

# SKILLS BENCHMARKING IN THE AUSTRALIAN COTTON INDUSTRY

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17<sup>th</sup> **australian**  
**COTTON** conference  
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## Introduction

The cotton industry has invested heavily over many years in the development of a wide range of technology and services to enhance the farming, management, marketing and support systems driving industry productivity and sustainability. The research and development investment has been complemented by a broad based extension and training program delivered across both the private and public sectors which has resulted in strong adoption of new ideas, systems and technology.

The cotton industry has in place mechanisms to monitor and analyse the effectiveness of research investment in improved farming systems, environmental management and other innovations. Monitoring of outcomes across all programs has allowed a good picture of return on investment to be developed and maintained. By contrast, the cotton industry has been investing heavily in the development of human capacity but has never directly or formally monitored and analysed changes in the skills and knowledge of the population.

The Human Capacity Assessment and Benchmarking project is a system to gather data and provide an analysis tool to monitor the effectiveness of cotton industry extension and training activities. This will provide the industry with an effective tool to collect benchmarking data on changes in Human Capacity over time, thus better informing decisions about investment in extension and training.

## Problems addressed

In order to grow capacity for any industry there needs to be a rigorous and transparent benchmarking approach to assess existing capacity. The Human Capacity Assessment and Benchmarking process allows industry to clearly articulate and demonstrate existing skills, competence and capacity as land stewards and, more importantly, strategically invest in capacity building by identifying any areas of skill deficiency. Auditing and benchmarking capacity across all levels of industry will allow targeting of training programs to address identified gaps and leverage of existing skills resulting in an increased return on training investment.

Tocal College in partnership with CRDC and industry leaders has developed and delivered an online Human Capacity Assessment and Benchmarking system which is hosted on the web at [www.agskills.com.au](http://www.agskills.com.au). This system is based on the Units of Competence from the nationally endorsed Agriculture Horticulture and Conservation and Land Management (AHC) Training Package (See <http://training.gov.au/Training/Details/AHC10>). This web address and the online system are owned by Cotton Research and Development Corporation.

The Cotton Industry Skills Benchmarking is a web based system that allows participants to carry out a self -assessment (Boud. D, 1995) in a wide range of relevant skills which are categorised into 21 Skill Areas. These skills are all based in Units of Competence from the AHC (Agrifood

## SKILLS BENCHMARKING IN THE AUSTRALIAN COTTON INDUSTRY

Skills Australia, 2011) as a tool to carry out an audit of skills and knowledge and give a broad picture of human capacity in the industry and therefore align to what is considered to be current industry best practice.

The Cotton Industry Skills Benchmarking system is structured to not only provide industry wide information on skills, but to also be used as a tool that farm managers can use to develop a profile of the skills of their own staff. This will be useful for making decision about investment in training and could also be used as a recruitment tool.

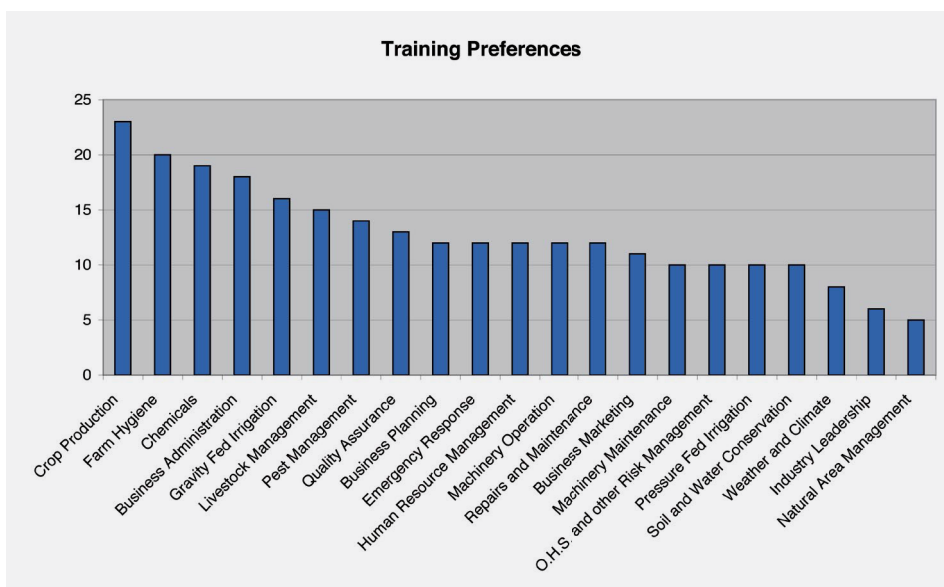
Each enterprise owner or manager participating in the Benchmarking system simply needs to register their business and all of their staff members to commence the process. Once workers have completed the assessment process the manager can view a report for all of their staff presented in a graph format. A farm manager will only have access to data about staff working on that farm.

