighted the work it was doing to promote extension in the cotton industry. It noted that under Australian Cotton CRC leadership the National Cotton Extension Network has provided a close link between research, industry initiatives, consultants and growers. The uptake of research is a high priority for the industry with the Cotton Research and Development Corporation investing approximately ten per cent of its R&D expenditure in extension programs to supplement state department extension services. This includes:

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27 Mrs Margo Duncan, *Transcript of Evidence*, 21 October 2005, p. 24.

Cotton Industry Development Officers (regional extension positions focussed on cotton production), national extension coordination, a technology resource centre, decision support and education. These positions partner with State DPis, Cotton Seed Distributors' Extension Agronomists and specialists in the areas of Water Use Efficiency, Irrigation and Integrated Pest Management (IPM) to form the National Cotton Extension Network.<sup>28</sup>

- 5.27 In its submission, Land & Water Australia acknowledged a change in emphasis in its own work, giving much greater prominence to extension now than hitherto:

In recognition of the need for research funders to invest further along the innovation spectrum than they used to, Land & Water Australia now invests almost 20% of its funds in knowledge and adoption activities, compared with less than 5% in 2000 – with a consequent reduction in corporation funds available to fund new research projects. Land & Water Australia has found, and this submission will outline, that success hinges on improving the relative “adoptability” of new knowledge, the need to be relevant to users and to use collaboration and teams to address the broader issues that tend to characterise NRM problems.<sup>29</sup>

- 5.28 There was a downside to this, according to Mr Andrew Campbell, the Executive Director of Land & Water Australia – investment in extension by research bodies was taking funding from research. He indicated that ‘ideally it would be great if R&D corporations were not having to fund the extension as well as the research because that means that our research dollars cannot go as far’.<sup>30</sup>

- 5.29 It was also suggested in evidence put before the committee that extension should be tied in more closely with the VET system, providing a formal framework for transferring skills. In its submission, the Rural Training Council of Australia NSW argued that there was much to be gained from this approach:

While extension is not seen as part of the traditional vocational and education framework the potential in terms of training and technology transfer is very significant. Traditionally, extension services were provided by state based agriculture departments. With the downturn of state provided services, private consultants,

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28 Australian Cotton Cooperative Research Centre, Submission no. 56, pp. 11–12.

29 Land & Water Australia, Submission no. 89, p. 3.

30 Mr Andrew Campbell, *Transcript of Evidence*, 17 August 2005, p. 4.

agronomists and professional staff working for rural merchandisers are increasingly being called on to fill this role. There is also an informal aspect of extension whereby "training" sessions are conducted by manufacturers and suppliers of agricultural equipment. However, the links between these activities and formal training structures remain tenuous.

Efforts are being made by a number of research organisations to create stronger links between research and training including the Weeds CRC and AWI. If the purpose of research is to identify new work methods and practices that ultimately improve productivity, sustainability and profitability then the most effective means of getting the message to farmers is through education and training programs.<sup>31</sup>

- 5.30 Mr Darren Bayley, Chair of the National Conservation and Land Management Training Providers Network, made a similar point in his evidence before the committee:

Our network believe that there is considerable scope to improve links with agriculture advisory services and research organisations with vocational training. We have seen the merging of traditional advisory and extension services with vocational training already in New South Wales, through the Profarm program, and in other states through the FarmBis program. I think, and the network believe, that this is a desirable development which provides more opportunities for producers to gain recognition for the sorts of activities they generally take part in. I think that research and development corporations and cooperative research centres should be encouraged to engage with vocational skills based training. Our network has seen some very positive developments with the CRC for Australian Weed Management in the development of good technical resources for training.<sup>32</sup>

- 5.31 In its submission, the Northern Melbourne Institute of TAFE argued that the VET sector was better placed than research bodies to provide extension services and that strong links between VET and research were essential. NMIT suggested:

Creating clearly defined links between research and the VET sector to ensure that the outcomes of research applicable to rural industry producers be made available to them in a timely basis,

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31 Rural Training Council of Australia NSW, Submission no. 62, p. 5.

