

KNOWLEDGE AND KNOWING: Futureproofing through training

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The imperatives for a comprehensive training scheme in the cotton industry are easily identifiable: looming skills shortage, new and complex technologies to be adopted, best management practices to be implemented and the principals of sustainable production to be digested. These imperatives are 'knowledge' imperatives, and a cross-industry team has built a prototype training structure to be tested over the next 12-18 months. What is not so easily identifiable, and therefore implementable, are our 'knowing' requirements — empathetic understanding of our place in and responsibilities to the world outside the farm or departmental or organisational boundary. Knowledge, through training, has the potential to deliver substantial economic returns, but that potential is unlikely to translate to its promise if cotton industry values and visions remain out of step with those of the broader community. It is only by truly *knowing why* the community feels the way it does about cotton production and, therefore, why BMP is being implemented, why sustainable production is important, why new technologies are developed — that is, by learning about the learning — that industry and community goals and visions will align and the true potential of a skilled, knowledgeable workforce will be unleashed. That real benefits are returned when knowledge and knowing are combined has been amply demonstrated in this industry by the reversal of fortune of Namoi Cotton Co-operative. Its experience is documented here in a case study.

Background:

The shortage of skilled workers in the cotton growing industry has become an increasing concern over the past few seasons. In 1996, during a whole-of-industry strategic planning exercise, a skilled workforce was identified as crucial to the continued expansion and future sustainability of the industry.

At the time workforce training had not, historically, been the province of any organisation in the industry. We knew that training was being provided in TAFEs and Agricultural Colleges on an opportunistic basis. We knew too that, according to reports, the courses often had little relevance to modern practices; rarely tied in with training offered at other levels and other institutions; and that there was confusion among prospective employers about exactly what level of expertise they should expect from graduates of the various courses.

Responding to the disquiet being expressed, Cotton Australia sought to take a greater role in training on behalf of the industry.

A cotton industry 'reference group', known as the Cotton Industry Training Group, met in August 1997 to:

- learn the scope of government initiatives in the industry training area

- understand what other agricultural industries had already done in this area
- appraise the need for a traineeship scheme in the cotton industry, and
- assess the options available to us

Coming to terms with the first of these was a challenge. Broadly there are three endorsed elements of the training packages:

- the National Competency Standards which prescribe expected work performance at different levels (in Cotton's case levels 2 to 5)
- assessment guidelines — that is, uniform assessment of the competencies across enterprises/institutions/States
- provision of a national recognition system through the Australian Qualification framework

We understood that the salient features of an industry traineeship were:

- largely on-farm training with off-farm training (at TAFEs or Agricultural Colleges, for example) undertaken at times to suit the work troughs on the farm
- an Australia-wide qualification, the national *Certificate of Agriculture, Cotton*
- recognition of prior learning for trainees
- a 'skills passport' for trainees — a record of training undertaken (and perhaps the competency achieved) — increasing the mobility of trainees and aiding employers' assessment of potential employees
- a skills audit for the industry
- a training wage of around 80% of normal salary for entry level trainees so that employers do not pay for the time spent training off-farm

Having taken part in the iterative process of formulating our *National Competency Standards, Assessment Guidelines And Qualification*; the review of draft *Learning Guides*; many meetings with State ITAB representatives, with QRITC and with several training organisations, the Cotton Industry Training Group gained enough of an understanding to realise we needed more than a part-time committee to effectively manage training in our industry, and to keep up with shifts in government thinking with regard to training. We were impressed with what we heard other industries had achieved, but none were quite what we envisaged for our industry. In particular, we saw the need for a nationwide or industry-wide scheme — that is uniform across the two States cotton is currently grown and in the States it may soon be grown in — and we saw no example of that in other industry schemes.

Assessing our options, we realised that to achieve the goals we had in mind required specialists the industry didn't have, and resources the industry was unlikely to allocate. We looked to existing training organisations to joint venture with.

