

UM1501 CRDC Project

The impact of farm workforce turnover in the cotton sector – Milestone Report

Report to Cotton Research & Development Corporation

Milestone 3.1 Recommendations for industry people management strategies:

- Growers and advisers are aware of the research findings and are considering changes in practices.
 - Industry is tracking change in turnover performance.
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Executive Summary

The purpose of this research was to:

- Establish measures of turnover to assess change in human resource management performance and track progress over time at a farm and industry level
- Examine costs and impacts of staff turnover on a sample of cotton farms
- Identify practices most strongly linked to low turnover
- Explore relationship between turnover and business performance

This third milestone report presents an update on the cross-case study analysis

- The variation in impacts from employee turnover across 15-20 cotton farms is explained.
- The options for improving business performance through people management are described.
- Recommendations for industry people management strategies are provided including options to ensure:
 - [1] Growers and advisers are aware of the research findings and are considering changes in practices.
 - [2] Industry is tracking change in turnover performance.

Findings: Measuring turnover

Whilst specific metrics were not able to be determined for each farm, two key observations were made that provide guidance for future effort in measures of workplace turnover.

- Farms described workforce strategies revolving around core-permanent staff (often managers and experienced/senior farm hands) and casual/contract staff that could be skilled and experienced with trades or inexperienced (backpackers). Retaining core staff, in particular managers, who led the human resource management initiatives on most of the case farms was a key focus. It would be important to focus the measurement and monitoring of turnover to the separation rate and stability index of **managers**.
- Whilst it was difficult to calculate turnover metrics because of a large number of casuals employed and many on short term arrangements, it is possible for employers to monitor monthly turn-over rates across the total number of staff in this category (i.e. the no. of new staff each month replacing staff that have left/total staff numbers). Figures from small-medium size manufacturing businesses suggest a benchmark metric of <10% turnover per month in order to minimise the impact of turnover on staff morale and other costs.
- From an industry perspective, it is recommended that national surveys be used to collect and analyse high-level information on the number of staff employed on cotton farms and some turnover data so to better inform workforce policy and determine staff development and training priorities in the sector

Findings: Farm profitability, labour costs and turnover

With a limited amount of data from the CCA (in some cases for only one year) we were not able to establish a clear relationship between employee turnover and profit. For example, there is a wide range in labour costs in the farms with an operating profit of less than \$50/bale. Possibly some businesses are not profitable partly because they spent too little on labour, and others are not profitable partly because they spent too much on labour. There does seem to be a tendency for the farms with operating profit of over \$150/bale to spend less than 15% of income on costs on labour, but they generally still spend over 8% of income on labour (if we ignore one outlying point).

- While workforce turnover is likely to increase costs and reduce profit, it is difficult to identify this specifically from the whole farm profitability. We were not able to establish any clear relationship between workforce turnover and profit.

Findings - Employee engagement

Employees were surveyed on their feelings about and experiences at work. Twenty-two surveys were returned from five different farms. In terms of working hours, employees reported working, on average, 20 hours more during busy periods (52 hours to 74 hours). In spite of this, they reported moderately high levels of engagement (5.4/7) and low intention to quit (2.1/7), suggesting that they were motivated at work: absorbed in, enthusiastic about, and dedicated to, their jobs. This may be because these employees felt relatively high levels of support from their supervisors (5.7/7) and were emotionally committed to the farms that they worked on (5.5/7). But these positive outcomes were combined with low-moderate levels of burnout (3.9/7) a job-related stress condition linked to experiencing lots of demands at work. While burnout is linked with poor outcomes for employees and businesses, engagement is consistently linked with positive outcomes like better wellbeing and performance. Providing employees with additional resources at work like feedback, support from supervisors and co-workers, and autonomy over their roles can help them to deal with job demands, increase engagement, and reduce burnout.

