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**HOUSE OF  
REPRESENTATIVES**

STANDING COMMITTEE ON AGRICULTURE, FISHERIES AND  
FORESTRY

**Reference: Rural skills training and research**

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**HOUSE OF REPRESENTATIVES**  
**STANDING COMMITTEE ON AGRICULTURE, FISHERIES AND FORESTRY**

**Wednesday, 20 July 2005**

**Members:** Mr Schultz (*Chair*), Mr Adams (*Deputy Chair*), Mr Martin Ferguson, Mr Michael Ferguson, Mr Forrest, Mr Lindsay, Mr Gavan O'Connor, Mr Secker, Mr Tuckey and Mr Windsor

**Members in attendance:** Mr Adams, Mr Martin Ferguson, Mr Schultz, Mr Secker

**Terms of reference for the inquiry:**

To inquire into and report on:

- 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.
- 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.
- The provision of extension and advisory services to agricultural industries, including links and coordination between education, research and extension.
- The role of the Australian government in supporting education, research and advisory programs to support the viability and sustainability of Australian agriculture.

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**Committee met at 3.16 pm****BREHENY, Mr Julian Matthew, Research Officer, Western Australian Farmers Federation Inc****DE LANDGRAFFT, Mr Trevor, President, Western Australian Farmers Federation Inc**

**CHAIR (Mr Schultz)**—I thank my parliamentary colleagues for carrying the workload for me while I have been away. I declare open this public hearing of the House of Representatives Standing Committee on Agriculture, Fisheries and Forestry for its inquiry into rural skills training and research. This is the first public hearing for this important inquiry. During the course of the inquiry, the committee will be exploring whether the demand for knowledge and skills in the agricultural sector is being met by education, training and research programs. The ability of the Australian state and territory governments to provide and support this framework is vital to the sustainability of Australia's agricultural sector. Our challenge is to make a positive contribution by identifying what improvements can be made and to push for those changes.

I welcome the witnesses. Although the committee does not require you to give evidence under oath, I advise you that these hearings are formal proceedings of the parliament. Consequently, they warrant the same respect as proceedings of the House itself. It is customary to remind witnesses that giving false or misleading evidence is a serious matter and may be regarded as a contempt of parliament. Do you wish to make some introductory remarks or a brief statement in relation to your submission?

**Mr De Landgraft**—Yes. The skills shortage is something that my organisation in Western Australia has been talking about for several years. It is something that now seems to be rattling right across the economy. We even recently heard the Prime Minister talk about the skills shortage. In Western Australia, we classically have a work force that is casual by nature and, fundamentally, the main skills on the property are carried by the owners and operators of the property. In agriculture we do a lot of training because a lot of casual people come through. We do not get the long-term benefit of all of that training. Also, the wheat belt areas of Western Australia, particularly, are characterised by many overseas people coming in to fill those temporary positions. Fundamentally, New Zealanders like to come to Western Australia, work hard, get paid well and go. Another peculiarity of the Western Australian farming sector is that the local shearing teams are fundamental to employment on farms throughout Western Australia. The shearing contractor brings young people into the district and generally trains them for the purpose that he wants them for, but during the peak times in the farming calendar they move off and perform the other tasks. They even move well away from the wheat belt down into the fruit picking areas et cetera.

Fundamentally what has occurred over the years is that the people we have had in agriculture have not had any certification to demonstrate the skills they have. My organisation has been quite active within the Primary Industry Training Council. I chaired the agricultural division for some time and have taken a keen interest in training in agriculture. Recently, in fact only just 12 months ago, my organisation became a registered training organisation in its own right with the purpose of filling the gaps. Our purpose was not to compete with existing TAFEs or training institutions but to be able to do the hard jobs that simply have not been done over time. We will talk a bit later about some areas with which we have struggled there.

Something that is peculiar to Western Australia also is that many of our skilled people who are in agriculture for a while end up getting poached by the mining industry. There is a mining boom on at the moment and everyone is getting poached. Suddenly we are getting listened to about our problem slightly because other areas are suffering as well. 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, and we will talk about that a bit later on as well. That gives you a bit of a background as to where we see training is needed in the agricultural industry.

**CHAIR**—Thank you very much for your input. Before I open the session for questions, I can assure you that there is a common theme right across the country with regard to approaching apprentices. We heard it in Queensland and we have heard it elsewhere. Apparently it is a nationwide problem and we will certainly take on board any information we can as to how to address that problem when we are taking evidence from people such as you.

In relation to training your submission states that administering and managing a registered training organisation is complex due to stringent compliance requirements set by state governments. Would you care to outline those processes that are of particular concern in that regard? I am sure the committee would love to have some detail.

**Mr De Landgraft**—Yes. It has been a very steep learning curve for our organisation. Over a number of years we had heard from outside the trade, I suppose, as to why there were not more people out there trying to deliver training to rural areas, why there were not private RTOs taking up the challenge. Quite clearly it is because the number of resources you have to put into compliance is very significant. We are currently undergoing our first audit at the moment, which we originally failed.

**Mr SECKER**—Are you an RTO?

**Mr De Landgraft**—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.

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.

That is one of the issues once we get past compliance and the difficulties of getting trainers who are prepared to fill the forms in promptly. The literacy levels of most people who work in rural areas probably are not significant, or at least they are lower than you would find in the metropolitan work force, so they do not deal easily with the very complicated procedures of demonstrating competencies and the delivery of courses, whereas perhaps within a TAFE system you can monitor everybody and you can afford to put on the expertise to do it. So we are dealing with people who like to be outdoors, they like to deliver training, they are good at what they do and the clients like it, but they fail to fill the forms in properly, and that becomes difficult for us.

**CHAIR**—So you are saying that, if your organisation could have some sort of assistance—for example, from the Commonwealth government—you would be able to target these isolated places of need and more importantly the people in them, and the young people in particular, much more effectively.

**Mr De Landgraft**—That is exactly right. It was put to me the other day, 'Why can't these people come in and get their training?' They do not. Interestingly enough, we get most of our calls to train people from the employers. They do the young people in, their sons or the people who are working in their shearing teams. They do them in, saying, 'Come and deliver some training to these young people to get the processes right and give them something when they walk away from here so they have a certificate to demonstrate that they are competent.' That being the case, these are not the kind of people who would leave the shearing team or the farm for a week to go and sit in a classroom. They are allergic to pencils and books but they are quite skilled people and become very skilled and very necessary for our industry.

One of the other barriers to delivering skills that perhaps we have is the fundamental lack of formal skills of farmers themselves. I think Western Australia has the lowest rate of tertiary educated farmers. It is becoming better now as they marry nurses, schoolteachers and other people, and that improves it significantly and it is a great help. Nevertheless, the fact that many farmers have no formal qualifications also is a barrier. That is an area that we have to overcome, and we are committed to instilling a training culture in agriculture, but to do that we have to get runs on the board and we have to be able to get out and deliver training. The only way at the moment we can do it is if we can get people in groups so that we can train in an area and keep them 20, 30 or 40 kilometres apart, and do one lot of travelling. That is just not always possible. If you do not deliver to someone who requires the training, they probably do not want it when you get a group together. Obviously, you would always want to target groups, but you cannot always do it and we need the ability to access the clients.

**CHAIR**—In relation to the submissions that we have received so far, I have picked up a very common theme with organisations, whether semi-government or private with government input into them, which are being funded by both the Commonwealth and the state governments, where there seems to be from my observations an overlap of the services provided. In other words,

there seems to be a little too much money, taxpayers' resources, going into training organisations that are duplicating each other to some extent—if not totally, in some cases. The other point that I want to make, which you may also like to comment on, is that there appears to be some criticism that we are concentrating more on academic achievements in the training rather than the actual physical training of the skills themselves. Would you like to make some comment about those two points?

**Mr De Landgraft**—Yes. On the last one just to start with, although we are apparently going to what they call OBE over here—what does that stand for, Julian?

**Mr Breheny**—Outcomes based education.

**Mr De Landgraft**—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.

**Mr SECKER**—Can I clarify that, when you are talking about agricultural colleges, you are talking about secondary schools rather than university.

**Mr De Landgraft**—Yes. I guess we have to make the distinction.

**Mr SECKER**—We have the same in South Australia. We have an agricultural college but it is not like Roseworthy College, which is a university type of thing.

**Mr De Landgraft**—Technically it is post compulsory schooling but it acts as a senior high school, so it is for years 11 and 12.

**CHAIR**—What about the issue of overlap or, more importantly, of more appropriate outcomes flowing from the funding that goes to various organisations? Do you want to make a comment on that?

**Mr De Landgraft**—Yes. The mainstream universities in town are perhaps not so critical for us. The TAFE colleges that operate in the semirural areas probably are more of an issue and, of course, Curtin University operates the Muresk Institute at Northam. As far as the Muresk Institute is concerned, I think it is well placed not to duplicate and it does quite well, and we can talk about that if you wish. But certainly various TAFE colleges will overlap in spread of business. Sometimes you do wonder whether that overlap is particularly efficient, and whether perhaps you could do it a bit more efficiently otherwise.

It is not an issue that happens with the private RTOs, because we are not given profiling funding. You are paid only for what you train, so you do not have that taxpayer money out there doing that. The other thing about taxpayer funding, which I think is very valuable, is the subsidy given to employers to take on a trainee. Without that subsidy very few traineeships would be delivered in rural areas, into the agricultural areas. So we certainly implore the committee to consider that ongoing funding for those traineeships.

**Mr SECKER**—Do you think it should increase? The need to increase that subsidy so that farmers will take more of them has been one of the arguments in the rural areas.

**Mr De Landgraft**—I do not know. There are several aspects to the funding. Depending upon your student, you will get more funding. So females and Indigenous people attract quite a lot more and appear to be more attractive to take on. But we have not noticed that many Indigenous young people are ending up in the agricultural areas. They may well be getting more into pastoral areas. So the money does not seem to be buying the training in that respect and, in my view, whether they are male or female does not seem to matter too much.

It is an avenue through which to put funding out there to assist in the delivery of the training, which is a problem that I spoke about earlier. Any increase would perhaps go that way. We have had reasonable acceptance of that amount of money being available to the employer to do the job. I think you could always add more money, and that would be appreciated, but if you were to do so you probably would not necessarily pay more to the employer; rather, you would do something about the delivery of it.

**CHAIR**—Referring back to the poaching issue, it has been put to us that perhaps those larger companies such as mining companies that are poaching third-year apprentices—those coming into their fourth and final year—should be made accountable for that poaching by having to make a financial or some other contribution to compensate for the three years of hard work undertaken by the previous employer of those apprentices, or something to that effect. Do you have any views on that?