32 Mr Darren Bayley, *Transcript of Evidence*, 21 October 2005, p. 13.

through creation of direct links with VET and through the allocation of clear roles. Research organisations in Australia have not proven themselves able to efficiently address extension training needs and the outcomes of some research never becomes available to producers.<sup>33</sup>

5.32 The Queensland Government also believed that 'rural industries would benefit from much closer links between the VET sector and the providers of advisory, extension and research services'.<sup>34</sup>

5.33 In evidence before the committee, Professor Roger Swift, Executive Dean of the Faculty of Natural Resources, Agriculture and Veterinary Science at the University of Queensland, highlighted his own experience with the integration through co-location of research, extension and training resources at the University of Edinburgh as a model for agriculture in Australia:

...earlier in my career I was employed in Scotland, at the Edinburgh School of Agriculture. That was part of the University of Edinburgh, which was my appointment, but it also taught subdegree diploma students and it also had all of the advisers for the east of Scotland advising on pigs and sheep, cereals and so on. We all worked in the same building. When I gave my lectures, I would invite an adviser to come in and talk about his particular case. When we applied for research, we would all talk together: what are your problems, and how do you solve them? What research should we do to do this? We would bring in the farmers. It is the best example I have found of an integrated teaching, research, advisory extension organisation, and it really came out of co-location.

...We would develop focus centres which would be based in strong universities with strong research. We would co-locate the local DPI and part of the CSIRO division with them, but the DPI would be researchers and extension officers. We could try to rebuild or re-create that entity. That entity failed in Scotland. It did not fail but it was pulled apart because the different people putting in the funds were not sure that they were getting their money's worth. They destroyed the entity so that they could control their bit of it better. It was not pulled apart because it did

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33 Northern Melbourne Institute of TAFE, Submission no. 26, p. 9.

34 Queensland Government, Submission no. 51, p. 11.

not work; it was pulled apart because the managers could not abide something working but their not knowing how it worked.<sup>35</sup>

## Industry filling the void

5.34 During the course of the inquiry, the committee found many examples of industry groups filling the void left by the decline in State extension services. For example, to address its concern about quality control of information, the Irrigation Association of Australia (IAA) is developing a certification program for consultants and service providers. To supplement 'dwindling government advisory services', IAA currently funds two industry development officers together with Horticulture Australia Limited and State agencies. IAA says this is cost effective and believes State agriculture departments and other relevant agencies should be encouraged to explore the expansion of this program. The IAA submission noted that 'the potential for industry and government to work with commercial sector agents and industry development officers and research officers is immense'.<sup>36</sup>

5.35 Mr Graham Truscott (ABIF) explained how the beef industry mobilised to cope with a loss of extension services that threatened the implementation of Breedplan:

One of the real problems of the beef industry is that a lot of the extension work previously has been done by the state agricultural departments and over last 20 years at least we have seen a continual drawing back by those departments and removing of people from the extension role. We know that because a number of the breed societies et cetera have actually employed those people as they have come onto the market. Also, in the beef industry the key genetics development tool is Breedplan, and the extension of Breedplan has been left largely to the breed societies and ABRI. Towards the end of last year, we got to the point where the last extension officer being employed, Brian Sundstrom, was in fact retired and they were not going to replace him. Therefore, it actually reached crisis point because, as you will read in the papers, the Breedplan technology is very advanced. It is world-leading genetics evaluation and estimation technology that is used by geneticists in the pork industry, chicken industry et cetera, and we are expecting farmers to use this tool. We are asking a great

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35 Prof. Roger Swift, *Transcript of Evidence*, 24 May 2006, p. 4.

36 Irrigation Association of Australia Ltd, Submission no. 14, p. 7.

deal of our farming base to use this advanced technology. Without training they cannot do that.

So it became an initiative of the Australian Registered Cattle Breeders Association and ABRI to replicate in the south a program that was developed in the north to put extension services in for Breedplan. That southern beef extension program was developed to be able to take about four young extension people and build their skills by using some of the older extension people who are getting close to the end of their career – with no-one in the middle – to try and educate these young extension people. That project is now being implemented, and it will deliver about 65 workshops throughout southern Australia across the next four years, specifically designed to help farmers – people on the land – understand the Breedplan technology and the target markets, design breeding programs and use the Breedplan tooling to design select genetics to best hit target markets.<sup>37</sup>

- 5.36 In evidence before the committee, Mr Arthur Poole (Australian Dairy Farmers Ltd) told the committee that his organisation has moved into providing extension services that link VET to extension:

The other area that I feel that we hopefully show a lot of leadership is in extension...On the back of the drought, we undertook a project called Dairy Moving Forward...That has gone to the heart of addressing the needs of a certain section of farmers that need more support in developing on-farm change and on-farm learning. One of the big things we will do with this new initiative in the formal VET sector is link that better to extension, to the departments of primary industries around Australia, to the companies and their field staff. We feel that there is a degree of farmers, probably 15 to 20 per cent, maybe even higher, in dairy that will take up learning no matter how you give it to them, in what form, when, where or what. They will be information seekers, and they will take up the latest technology or even existing technology very rapidly. We feel that in terms of building relationships and one-on-ones, that can still be done. There is probably something like 2,000 to 3,000 service providers who see farmers on a fairly regular basis. The concept of one-on-one may have been thrown out of the DPI sector in Australia, but we have far from thrown it out of the dairy industry. The initiative under Dairy Moving Forward, called Taking Stock, was a one-on-one

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37 Mr Graham Truscott, *Transcript of Evidence*, 10 March 2006, p. 28.

based initiative. It was working with factory field staff, DPIs, rural counsellors, basically anybody who was having regular contact with dairy farmers, to promote the concepts of business management and of linking business management to on-farm change and to on-farm learning. We are heading towards 2,000 farm businesses going through that program. We will not lose that initiative. It needs to be better linked to the VET sector so we can formally move people in from one-on-one activity into learning activity.<sup>38</sup>

- 5.37 Mr Poole indicated that the dairy industry was adapting to the new extension environment, something other industries could take in hand:

If there is something else that I think other sectors can learn from, other than the Dairy Australia GOTAFE initiative and the Melbourne University hours, it is the Taking Stock initiative. We have changed our tune as farmers; we would as happily invest in the development of skilled service providers as we would in ourselves as farmers. That takes a lot of guts again to make that judgment to actually invest in a group of people that support you rather than investing in yourself directly. We strongly believe that we need to do that to have change.<sup>39</sup>

- 5.38 The limits of industry initiative, however, are highlighted by the apiary industry. In its submission, the NSW Department of Primary Industries observed that State departments of agriculture have traditionally provided the major source of extension and advisory services to the beekeeping industry, but that these services are not as strong now as in the past. Moreover, there are few, if any, private consultants available to provide advice on honey bee management practices.<sup>40</sup> The need for ongoing government assistance in this case would appear compelling.

## Committee Conclusions

- 5.39 In the committee's view, there is an urgent need for the national coordination of agricultural extension services in Australia. A national extension framework, which defines the roles and responsibilities of governments, industries and extension providers, is essential. This will arrest the decline in State extension services and provide direction and support to industry and private providers. It will give end users – the

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38 Mr Arthur Poole, *Transcript of Evidence*, 14 November 2005, p. 72.

39 Mr Arthur Poole, *Transcript of Evidence*, 14 November 2005, p. 72.

40 Department of Primary Industries NSW, Submission no. 91, pp. 10-11.



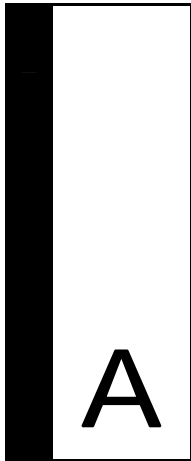
- farmers – a clear indication of who will be providing extension services and what they can expect from extension services.
- 5.40 The link between research and extension needs to be explicitly emphasised. One is little use without the other. Funding arrangements for all government funded rural research activities should include a component for extension and training. The provision of extension should become an integral part of any research program.
- 5.41 Within this context, there is much to be gained by integrating the activities of researchers with educators. Co-location of research, extension and training activities has the potential to create synergies that would remain unrealised while these activities are conducted within separate silos.
- 5.42 The committee acknowledges the good work of the industries cited above and others to meet their own extension needs, and the increasingly valuable contribution of private sector advisers and consultants in the extension field. These developments are welcome. The committee believes that industries are, on the whole, best able to define their own extension requirements, and sourcing them from the private sector allows for a great deal of initiative and flexibility.
- 5.43 Nonetheless, the committee is of the opinion that State Governments have been remiss in allowing the extension services provided by their agriculture departments to wither away. State services provided structure and continuity. They were a reliable source of independent advice and a storage bank for corporate memory. The services they provided, and to some extent still provide, were a vital foundation for the transfer of information and skills. There is an urgent need to reinvigorate State Government extension services.