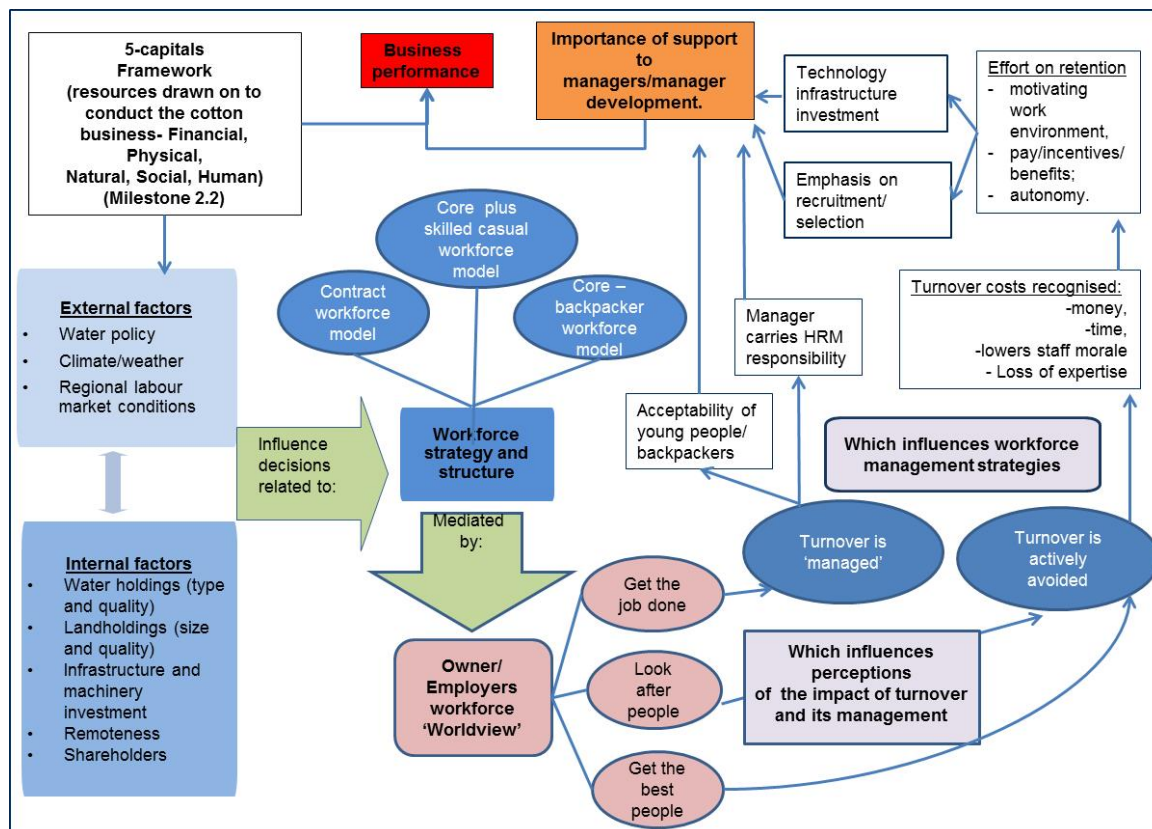
Findings – integrative analysis of influences on workforce turnover

- Influences on workforce turnover, its impacts and management were explored across the 15 cotton businesses involved in the study. Whilst no direct relationship between the extent of workforce turnover and farm profit was able to be distinguished, different workforce strategies of growers were noted, along with patterns linking these strategies with the attitudes of employers and the relative importance of retaining staff as well as the perception of the costs and impacts of turnover. Further, different workforce management practices were noted to match particular strategies and world-views of employers.
- The findings show a link between farm workforce strategies deployed and **remoteness/isolation of farms; the location of farms and their water security** (including the **influence of climate/weather**) and the investment in technology and infrastructure. This range of internal and external factors influenced decisions related to workforce strategies. Three main workforce strategies were defined across the case farms and these strategies were observed in the organisation of the workforce or the workforce structures: **Core-Contract; Core-casuals (skilled); and Core-casuals (inexperienced)**.
- Although internal and external factors played a large role in the workforce strategies undertaken, the choices were also seen to be mediated by **the ‘worldview’ of the farmers** particularly with respect to the relative importance of valuing people and their needs to achieve business outcomes. Three predominant world-views related to workforce were noted across the case farms: **‘Get the job done’**: This worldview emphasises efficiency; **‘Look after people’**: a world view related to needing to meet the needs of people in order to get the best performance (work output) for the farm. This world view emphasises retention; **‘Get the best people’**: a world view related to needing to find people with the best fit and match with the farm culture and goals. This worldview emphasises recruitment, selection and induction.
- These worldviews and workforce strategies led to particular management practices related to turnover whereby growers either **a) ‘managed’ turnover** and management practices included labour contracting (outsourcing HRM), selection favoured particular attributes of employees based on ease of recruitment/short-term (e.g. backpackers; younger or older staff) and there are high expectations of managers to lead the human resources management tasks/responsibilities and model desired behaviour; or **b) ‘actively avoided’ turnover** where management practices favoured strong recruitment, selection, induction and retention processes because the costs of turnover were perceived to be too high in lost time, lost expertise, meaning there was a heavy burden on the manager in continual training, and the negative impact on staff morale/staff productivity unless “good turnover” (removing those having a negative impact on the team culture). Practices included strong selection processes using personality profiling and fit with the farm culture, strong training and induction programs, employees empowered with autonomy and develop a sense of ownership in the business and strong use of feedback rewards and incentives. These farms also appeared more likely to consider technology options to assist or augment workforce strategies.