**Mr De Landgraft**—Yes, I do have a few thoughts on that. It is not unlike the old bonding system that we used to have for schoolteachers where, if one left the trade before the end of the period to which their bond applied, they had to pay the bond back. Maybe you could apply that to the apprenticed, and if a mining company wanted him it would have to buy him out. Lots of farmers had to buy their wives out of the teaching trade, so it is possible.

**CHAIR**—It is a very valid point.

**Mr De Landgraft**—It is always difficult because you do not want to put too many restrictions on that kind of trade or people moving about. And whilst we are in a boom time for mining at the moment, that can easily turn around. There has been a significant increase in the price of iron ore and main metals, which has allowed them to pay whatever is required to get their mines going.

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 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.

**CHAIR**—The theme there is better coordination and cooperation.

**Mr De Landgraft**—Yes.

**Mr MARTIN FERGUSON**—What is the period of training for the certificate III?

**Mr De Landgraft**—That is a very good question. It usually can be delivered in around 12 to 18 months, so long as a person has underpinning knowledge.

**Mr MARTIN FERGUSON**—So it is a jack-of-all-trades certificate: a bit of welding, fencing and everything on the job?

**Mr De Landgraft**—Yes. They need to have underpinning knowledge. They would really need to be equivalent of certificate II, which is what a boy or girl gets as they come out of our agricultural colleges—they have some fundamental skilling.

**Mr MARTIN FERGUSON**—If you go to an agricultural college through to year 12 you should be up to what certificate level?

**Mr De Landgraft**—Certificate II.

**Mr MARTIN FERGUSON**—For certificates II to III what period on the job is required?

**Mr De Landgraft**—An eighteen-year-old who went into agriculture for two or three years would have the competencies and most of the knowledge to be certificate III, but there would be some knowledge gaps that needed to be filled. They are classically some of the people we are delivering training to.

**Mr MARTIN FERGUSON**—Isn't the starting point for us to try to get more of this done whilst they are at high school, the same way in which generally with apprenticeships we have to try to at least have as many kids as we can complete year 1 of an apprenticeship by the time they finish high school so they are job ready and attractive to employers? Isn't that the way we have to go?

**Mr Breheny**—That is one of the issues—probably the major issue. With all industries, as you said before—a bit of welding, a bit of fencing and this, that and the other, and this applies to mining and agriculture—people are driving tractors with GPSs and they are driving fairly high-tech irrigation systems. There is inflexibility in training packages at school. Agricultural colleges traditionally had quite a dynamic approach to teaching and were able to respond to the needs of the community because of collaboration within the community.

**Mr MARTIN FERGUSON**—You are worried about the new education system of next year?

**Mr Breheny**—No, not really. This has happened over longer than that has been about.

**Mr MARTIN FERGUSON**—That was raised in your submission.

**Mr Breheny**—It was. It is a concern, but the problems of inflexibility in training have been around for longer than that has been an issue. You have TAFEs or agricultural colleges now that have to teach within a regulatory framework, and you have this problem with credentials in agriculture. So, in order to rapidly teach those new skills to the students as they are happening, they have to teach outside those regulatory frameworks and therefore they cannot give the credentials. You have a bit of a paradox.

**Mr MARTIN FERGUSON**—So somehow we have to fix this at the starting point in the education system.

**Mr Breheny**—Yes.

**Mr De Landgraft**—The other issue we have in Western Australia is moving to a higher age for compulsory schooling. You have to stay in school until you are 16 and then 17. These people are, to a degree, going to be captive within the school system.

**Mr MARTIN FERGUSON**—That is not necessarily a problem provided that the education system is delivering training relevant to them getting a job.

**Mr De Landgraft**—The proper investment has to be made in our school systems because a lot of those people will not want to be there. So it might take a little bit of a culture change to deliver the hands-on training that might be able to get into the school, whereas traditionally the agricultural colleges have been able to deliver that style of training.

**Mr MARTIN FERGUSON**—There are not a lot of formal apprenticeships in the agricultural sector, are there?

**Mr De Landgraft**—No. In Western Australia we only have horticulture who call their traineeship an apprenticeship.

**Mr MARTIN FERGUSON**—How many years is that?

**Mr De Landgraft**—You've got me on exactly how long that takes to deliver.

**Mr MARTIN FERGUSON**—So it would be two or three years?

**Mr De Landgraft**—I think you would be okay in two years, yes.

**Mr MARTIN FERGUSON**—Whilst you have focused on the resources sector, isn't it true that generally we have a culture in the industry of some employers who will always train and others who will bludge off the system? It is not just the resources sector. How do we bring this to a head and get the culture in the industry that training is an investment in the future rather than a cost-saving exercise? What suggestions do you have on that front?

**Mr Breheny**—I think one of the prime ones—and some people might think it is cosmetic—is, as I mentioned in my submission somewhere near the end, that there is a great deal of despondency in agriculture.

**Mr MARTIN FERGUSON**—It is not seen as an industry with career opportunities?

**Mr Breheny**—It is seen as a sunset career or sunset industry. While you see, particularly in Western Australia at the moment, the construction industry and the mining industry laying it on very thick about how much of a future there is in construction and how good it is to be involved in construction, I think the federal government and the state governments have, in the past—in the last 20 years at least, since I can remember—focused on the idea that we have to go high-tech, look for niche opportunities and go for computer science and that sort of stuff. I know, when I was at university, that there were a lot of people who graduated from computer science who never got jobs in computing. We should work together to build the image of agriculture. I know that, in Western Australia, Rural Skills Australia have employed Emma Kiffin-Petersen, and she has done work to build the image of agriculture within schools, which has been quite successful. But, as usual, there are funding issues there. Just as we get started, we get barriers thrown up.

**Mr MARTIN FERGUSON**—I would put it to you that it is not just governments; it is mums and dads.

**Mr Breheny**—I would agree with that.

**Mr MARTIN FERGUSON**—They see apprenticeships as a second-class opportunity and think that agriculture is a dirty industry, that the resource sector is a dirty industry and that building and construction is a dirty industry. We have a cultural problem in Australia which is that, unless they do a university degree, your kids have failed. We all have to face up to that problem, don't we, not just government?

**Mr De Landgraft**—We do, and I think that culture is actually changing. We are noticing it within our school systems, where even in the private school systems they push everyone into the TEE stream. But the reality is that only 30 per cent of them go on to university. We are noticing in Western Australia, particularly now that we have this skills shortage that we have talked

about, that the TAFEs, which are more practically oriented, are pinching people and the universities are struggling to fill their quotas in that respect.

**Mr MARTIN FERGUSON**—For the first time ever they are going down.

**Mr De Landgraft**—They are. I think this is probably an opportune time for us to drive the point home that some people do actually have to be the plumbers, electricians, farmers and farmhands of this world. We gave evidence here earlier about government's role in promoting industries such as agriculture, which struggle with their images, and having the government promote us as a good place to invest and have a career path. Without repeating ourselves, I think that is also one solution here.

**Mr Breheny**—There is quite a lot of work being done at the moment that says that people do not need to go to university—or not the amount of people who are going to university. I was saying to Trevor last night on the way back from Moora that I probably did not need to go to university to get my arts degree. I think I probably could have done what I am doing without it.

**Mr ADAMS**—That is good to know; I will take that on board when I reread your submission. I will tell the vice-chancellor about that! The issue that you were just talking about in relation to apprentices: would it be better to give an apprentice \$1,000 at year 2 and then maybe a couple of thousand dollars when he finishes his apprenticeship so he stays in his apprenticeship and doesn't walk off earlier because his mates are working in construction and are making more money? Are they the positive things there?

**Mr De Landgraft**—It is an interesting thing because apprenticeships traditionally have been quite low paid. Then again, in times of high demand, apprentices find themselves actually making quite good money. The incentive scheme that the federal government has in place for traineeships is predicated on a similar point, where you get a fee for signing up and two other payments as you progress through. Clearly there is the incentive for the employer to continue. With paying the apprentice to stay, it is a reasonably sophisticated way of getting him to think about his future if you get him to focus on a grand now. I am not quite sure whether it would work.

**Mr ADAMS**—Let me go to the basis that it is good to build the image of the industry but, if agriculture is paying Y, construction is paying X and mining is paying Z, that could also take a point, I would have thought. If you are going to put somebody on a \$100,000 tractor or get them to look after a system of animal management worth X and you are going to pay them \$26,000 a year, would that have an effect on the sort of training and the sort of person you are going to get in agriculture?

**Mr De Landgraft**—It does. That increasing sophistication of all systems—and it is right across agriculture now, you are quite right, and it is not hard to get a half-a-million-dollar tractor—makes a farmer very aware that he either has to bomb-proof his place or he has to pay good money for labour. Seasonal labour is quite well paid, there is no doubt about it, but it is with the guys who we try to keep in agriculture permanently that we have a problem, because the terms of the trade in agriculture are not very flash. We have some good years and we have some tough ones. We are price takers; you are never quite sure how it is going to go.

I think that farmers per se are now seeing the value of paying people better. The good farm managers are probably ending up with more money in their pockets than a farmer who is actually running a farm himself, because those are larger farms and they are prepared to put more of the gross profit into the work force. So some of that reality is going there because of the market.

**Mr ADAMS**—I want to come back to the pathways and to young people, as Martin said, starting in the high schools with, say, VET programs. Can we then build the pathways, even for the itinerant workers? How do you do that in Western Australia? Maybe you can answer that one first. Are there opportunities to build, whether it is in horticulture, pasture areas or whatever, a cycle of where people can work in the itinerant system?

**Mr De Landgraft**—Yes. 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.

**Mr ADAMS**—If you had some sort of passport process, each job that person did could be recorded, so it would be a record of the person’s employment status so that, when they went to an employer, they could say: ‘Here I am. This is my labour, these are the skills I have and this is where I have worked.’ I would have thought that would give that person a status that we probably do not recognise. We had informal systems in Australia. I remember that, in my father’s day, he went into the town and got the skills that he needed to work on his farm. But there were people there then who had the skills. We seem to have lost that.

**Mr De Landgraft**—I think it would be a very good tool. Often the people who are young and getting experience do not take enough care to think about collecting the references and formalising the skills that they pick up, which they will certainly find more valuable as they go on. They would be much more valuable walking onto a farm with evidence than they are as we get them at the moment. I would commend that.

**Mr ADAMS**—Is there enough recognition within your constituency that health and safety issues are of fundamental importance—that anybody who is injured is another cost to our systems and that the need to teach people good competencies with competency based learning is an important process? Do your constituents accept that?