### **Recommendation 28**

- 5.44 **The committee recommends that the Australian Government, in conjunction with State and Territory Governments and industry, develop a national extension framework to coordinate the provision of agriculture extension services nationally, and define the roles and responsibilities of governments, industry and extension providers.**

**Recommendation 29**

- 5.45 **The committee recommends that the Australian Government include a specific extension component in all funding arrangements for agricultural research organisations in receipt of federal funding, including rural Research and Development Corporations and Cooperative Research Centres. This funding should be provided in addition to, not at the expense of, research funding.**



## Appendix A – The Inquiry

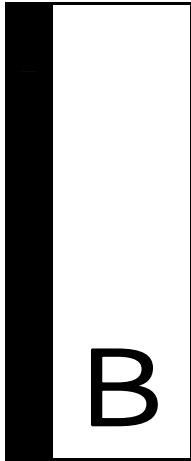
- 1.1 The inquiry into rural skills training and research was referred to the House of Representatives Standing Committee on Agriculture, Fisheries and Forestry on 17 March 2005 by the then Minister for Agriculture, Fisheries and Forestry, the Hon Warren Truss MP. A copy of the terms of reference is at page xi.
- 1.2 The committee's inquiry was advertised in metropolitan and regional media in April 2005, inviting members of the public to make written submissions for the committee's consideration. Letters inviting submissions were also sent to all State Premiers, Chief Ministers, relevant Commonwealth, State and Territory government departments and peak bodies and individuals. Information concerning the inquiry was also made available on the committee's website.<sup>1</sup>
- 1.3 During the inquiry, the committee received 117 submissions, from a range of Commonwealth, State and Territory agencies, educational bodies, private sector organisations and individuals. A list of submissions received by the committee is at Appendix B. A list of other documents of relevance to the inquiry which were formally received by the Committee as exhibits can be found at Appendix C.
- 1.4 The committee held 22 public hearings for the inquiry. These provided the committee with opportunities to hear at first hand the views of the people affected by current and future issues concerning

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1 At <<http://www.aph.gov.au/house/committee/primind/index.htm>>.

rural skills training and research. A list of the organisations and individuals who gave evidence to the committee is at Appendix D. The transcripts of evidence recorded from the public hearings, along with the submissions, are available on the committee's website.

- 1.5 The committee also conducted inspections of Marcus Oldham College, Farrer Memorial Agricultural College and the University of New England.



## Appendix B – List of submissions

Number	Individual/Organisation
1	CONFIDENTIAL
2	Mr Peter C Torning
3	Countrywide Industries
4	CONFIDENTIAL
5	Mr Ray Hall
6	CRC for Irrigation Futures
7	Mr Bill Cotching
8	NAME WITHHELD
9	Mr Ray McInerney and Mr Keith Mutton
10	Mr Hugh Wynter
11	Dr Max Whitten
12	Dr Sandra J Welsman
13	Forest and Wood Products RDC
14	Irrigation Association of Australia
15	Mr Donald Lawson
16	Dr Peter Wylie
17	National Conservation and Land Management Training Providers Network

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- 18 Isolated Children's Parents' Association of NSW
  - 19 Government of Western Australia
  - 20 Conservation Farmers Inc.
  - 21 Avcare
  - 22 Murrumbidgee College of Agriculture Advisory Council & the CB Alexander, Tocal Advisory Council
  - 23 ChemCert Australia
  - 24 Primary Industries Curriculum Maintenance Manager
  - 25 National Agriculture Training Provider Network
  - 26 Northern Melbourne Institute of TAFE
  - 27 Professor Frank Vanclay
  - 28 Queensland Rural Industry Training Council
  - 29 Rural Industries Skill Training
  - 30 Australian Pesticides & Veterinary Medicines Authority
  - 31 Mr Val Pollard
  - 32 Mr Graeme Harris
  - 33 Farmworks
  - 34 Mr Michael Hodder
  - 35 Applied Horticultural Research
  - 36 CONFIDENTIAL
  - 37 Winemakers' Federation of Australia
  - 38 Country Women's Association of NSW
  - 39 Mr Andrew White
  - 40 Mr Barrie Brennan
  - 41 Primary Skills Victoria
  - 42 Grains Industry Training Network
  - 43 Australian Society of Horticultural Science
  - 44 National Association of Agricultural Educators
  - 45 National Centre for Vocational Education Research