Each workforce strategy therefore has risks and consequences, in particular related to effective support for managers, development pathways for managers and the additional burden on managers with high-turnover/casual inexperienced staff. Therefore, irrespective of the workforce strategy deployed, the attraction, retention and development of managers on cotton enterprises is an important consideration for individual farms and also the industry collectively. Whilst no direct quantitative measure was identified to link different strategies to business performance outcomes, these results indicate that different strategies bring different risks and consequences and therefore need to be considered or re-adjusted. It also hints at an

expanded set of criteria for considering new business ventures to not only consider water security and return on assets, but access to appropriate human and social capital. These findings are summarised in the conceptual diagram below.

Conceptual diagram summarising the influences on farm workforce turnover, perception of business impacts from workforce turnover and the management of turnover in 16 cotton businesses.



Recommendations for CRDC

1. Consider alternative means of tracking turnover
2. Consider greater investment in Business Management and Benchmarking in the Cotton Industry
3. In industry training and development efforts – consider employees more, particularly managers
4. Directly support industry people management strategies and focus on:
 - a. Increase awareness of business costs from workforce turnover:
 - b. Promote strategic HRM and change in worldview when it comes to people in the cotton business
 - c. Support grower investment decisions related to infrastructure by considering and communicating business, environmental and workforce benefits (e.g. retain skilled employees)
 - d. Support growers to consider different ways to reward and motivate employees

Further research

This study has uncovered four key areas where further research is needed. They concern developing a better understanding of: a) the foundations of employee/employer engagement; b) the employee as a whole person; c) the impact of climate change on workforce turnover; d) the responsiveness of employers to workforce changes.

1 Introduction

The Australian cotton industry recognises the value of people and has a vision that by 2029 it will be an - an industry that “retains, attracts and develops highly capable people” (Cotton Research and Development Corporation 2010, p. 4). Implementing this vision is, however, difficult to do when the costs and benefits of human resources improvements are not well understood. For example there is a major gap in current knowledge in how employee turnover could be expected to the productivity and profitability of cotton production. Research conducted as part of the CRDC Innovative work project (see Moffatt and Nettle 2013) suggests that high rates of workforce turnover, particularly for casual and less experienced staff are negatively impacting farm business profitability. This occurs directly through lower productivity, as well as through higher machinery maintenance costs and to some extent through other costs like increased insurance premiums. It also occurs indirectly, and less obviously, through increased stress and time lost in repeated recruitment, and induction and training of staff. Until now these impacts have remained hidden from conventional farm business analysis and have not contributed to clear messages about employee management. In addition, there are no explicit measures of staff turnover currently used either on-farm or in the industry to track improved performance or assess the impact from activities to improve human resource management like changes to employee induction, employer training or employer participation in MyBMP (myBMP 2015).

This project aims to: a) establish meaningful measures of turnover that can be used to assess change in human resource management performance and track progress over time at a farm and industry level; b) examine the real costs and impacts of staff turnover on a sample of cotton farms; c) identify the practices most strongly linked to low turnover; and d) explore the relationship between turnover performance and farm profit. The project combines theories of human resource management (i.e. fulfilment of the psychological contract in employment relations) and farm management (financial and economic analysis) to explore the relationship between employee turnover and farm business impacts. Employee turnover is one of many potential indicators of on farm workforce management performance. Employee turnover could be expected to be one of the many influences having an impact on business costs and returns.

Our multi-disciplinary research team includes social scientists with experience in human resource management on-farms and for primary industry workforce development, a farm management economist, and the farm management accounting firm Boyce Chartered Accountants¹ (Boyce). A case study methodology was used with 11 current Australian Cotton Comparative Analysis (ACCA) farms (Boyce Chartered Accountants 2015). Cotton growers were interviewed in person and data was collected to complement the physical and financial analysis collected for the ACCA. Data included: a) employers’ attitudes toward employee turnover and the relative importance of employee engagement and retention; b) the costs, benefits and impacts from turnover generated from the farmer’s experience and their business accounts from the previous 12 months; c) human resource management practices on farm and employee skills; and d) training and work engagement. A cross-case analysis was undertaken to examine trends associated with costs of turnover, the effects on farm profitability, and the social and industry impacts of turnover. Qualitative analysis of the key differences between groups of farms with different employee turnover was conducted to reveal the areas where there was potential for the industry to intervene to support change.

The findings and recommendations from this project will assist growers and the industry to consider the business case for improved people management on-farms, identify the interventions that could be implemented to improve people management, and also to assess their impact.