**Mr De Landgraft**—They are more accepting of it but, as you would be aware, agriculture comes just after mining with respect to fatalities. It is not something that we are proud of at all. But, when you understand some of those numbers, a lot of fatalities are self-employed people working alone with poor work practices. They may get away with most of those things, but it is the isolation that actually kills them. It takes time to get them to medical attention, and they are often on their own. So that tends to make the industry seemingly more dangerous than it actually



is. But the occupational health and safety training, and developing this safety mentality, is what we value out of the formal training processes we have within the ag schools. People who work on their own who are self-employed tend not to be very formal about the way they go about their tasks. We have seen it as a challenge for our organisation to try to get people thinking about occupational health and safety. With WorkSafe we have rolled a program out across Western Australia, the Farmsafe Alliance, which is having mock inspections on farms and telling farmers how to become compliant and what issues they need to deal with. I think we are getting better on that. If we do not get better on that, we will not attract the good people in the industry.

**Mr Breheny**—There is a danger in that also. Whilst occupational health and safety is a very important issue and it has gone down the path that you have talked about, we have to be very careful about how much pressure we put on those people out there trying to survive in rural and regional Australia as far as the cost of implementing occupational health and safety is concerned, because some of them cannot meet the demands of that particular community's social problem.

**Mr ADAMS**—The culture changes also. I had a mother ring me up and say that her son, who had been employed in a traineeship by a farmer in my electorate, had refused to drown six pups in a bag and did I think that he was right to do that. I said I did not think that should be part of his traineeship. That is the sort of culture that I was trying to get to. Do think that culture of 'You should do it the way I learnt' is changing?

**Mr De Landgraft**—Yes. Farmers, whether they like it or not, have the external pressures of society thrust upon them. As an employer, you have to learn to be an employer and, if you work for yourself, quite often you are not a good employer. As time goes on, through osmosis and having good people on your farm, you will probably become a better employer. Certainly the next generation is better at it than the old guys.

**Mr ADAMS**—How do you do your shearing training?

**Mr De Landgraft**—Shearing training is done fairly well but we do not have a good follow-on process. At the moment we are fortunate that the state government puts \$300,000 into induction training in Western Australia, which goes to one of the TAFEs. The TAFE subs it out to a trainer who works in the field. Because the state government has the commitment there, Australian Wool Innovation matches that funding and puts another \$300,000 out there—

**Mr ADAMS**—You lost federal funding into that area, didn't you?

**Mr De Landgraft**—Yes, that is right. I will get to that in a bit. They are putting funding out there for coaching of people who are already in the industry. The traineeships are quite new in the shearing industry and are not in big demand, but we are trying to get shearers to want to become tradesmen in that role. Getting those guys out there under that traineeship program is a bit of a challenge for us but, if we are able to deliver traineeships in shearing and there are not too many obstacles in our way, it is logical to roll the guys out of the induction training and quickly follow them through with certificates 1, 2, 3 and 4 in shearing. But those impediments I told you about earlier in delivering traineeships are there and, obviously, we are going to need the ability to deliver the traineeships and the assistance to deliver them.

**CHAIR**—Can I just give you something that you might take away on notice. In the early 1990s the New South Wales state government put some funding into a number of high schools across the state. They made them technology high schools. In other words, they put a technical college component into the schools and gave them the money to put the facilities in there so you had an opportunity for young people from year 10 on to take on apprenticeship training, whether it was welding, engineering or whatever. The teachers were supplied mainly from the rural areas to teach them the skills. The students were credited with the one or two years that they had up their sleeves against an apprenticeship that they took up when they left year 12. I am not sure whether that sort of system operates in Western Australia but, if it does, you might take it on notice and give us your views and your response to that at a later date.

**Mr De Landgraft**—Okay. Thank you.

**CHAIR**—Thank you very much for your contribution; it is very much appreciated. It has been very informative, as it always is, for us to hear from different people in areas of agriculture as to what their views are on where we should be going with assisting our young people not only to be trained but, more importantly, to be staying in our rural areas rather than haemorrhaging to the seashores.

[4.00 pm]

**COX, Dr Walter (Wally), Chairman of the Board, Agricultural Research Western Australia**

**PATERSON, Dr Andy, Planning Director, Agricultural Research Western Australia**

**PAYNE, Mr Richard, Executive Officer, Agricultural Research Western Australia**

**CHAIR**—Welcome. Although the committee does not require you to give evidence under oath, I advise you that these hearings are formal proceedings of the parliament and, consequently, they warrant the same respect as proceedings of the House itself. It is customary to remind witnesses that giving false or misleading evidence is a serious matter and may be regarded as a contempt of parliament. Would one of you like to make some opening remarks?

**Dr Cox**—Yes, I will. And with your concurrence I would like to table our submission. I will talk to some of the highlights in the submission and build on the submission made by the previous witnesses you were talking to. In the professional area we also have a massive skill shortage, which is getting worse by the day. This is largely as a result of a booming economy and a booming mining sector which is attracting away many of the skills that the agricultural sector needs by way of research and support for the extension of services.

I represent Agricultural Research Western Australia, which is a joint venture established in November last year whereby the research capacity of the Department of Agriculture is being combined with the research capacity of three of the universities in this state—Curtin University, Murdoch University and the University of Western Australia. The objective is to get the capacity, the size and the expertise, to make a meaningful contribution to agriculture in Western Australia, rather than having four institutions competing for very scarce—and becoming scarcer by the day—resources.

As part of the process for these hearings, we convened a workshop with the Department of Agriculture. The department's representatives will come along later to talk about the skills side of things, but we want to talk a bit about the research side. We have prepared our submission on the basis of what is good about our current system, in our view, and what is not so good, and we have made some recommendations. The recommendations are very much about the leadership role that the federal government can take. It is not about pots of money, nor is it the usual ask for more money to support existing processes.

In regard to terms of reference No. 3, we have identified that there are some good institutions in Western Australia and that there is good cooperation, but that we are unable to source researchers because of the lack of professional skills in Western Australia, given the competing demands from other industries, which is not helped by the poor image of agriculture as a career, for a variety of reasons. We are not able to source adequate numbers of undergraduates into our courses, which is compounding the problem, and the education that we do participate in overemphasises production research. It does not look at the total farm system. Much of the productivity comes from other aspects of the farming system, not just from production research.

The recommendations we make to you are summarised at the bottom of that first page. We recommend that federal processes encourage an increased intake into the currently available courses and broaden the teaching focus to cover total farming systems rather than just production issues. We would like to see increased emphasis on encouraging a program in schools whereby we focus on the benefits of agriculture to the community and as a career. Currently, agriculture is seen as a second-class career rather than as a first-choice career.

Again, in regard to terms of reference No. 3, our comments there focus on the importance of the link between research and extension to make sure that new research is put into practice. We have summarised what we see as being good about the current system, but we say it would be better if we could get further improvements in cooperation between researchers and producers. So we identify the research needs and get better cooperation between the people who provide extension services to ensure that funding has the biggest impact on farmers' productivity. The recommendations are quite specific and we are happy to pursue those by way of follow-up discussion.

On terms of reference No. 4, again there are a number of positives there that the Commonwealth has put in place. 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. We have highlighted some other things we see as being very good in changing the direction of agriculture. What we see as being not so good in the current environment, though, are the changing policy settings that occur regularly and that make funding for agricultural research somewhat uncertain. As a consequence, this impacts on careers and on the number of people who want to go to university.

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 servicing the industries that are currently booming, particularly the mining industry.

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. I would be delighted to answer any questions with my two colleagues.

**CHAIR**—Is it the wish of the committee that the submission from Agricultural Research Western Australia be received as evidence and authorised for publication? There being no

objection, it is so ordered. What was the catalyst to develop the concept of ARWA at the first point, and were there any significant problems with the existing arrangement of independent organisations?

**Dr Cox**—I will take that in two parts. The first part is that when the Gallop government got elected for their first term in 2001 there was a machinery-of-government review that identified opportunities for improving the efficiency of government. Much of it was about merging organisations so you would minimise the duplication of corporate services and maximise the professional expertise in those agencies. At that stage, out of those discussions came a proposition that the idea of merging the research capacity of the department of agriculture with one of the universities should be explored.

That exploration then took place and what became very clear is that in Western Australia there are three universities with substantial capacity in terms of agricultural research postgraduate training as well as in producing research products of relevance to the agricultural sector in Western Australia. Out of that came a process and a dialogue that led to a joint venture with four parties forming a single entity. Like any joint venture, there has to be something in it for everybody otherwise you do not get a joint venture. The ‘something in it’ is that people saw a common good and a common goal. The first common goal was that each individual institution in its own right is modest in size and has a limited range of expertise and people saw benefit in aggregating the units of expertise so you can address big issues rather than looking at component issues which by themselves may not service the needs of the farming community.

There was also a ‘selfish’ motivator. The selfish motivator is that, by enhancing your capacity to become much more competitive nationally and internationally, you can attract additional resources so you have the capacity to train further postgraduate students in institutions. So those were the two drivers of the initiative. We are still in the formative stages. The structure is in place and the cooperative agreement is in place and it is now a case of identifying the unique skills that can be combined to provide a better service to the community.

**CHAIR**—Stage 3 of the implementation process of establishing ARWA will see the formation of a series of centres of research and training excellence based at the university campuses Bentley, Crawley and Murdoch and the facilities of the Department of Agriculture and the universities throughout the state. Each centre will have a core research capability—for example, in cereal breeding—supported by related research, for example in plant pathology, and services such as those provided by diagnostic plant laboratories. How do you envisage the centres of research and training excellence established under stage 3 of the implementation process being able to contribute to the availability and adequacy of education and research in agriculture in Western Australia?

**Dr Cox**—There are two components to it. The centres are being selected on the basis of logical locations of expertise. Each of the universities has strengths. We are developing plans whereby the Department of Agriculture people who are currently based in South Perth will collocate with the relevant areas of expertise at those three campuses of the universities—Curtin, Murdoch and the University of Western Australia. Collocation means that we are going to get strengths. Rather than having one of something, all of a sudden you start talking about having the expertise of two or three people who can feed off each other to better address the issues faced by the rural sector. We end up with three logical centres. They will not duplicate and they will

not replicate. To give you an example, the expectation is that much of the horticultural production and research will go through Curtin University, whereas by contrast much of the animal production research will go through Murdoch University. Those are where the logical centres of expertise are, so you build up those centres of expertise and the rest of it will shake out on the basis that there will not be duplication or replication.