1 The Cotton Industry Training Scheme

Industry goals of training scheme:

Ensuring the Australian cotton industry has an appropriately skilled workforce on which to draw as it continues to expand is just one goal, albeit the primary one, the industry seeks to achieve from the introduction of an industry-wide scheme. Others include:

- the widespread adoption of, and adherence to, the industry's code of practice
- sustainable cotton farming through widespread inculcation of industry's culture of sustainability
- the provision of clear career paths for employees
- mobility of employees throughout the industry
- a committed and loyal workforce that will help 'spread the word' about cotton
- greater productivity and efficiency throughout the industry, ensuring viable cotton farming into the future

Model for training scheme

A consortium of two training organisations — Hunter Group Training from NSW and Golden West Training from Queensland — were selected to undertake an 18 month (two seasons) pilot after which the final structure of the scheme would be determined.

Our preferred structure, and the one we are piloting, is a cotton industry training body that:

- is dedicated to cotton industry needs
- is identifiable as the cotton industry training body
- is arms length from all existing cotton industry bodies
- is a self-supporting, non-profit entity
- is capable of managing training delivery and assessment
- is structured to employ trainees (group training company) who are then sub-contracted to farmers as and when required
- incorporates arrangements for an industry-wide Aboriginal traineeship
- markets and oversees school-based training
- has grower involvement at steering committee/board level

Role of industry training body

The operations of the industry training body will encompass all aspects of training management, including:

- recruiting trainees (both new industry entrants and existing farm workers)
- employing trainees where appropriate (Group Training Companies are, typically, contractual employers and as such remain responsible for matters such as payment of wages, taxation and provision of group

certificates, superannuation deductions and payments, training arrangements and monitoring, performance appraisals, counselling and dismissals.)

- liaising closely with farmers to ensure needs (in terms of both the trainee and the skills) are met. For example, to ensure the farmer and trainee can work together and the trainee is learning the appropriate skills for the farm's needs
- managing delivery of training which probably includes continuous assessment of courses delivered by TAFEs and agricultural colleges among others, to ensure they deliver training that meets industry expected outcomes (aligned with National Competencies)
- ensuring that where possible training is delivered on-farm and, where not possible, is delivered in blocks during the off-season in local regions
- managing assessment which, where possible, should be on-farm assessment
- ensuring recognition of prior learning takes place, and long time cotton farm employees are encouraged to gain the qualification commensurate with their experience and prior learning
- advising on related industrial relations issues
- managing the specialist recruitment and management of the industry's Aboriginal Employment Scheme, and the concomitant liaison with the Department of Education, Employment and Youth Affairs (DEETYA)
- undertaking a skills audit throughout the industry and, if appropriate, continuing to do so on a regular basis to ensure current and future needs will always be met
- implementing an assessment/audit of the training scheme and the training company
- keeping abreast of government training initiatives
- sourcing government funding for training in the cotton industry
- continually upgrading training initiatives to meet the industry's strategic goals

2. Training and returns

Training and farm profits

Australia's relatively poorly educated farm workforce, compared to our overseas competitors and to other Australian industry sectors, not only limits our productivity directly, but has a compounding effect by inhibiting further training, and so further limiting our capacity to be flexible, adaptable and responsive to change.

Education has an impact on profitability and productivity via decision making, particularly in relation to changes to practice and adoption of innovations.

Farm businesses with no-one in the management team having education to year 10 level are the least likely to make a change to their practice....Farm businesses with better educated managers are more likely to make changes in all four categories (financial management, marketing, agricultural practices and land management)... Taking businesses that do make changes, farm businesses with agricultural qualifications make more types of changes. ... from Change, Training and Farm Profitability, an NFF research project undertaken by Dr Sue Kilpatrick

The findings of this 1993-94 study are pretty self-evident: With education comes a greater capacity and likelihood for effective change, and change is more likely to lead to profitability. In fact this NFF study found that farm businesses with agricultural qualifications present in the management team earn their enterprises an average (mean) gross operating surplus 31% higher than other farm businesses through the changes they implement. Imagine the difference when there is agricultural (and cotton-centric) qualifications throughout the workforce!

Appropriate agricultural qualifications at all levels of the workforce — from entry level to farm management — is the goal of the cotton industry training scheme.

Training and individual growth

What's in it for the individual? The principal advantage is a mapped out career path, from school leaver to farm manager with Australia-wide recognised qualifications as testimony of their achievement.