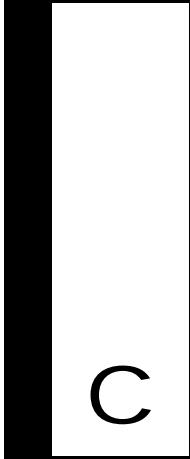
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|----|---|
| 46 | Southern Queensland Institute of TAFE                                 |
| 47 | School of Rural Science and Agriculture, University of New England    |
| 48 | Australian Beef Industry Foundation                                   |
| 49 | Australian Mushroom Growers Association Ltd                           |
| 50 | Indigenous Land Corporation   |
| 51 | Queensland Government   |
| 52 | Australasia-Pacific Extension Network                                 |
| 53 | Rimfire Resources Pty Ltd   |
| 54 | Mr Peter Berrisford   |
| 55 | Regional Skills Training Pty Ltd                                      |
| 56 | Australian Cotton CRC   |
| 57 | Animal Health Australia   |
| 58 | Institute of Foresters of Australia                                   |
| 59 | Cotton Australia Ltd  |
| 60 | Department of Agriculture Sciences, La Trobe University               |
| 61 | Grains Industry Training Network (supplementary to Submission no. 42) |
| 62 | Rural Training Council of Australia NSW                               |
| 63 | Victorian Farmers Federation  |
| 64 | University of Ballarat  |
| 65 | Cooperative Venture for Capacity Building                             |
| 66 | Department of Agriculture, Fisheries and Forestry                     |
| 67 | Growcom   |
| 68 | Faculty of Land and Food Resources, University of Melbourne           |
| 69 | Training and Education Committee, Australian Seed Authority           |
| 70 | Rangelands Australia  |
| 71 | Rural Skills Australia  |

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- 72 Australian Dairy Farmers Ltd
- 73 Australian Wool Innovation Limited
- 74 Nursery & Garden Industry Australia
- 75 Cattle Council of Australia
- 76 Meat & Livestock Australia
- 77 Faculty of Natural Resources, Agriculture and Veterinary Sciences, University of Queensland
- 78 Mr Maxwell Woods
- 79 Australian Honey Bee Industry Council
- 80 Riverina Regional Development Board
- 81 Australian Queen Bee Exporters Pty Ltd
- 82 Marcus Oldham College
- 83 Ms Gretchen Wheen
- 84 Mr Jim Kirchner, Mr Darrell McLennan and Mr Michael Wood
- 85 Mr Charles Nason
- 86 CSIRO
- 87 South Australian Farmers Federation
- 88 Group of staff and students - RMIT, Hamilton, Vic.
- 89 Land & Water Australia
- 90 McMillan Gippsland Advisory Committee
- 91 NSW Department of Primary Industries
- 92 Western Australian Farmers Federation
- 93 NSW Farmers' Association
- 94 Department of Education, Science and Training
- 95 Agricultural Research Western Australia
- 96 Tasmanian Government
- 97 Government of Western Australia (supplementary to Submission no. 19)



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- 98 Dr Doug Somerville
- 99 Group of Australian apiarists
- 100 Balanced State Development Working Group
- 101 Primary Skills Victoria (supplementary to Submission no. 41)
- 102 Irrigation Association of Australia (supplementary to Submission no. 14)
- 103 National Association of Forest Industries and Australian Plantation Products and Paper Industry Council
- 104 Northern Melbourne Institute of TAFE (supplementary to Submission no. 26)
- 105 Agri-Food Industry Skills Council
- 106 Mr Richard Belfield (Earth Surgeons and Consultants)
- 107 Motor Traders' Association of NSW
- 108 Mr Warwick Felton
- 109 Dr Cris Brack
- 110 Conservation Farmers Inc. (supplementary to Submission no. 20)
- 111 South Australian Division, Australian Institute of Agricultural Science and Technology
- 112 School of Rural Science and Agriculture, University of New England (supplementary to Submission no. 47)
- 113 Nursery & Garden Industry Australia (supplementary to Submission no. 74)
- 114 Mr Peter Kidman
- 115 Department of Agriculture, Fisheries and Forestry (supplementary to Submission no. 66)
- 116 Department of Education, Science and Training (supplementary to Submission no. 94)
- 117 Department of Education, Science and Training (supplementary to Submission no. 94)