¹ The ACCA is a financial and production benchmarking activity that had been compiled by Boyce since 1988/89 season. It went into recess from 2006 during the drought years but was reinstated from the 2010/11 season (Boyce Chartered Accountants 2015).

2 Project background

Attracting and retaining a workforce is a key issue for Australian agriculture. Industry efforts to attract a reliable motivated workforce that is interested in pursuing an agricultural career have been ongoing, but quantifying the benefits to farmers from retaining and developing their existing employees have received less attention. The benefits from having engaged employees are that they are less likely to leave a business and are more likely to make a positive contribution to business performance. Failing to retain high performing employees can hold back business performance through the effects from chronic understaffing which can be increased employee fatigue, increased risk of injury and workplace stress, and a less qualified workforce (Rappaport, Bancroft et al. 2003). Beyond individual businesses, poor retention of talented employees across an industry or sector can result in a poor reputation for that sector which limits its appeal to similarly talented potential new entrants, with the end result being that the overall level of experience within the sector can decline. Some of the examples of poor retention will be related to employee's decisions but some of it will also be related to the farmer's approach toward their employees. One farmer from the study group suggested that:

I just find so many people out there running farms that don't understand human beings. They understand their own ego, and how to get out and bash as much as they can out of men, but it's a 2-way deal. I don't think there's been enough work done on that.

The research in the Australian cotton sector that showed that high staff turnover was having an impact on farmers' productivity and profitability (Moffatt and Nettle 2013) also identified a large variation in staff turnover between farms, and a variation between farms in the motivations and strategies associated with retaining a workforce. As the cotton sector continues to seek improvements in productivity in socially and environmentally sustainable ways, the impacts from high turnover needs to be measured and understood as do the workforce strategies and practices that contribute to high levels of workforce retention. Filling these knowledge gaps will add to the sectors' ability to understand the business case for improved people management.

3 Research aim

The purpose of this research was to:

- Establish measures of turnover to assess change in human resource management performance and track progress over time at a farm and industry level
- Examine costs and impacts of staff turnover on a sample of cotton farms
- Identify practices most strongly linked to low turnover
- Explore relationship between turnover and business performance

The research project aims to increase grower and industry knowledge about the impacts of employee turnover on cotton business performance and establish useful metrics that the industry can use to monitor change in employee turnover.

4 Research Approach and summary of earlier findings

The research proceeded in stages:

1. Development of instruments for the research: turnover calculations, workbook, employee survey, sampling method. (See Milestone 1)

2. Employer interviews:

Sixteen face-to-face interviews of about one hour each.

- 11 Boyce CCA participants (21 - 28 March).
- 5 Cotton Info Team contacts (1 - 5 June).

Preliminary analysis (milestone 2) highlighted a range of factors that may influence human resource management strategies on-farms and therefore workforce turnover, including: 1) the employer's approach to staff, 2) their sources of 'capital' (natural, financial, human, etc.), 3) the location, and 4) the reliability of their water sources.

The employer's approach to staff is about what they want from, and for, their staff. It includes notions of empathy, and encouraging ownership and belonging in the workplace. This seems likely to affect work conditions and how employees feel about their employer and their job.

The sources of capital and preferences of the farmer (i.e. natural, financial, human, etc.) determine the return on investment they require, and the time frame over which it can be recovered. Businesses that rely on external sources of funding (e.g. shareholders) that can potentially move to other more attractive investments seem to be making different decisions related to, and therefore impacting on, their staff than those that do not. Further, it is possible that the more remote areas with cheaper land are easier to achieve a high Return on Total Assets but have challenges associated with attracting staff. The location of the business (and the services available at that location) will likely influence the initial attractiveness of the position to an employee. Indeed, several employees commented on regional location as a key factor influencing their opinion of their workplace. This may, however, change as families grow and the employee's requirement from the community change. The trade-offs for farm decision-making (remoteness, staffing, business performance) is an important findings as the cotton sector changes and the influence of attracting a workforce become more important. Finally, the reliability of the irrigation water sources influences the levels of production that are able to be achieved by the business, and the demand for labour. The types of irrigation resources held, and the amount of irrigation water available will affect the business's ability to maintain a constant level of production and a stable workforce.

3. Employee surveys:

- 98 posted -22 returned from 5 farms - 45% from one farm.
- 68% of respondents identified as supervisors.
- The average length of time in the industry was 11.5 years.
- The average length of time with their current employer was 8.5 years.
- The qualitative analysis of the interview transcripts was conducted using NVivo to code to themes.