### What does the Benchmarking tell us?

Table 1 is an example of information which can be extracted from the system demonstrates its usefulness to industry. Data can be extracted to focus on many issues including ranking the Training Preferences in the 21 Skill Areas within the Cotton Industry Skills Benchmarking system. Examples of Training preference generated by Cotton Industry Skills Benchmarking are shown in Table 1 to the right.

In order to confirm the accuracy of the benchmarking data, it was compared to the results of Skills Needs Analysis workshops which were convened across various areas including Narrabri, Goondiwindi, Griffith, Hillston and Darlington point. The findings can be seen in Table 2.

This comparison demonstrates that the results produced by the online system align to a reasonable degree with data collected from focus groups with industry.



**TABLE 1:** Training Preferences data generated by the online Cotton Industry Skills Benchmarking. This ranking will be helpful in ordering priorities for investment in training programs.

	Ranking Cotton Industry Skills Benchmarking system	Ranking Skills Needs Analysis Workshops	Correlation
1.	Crop Production	3	Good
2.	Farm Hygiene	9	Poor
3.	Chemicals	8	Poor
4.	Business Administration	-	
5.	Gravity Fed Irrigation	4	Very Good
6.	Livestock Management	-	
7.	Pest Management	8	Very Good
8.	Quality Assurance	-	
9.	Business Planning	-	
10.	Emergency Response	-	
11.	Human Resource Management	5	Poor
12.	Machinery Operation	2	Very Poor
13.	Repairs and Maintenance	2	Very Poor
14.	Business Marketing	-	
15.	Machinery Maintenance	2	Very Poor
16.	O.H.S. and other Risk Management	1, 6	Very Poor
17.	Pressure Fed Irrigation	-	
18.	Soil and Water Conservation	-	
19.	Weather and Climate	-	
20.	Industry Leadership	-	
21.	Natural Area Management	-	

**TABLE 2** Ranking Cotton Industry Skills Benchmarking system

# SKILLS BENCHMARKING IN THE AUSTRALIAN COTTON INDUSTRY

## Outcomes

Cotton Industry Skills Benchmarking has delivered a fully tested and functional online tool for the cotton industry to assess and monitor the skills base in the industry on an ongoing basis. Over time this system will allow the industry to monitor the development of skill and address any areas of skill shortage by targeted investment in training and other mechanism for skills development.

Validation of Cotton Industry Skills Benchmarking has been successful and has demonstrated that confidence can be placed on the Training Preferences across industry produced by the system.

## Conclusion

Skills Benchmarking and Needs Analysis in the Australian Cotton Industry has been developed tested and validated by industry. It is freely available to the cotton industry as a tool to assist with the assessment of skill and to monitor changes over time. Uptake of the system by industry has been poor to date and this has limited the value of data collected.

Skills Benchmarking and Needs Analysis has the potential to be a valuable tool for the cotton industry if usage rates are increased. These key values are:

- As a tool for farmers and managers to carry out an audit of the skills base of their business
- As a tool for recruitment of new staff
- As a tool to assist the business to develop training and personal development programs for staff
- As a tool for industry to monitor skills acquisition and identify skill gaps
- As a tool for industry to monitor skills and direct investment in development and delivery of training programs.

## References

Boud D, *Enhancing learning through self assessment*, Routledge Falmer, 1995

Bell C, *You can do more than just training with training packages*, Proceedings, Cotton Conference 2012



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