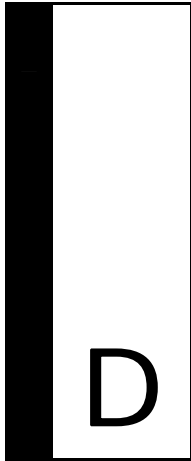




## Appendix C – List of exhibits

1. Document *Assistance for Isolated Children (AIC) Scheme, Western Australian College of Agriculture, Department of Education and Training*, presented by Mr Garry Fischer at a public hearing in Perth, 20 July 2005.
2. Document *Horticultural Labour Situation Statement (HG03072)*, prepared by CDI Pinnacle Management and forwarded by Growcom.
3. Documents *Weed Publications 2006* and *Weed Watch 11*, presented by Dr Max Whitten at a public hearing in Brisbane, 10 April 2006.
4. Documents 'Medihoney' and 'Medihoney Wound care first choice in infection control', presented by Mr Donald Keith at a public hearing in Brisbane, 10 April 2006.
- 5 Pamphlets on Master, Graduate Diploma and Graduate Certificate courses in rangeland management, presented by Professor John Taylor at a public hearing in Brisbane, 10 April 2006.
- 6 Document *Queensland Skills Plan*, presented by the Queensland Government at a public hearing in Brisbane, 10 April 2006.
- 7 DVD of the 'Every Family Needs a Farmer' TV advertisement, presented by AgForce at a public hearing in Toowoomba, 11 April 2006.
- 8 Documents presented by Australian Agriculture College Corporation at a public hearing in Toowoomba, 11<sup>th</sup> April 2006.





## Appendix D – List of public hearings and witnesses

### **Wednesday, 20 July 2005 - Perth**

#### **Agricultural Educators Association of Western Australia**

Brother Francis Donohoe, Publicity Officer

#### **Government of Western Australia**

Mrs Kay Bodman, State Coordinator FarmBis, Department of Agriculture

Mr Bruce Thorpe, Director, Farm Business Development Unit, Industry and Regional Services Division, Department of Agriculture

Mr Garry Fischer, Manager, Agricultural Education, Department of Education and Training