For existing farm employees there is recognition of prior learning and the attainment of a qualification recognised throughout the industry.

The 'skills passport' each person gains through the training provides for greater mobility throughout the industry. For example, someone who has been working in Emerald can apply for a job in Warren and, importantly, drawing on their 'passport' or their qualification the prospective employer will know exactly the level of skill of the applicant. Similarly, it will be easier to move from one educational institution to another because courses offered will be in line with the competencies.

Training and industry future

Cotton's major challenge remains skewed community perceptions of its farming practices and, therefore, its sustainability. There is a view that this poor community perception is discouraging young people from embarking on a career in the industry which, in turn, is exacerbating the skills shortage. The Emerald Agricultural College, for example, has an excellent cotton course which is in danger of being dropped due to poor enrolments over the last few years. In 1998 it had one student.

Thus, as in everything we do, training must also seek to address the widening rift between broad community and cotton growing goals.

Profitability may accrue to farms initially through farm-focussed training but that won't, over the long term, help the industry as a whole achieve its goal of revered community member. Changes for the best for the farm may still not be for the best for the community or the environment, at least not in the community's view.

Whether we like it or not there is an increasing move — a revolution really — toward ethically or morally-based decisions rather than economic ones; and there is a time lag between changed practices (even for such changes as the spray guidelines which could be said to have occurred for ethical/moral reasons rather than economic ones) and community knowing about them. For an industry (or organisational) outcome vis a vis a farm or individual outcome, the 'knowing' (empathetic understanding) of the community's values and therefore applying the knowledge (training) precisely under all circumstances, without exception, is imperative.

By the same token, a good industry outcome is a good farm outcome is a good individual outcome — for a farm or individual to survive the industry has to survive.

Professor Richard Bawden from the Centre for Systemic Development at the University of Western Sydney Hawkesbury refers to this movement away from economics and logic and rationality (from which, as Ulrich (1993) says, 'moral judgement has been eliminated') to values and morals and ethics as a 'fundamental rebellion'. "This challenge to convention reflects two fundamental tenets: (a) that the essential activity of being human is not the setting and seeking of goals of resource allocation, but the establishment and maintenance of relationships; and (b) that learning about our world involves experience, spiritual insights, values, emotion and disposition, as well as 'pure' reason."

At the time of writing Ted Evans, Secretary to the Treasury, had just made the same point with regard to bank closures in rural areas. In a June 1998 speech he denounced banks for making such decisions on purely financial grounds, saying that instead that a major consideration should be what is required for the sustainability of the community — in other words, he advocated a moral/ethical decision.

What we need a systemic approach to industry training. We must encourage all those undertaking the training (and the rest of us in the industry not undertaking the training) to think more widely than the skills

they are attaining and the on-farm application of their knowledge, we must encourage them to think about why they are learning and the implications of what they are learning for the wider community and environment.

I contend that the most important goal of our training scheme is to have trainees ascertain whether their decisions will lead, not simply to their (or the farmer's) desired ends, but also the ends of the environment and community outside the farm fence. So far there is no mechanism in our training scheme to encourage that.

3. Case Study: Namoi Cotton Co-Operative

Namoi Cotton is Australia's largest cotton ginning company, with 11 cotton processing plants located throughout northern NSW and southern Queensland. Annual revenues for the organisation are between \$350 and \$400 million, depending largely on the agricultural successes of the cotton growing regions of Australia.

In 1995 the organisation committed to a structured, competency based training programme to improve the skill levels of all permanent employees. This initiative had been prompted by a period of downsizing and restructuring as a result of reduced cotton production during the 1992-1995 drought, reinforcing the need for greater multi-skilling amongst remaining employees. The training programmes were aimed at lifting the customer service and technical skill levels of all personnel, while also supporting an extensive organisational improvement programme.

By 1997 eighty per cent of permanent employees had participated in accredited competency based training; a training partnership had evolved with TAFE NSW; large numbers of employees were enrolling or nominating for future courses; and, there had been a significant reduction in staff turnover with overwhelming responses to positions advertised to cope with expanding business opportunities.