4. Financial data and economic analysis

The financial data for all farms that were willing to provide data via the Cotton Comparative Analysis (CCA) was assembled with the assistance of Boyce accountants. This was combined with farm asset and other farm demographic information obtained at the interviews.

Analysis involved the calculation of farm profit metrics such as: costs of production (per bale and per hectare); operating profit per hectare; return on assets managed (cotton enterprise), total labour costs as a percentage of income and owner/family labour as a % of total labour costs. Analysis was conducted for

year 2012, year 2013 and year 2014. Not all farms were involved in the analysis in each year, leaving some gaps in the analysis and interpretation of results.

All analyses were synthesised (and some follow up questions were asked of Boyce and the farmers directly) to develop a richer picture of the business impacts from workforce turnover for each farm, and the HRM practices associated with this turnover.

Provisional results from the financial analysis, employer interviews and employee surveys were presented to industry representatives at a meeting on 2nd September, 2015 at Boyce accountants, Moree. (Table 1. and Figure 1.)

5. Integrative analysis

Cross-case analysis is a means of grouping together common responses to interviews as well as analysing different perspectives on central issues (Patton, 1990). The method starts with writing a case for each cotton growing business being studied, and then grouping interviewee's response according to themes and issues. In this study, results from the farm economic analysis, the preliminary analysis of employer interviews and the employee survey results were brought together to complete an integrative analysis of each farm. A summary was provided to each farm (see Appendix 1) and then a research analysis across all farms (Appendix 2) was conducted by examining key patterns influencing workforce turnover, business impacts and workforce management strategies, in particular related to:

- a. Employers' attitudes toward workforce turnover and employee engagement.
- b. Employers' perceptions of costs & benefits from workforce turnover
- c. Management practices associated with low turnover
- d. Business impacts reported from turnover
- e. Employees experience of work related to work engagement, work hours, burnout and turnover intent.

5 Research findings

Metrics and measures of farm workplace turnover

Calculating the turnover rate on case study farms (i.e. Separation rate and stability index) proved to be too difficult to complete. This was because of either the size of the operation (number of staff); a lack of records of staff numbers and employment type (e.g. in cases involving a large number of backpackers or staff spread between different business units) and the relative stability in employment of managers and senior farm hands in some cases). Whilst this type of information is very important from a farm management perspective (i.e. measuring staff turnover is standard business practice to assess the HR strategy) and also from an industry perspective (measures of turnover assists the industry in understanding changing demand for staff and the sources of demand (from growth or churn) and target training and development efforts.

Whilst specific metrics were not able to be determined for each farm, two key observations were made that provide guidance for future effort in measures of workplace turnover.

1. Farms described workforce strategies revolving around core-permanent staff (often managers and experienced/senior farm hands) and casual/contract staff that could be skilled and experienced with trades or inexperienced (backpackers). Retaining core staff, in particular managers, who led the human resource management initiatives on most of the case farms was a key focus. It would be important to focus the measurement and monitoring of turnover to the separation rate and stability index of **managers**.
2. Whilst it was difficult to calculate turnover metrics because of a large number of casuals employed and many on short term arrangements, it is possible for employers to monitor monthly turn-over rates across the total number of staff in this category (i.e. the no. of new staff each month replacing staff that have left/total staff numbers). Figures from small-medium size manufacturing businesses suggest a benchmark metric of <10% turnover per month in order to minimise the impact of turnover on staff morale and other costs.

From an industry perspective, it is recommended that national surveys be used to collect and analyse high-level information on the number of staff employed on cotton farms and some turnover data so to better inform workforce policy and determine staff development and training priorities in the sector.

Perceptions of the impact of turnover varied

Growers vary in their perceptions of the cost and impacts of turnover and in their beliefs about what are acceptable levels of turnover. For instance, some growers consider high workforce turnover as a cost of doing business when there is contraction and expansion of cotton plantings due to fluctuating water availability. Other growers value workforce stability and have structured their business in such a way that they are better able to retain their staff through varying seasonal conditions. This variation in approaches to workforce strategy is also seen in a small study of 20 dairy farmers about their perceptions of the financial cost of employee turnover. This ranged from \$1000/employee for those who perceived the costs of turnover to only be recruitment costs through to \$50,000 for those who perceived staff turnover as having wider business impacts (Neal 2013).

Results from economic analysis

A key finding from the financial analysis (see Figure 1 and Table 1) is that the ACCA benchmarking data showed substantial profit variation between farms (\$20 to \$282 per bale and \$206 to \$3,380 per ha). This could indicate substantial potential for improvement in profitability on some farms. However, the farms that provided more than one year of data also showed substantial variation between years. Some follow up questions indicated that some of the years with low profit were associated with issues such as, reduced irrigation water availability and storm damage.

