

7 December 2011



Committee Secretary
Senate Education, Employment and Workplace Relations Committee
Po Box 6100
Parliament House
Canberra ACT 2600

Dear Mr Watling

Inquiry into higher education and skills support future demand in agriculture and agribusiness in Australia

Thank you for your letter of 4 October 2011, and the invitation to make a submission for the above-mentioned Inquiry. Cotton Australia's submission outlines the key issues in regards to the Inquiry's Terms of Reference, from the perspective of the cotton industry. A number of recommendations considered to address these have also been developed.

Context and need for higher education and skills support

The Australian cotton is a regionally based and export oriented industry employing up to 14,000 people. The industry is export focused with more than 95% of the national crop exported, generating in excess of \$1 billion in export revenue per annum over the last 20 years (exceeding \$2.5 billion in the most recent crop).

Cotton is grown on 550 to 1,600 mainly mixed enterprise farms in regional NSW and Queensland depending on seasonal and market conditions. Cotton production is highly mechanised, capital intensive, technologically sophisticated, and requires a high degree of management skill. A sophisticated network of private and public sector organisations provide inputs and advisory services to cotton farmers. These include: Cotton Seed Distributors; consultants; agribusiness; State government agencies; Cotton Australia; Cotton CRC; CSIRO; and universities.

High levels of workforce capability and innovation is a cornerstone of the cotton industry's current and future sustainable competitive advantage. This requires a **coordinated and dynamic approach** to higher education and skills support in realising the industry's vision: "*Australian cotton, carefully grown, naturally world's best*". The issues and potential solutions influencing achievement of this outcome is discussed against the Committee's terms of reference below.

COTTON AUSTRALIA LIMITED - A.B.N. 24 054 122 879

HEAD OFFICE - SUITE 4.01, 247 COWARD ST, MASCOT NSW 2020 AUSTRALIA P: (02) 9669 5222 F: (02) 9669 5511

BRISBANE – LEVEL 6, 183 QUAY ST, BRISBANE QLD 4000
TOOWOOMBA – 115 CAMPBELL ST, TOOWOOMBA QLD 4350
NARRABRI – LEVEL 2, 2 LLOYD ST, NARRABRI NSW 2390
WWW.COTTONAUSTRALIA.COM.AU

The adequacy of funding and priority given by governments at the federal, state and territory level to agriculture and agribusiness higher education and vocational education and training

The cotton industry is experiencing shortages in workforce numbers and skills. Higher education and vocational education and training (VET) play an integral role, providing skilled graduates and developing the capability of both the seasonal permanent workforce. Links to other agricultural and regional industries is essential given that the cotton workforce is influenced by market and climatic cycles. These links provide education providers, cotton employees (current and students) and cotton businesses flexibility and options to maintain capability through these cycles.

The level of agricultural higher education is decreasing while demand for graduates is increasing as indicated by an overall reduction of agriculture and agribusiness specific campuses, courses, graduates and R&D investment in tertiary institutions. This is partially off-set by the ability to recruit from other disciplines such as science and commerce, although these graduates often require additional training.

The cotton industry has been active in supporting the development, promotion and provision of vocational education and training (VET) to industry. However fundamental data on skills needs, participation rates and educational outcomes in the workplace is lacking, limiting effectiveness.

Overall the critical issues lie around the targeting and coordination of higher education and VET (i.e. priority) as much as attracting funding.

The reasons and impacts of the decline in agricultural and related educational facilities

The relative attractiveness of agricultural careers and fragmentation of agricultural education is contributing to the decline in agricultural and related education facilities.

Lower demand for agricultural education from (potential) **employees and students** is contributing to the decline in facilities. Agriculture is perceived to be less attractive to many (potential) employees and students compared to other industries, influenced by factors such as relative pay and conditions; isolation and access to services; and industry boom and bust cycles. The continued decline of many rural populations, particularly youth, is leading to the loss of traditional employees and students. While the promotion of agricultural careers and education may not be effective due to fragmentation and coverage.

Similarly the **relative attractiveness** of agriculture for many **education and training providers** is declining. The cost of education/training and maintaining a number of distributed locations creates challenges in maintaining facilities and a trend towards concentrating existing campuses. While cyclical and downward trends in student supply and external R&D investment places pressure on facilities maintenance and potentially greater opportunities in serving other disciplines and sectors.

Agricultural education is dispersed across a wide range of disciplines (science, economics, commerce, veterinarians, psychology etc.), commodities (cotton, grains, horticulture, animals etc.), and the supply chain (farm production, logistics, processing, wholesale/retail, exports etc). This creates significant fragmentation, coordination challenges and a lack of visibility and understanding of the importance/value of agriculture to the higher education and VET sectors. Most significantly

there is a lack of accountability mechanisms for maintaining facilities meeting the education needs of agriculture.