Namoi Cotton were recognised for their successes in 1997 when they received the national 'Employer of the Year - Light Manufacturing' award from the Australian National Training Authority.

Catalysts for change

Prior to 1994 Namoi Cotton was similar to many other Australian cotton processing companies. The majority of the ginning staff (who represent 40% of permanent staff and 90% of seasonal staff in the

organisation) were not trade qualified and their mechanical and technical skills were usually site and/or machinery specific developed through an informal and unstructured mentoring programme. With the exception of five motor mechanics and four electricians, very few employees employed in the technical and production areas of the business had completed any form of structured competency-based technical training. Clerical staff were frequently self-taught, while professional and managerial staff participated (often unsuccessfully) in external studies programmes to complete undergraduate studies. Few employees had completed post-graduate studies, and training and learning opportunities were largely directed towards managers attending short courses or conferences.

1994/95 became a water-shed year for the organisation. The severe impact of the drought forced a radical restructuring and downsizing of the organisation, particularly in the production areas of the business. Namoi Cotton was threatened by takeover, suffered trading/commodity losses, and increased competition entered the Australian cotton ginning and marketing environment. All of these contributed to poor morale of employees, many of who realised for the first time that their skills were not readily transferable to another employer or employment market, at a time when forced redundancies and potential long-term unemployment in small rural communities was a very real possibility.

Identifying the opportunities for change

At this point Namoi Cotton was very fortunate to receive the first of a number of federal government funded grants, with a grant to assess its' real training needs. This review identified a wide range of skill shortfalls in technical, administrative, humanistic and supervisory/management areas. *The review also suggested that a highly motivated, multi-skilled workforce was essential for business survival.*

Further federal government funding was then provided to support the introduction of: mentoring, training and assessing(AVTS); technical and skill development(TASK); and, numeracy and literacy support(WELL). These latter grants supported a wide range of training initiatives which were implemented late in 1995, continuing into 1996. Namoi Cotton has also contributed significantly to these initiatives(on a conservative estimate of \$2 for every \$1 of government funding). However, there is no doubt that the federal government funding accelerated the development of a training and learning strategy, which is now accepted as a core platform for the organisations' future development, expansion and survival.

A condition of the government grants was that defined training and learning outcomes would be achieved within specified timeframes. These defined outcomes included the need to ensure that training was competency based and accredited, and that skill development was aligned with appropriate competency standards.

To ensure that training would be competency based and accredited Namoi Cotton entered an active partnership with TAFE NSW, who could provide the wide range of training and development identified through the training needs analysis. TAFE NSW also had campuses in all of the major regional centres in the north-west of NSW, their staff were familiar with the local cotton industry, they were prepared to be very flexible in their course delivery, their courses were competency based and accredited, and finally, they were prepared to conduct a rigorous programme to recognise the prior learning of all employees.

The need to ensure that the training met national competencies was easy to achieve for those roles where national competencies existed. Unfortunately, no such competencies existed for cotton ginning, the major part of the business (and area of greatest need in terms of training and development). However, in 1996 the Australian Light Manufacturing ITAB (ALMITAB) was funded to work with the cotton industry to develop national cotton ginning competencies for ASF 1 to 3. Namoi Cotton worked very closely with the ALMITAB in 1996/97 and were very pleased that the drafted national cotton ginning competencies reflected many of the training and development practices that had been successfully implemented at Namoi Cotton since 1995. Draft ginning competency assessment guidelines were developed in 1997 and are being used by accredited workplace assessors to assess the skill levels for ginning specific competency elements. In 1996 an experienced production manager was appointed to the position of Training Co-ordinator (Ginning) to oversee the formal implementation of the ginning competency standards throughout the organisation.

Nature and extent of education and training

All non-trade qualified technical employees have completed accredited engineering production units, from the ASF1 and/or ASF 2 range of modules. All gin managers and a large number of supervisors have completed an ASF 4 Certificate in Team Leadership, with another 17 supervisors presently enrolled in the course. RPL Assessments have been completed for all clerical staff and relevant ASF 1 and/or 2 training has commenced. At the same time the organisation made a large commitment to supporting engineering production traineeships and ginning trainees, recruiting 14 employees in 1996 and 5 employees in 1997 in

these categories. All of the employees who completed the relevant training in 1996 have since been permanently appointed to the organisation.