To answer the second part of your question, by enhancing your expertise and capacity, by becoming more competitive and being recognised in the national and international marketplace as producing very good quality products, you will effectively attract additional postgraduate students into the joint venture arrangement through the university partners, whose expertise is in training. Part of that process will be through doing cooperative research with the people who do applied science through, historically, the Department of Agriculture working with the university partners, and having the postgraduate students getting very involved in applied research while not forgetting the need for basic research or fundamental research. So it is very much about giving those postgraduate students exposure to real industry issues while they are undertaking their postgraduate training and their being able to address emerging issues faced by the rural community.

**CHAIR**—How do you answer the criticism that, while these focused exercises on tertiary education will give us people with degrees out in the rural sector, they do not address the shortage of rural based skills at the coalface of agriculture?

**Dr Cox**—There are two parts to it.

**CHAIR**—There is a criticism that we are training up people who are well qualified but we are not training up people who have the hands-on experience to keep the agriculture flowing into the system.

**Dr Cox**—Yes, I realise that part of it, but I am only going to answer one part of it. The vocational training side of it is certainly one part of it—it is extremely important—but our focus is very much about the fact that in Western Australia, with a very large rural sector, productivity has been increasing at better than the national average rate. This is for two reasons: on-farm innovations, including new technology; and production research. If agriculture is going to improve or maintain its terms of trade, we have to keep on-farm innovation and agricultural production research going. As a consequence, we have to have two components. We need skilled people on the farm to do the farming, but we also need the supporting structures, the supporting frameworks, in place to ensure that there is a flow of information from the researchers to the farmers so they can put it into practice. It is equally important to interact with the farmers so they can identify their on-farm issues and translate those into research problems that the researchers can address. I do not think we can separate the two. It is part of a cycle, and we have to resource all parts of the cycle, otherwise the system will crack.

**CHAIR**—You know as well as I do that, in reality, the exercises to date have not met that agreed objective.

**Dr Cox**—Again, I will take it in parts, because that is a very general statement. If I take it quite specifically, we can all identify issues that farmers have identified as emerging issues that they want answers to. We can identify where the researchers have worked together with the

farmers to address those issues and generated solutions. There are also bodies of evidence available and documented that indicate that the investment in research dollars has not always paid off as well as people would have liked. I think that is part of your point.

**Mr ADAMS**—Agriculture is not returning what it used to return to Western Australia. Is that a true statement?

**Dr Cox**—Gross production has increased substantially. As a part of the gross state product, it has diminished.

**Mr ADAMS**—Would that have something to do with agriculture losing its attraction to people? Agriculture is changing. The emerging sustainability and animal rights issues are going to put enormous pressure on agriculture. Is that why people do not want to go into agriculture at a scientific level? Are these some of the issues? Are there more sexy things—like saving the world, environmental issues—than being involved in the productive side of things?

**Dr Cox**—I do not think there is any one answer.

**Mr ADAMS**—You are an intelligent man, Dr Cox—

**Dr Cox**—My colleagues may want to add to my opening comments. In Western Australia we have seen a cultural change. The mining sector has become so important and dominant that it is very attractive to go into the professions that support that industry. There is also a culture, which has been referred to by others, that we are very much a capital-city-centric state, with 75 per cent of the population living in Perth. As a consequence, there has not been a great attraction to go into the rural sector to support those industries. A series of additional issues support that proposition. One of those is that agricultural industries have been cyclic in relation to seasonal conditions and droughts and cyclic in terms of funding for agricultural research. So it tends to be short-term focused, contract focused, and nobody can guarantee that you will have a job or will be doing the same job in five or 10 years time.

They are just some of the issues faced by the sector. I draw a parallel with other professions. I sit on the board of an organisation called the Chemistry Centre in Western Australia, and there is an absolute shortage of chemists. There are very few young people going into the basic sciences. Chemistry is a Perth based or a city based profession. We are finding that in a number of professions we are just not getting the entries. As a consequence, the industries are suffering.

**Mr ADAMS**—But why?

**Dr Cox**—I think partly for the reason you alluded to.

**Mr ADAMS**—So you identify employment type issues as one reason, I take it?

**Dr Cox**—But there are also cultural type issues. For years it has been very attractive to go into the business sector, become a commerce graduate and make easy money. The harder sciences have become relatively less attractive than some of these other professions.

**Mr ADAMS**—So we are not paying people enough money?

**Dr Cox**—Payment is only one component of it. I think there are many components to it. Most of the basic sciences do not pay as well as some of those other professions, but they also do not have the status of some of the other professions. Using your terminology, they are not seen to be as ‘sexy’ as some of those other professions. So there is a combination of factors, many of them cultural. That is why I call on your committee to examine the proposition that there is an opportunity for the federal government as well as all of us together—because this is not a case of it being your problem and not ours—to show leadership and encourage people to enter those professions.

**Mr ADAMS**—This is the century of science, isn’t it?

**Dr Cox**—If we talk nanotechnology, biotechnology and DNA, yes. But some of the more basic types of sciences and the applied type sciences are not as attractive.

**Mr MARTIN FERGUSON**—There is a potential alliance between the agricultural sector, the resources sector and a lot of other sectors of industry now because they are all identifying this fundamental problem with respect to science in education which has let us down as a community. In some way, sitting here today, you can see the resources sector as the enemy. I think there is almost a potential alliance to be developed to confront this problem at a leadership level at the moment. The Minerals Council are saying they have a fundamental problem with science at school. So I am challenging you people from an industry perspective to put an alliance together and lobby state and federal government to confront this problem.

**Dr Cox**—That is a fair observation. I deliberately made the point that this is not just a federal government issue; this involves all of us. Dr Paterson might like to talk about the chemistry initiative to promote sciences.

**Dr Paterson**—Certainly. I have been involved for the last two years, before joining Agricultural Research Western Australia, with a review of the Chemistry Centre (WA), which is a government agency that provides chemistry analysis, information and analytical services to government and a range of other clients. As part of that, I was working with the four universities in Western Australia—Edith Cowan can be added to the list of those you have heard about—to develop an alliance with the Chemistry Centre, as a representative of the Western Australian state government, to create a Western Australian institute of chemical science. That has been a parallel project with the creation of ARWA.

The institute of chemical science is now a functional entity. It is up and running. Its focus is very much on education and training rather than research. The thrust there is to try to work right along the continuum—from schools, attracting students to continue to study chemistry in particular but also the other basic physical sciences at a tertiary entrance level, and then to join a pathway into a career in the chemical industries. You are absolutely right that there are many overlaps with the work that the Minerals Council, the Minerals Institute and others do. In the work I have been doing for the last couple of years we have been talking with those groups.

There is also a project running out of the University of Western Australia with funding from the Grains Research and Development Corporation called the primary industry science project. That has been running now for about 2½ years. It is based on a model developed by David Russell and his group at the University of Tasmania. That project attempts to link students of



science at high school level with tertiary bound opportunities and then careers in the primary industries. So within Western Australia now there are at least three. We have the Minerals Council, the Minerals Institute, the institute of chemical science and the primary industry program at UWA. ARWA is aware of all of those. The obvious intention is that we will interact and support those programs where we can.

The basic problem is that physics, chemistry and maths—the underpinning enabling sciences that are required for a professional career in agriculture, engineering, environmental science, biotech, nanotech or any of those areas—are in decline in our school systems. There has not yet been a dramatic crash in the number of students taking TEE chemistry, for example, but it has trended down over the last 10 years in Western Australia by about two or three points—from about 31 or 32 per cent of students studying TEE subjects to about 28 per cent. It has not fallen off a cliff, but it is trending in the wrong direction.

**Mr MARTIN FERGUSON**—Science is in the second HECS band, isn't it?

**Dr Paterson**—Yes, I would imagine it is.

**Mr MARTIN FERGUSON**—An issue you raised in your submission is the inherent high cost of many agriculturally oriented courses. What are you referring to?

**Dr Paterson**—That refers to the large research infrastructure costs associated with the delivery of courses. For example, if you need to study chemistry at a high level then you require state-of-the-art equipment and research infrastructure. You need access to big machines that do things I do not understand but cost \$2 million each. You have to have access to those machines to turn out people with the level of training that is necessary for them to be successful in a research environment as a professional scientist.

**Mr MARTIN FERGUSON**—There is less capacity in agriculture to support that type of infrastructure than, for example, in the resources sector, where there is huge growth in the price of resources internationally at the moment.

**Dr Paterson**—That is a fair comment. I think you would be more likely to get support from Woodside or Rio Tinto for a big new machine than from a farming organisation.

**Mr ADAMS**—Are the research bodies that take levies putting anything into this? Have they commented on this?

**Dr Cox**—Very much so. In fact, one of our board members is chairman of the Grains Research and Development Corporation. The steering committee oversaw the formative stages informing the concept and that included his participation all the way through. We had briefings for the chairs of all those key industry bodies in Canberra about 12 months ago. It is fair to say that the majority are very supportive of this concept. As funders, they are facing the same issue: they want to make sure they fund organisations with capacity rather than disburse money over a wide range.

**Mr Payne**—Further to your question, Mr Adams, that comment came from university representatives who felt that the additional funding that went to schools such as agriculture was not sufficient to make up the increased costs associated with those schools.

**Mr MARTIN FERGUSON**—We have to top you up because the private sector is less able to top up your sector?

**Mr Payne**—Yes.

**Mr MARTIN FERGUSON**—You raised the issue of technology and the focus on productivity et cetera, and we have seen great leaps forward. Your submission also refers to an overemphasis on production research at the expense of business management and environmental and social issues. I would have thought that, in terms of the operation of the agricultural community, making progress on the environment, business management and social issues was just as important as technology because it is all part of running your business.

**Dr Cox**—That is our very point. We need to have a holistic approach to the issues faced by the rural sector rather than—and I am being a little narrow here—focusing entirely on production research. The farming community is very aware of the need for sustainable agriculture. They see sustainable agriculture as improving on-farm productivity. They make sure it is environmentally sustainable so that there is no further degradation of the environment. And, of course, regional economic sustainability is the basis on which farming communities get their social interaction and social services. So the farming community is totally supportive of a holistic approach. In terms of agricultural education through our universities, the focus has been much more on silos—one of them being production research. There is not an emphasis on integrating it together.

**Mr MARTIN FERGUSON**—Will your organisation be able to bring those silos together now?

**Dr Cox**—The indication we have had at board level is that we recognise the need to. The natural partners who make up the joint venture have the expertise to address much of the holistic approach. But we too have skills deficiencies. As we develop our strategic directions and programs, we will be identifying other skill areas where we have deficiencies. We will establish additional partnerships with people who have those skills, or additionally we will buy in those skills.