Ms Wendy Newman, Council Member, Technology and Industry Advisory Council

#### **Western Australian Farmers Federation**

Mr Trevor De Landgraft, President

Mr Julian Breheny, Research Officer

#### **Agriculture Research Western Australia**

Dr Walter Cox, Chairman of the Board

Dr Andy Paterson, Planning Director

Mr Richard Payne, Executive Officer

## **Wednesday, 10 August 2005 - Canberra**

### **National Farmers' Federation**

Mr Peter Arkle, Rural Affairs Manager

Mrs Denita Wawn, Workplace Relations Manager

### **Rural Skills Australia**

Mr Geoffrey Bloom, Executive Director

Mr Wayne Cornish, Chair

## **Wednesday, 17 August 2005 - Canberra**

### **Land & Water Australia**

Mr Andrew Campbell, Executive Director

Dr Stuart Pearson, Senior Knowledge Broker

## **Wednesday, 7 September 2005 - Canberra**

### **Individuals**

Dr Sandra J Welsman

### **Agsafe Ltd**

Mr Sam Ponder, General Manager

### **ChemCert Australia**

Dr Margaret Clarke, Executive Manager

### **Avcare Ltd**

Mr Claude Gauchet, Executive Director

**Thursday, 20 October 2005 - Sydney****Applied Horticultural Research Pty Ltd**

Dr Gordon Rogers, Managing Director

**Australian Honey Bee Industry Council**

Mr Stephen Ware, Executive Director

**Australian Queen Bee Exporters Pty Ltd**

Mr Warren Taylor, Managing Director

**Australian Wool Innovation Ltd**

Mr Paul Comyn, Program Manager, Education and Adoption

**Cotton Australia Ltd**

Mr Ralph Leutton, Program Manager, Policy and Legislation

**Irrigation Association of Australia**

Mr Jolyon Burnett, Chief Executive Officer

Ms Jann O'Connor, Training Development Manager

**Meat & Livestock Australia**

Mr Stephen Feighan, Project Manager, Producer Delivery and Adoption

Dr Reuben Rose, General Manager, Livestock Production Innovation

**NSW Farmers' Association**

Mr Alan Brown, Chair of the Rural Affairs Committee and Board Director

Ms Brianna Casey, Senior Policy Manager, Rural Affairs

**Nursery & Garden Industry Australia**

Ms Jenny Lambert, Chief Executive Officer

Ms Candice McNamara, National Skill Development Manager

**Friday, 21 October 2005 - Newcastle****Australian Mushroom Growers Association Ltd**

Mr Gregory Seymour, General Manager

**Tocal Agriculture College**

Ms Margo Duncan, Chair, Advisory Council

Mr Cameron Archer, Member, Advisory Council and Principal

Mr Richard Chaffey, Deputy Chair, Advisory Council

**National Conservation and Land Management Training Providers Network**

Mr Darren Bayley, Chair

**NSW Rural and Related Industries Skill Advisory Committee**

Mr Niel Jacobsen, Project Manager

**Wednesday, 9 November 2005 - Canberra****Institute of Foresters of Australia**

Mrs Heather Crompton, Immediate Past President

Mr Adrian O'Loughlin, Executive Director

**Monday, 14 November 2005 - Melbourne****Australian Agriculture Training Providers Network**

Mr Colin Cook, Member and South Australian Representative

Mr William Kinsey, Committee Member

Mr Michael Schaefer, Outgoing Chairperson

**Australian Dairy Farmers Ltd**

Mr Robert Poole, Deputy Chief Executive Officer and Policy Director

**Forest and Wood Products RDC**

Dr Glen Kile, Executive Director



**Department of Agricultural Sciences, La Trobe University**

Dr Mark Sandeman, Head of Department

Dr Peter Sale, Associate Professor, Agricultural Science

**Northern Melbourne Institute of TAFE**

Mr Andrew Coulthard, Operations Manager, Faculty of Earth Science

Mr Wayne Pappin, Head of Department of Agriculture and Animal Science

**Primary Skills Victoria**

Mr James Dennis, Chair, Agriculture Standing Committee

Mr Gregory Hallihan, Executive Officer

**Rimfire Resources Pty Ltd**

Mr Nigel Crawley, Director

**University of Melbourne**

Professor Frank Larkins, Deputy Vice-Chancellor (Research) and Dean of the Faculty of Land and Food Resources

**Tuesday, 15 November 2005 - Geelong****Individuals**

Mr Peter Berrisford

**Grains Industry Training Network**

Ms Nickie Berrisford, Executive Officer

**Marcus Oldham College**

Mr Samuel Inglis, Director of Corporate Training

Mr Simon Livingstone, Principal

**RMIT University**

Dr David Hodges, Research Supervisor

Dr Kaye Scholfield, Manager, Community Partnerships & Projects

Dr Bill Vistarini, Lecturer/Supervisor

Ms Susan McArthur, Teacher in TAFE, Former RMIT Masters Student (Project)