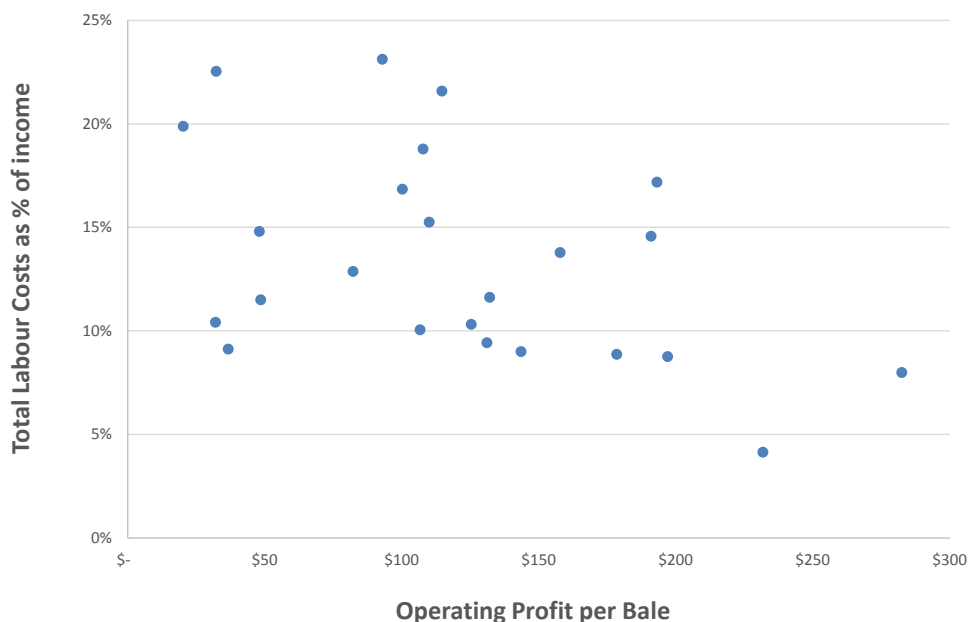
The Return to Total Assets managed varied from 1 to 18%, with substantial variation between farms and between years on the same farms. The data on the Return to Total Assets managed provided additional insights to the operating profit per ha. One of the farms with a below average operating profit per ha had a relatively high Return to Total Assets managed as the asset values for land and water were relatively low. Unfortunately, the data to calculate the Return to Total Assets managed was not available for all farms.

Table 1. Summary of the financial analysis of some of the farms involved in the study.