**CHAIR**—What key processes will ARWA's researchers undertake to exchange information with industry and primary producers—in particular, those producers in rural and remote parts of the state of Western Australia?

**Dr Cox**—That process is in its infancy, but I will give you an outline in terms of the concept we are starting to talk about. The concept is very much about a partnership with industry to ensure that there are opportunities for identifying the real issues, but making sure we have the researchers as part of a dialogue so that they can identify capacity to address those issues and turn them into research problems so that they can actually be researched.

The process we have talked about makes sure we get the relevant people around the table. The relevant people are the producers, through their appropriate representatives, but also those funding bodies which are producer funding bodies. Even though there is a matching Commonwealth contribution there as well, those bodies are asking the same questions that producers are and that we are—that is, what are the big issues facing Australia and Western Australia and how can we actually address those big issues? So it is very much about putting in place a process where we get those relevant parties around the table so that we can set a research agenda for Western Australia in the context of a research agenda for Australia. So that is the proposal we are going to work to.

The second part of the equation, of course, is to ensure that the research findings are actually applied on-farm. We are also talking about a process where, rather than having competition or what is seen to be competition between the private providers of extension services and the public providers of extension services, we can improve the linkages to make sure that information is freely made available to farmers so they can actually improve their productivity.

**CHAIR**—The point I am getting at, I suppose—and I think you have answered it to some extent—is: how much of that outcome is interrelated with the information you get from remote primary producers? What is the dialogue that leads up to the outcome?

**Dr Cox**—I will take that in two parts. The first part is that a significant part of the research conducted by Agricultural Research Western Australia is actually funded by producers through their research organisations. So they buy research. They tell you what they want, not by way of an answer but, rather, what problem they want you to address. The producer organisations have their own way of determining those priorities. We have become a service provider—we meet that need.

The second major funder is the state government, through its consolidated fund contribution. The Department of Agriculture becomes a purchaser of research services from Agricultural Research Western Australia. Again, Agricultural Research Western Australia has its processes in place. What all of those bodies are saying, though—and this picks up on your earlier question—is that those processes may not be as comprehensive or as adequate in giving clear direction to researchers in terms of what the issues are. What we are saying is that we would like to put a concept on the table to bring those parties together. So we have a strategic plan for Western Australia in the context of a strategic plan for Australia.

**CHAIR**—Thank you for coming and giving your evidence here today. It is very important that we get information from the coalface on these issues, and we cannot do it without your input. Thank you for taking the time to be here and, more importantly, for taking the time to put together a submission. Thank you for your input today.

[4.40 pm]

**BODMAN, Mrs Kay Elizabeth, State Coordinator FarmBis, Department of Agriculture, Western Australia**

**THORPE, Mr Bruce Raymond, Director, Farm Business Development Unit, Industry and Regional Services Division, Department of Agriculture, Western Australia**

**FISCHER, Mr Garry Robert, Manager, Agricultural Education, Department of Education and Training, Western Australia**

**NEWMAN, Ms Wendy Carol, Council Member, Technology and Mining Industry Advisory Council, Government of Western Australia**

**CHAIR**—I welcome the representatives of the government of Western Australia. Although the committee does not require you to give evidence under oath, I should advise you that these hearings are formal proceedings of the parliament and consequently warrant the same respect as proceedings of the House itself. It is customary to remind witnesses that giving false or misleading evidence is a serious matter and may be regarded as a contempt of parliament. I now invite you to make a brief statement in relation to your submission and any introductory remarks.

**Mr Thorpe**—The state will be providing a response to the committee. We have been through that process—it is heading on its way towards you and should be with you in a week or so. That is just to let you know that there will be a formal response to the request to the Premier to provide a state position on it. In the interim I would like to give a summary of some of the issues that have come out of that. Some of the figures I may quote are best guesses in the circumstances. Without trying to be overly accurate, it gives you some indication of the magnitude of some of the issues we are dealing with.

I would like start by saying—and my colleagues will build on this presentation as well—that Western Australia has some very good examples of education and training and extension services research. I think the one you have just listened to is an example of something innovative that we are doing at the moment. There are other areas we can point to as well. But they do not provide adequate or complete services across the state nor were they coordinated to synergistically meet the current needs of primary industries, let alone the future needs. We are seeing that there are issues that we need to deal with at a state level working cooperatively with the federal government to resolve.

I think it is useful to have an idea of the order of magnitude of some of the problems that are being faced at the moment. By whatever measure, there are roughly 14,000 commercial farms in Western Australia and, whatever way you take it, inside and outside the farm gate, around 80,000 jobs that run off the industry. Using reasonable levels of attrition that might apply—say, seven per cent, which is not unusual—and perhaps retirements at a modest three per cent, there is a fall-off across the industry of a fairly large number of people at about 8,000 a year. That is the number going out of the industry that needs to be replaced just to maintain the current level, if that, indeed, were necessary. There are other reports that indicate that, because of the way in

which industry is rationalising, you do not perhaps need to maintain those numbers. But let us speculate that we might need 8,000 to just hold the fort in terms of the numbers we currently have in the industry itself.

If you have look at what we are actually producing out of our colleges at the moment, the numbers do not stack up very well at all. In fact, there are fewer than 200 postcompulsory education graduates entering primary industry and those are mainly in the service related industries. I think out of VET last year there was one student who went back into the industry sector itself out of the universities. While we have students graduating, they tend to go into the environmental sciences area and not into the production side of agriculture. So in terms of replacement of those numbers that are dropping off, we are nowhere near close to maintaining the level of service we have—and bear in mind that is on a one-year basis, so imagine that extending over time.

I might just point out, though, a recent paper that has come my way. Land and Water Australia put out of paper in June 2005 called *Australia's farmers: past, present and future*. I think that has been very helpful one for us to look at the demographic structure of the industry and some of the issues that are being faced, because it does look at it on an Australia wide basis. But they generally conclude that there is no looming crisis in future farming population structures because of the way in which agriculture is restructuring itself in certain areas.

I bring that up because it is very difficult when we try and analyse this product to get a fix on the target. It makes it difficult also to respond to the calls that we hear of rural shortages in sectors of the industry itself, so it highlights one of the problems that we pointed out in our interim submission, which was that 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. We see that as a real weakness in process at both levels—state and Commonwealth.

Coming back to the issue about the numbers of graduates that are coming out, less than 10 per cent of graduates that come out of postcompulsory go straight into farming. Many do return in later years, and we have heard the example already of the mining sector where they have a lifetime there. They make their money, buy the house and settle and say, 'Let's go back and do some farming.' But even in those industries there are shortages occurring. We have had mining developments in this state that have had to be suspended because they cannot get the staffing to open the developments, so we know there is a shortage problem.

What is missing in our view is strong planning in the industry. The planning horizon is generally very short-term and it is difficult to find anyone that is bold enough to talk about 10 years out, let alone 20 or 30 years out, and with good reason because of the dynamics associated with the industry that we are involved in. It does require, for people looking for career paths, someone to be bold enough to say, 'There is a future in it.' I heard someone say today that agriculture was a sunset industry. I could not quite agree with that. It is not a sunrise industry either but it has a very strong future depending on how it is managed.

The base information that we have is anecdotal, as we pointed out in our interim submission. It seems from our understanding of the Department of Employment and Workplace Relations that they do not regularly collect vacancies on primary industries and their statistics are

apparently based for the major planning tools used by governments to calculate services and needs in education and training. The other issue is about funding cycles. They are short-term and often there is a need to regularly apply for repeat funding. I think Wendy has an example of that which she will probably give when I finish speaking in a moment.

Also missing is a strong and credible empowering image for primary industries. Belief in the industry for long-term career prospects and as an industry for exciting and innovative research is much needed. It tends to cop a fair bit of hammering through the press. When we have had a series of serious weather conditions over here in the last few years, my position in the department has been managing part of the drought response. The media tends to bash this around a fair bit and if someone is from the city they think: why would you bother farming? It does not help the image of the industry itself whereas there are still some very successful farmers in the marketplace.

The Western Australian government suggests to the inquiry that firstly we look at the statistical collection exercise as perhaps a priority so we are clear about what the magnitude of this issue is and what some of the factors are that relate to it. We should recommend strategies for better relationships between departments at the federal level—for example, between forestry, fisheries and agriculture and education, science and training—and the state authorities so we can plan educational options. For example, the industry training plan should be coordinated by, say, the Agrifood Industry Skills Council. Those sorts of things could be developed. The other key issue, as I said, is looking at perhaps some sort of iconic image to raise the profile and encourage interest in careers in agriculture. At that point, I will refer to any of my colleagues who might like to add to the presentation.

**Ms Newman**—I will give a quick overview of the Technology and Industry Advisory Council. It is an advisory council to state government which takes a long-term view of the state's development and provides advice to government in relation to that. Some of the issues that we have been looking at recently have been to do with provision of infrastructure; potential of health as an export industry; and the knowledge economy, which has relevance to this submission and also small to medium exporters. It has great relevance here as well in terms of the potential for value adding and diversification in agriculture. Looking from that macroperspective there are several issues. One is a concern that both in terms of skills development and research there is very much an emphasis on the production focus—what happens in the paddock, productivity yield gains et cetera. I think we are reaching as far as we can go in terms of that. What we have is a mature economy.

I do not know that there is the level of sophistication and the availability of skills, both on farm and in a broader sense, to take advantage of the knowledge economy. There is real opportunity and potential for us to seize on that and run with it. In terms of the production focus, we troop out the triple bottom-line slogan a lot. As a farmer involved in a lot of rural organisations, we are not seeing it happen on the ground in a real sense. I guess it is about redefining that triple bottom line and getting some pretty hard targets about what it means for rural communities and the people in those communities. The production focus takes us away from looking at the complexities of global issues and their mid-term and long-term impact. There needs to be a focus on the skills development—specifically the higher skills development—required to take on board these increasingly complex issues and deal with them.

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.

I am a board member of Muresk Institute of Agriculture. 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.

There are some creative solutions happening. There are some terrific examples in areas of skills shortages, using tourists and backpackers for the delivery of seasonal work. We have had some great successes here in the west. The downside of that at the moment is the inflexibility with visas and not being able to get those workers back year after year. I think the maximum they can come is twice, so you cannot keep utilising that expertise year in, year out.

As Bruce mentioned, the long-term funding issue comes up again and again. Another hat I wear is that of chair of the Heartlands Regional Branding Group, which exists to support primary producers involved in diversification and value adding. It is very difficult to get access to funding that will support us on an ongoing basis. We got up and running and we got things happening, and then in one year we were not able to develop the business to become self-supporting to do the work we need to do for our members.