Cumulatively these factors are contributing to a decline in agricultural facilities maintenance through; less people considering and taking up agricultural careers and education; coordination challenges; and dispersed accountability for meeting industry needs and facilities maintenance.

The impacts of any shortage on agricultural research

The quality and impact of agricultural research is dependent on sustained investment and on-going efforts by skilled researchers. The limited supply of suitably trained post-graduate researchers is limiting the ability of research organizations to undertake high quality research. New researchers require higher levels of support and training, increasing costs and the time before the industry benefits of research are realized.

Variable and declining research investment limits the ability of agriculture to attract and retain researchers. For example the Cotton Cooperative Research Centre will cease in 2012, reducing total research investment and researchers in the cotton industry as well as a key research integration mechanism. Similarly the sustained drought in recent years limited the ability of the cotton sector to maintain a full research program and underlying capability with all of its research partners, including universities. This creates immediate challenges in attracting the required research capability as the industry expands and maintaining capability through future cycles. The cotton industry is responding to these challenges through the Cotton Sector RD&E Strategy to establish strategic research directions and coordinated governance through the Cotton Innovation Network.

The economic impacts of labour shortages on Australia's export oriented agricultural industries

Shortages of labour are likely to reduce both the productivity and total production of Australian cotton, limiting the industry's ability to competitively service export markets. There are immediate labour shortages across the supply chain, e.g. cropping, ginning and transport logistics, limiting production. In the medium to long term labour shortages will reduce productivity influencing international competitiveness. Technological innovation can only partially off-set these impacts, particularly since labour shortages also limited the impact of research.

Solutions to address the widening gap between skilled agricultural labour supply and demand

The key challenge facing Australian cotton and agriculture in general is that responsibility for matching labour demand and supply is widely distributed and needs to be managed dynamically. This creates challenges in accountability, incentives and coordination for the various initiatives and entities in industry and government. Therefore there is as much to be gained from better coordination as from increasing priority and funding of higher education and skills support.

In the future higher education and skills support for cotton requires a **collaborative approach** between industry, government agencies and education sector to **attract, develop and retain** people in the industry that is:

- **Based on data** – to identify education/skills problems/needs and monitor performance
- Focused on **delivering benefits** to cotton businesses – to ensure accountable provision of relevant education/skills to industry
- **Action oriented** – to create momentum and focus on current needs, while recognizing that a wide range of actions by different stakeholders are required, and
- **Integrative and flexible** – to ensure linkages across cotton and with other initiatives to ensure adaptation

Better data

There is limited data availability on labour/skills requirements and effectiveness of education/skills initiatives for the cotton sector. This inhibits the ability of education/skills initiatives to target and coordinate their actions to meet demand in both the short and long term. These limitations are not unique to cotton and should be addressed for the whole of agriculture, with an emphasis on generating insight at both national/state as well as industry/regional scales.

Recommendation 1: Improve data on labour/skills requirements and effectiveness of education/skills initiatives at national/state and industry/regional scales

Industry benefits and accountability

Effective higher education and skills support needs to provide incentive and accountability to education providers, businesses, employees and students. All higher education and skills support initiatives need to ensure they focus on industry needs and evaluate the degree to which they are met. This should also be established and evaluated at the industry/regional and state/national scales, with attention paid to accountability and removal of perverse incentives.

Recommendation 2: Each education and skills initiatives should establish what benefits they create for industry and evaluate their performance

Recommendation 3: All relevant education and skills initiatives should be evaluated at industry/regional and state/national scales to maximise impact, ensure accountability and remove perverse incentives.

Action orientation

The wide range of educational and skills initiatives need to continue while better coordination mechanisms are developed. This will maintain the momentum and benefits of existing initiatives, which along with stronger data and evaluations will provide the basis for collective and individual improvements.

Recommendation 4: Existing educational and skills initiatives should continue to maintain momentum while stronger coordination mechanisms are established.

Integration and flexibility

Dynamic coordination of educational and skills initiatives is essential to ensure more potential benefits, duplication reduced and gaps addressed. Establishing effective coordination mechanisms is challenging given the breadth of interdependent businesses, industries, disciplines and educational institutions/initiatives involved in agriculture. Therefore the following design principles, rather than solutions are proposed.

Recommendation 5: Coordination Mechanisms Design Principles

1. Ownership – governance should ensure both industry and government ownership
2. Scale – mechanisms will be required at various scales, e.g. regional/industry/state/national
3. Schools – promotion and education should be coordinated nationally for tailored regional delivery
4. Universities – should be coordinated on a sectoral and national basis
5. Vocational Education and Training – should be coordinated on a regional basis

Please contact Cotton Australia head office
issues raised in this submission.

should you wish to discuss any of the

Yours sincerely,

Adam Kay

Chief Executive Officer

Cotton Australia