Mrs Marilyn Lyons, M Ed (RMIT), RMIT Hamilton Masters by Projects Students

### **Wednesday, 7 December 2005 - Canberra**

#### **Indigenous Land Corporation**

Mr David Galvin, General Manager

Mr Stephen McCarthy, National Capacity Development Manager

### **Wednesday, 8 February 2006 - Canberra**

#### **Rural Industries Skill Training**

Mr Bill Hamill, Chief Executive Officer

### **Wednesday, 15 February 2006 - Canberra**

#### **Animal Health Australia**

Dr Lorna Citer, Training Service Manager

Dr Robert Keogh, Director Programs

### **Wednesday, 1 March 2006 - Canberra**

#### **Isolated Children's Parents' Association of NSW**

Mr Gordon Dunlop, Treasurer

Ms Susan Gordon, President

### **Thursday, 9 March 2006 - Tamworth**

#### **Individuals**

Mr Raymond McInerney

Mr Keith Mutton

Mr Anthony Eden

Mr John Rhodes

**Cotton Catchment Communities CRC**

Prof Peter Gregg, Chief Scientist

Mr Guy Roth, Chief Executive Officer

**Farrer Memorial Agricultural High School**

Mr Zac Carrigan, Student

Mr Graeme Harris, Vocational Education Teacher

Mr James Levy, Relieving Principal

Mr Chris Schutz, Student

Mr Jamie Thomas, Relieving Head Teacher, Agriculture

**National Association of Agricultural Educators**

Mr Graeme Harris, Secretary

**Friday, 10 March 2006 - Armidale**

**Individuals**

Mr Richard Belfield

Mr Maxwell Woods

**Australian Beef Industry Foundation**

Mr Graeme Truscott, General Manager

**Country Women's Association of NSW**

Mrs Margaret Brown, Representative, State Executive, State Social Issues Committee

**University of New England**

Dr Geoffrey Hinch, Associate Professor, Head, School of Rural Science and Agriculture

Professor Alan Pettigrew, Vice-Chancellor and CEO

Professor Margaret Sedgley, Executive Dean, Faculty of the Sciences

## **Wednesday, 29 March 2006 - Canberra**

### **Agri-Food Industry Skills Council**

Mr Arthur Blewitt, CEO

Ms Jane Brownbill, Senior Manager

## **Monday, 10 April 2006 - Brisbane**

### **Individuals**

Mr Donald Keith

Dr Max Whitten

### **CSIRO**

Dr Peter Carberry, Group Leader, Agricultural Landscapes Program,  
Sustainable Ecosystems

Dr Brian Keating, Deputy Chief, Science Integration, Sustainable  
Ecosystems

### **Queensland Government**

Mr Rod Camm, Executive Director, Industry Development,  
Department of Employment and Training

Ms Kirstine Harvie, Director, Office of Industry and Community  
Development, Department of Employment and Training

Mr Damien Killin, Policy Officer, Department of Employment and  
Training

### **Queensland Rural Industry Training Council**

Mrs Jennifer Easlea, Council Member

Mr Michael McCosker, Council Member

Mrs Sheila Thompson, Chair

Mrs Yvon Wigley, Executive Officer

### **Rangelands Australia**

Dr John Taylor, Director

## **Tuesday, 11 April 2006 - Toowoomba**

### **AgForce Queensland**

Mrs Wendy Allen, Manager, Training and Corporate Partners

### **Australian Agricultural College Corporation**

Mr Malcolm McKay, College Director

Mr Ross Murray, Director, Education and Training

### **Australasia-Pacific Extension Network**

Mr John James, Past President

Mr Greg Leach, Member

Mr Neale Price, National President

### **Conservation Farmers Inc.**

Mr Michael Burgis, Executive Officer

Ms Jillian Condell, Consultant

Mr Jean-Francois Rochecouste, Consultant

### **Horizon Rural Management**

Dr Peter Wylie

## **Wednesday, 24 May 2006 - Canberra**

### **University of Queensland**

Professor Richard Williams, Professor in Horticulture, School of Agronomy and Horticulture

Professor Roger Swift, Executive Dean, Faculty of Natural Resources, Agriculture and Veterinary Science, and Campus Director

## **Wednesday, 31 May 2006 - Canberra**

### **Australian Institute of Agricultural Science and Technology**

Mr James McColl, Board Member, South Australian Division

Mr Geoffrey Thomas, President, South Australian Division

## **Wednesday, 9 August 2006 - Canberra**

### **Department of Agriculture, Fisheries and Forestry**

Dr Dennis Bittisnich, Manager, Innovation Policy Section, Rural Policy and Innovation Division

Mr Bruce Bowen, General Manager, Industry Partnership, Training and Leadership, Rural Policy and Innovation Division

Mr Jeffrey Hillan, Manager, Farm Business Management, Rural Policy and Innovation Division

Mr Ian Thompson, Executive Manager, Rural Policy and Innovation Division

## **Wednesday, 16 August 2006 - Canberra**

### **Department of Education, Science and Training**

Dr Paul Balnaves, Acting Branch Manager, Transitions and Attainment Branch

Ms Rebecca Cross, Group Manager, Industry Skills Development Group

Mr Ben Johnson, Branch Manager, Skills Branch, Industry Skills Development Group