At a more micro level, wearing my farmer's hat, there is great confusion about because of the enormous amount of information—the silos—and therefore the ability to access that information in a simple way. Whether it is in relation to business development or research or whatever, it is a confusing row to hoe. More specifically, there is concern about the relevance of research and having the research done to us. In other words, the researchers come in and do it and there is no capacity building or engagement to give primary producers the knowledge they need. Building on from that, though, some positive outcomes are to be seen from the development of farm improvement groups. Strong groups are developing and that is a fantastic model—farmers own the research agenda and it is relevant to them. I will link that back to the very first point I made: we need to develop a culture that is beyond the paddock and get some big picture macro-thinking happening in relation to that.

**Mr Fischer**—I am speaking in the main from the WA College of Agriculture, which is a subsystem of secondary schools in the department of education system. There are five residential agricultural colleges scattered around the country, from approximately two hours from Perth up to five hours from Perth in location. In terms of an overview, I have provided information to the committee. It was not a submission in terms of promoting any particular point. From that information provided I would like to give some background and then raise a couple of issues that impact on the WA College of Agriculture.

The key focus of agricultural education in Western Australia and its leadership is through the WA College of Agriculture, which is a subsystem of five residential schools plus another full-time program out of Esperance Senior High School, which is about eight to 10 hours from Perth. They operate under the umbrella of the WA college. All sites have commercial size farms and extensive education and training facilities. In the WA college the five residential campuses are all registered training organisations in their own right. The students undertake a general course of education leading to secondary graduation at the end of year 12 as well as a range of national training packages with which they can achieve up to certificate II qualifications. The enrolment is state wide as well as a few from the eastern states. A significant thing has been an increase in total student enrolments in recent years, something like a 24 per cent increase since 2002. There has also been an increase in female enrolments; on the average it is about 20 per cent female students. In times gone by the ag college was purely for farmers' sons, but it is coeducational and we now have up to 26 or 28 per cent female students in some sites, which is terrific. It is significant that also about 20 per cent of students across the system enrol from metropolitan urban areas, so we are attracting students from those urban metropolitan areas out to the country, which is against normal trends at the moment.

From the department point of view and that of the school, the success rate of the students is outstanding. The destination information from each of the campuses indicates that better than 99 per cent of the students when they leave year 12 go directly to employment, TAFE traineeships or higher level studies at university. There is a system available through the WA College of Agriculture where the students can enter university without having to do the tertiary entrance exams. We have a process with Curtin University through their Muresk Institute of Agriculture to allow students entry into university. They do some bridging courses and quite a number of the students actually finish with bachelor degrees and go back into the agriculture industry. A highlight I guess is that a couple of our past students from Muresk have done a degree in agriculture and then a degree in teaching and gone back teaching. They were two women. It shows you that ag colleges are not there just to fill positions or to provide labour for farms. You can do other things.

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.

I guess the key thrust of the campuses is to develop educated and skilled young people who can contribute to and build a better society in our rural communities. I think we achieve that. The formal education programs occupy about a quarter of students' time in a residential setting. You also then have the pastoral care programs and the practical programs which are available to the students. They operate seven days a week 24 hours a day.

That is a bit of background to the WA College of Agriculture. There are two issues which I bring to the committee's attention. One is the impact of Rural Skills Australia, which is a federally funded program. It operates in Western Australia through a WA rural careers project, which has enabled agricultural education to penetrate the urban schools and metropolitan schools to bring to the attention of students in those schools the value of the opportunities in agriculture through agricultural education.



**CHAIR**—You are saying governments have done something positive for a change. That is nice to hear.

**Mr Fischer**—Yes. It is a successful program and it is terrific. Our concern—this is the crunch—is that the funding for that program could end in October this year. We have got positive results from the program and I think it is something that this committee could address.

**CHAIR**—Could I suggest to you that perhaps you might at some later stage think about putting something in writing with regard to the outcome of that particular program and why it is important for government to continue the program with ongoing funding. That will be very good because the one thing that will keep funding going regardless of the political background of the government of the day is some positive outcomes that are delivering what the program is designed or intended to do.

**Mr ADAMS**—It is a most unusual thing to have discovered.

**Mr Fischer**—Anecdotal evidence is that it is having an impact. If one of the campuses of the WA College of Agriculture, say Cunderdin, wanted to go and promote their wares in a city high school they have got no chance, but through Rural Skills Australia and career night programs we can send the message. We see significant enrolment coming from metropolitan and urban areas into the ag colleges.

The second issue is the Assistance for Isolated Children Scheme. This is a federal government scheme which provides allowances for families of primary and secondary students who are unable to attend appropriate government schools on a daily basis because of geographic location. There are strict guidelines for determining geographic isolation and there are some incredible anomalies that we see with that. From an ag education point of view and the residential ag colleges, up to 1994 assistance was available under this scheme for students to attend schools offering specialist courses and all students attending residential ag colleges could receive the allowance.

In 1994 the special provisions of the allowance to students attending residential schools was removed due to increased proliferation of specialist courses in some states. I will not go into those areas. 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. Also, many families have significant difficulty paying the \$6,910 per annum boarding fees for 2005 but they still struggle to meet their commitments. Dropping the allowance affected in some sites up to 75 per cent of the students. Currently at Cunderdin, which is one of the biggest campuses, only 28 students receive the allowance and 88 students do not receive the allowance. Any student coming from the metropolitan area cannot get the allowance because they bypass their local high school and therefore they cannot get the allowance.

**CHAIR**—They are not isolated, though, are they?

**Mr Fischer**—They are educationally isolated from agricultural education.

**Ms Newman**—They are isolated.

**CHAIR**—That is making a fine point of the general thrust of the scheme because the scheme was originally set up to allow access for isolated rural students.

**Mr Fischer**—Yes. We also have students who might be at a local high school, say, an hour's drive from the college, and they cannot get it either.

**Mr MARTIN FERGUSON**—Are there day students at these schools?

**Mr Fischer**—Yes, we do have day students as well, if they are within commutable distance.

**Mr ADAMS**—Do they get picked up by buses?

**Mr Fischer**—At Denmark agricultural college, which is about half an hour from Albany, a bus brings 10 day students across. It picks them up on the way. That is a cost-free thing that has been implemented only just this year.

**CHAIR**—We have some questions to ask on that. How much more do you have to go?

**Mr Fischer**—About 30 seconds.

**CHAIR**—Okay.

**Mr Fischer**—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 the 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.

**CHAIR**—In relation to enrolment trends, your submission says that approximately 20 per cent of students are enrolling from metropolitan schools to attend these agricultural campuses. In terms of the outcome—and these are interrelated, from my point of view—your submission says:

The success rate of students is outstanding. Destination information from each College campus indicates that better than 99% of Year 12 students directly enter employment, traineeships or higher education at university and TAFE.

How many of these students that you are talking about—that is, the 20 per cent from the metropolitan areas and the 99 per cent of year 12 students—actually finish up in employment in rural communities? Have you done any work on that?

**Mr Fischer**—I cannot give you that sort of detail.

**CHAIR**—I think that issue is very important. It directly relates to the package encouraging people to get involved in rural-orientated businesses, but it is of absolutely no benefit whatsoever to rural communities if they are picking up the packages and then using university

and TAFE courses to practise their rural based experience in the urban areas. That is the reason for me asking the question.

**Mr ADAMS**—Maybe you could send that to the committee.

**CHAIR**—If you do not have that information here, you might think about sending it. It is a very important issue.

**Mr ADAMS**—It is certainly an important point that we want to find out more about.

**CHAIR**—Yes. If the outcome from that is that they get a large percentage of those young people—you will never get 100 per cent—picking up education in those campuses and then going back to practise in the rural areas, whatever profession they take up as result of the training, then that is precisely the emphasis that we want out of the programs.

**Mr Fischer**—I can gather that information. We did a snapshot earlier this year of 217 graduates and, of those, 52.5 per cent went to home farm township, home farm non-township, farm station work living in a town or farm station work non-township and agricultural related work. I do not know how many of those were metropolitan students taking up those positions in the rural areas.

**CHAIR**—Could you check that out? It could be a good argument for the comment that you made that rural students, because of their isolation, could be subject to a positive response as far as getting some assistance through the funding process. If you had a percentage of those people going back into the rural sector because of that training, that would be a pretty good argument, from my point of view, for including them in the funding process.

**Mr Fischer**—Okay, I will follow that through.

**Mr ADAMS**—Could you let us have the curriculum or a book or something that shows the outlines of the courses?

**Mr Fischer**—Each site has its own prospectus and course booklet. I could get one of those sent to the committee.

**Mr ADAMS**—Yes, just one.

**Mr Fischer**—I did provide some brochures on the WA College of Agriculture. Actually, their courses are on their individual web sites, but I will send a brochure.

**Mr ADAMS**—You talked about the planning of labour for, say, forestry, fishery and agriculture and that we could do that better. We heard from the last witnesses about the need to do it at a degree level. This is at a different level. But do you feel that there are a lot of overlapping skills that people could develop to help them through that? Maybe there are a few other industries that we could put in there as well.

**Mr Thorpe**—That is very true. One of the things that we are finding through, say, the FarmBis program, which focuses on the higher-order training levels, is that we need to make

sure that there are the management skills which are generic to any business. This was Wendy's point. Being an employer of young people myself, I think there are generic skills needed at that level too which are equally important but which tend to get missed. That is one key point. The other point in looking at those sorts of things concerns some of the tension that exists between the formal education sector and the informal education sector. Whilst most farmers may not have formal qualifications, if they went down for RPL or whatever the current jargon is for recognition of learning—

**Mr ADAMS**—Prior learning.

**Mr Thorpe**—they would probably qualify as welders and engineers and various other things at the same time. While we look at it purely from the standpoint of the VET sector qualification process, I think we underestimate the level of skilling that is available there. One of the things that we have a concern about in this process is that, if there is a drive to make sure everything was driven under the VET sector process, we would lose a lot of the richness that we need in the marketplace to be able to develop it. I think I have taken it away from your question, but that is a point I would like to make.

**Mr ADAMS**—So the recognition of past competencies should be brought into the process?

**Mr Thorpe**—Yes. My colleague Ms Bodman has some comments on that.

**Mr ADAMS**—They did not want to recognise my butchering skills for a surgeon's degree!

**CHAIR**—You have two knife hands as it is!

**Mr ADAMS**—Alby is an old meatworker just like me.

**Mrs Bodman**—I can provide you both with some very good jobs in the Western Australian meat industry at the moment. It has a thousand vacancies.