A large number of employees also completed Mentoring, Category 1 Trainer and Workplace Assessor training programmes. Many of the mentors have now been facilitating an organisational change learning programme that all employees have participated in. Workplace assessors have conducted a range of RPL assessments, particularly in the areas of administration and ginning.

Literacy and numeracy support was provided to employees participating in any of the training courses, and was also made available to employees not participating in training courses.

These training initiatives appear to have contributed to reduced resignation rates for the organisation, despite new opportunities within the cotton industry resulting from renewed confidence following the breaking of the drought. Namoi Cotton employees are seeing the opportunities to both increase their skill levels and the organisations' commitment to develop their career opportunities. As Namoi Cotton seeks to also expand its own production capacity our recruitment has been aided by experienced people seeking to join our company so that they can also participate in these training initiatives.

Namoi Cotton employees are now very skilled in technical, administrative, and humanistic areas. In 1995/96 net operating profit was approximately \$1 million. The 1996/97 profit exceeded \$6 million, and the 1997/98 result exceeded \$15 million. Market share during the same period has increased significantly, largely on the industry reputation of the professionalism of the company. Naturally, the company believes that the extensive training and learning initiatives have contributed to these excellent results, and expect increasing market share as employees are further empowered to implement ideas learnt both on and off the job.

Human resource strategies

The organisation has committed to a range of business and personal values to achieve its vision of being the pre-eminent processing, marketing and services organisation in the Australian cotton industry. These specific values re-affirm the organisation's commitment to the development of the workforce to achieve exceptional results. A number of human resource strategies have also been implemented to reinforce this commitment to developing the workforce. These human resource strategies contribute to and complement the successful integration of training and development initiatives within the organisation and include:

- **Job Evaluation:** All employees have assessed their individual job roles as part of an organisation-wide job evaluation process. This process provided an opportunity to assess any job relative to all other jobs in the organisation. One of the factors for this assessment specifically linked the level of 'Knowledge Learned' with the level of 'Knowledge Applied'. This helped to reinforce to all employees the link between increased skills and increased job size, providing the opportunity for increased remuneration. Other aspects of this review included 'Work Organisation', 'Interpersonal Skills', 'Responsibility/Authority' and 'Work Environment'. Additional job evaluations are completed whenever employees believe that their role has significantly changed.
- **Organisational Change:** A structured organisational change programme has been implemented aimed at changing the organisational environment through reinforcement of the business and personal values in a co-operative team-based environment. This programme has ensured that increased learning opportunities occur on the job, while new skills gained off-the-job are more actively encouraged and applied back in the 'normal' work environment.
- **Career Paths:** The national ginning competencies and a range of organisational specific competencies have helped employees to identify and participate in learning opportunities which are clearly aligned with career path opportunities. Competency-based and accredited training courses are purchased and delivered by local providers (usually TAFE);
- **Succession Planning:** A structured succession planning process has helped to identify training needs or career path opportunities that may have otherwise been overlooked. The commitment to recruiting new adult trainees into the company on an annual basis to act as 'feeder groups' to support the longer term needs of the business reinforces the belief that training is not seen as something that can be turned on or off, whenever required.
- **Performance Management:** Performances are being assessed on the basis of demonstrated commitment to the personal and business values of the organisation, while also identifying training and learning needs to lift performance in the following review period. These training and learning needs help to determine training programmes for the following year/s.

Conclusion

Namoi Cotton now has in place a range of systematic processes to identify training needs, implement appropriate training programmes, and to assess training outcomes. More importantly, the company has managed to overcome the disadvantages of distance and rural NSW to develop a learning culture, which would be the envy of other large companies. No single issue, task or programme is responsible for this achievement. Rather, a wide range of human resource strategies, complemented by a commitment to a number of clear business and personal values, have contributed to the success. Most employees now understand that while their future development is in their own hands, their goals and aspirations will be supported by the organisation as this makes good business sense where they have been aligned with the needs of the organisation.

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