COTTON COMPARATIVE ANALYSIS 2012													
Farm	E	J	D	B	K	H	A	I	CCA Average	Average of growers interviewed			
Hectares of cotton grown	3924	567	1301		2208	1368	6650	1348	1676	2481			
Yield per hectare (bales/ha)	12.2	12.1	8.9		10.0	10.4	9.0	9.0	10.1	10.2			
Value per bale	\$ 482	\$ 473	\$ 486		\$ 504	\$ 426	\$ 471	\$ 415	\$ 474	\$ 465			
Cost of production per bale	\$ 324	\$ 373	\$ 383		\$ 332	\$ 329	\$ 356	\$ 379	\$ 363	\$ 354			
Cost of production per ha	\$ 3,933	\$ 4,494	\$ 3,397		\$ 3,298	\$ 3,432	\$ 3,209	\$ 3,413	\$ 3,601	\$ 3,597			
Operating profit/(loss) per bale	\$ 158	\$ 100	\$ 125		\$ 178	\$ 191	\$ 115	\$ 37	\$ 116	\$ 129			
Operating Profit per Ha	\$ 1,917	\$ 1,207	\$ 1,112		\$ 1,775	\$ 1,993	\$ 1,032	\$ 330	\$ 1,157	\$ 1,338			
Return on Assets Managed (cotton enterprise)	-	4.7%	4.7%		9.8%	-	13.0%	1.0%					
Total Labour Costs as % of income*	14%	17%	10%		9%	15%	22%	9%	16%	15%			
Owner/Family Labour as % of total Labour Costs	0%	2%	33%		4%	4%	0%	39%	3%	3%			
COTTON COMPARATIVE ANALYSIS 2013													
Farm	E	J	D	B	K	H	A	I	CCA Average	Average of growers interviewed			
Hectares of cotton grown	4,784	871	1,950	5,298	1,890	1,200		1,260	1,518	2,465			
Yield per hectare (bales/ha)	10.1	12.7	12.1	10.9	9.3	11.6		11.3	10.8	11.1			
Value per bale	\$ 407	\$ 471	\$ 447	\$ 421	\$ 427	\$ 422		\$ 443	\$ 435	\$ 434			
Cost of production per bale	\$ 359	\$ 239	\$ 315	\$ 329	\$ 403	\$ 245		\$ 312	\$ 354	\$ 314			
Cost of production per Ha	\$ 3,609	\$ 3,026	\$ 3,813	\$ 3,584	\$ 3,753	\$ 2,845		\$ 3,508	\$ 3,763	\$ 3,448			
Operating profit/(loss) per bale	\$ 48	\$ 232	\$ 132	\$ 93	\$ 32	\$ 193		\$ 131	\$ 82	\$ 123			
Operating Profit/Ha	\$ 483	\$ 2,937	\$ 1,598	\$ 1,012	\$ 298	\$ 2,244		\$ 1,474	\$ 886	\$ 1,435			
Return on Assets Managed (cotton enterprise)	-	17.6%	10.1%	-	1.4%	-		4.2%					
Total Labour Costs as % of income*	15%	4%	12%	23%	10%	17%		9%	21%	16%			
Owner Labour as % of total Labour Costs	0%	59%	0%	0%	5%	0%		28%	4%	2%			
COTTON COMPARATIVE ANALYSIS 2014													
Farm	E	J	D	B	K	H	A	I	G	F	C	CCA Average	Average of growers interviewed
Hectares of cotton grown	3,590	0	518	4,238	1,857	1,351	7,105	1,334	1,005	513	2,236	1,593	2,490
Yield per hectare (bales/ha)	10.8		10.1	10.7	11.7	9.2	7.6	10.5	12.0	10.2	12.8	10	10.6
Value per bale	\$ 452		\$ 484	\$ 449	\$ 449	\$ 493	\$ 487	\$ 443	\$ 503	\$ 484	\$ 477	\$ 473	\$ 475
Cost of production per bale	\$ 434		\$ 435	\$ 341	\$ 342	\$ 392	\$ 455	\$ 300	\$ 221	\$ 464	\$ 280	\$ 382	\$ 374
Cost of production per Ha	\$ 4,684		\$ 4,388	\$ 3,659	\$ 3,997	\$ 3,593	\$ 3,474	\$ 3,131	\$ 2,646	\$ 4,721	\$ 3,583	\$ 3,973	\$ 3,861
Operating profit/(loss) per bale	\$ 82		\$ 49	\$ 108	\$ 107	\$ 110	\$ 32	\$ 144	\$ 282	\$ 20	\$ 197	\$ 96	\$ 110
Operating Profit/Ha	\$ 886		\$ 489	\$ 1,155	\$ 1,247	\$ 1,009	\$ 246	\$ 1,500	\$ 3,380	\$ 206	\$ 2,524	\$ 998	\$ 1,238
Return on Assets Managed (cotton enterprise)	-	0.0%	0.8%	-	5.8%	-	3.3%	4.5%	-	3.5%	12.6%		
Total Labour Costs as % of income*	13%		12%	19%	10%	15%	23%	9%	8%	20%	9%	22%	16%
Owner Labour as % of total Labour Costs	0%		0%	0%	4%	5%	0%	30%	17%	18%	0%	3%	1%

* Total labour costs includes employees wages, contract picking, farming and ripping, and the value of owner/family labour.

Figure 1: Scatter plot of labour costs as a proportion of income versus Operating Profit per bale (all years).



With a limited amount of data from the CCA (in some cases for only one year) we were not able to establish a clear relationship between employee turnover and profit. For example, there is a wide range in labour costs in the farms with an operating profit of less than \$50/bale. Possibly some businesses are not profitable partly because they spent too little on labour, and others are not profitable partly because they spent too much on labour. There does seem to be a tendency for the farms with operating profit of over \$150/bale to spend less than 15% of income on costs on labour, but they generally still spend over 8% of income on labour (if we ignore one outlying point).

While workforce turnover is likely to increase costs and reduce profit, it is difficult to identify this specifically from the whole farm profitability. We were not able to establish any clear relationship between workforce turnover and profit. There are many factors that contribute to profit, such as, irrigation water availability, weather, soil type, irrigation practices, agronomic practices, and price of cotton. Hence, it is unlikely that there would be a clear relationship between a single factor, such as workforce turnover, and profit.

Employee survey results: employee work hours, engagement, burnout and turnover intent

Employees were surveyed on their feelings about and experiences at work. Twenty-two surveys were returned from five different farms. Overall, there was a wide range in employee age with 31% 25-34 old. The vast majority of these employees, however, were male (86%), in supervisory roles (68%), and working full-time (91%). They have worked in the cotton sector for 11.5 years and on their current farm for 8.5 years.