**Mr ADAMS**—We are fully employed at the moment.

**Mrs Bodman**—You do not want to go into a boning shed?

**CHAIR**—We are actually still in the business. The only difference between what we used to do and what we do today is the temperature of the meat. The animals are very much the same.

**Mrs Bodman**—I am the state coordinator for FarmBis in WA. I actually came out of the formal education sector. I have had a lot to do with profiling and planning of formal education. I can see the issues from both sides, in that formal education at university provides you with technical and tactical skills, even though they would not recognise it. But when you come into a business such as farming you need a whole range of skills. FarmBis is a wonderful program that has given opportunities for getting a shortcut to the skills of an MBA in things that are directly applicable to your business—in a timely manner without the stress and pressures of going through an MBA course. That has been very good.

FarmBis is on its last program cycle, so DAFF tells us. It will be a shame to withdraw that from the spread of educational opportunities, especially for agriculture, where, because of the vast spread of people who live away from centres, you need a really good mix of informal and formal information.

May I pick you up on a point that you brought up with the researchers when you asked whether we had thought about talking to the mining industry. I have engaged the mining industry in a lot of discussion, especially on potential employment for Indigenous people. I have a particular personal passion, as well as a professional passion, for educating Indigenous people. We are doing some marvellous work up in the Kimberleys but it is seasonal. I have talked to Argyle, BHP and Rio Tinto about whether, if I multiskilled my pastoralist workers, they would consider them for part-season or off-season work—because most of my Indigenous communities are traditional communities, very strong traditional communities—but they will not. They will not consider part-time seasonal work. They will consider part-time work of a few hours a day. But they will not consider that traditional Indigenous people, who have pastoral work from now until October, would like to work in mining for maybe only three months of the year. They cannot accommodate that sort of thinking in their psyche.

We were faced with a situation with one of our Indigenous trainees. We were training him to be a broadacre farmer and were paying him probably \$30,000. The mining companies took a look around, found that he was very well trained, and offered him \$90,000. So where has he gone? We are caught in this tension of competing interests. I would like to see something like the iconic image that I remember from my childhood. I remember, when mining was a very dirty word in the sixties, that there was an image of Rod Taylor—do you remember Rod Taylor?—standing on a big stack of iron ore up at Port Hedland. That changed mining's image. We need that kind of iconic image. We also need the planning to go under it.

**Mr MARTIN FERGUSON**—You'd better bring the Marlboro Man back!

**Mrs Bodman**—Ben Dark would do me fine! Getting on to planning: as a profile of the VET system we used what is called the CoPS system—the Monash University education model, which Monash produces for the federal government. It is a model of how many training places you need to put into the system every year. When you get into agriculture, it is very hairy because it is not based on good strong DEWR data. It is based on data coming out of inquiries.

**Mr ADAMS**—I think we got that message from Mr Thorpe, as evidence, so we need to get something on that. There is another question, in relation to some special needs students. What are they in the agricultural college system?

**Mr Fischer**—Agriculture is often used as a tool to engage kids who are not happy in mainstream schooling. There are various programs operating in the state under that brief. There is one at Gnowangerup residential school for students who are very much at risk and are really not suited to mainstream schooling. We are reviewing that program, but we do provide these opportunities for students who may be at risk or alienated from mainstream schooling, both in the metropolitan area and in the country locations. While that provides terrific outcomes for those kids and those kids do get engaged, it also gives an image that if you cannot do mainstream schooling you can always do agriculture. That image is a thing which we have to contend with all the time.

**Mr ADAMS**—You need to put some PR into it.

**Mr Fischer**—We have to promote it. There are some terrific success stories of students who might not have been suited to mainstream schooling, who actually became key leaders in industries later on.

**Mr ADAMS**—Do they exhibit at shows as well? Do they take their animals to the shows and things like that ?

**Mr Fischer**—Yes, we have students involved with various regional shows. We just had a group of 10 students from the WA College of Agriculture, Denmark, who have just returned from the Bendigo wool show. They were involved in a national judging competition on sheep and wool.

**Mr ADAMS**—Wonderful.

**Ms Newman**—And Cunderdin got top price for their beef, again, last week.

**Mr ADAMS**—It is interesting when you see someone who has half their head shaved and the other half is coloured green and they are with a 2,000-pound bull. They both look pretty tough. It is interesting stuff.

**CHAIR**—I am conscious of the time, but there is one matter that has been raised that I think needs some comment—that is, the matter related to postcompulsory review of education in Western Australia, particularly with regard to the proposal to reduce four wholly school-assessed subjects related to agriculture into a single subject. How might changes arising from the postcompulsory review of education affect the role of agricultural colleges in Western Australia? What are the implications for students of the proposed consolidation of four agricultural subjects arising from the postcompulsory review of education? It gets to the core of what you are trying to do, being cut off at the pass.

**Mr Fischer**—It is a dilemma we have been faced with. The chair of the course of study for the new agriculture course is very closely tied in with agricultural education. He is one of my officers. We are working that course through at the moment to try and capture the elements that are in the four courses, so that the students who might want to pursue a pure course, or the courses in agriculture that are at the WA College of Agriculture, are not disadvantaged in any way. Mapping that through, we will try and pick up all the elements; that they will not necessarily be just in the course of agriculture, but they will be located in other courses on offer at the year 11 or year 12 level. It is a very hard concept to appreciate: you have, say, plant production, animal production and you have marketing and the other avenues that all have to be fitted into one.

In terms of the agriculture college systems, we are working with the principals to make sure that not only the course of study but other courses that are on offer will capture all the things that are needed so that students can still meet secondary school graduation and they are not disadvantaged. I am confident that we have that. Of course, we also supplement the work we do with a high number of national training packages—competencies—and that is becoming more the strength of the colleges as well. At the industry level there is the year 12 graduation, but we

are looking at what can actually be done in terms of agriculture related competencies. They will look at that.

**Mr MARTIN FERGUSON**—Wendy made some remarks about flexibility in delivery of education, which raised questions of distance learning. What percentage of the farms have access to the internet? Are the educational institutions actually geared towards distance learning?

**Ms Newman**—In answer to your first question, we have a very high percentage of take-up.

**Mrs Bodman**—It is about 78 per cent of farmers, but they do suffer. There is no broadband. Of that 78 per cent, 80 per cent use their computers for record keeping and electronic management. So they do have skills. I have invested a lot of public dollars into providing those skills through FarmBis. We have got a very high percentage of farmers who access the internet and use it for decision making with regard to climate, price risk management and trading. The Victorians will not agree with me but I would say that our farmers lead.

**CHAIR**—We have to give them the resources to learn quicker.

**Mr MARTIN FERGUSON**—What about the education?

**Ms Newman**—In terms of the education provision, there has been some groundbreaking stuff done in Western Australia but the lack of resources means that the penetration and the critical mass are not there to have the effect required.

**Mrs Bodman**—One thing we do have in Western Australia, which is not as widespread in the other states, is a very strong group of telecentres with all these types of things. There is a lot of e-learning through those, including skills based e-learning, especially for the Indigenous communities.

**Mr Thorpe**—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. They have assisted us as well in getting the technology transfer. To illustrate, when the NRAC committee was across here reviewing the drought, one of the things they would comment on regularly was how much the farmers understood about their businesses. They were able to produce charts and maps and they understood what they were talking about. Farming has to be scientific in this state anyway for them to survive. There is a lot of work involved in that.

I just wanted to comment briefly on a couple of things that Trevor De Landgraff commented on. One was about the apprenticeship process. It is something of interest to farmers but the process itself is too complicated and is offputting to people. So it really needs to be reviewed. I do not know whether that is a state or a Commonwealth responsibility entirely but it is certainly one that needs further work. The other issue is about conditions of employment in the sector itself. It is something we were going to try to do through the FarmBis level, at least to educate farmers to value the labour aspect of it. They do appreciate it but I do not think they really value it. They will go and buy a new header or whatever but they will then want to pay someone 30 grand to sit on it.

**Mr ADAMS**—What is the machinery worth?

**Mr Thorpe**—Half a million bucks. That is an issue. When you talk to people, they understand it but they still do not practise it. The reality is that you are competing for a finite resource. That resource is appropriately going to hold its labour back for the best value, as it should. The farmers are not in the game most times if they are just trying to say, ‘You ought to do it’.

**Mr Fischer**—I would just like to comment on and come back to the question regarding internet access and the use of it. In the educational institutions, all the residential agricultural colleges are set up with computer networks and access to the internet. The lure it will use will vary depending on the quality of some of their hardware. There is also some limited access. Compare Morawa with, say, Narrogin. Morawa is four hours away in the north-east on the fringe of the pastoral area. Narrogin is in the heart of a well-established thriving area. So sometimes there are infrastructure access problems.

But as to the extent to which it will go: at Narrogin, the reporting to parents, applications for leave by students and approval by parents is all done on the internet. If the parents of the students do not have a computer and access to the internet at home then the school will train the parents so that they can use the telecentres to access how their child is progressing in the school, using a PIN. They can then get information about their child. So it is not only used for educational purposes among the students to access a wealth of information and the various machines that might be connected with GPS and fit into the educational framework; we can also connect into the parent body to provide them with information on what is happening at the site and how their child is going.

**Mr ADAMS**—Wendy made that point about thinking beyond the paddock: if we do not get them up to thinking beyond the paddock, that will mean that corporation farming will become the reality.

**Ms Newman**—Yes. It is linked to that. It is two things: it is that higher level of skill and understanding of the marketplace in which they operate and being more market focused rather than production focused, and with that comes a whole different complex skill set, whether it be to do with finance or trading. So it is the complexity of the—

**Mr ADAMS**—So how much of that is in the curriculum that is taught in the agricultural colleges?

**Mr Fischer**—In terms of looking at the farm beyond the farm gate, it is certainly in the marketing and business side. It is part of the programs. The focus is that you are not just growing something; you market your produce. You are producing for a market, and that is a key thing. So, if you take the broadacre cropping areas, those students should be aware of what the markets are wanting and then you produce for that market. So you are looking beyond there. They have to become familiar with the business side and the global scene.

**Mrs Bodman**—That is one thing the training package is deficient in—beyond the farm gate. There are elements within every competency, but the elements are just negotiation—all that type of thing. It does not help people into the thinking at the supermarket level.



**Mr ADAMS**—What about getting some leverage so they can get some negotiated rates when they have to deal?

**Mr Fischer**—I think that is why you have the terrific combination of the general education with agriculture. You can address all those issues, and you have competencies sitting alongside them. You just meld and integrate them.

**Ms Newman**—And you have the different focus of institutions: Muresk having its focus on agribusiness, UWA with the sciences, Murdoch with the blend of those. In the state we have a really good—

**Mr ADAMS**—Cross-section.

**Ms Newman**—offering.

**CHAIR**—Thank you very much for your contribution. Thank you very much for your report. Once again, it is very interesting stuff. You will be interested to know that we are actually pursuing some of the suggestions you have put in there—in fact, we are pursuing the majority of them—in our quest to identify the problems. So thank you very much for your contribution.

[5.33 pm]

**DONOHOE, Brother Francis William, Publicity Officer, Agricultural Educators Association of Western Australia**

**CHAIR**—Welcome. Do you have any comments to make on the capacity in which you appear?

**Brother Donohoe**—I am also associated with the Catholic Agricultural College Bindoon, which I think is the only Catholic school in Western Australia that is a registered training organisation in its own right, and I am heavily involved with that.

**CHAIR**—Although the committee does not require you to give evidence under oath, I should advise you that these hearings are formal proceedings of the parliament. Consequently, they warrant the same respect as proceedings of the House itself. It is customary to remind witnesses that giving false or misleading evidence is a serious matter and may be regarded as contempt of parliament. Do you wish to make a brief statement in relation to your submission or would you care to make some introductory remarks?

**Brother Donohoe**—I will make some introductory remarks. In addition, I am completing a doctorate of education. My thesis topic is: how children manage the transition from year 10 to senior agricultural courses. One of the things I am uncovering—this relates to Mr Fischer's remarks—is that the majority of students who come to the senior agricultural course do so because they cannot face sitting in a classroom for five days a week, six hours a day. They like the agricultural system, where they spend half of the week in the classroom and the other half either on the farm or doing workshop hands-on type activities. I think this is a major and wonderful feature of the senior agricultural courses that are run by agricultural colleges in WA.

Relating to the evidence given previously by one of the ladies here: Bindoon is unique in that we have an Aboriginal population of about 30 per cent, and that poses special problems. In addition to our offering the level 2 TAFE certificate in agriculture, students can study hospitality—which is related to farming—equine industries and motor mechanics. We find that Aboriginal students are not well suited or do not seem to take very well to farming, but they do very well in hospitality. A number from the Kimberley go into hospitality and then find good jobs in, say, Broome and other tourist orientated places.

**Mr ADAMS**—How do you retain agriculture teachers in your areas?

**Brother Donohoe**—We find it very difficult. At present we have an agriculture teacher who is well qualified; he is past retirement age but wants to keep teaching. We have great difficulty in recruiting agriculture graduates to teach agriculture, and I think that is common right across Australia. I was part of the group that made a submission on behalf of the National Association of Agricultural Educators, and I think we made that point quite strongly.

**Mr ADAMS**—So somebody does a university degree and then spends a year doing a diploma of education, do they?

**Brother Donohoe**—That is the normal graduate entry into teaching. We find that a number of the graduates who come to teach agriculture have graduated not from agriculture but more likely from environmental science or an associated field. It is a big worry.

**CHAIR**—That is the point I was trying to extract earlier in connection with the program.

**Brother Donohoe**—In addition, it is the ageing of the present agriculture teachers. That seems to be a problem particularly in the other states, from what I have picked up from my contacts with the national body. A teacher, say, in a country town will have a very good agricultural program. He or she then retires and someone else comes in and, within a year, 20 years of work has just gone.

**Mr ADAMS**—Would you have any idea of the average age of those sorts of teachers in Western Australia?

**Brother Donohoe**—I am sorry, but I could not put a figure on that. Mr Fischer may be able to help more there. I just do not know. But the impression is that we are an ageing—

**Mr ADAMS**—It is in the submission, I suppose.

**Brother Donohoe**—It is in the submission, yes.

**Mr MARTIN FERGUSON**—The teaching work force has an ageing problem generally.

**Brother Donohoe**—Yes.

**Mr MARTIN FERGUSON**—Do you say that problem is worse in the agricultural teaching sector than in the general teaching work force?

**Brother Donohoe**—I am not sure on that, but I have a bit of a feeling that it may be.

**CHAIR**—We have raised the issue of the postcompulsory review of education. Given your comment that agriculture students do not liking to sit in the classroom for six hours, how do you think the changes proposed under the postcompulsory review will affect the role of agricultural colleges in Western Australia?

**Brother Donohoe**—I am very worried about them. I think the students will find it very difficult, particularly if the emphasis is on achieving at the highest levels in order to gain university entrance. I think they will be fairly comfortable if the courses are aimed at, say, level 5 or level 6, as then they can do more of the practical components like the national competencies and those sorts of things. I am very worried that the changes will have an adverse effect on the students.

**CHAIR**—The NAAE submission states that industry-developed ‘branded’ training courses, such as the Cotton Basics and ChemCert models, complement training provided by schools. It states further that such branded or packaged courses are usually well resourced and the trainers are able to utilise contemporary information. The NAAE submission states:

These programs [have] quality outcomes. These should be the model for other sectors of agriculture to emulate.

With that background, do agricultural colleges in Western Australia incorporate industry branded or packaged courses such as ChemCert and Cotton Basics; in addition, are they recognised as part of the curriculum?

**Brother Donohoe**—Cotton Basics, no, but chemical certification, yes. The students then can get up to a level 2 certification on the chemistry side. That is one of the competencies they can acquire. In fact, at the state association's annual conferences, we have been following the practice of putting in a number of these competencies so that the teachers can be qualified to assess students in them. That has been a feature of our in-service conference each year.

**Mr ADAMS**—Tell me about Cotton Basics; how does that work?

**Brother Donohoe**—I am sorry, but I do not know. I think it would come from Queensland—

**CHAIR**—Yes, where cotton is grown.

**Brother Donohoe**—where cotton is such a big industry. In fact, that was written mainly by the national secretary, Graeme Harris, who is from northern New South Wales. I think that is where that comes in. I know another one of the executive from Queensland is quite strong on that.

**CHAIR**—How do agricultural colleges attract and support students from rural and remote parts of the state?

**Brother Donohoe**—We visit a number of the towns around Bindoon, targeting the primary schools. Bindoon is also unique in that we have years 8, 9 and 10 as well as years 11 and 12. We find that students tend to adjust better to the year 11 and 12 course if they have come, say, in year 8; having come through the other parts of the school, they tend to adjust better than those who have come from elsewhere, particularly suburbia. We have a program where we visit the primary schools of towns within a 100 kilometre or so radius. We also attract a number of students from mining towns such as Yalgoo. Again, these tend largely to be Indigenous students. But in these more distant places it is done more by word of mouth than by a visit. Likewise, we do not recruit from the Kimberley, but word of mouth seems to be the best—

**CHAIR**—So the bush telegraph still works today.

**Brother Donohoe**—Yes. A satisfied student going back to his or her community is your best advertisement.

**CHAIR**—I have a couple of questions relating to teachers of agricultural education. Given the problems that will crop up with teachers dropping out because of age, do the agricultural colleges in Western Australia find it difficult to attract and retain agricultural teachers; and, if so, why? In addition, what suggestions would you have to improve agricultural teacher training and development in Western Australia?

**Brother Donohoe**—I think you have got me there. The basic training, particularly the basic agricultural science degree, is a very good preparation for teaching not only agriculture, but—

**CHAIR**—But for teaching in general.

**Brother Donohoe**—Yes, for teaching in general, particularly in the sciences because it is really an applied science degree. It is just a question of whether teaching as a whole appeals to the person, rather than pursuing agriculture per se or agricultural science.

**CHAIR**—You do not think it is related to people's reluctance to live in isolated areas? You do not think it is related to rural based young people wanting to take on education and stay in the rural sector?

**Brother Donohoe**—Yes, I do think it is related particularly to people not wanting to go and live in the country. For example, a couple of years ago we had a young Dip Ed student who did his teacher placement at Bindoon then was employed by Cunderdin. At the end of that year his fiancée moved up to Kununurra—I think she was working with the Department of Agriculture—so he followed her, dropped out of teaching and worked as a research officer on the Kununurra research station. As far as I know he is not back in agricultural teaching. Particularly where spouses or partners are involved, people tend to go where their partner goes and that may take them away from agricultural teaching or general teaching. That has quite a bit to do with it.

The AEWA administers three scholarships: two for students in year 12 wanting to take up agriculture at a tertiary institution—a university—and one for a student in year 10 who wants to pursue agriculture at one of the ag colleges. A couple of years ago there was a young lady from Curtin who had done the ag degree and was doing the Dip Ed, and we funded her—helped her—with her Dip Ed to the extent of \$500. Then she went on work experience to the USA and we just lost that; she did not come back to teaching. So we are a little bit shy of helping somebody else who wants to have a bit of money just to get the Dip Ed and go into teaching.

**Mr ADAMS**—Are people in country areas inclined to stay in country areas once they qualify?

**Brother Donohoe**—I think that is true for most of our students and, again, we have virtually a 100 per cent who work when they graduate from TAFE. Most of those who want to go on to Muresk tend to take a year off and do some work and then come back to Muresk after a year. Most of them, when they go home from the country towns, work on the farms. They do not have a permanent single employer but they are never out of work. They will do shearing with Phil Jones; come seeding time they will seed with somebody else; and they have a cycle of people that they move—

**Mr ADAMS**—They are itinerant?

**Brother Donohoe**—Not exactly itinerant, because they are based in the one spot. They just go to different people and then some of them, particularly those who have farms close to the coast like around Lancelin and Dongara and those places, will combine farming and fishing.

**Mr ADAMS**—But there is a cycle there, isn't there?

**Brother Donohoe**—A seasonal cycle.

**Mr ADAMS**—A seasonal cycle: it is a bit like the old itinerant workers.

**Brother Donohoe**—Yes, except that they do not travel as much or as far.

**CHAIR**—Thank you very much, Brother. We do appreciate your patience sitting out there and waiting until you were given the opportunity to give your evidence to this inquiry, and we do appreciate it very much.

**Mr ADAMS**—I could not think of a better person to show us patience.

**CHAIR**—Before this hearing adjourns, if agreed, we have a list of submissions to be authorised for publication. Can I get the committee's agreement?

**Mr ADAMS**—So moved.

**CHAIR**—Done. And can I also call upon one of the members to move that this committee authorises the publication of evidence given before it at public hearings this day?

**Mr ADAMS**—So moved.

**CHAIR**—I now adjourn this public hearing until a later date.

**Committee adjourned at 5.51 pm**