In terms of working hours, employees reported working, on average, 20 hours more during busy periods (52 hours to 74 hours). In spite of this, they reported moderately high levels of engagement (5.4/7) and low intention to quit (2.1/7), suggesting that they were motivated at work: absorbed in, enthusiastic about, and dedicated to, their jobs. This may be because these employees felt relatively high levels of support from their supervisors (5.7/7) and were emotionally committed to the farms that they worked on (5.5/7). But these positive outcomes were combined with low-moderate levels of burnout (3.9/7) a job-related stress condition linked to experiencing lots of demands at work. While burnout is linked with poor outcomes for employees and businesses, engagement is consistently linked with positive outcomes like better wellbeing and performance. Providing employees with additional resources at work like feedback, support from supervisors

and co-workers, and autonomy over their roles can help them to deal with job demands, increase engagement, and reduce burnout.

When considering this data, however, it is worth keeping a number of factors in mind:

- Due to the relatively low response rate (22.4%), it is unclear whether this sample of employees is representative of the majority of employees working on cotton farms
- It is possible that the employees who elected to participate in our research did so *because* they are engaged at work or emotionally connected to the farm
- Nearly half of all returned surveys are from one farm which means that the overall results are heavily skewed towards the results of this farm

Integrative analysis: Processes involved in workforce turnover on cotton farms

Influences on workforce turnover, its impacts and management were explored across the 15 cotton businesses involved in the study. Whilst no direct relationship between the extent of workforce turnover and farm profit was able to be distinguished, different workforce strategies of growers were noted, along with patterns linking these strategies with the attitudes of employers and the relative importance of retaining staff as well as the perception of the costs and impacts of turnover. Further, different workforce management practices were noted to match particular strategies and world-views of employers. The differences in these key aspects of workforce on the case study farms were analysed. A summary of the key concepts and their interrelationships are summarised next:

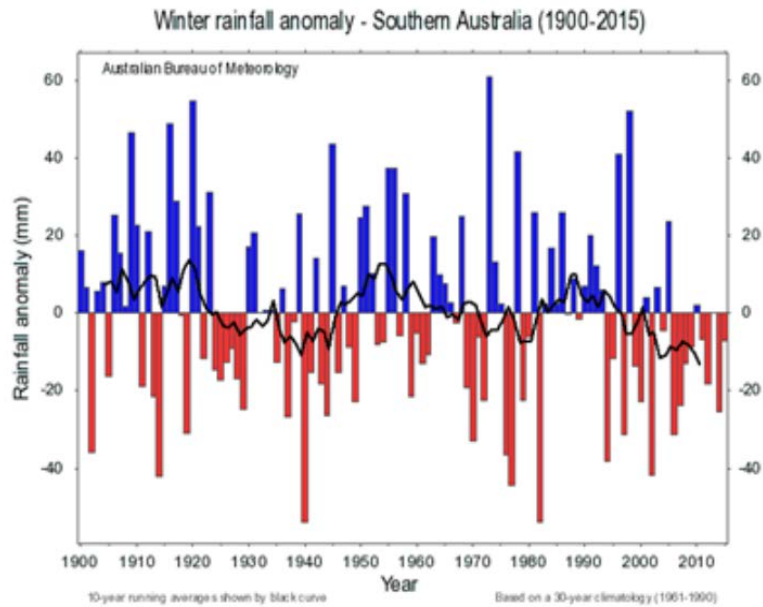
External and internal factors influence decisions related to workforce strategies:

In Milestone 2.2 the ‘five capitals framework’ (also see Appendix 3) was used to examine the influence of the farm context and resources available in influencing the formation of workforce strategies. There is a wide variation of influences from the different capitals. For example, one of the most prominent influences is the Physical Capital. This means that farms which are located in a particular district, using a particular water source (with a certain security), with a particular geographic shape, or previous infrastructure development will be constrained in how viable it is to adopt mechanised irrigation or even the type of picking equipment. These constraints, which are all related to Physical capital, then also affect the choices that they can make around their workforce. In the integrative analysis, these early findings were confirmed and extended to identify a link between these factors and the workforce strategies deployed.

- Remoteness/isolation of farms:** case study farms held different views on the role of isolation in attracting and retaining a workforce. Some believed isolation hampered staffing (C, D, F) especially when towns and infrastructure can provide incentives or attract different groups like younger employees (G) whilst others viewed it as an advantage because it reduced competition from other farmers or alternate industries (A, I). One grower related competition from the mines as a factor in “having to use backpackers” (I). Others noted that travelling long distances was a problem for staff – even if better pay follows.
- Location of farms and their water security, influence of climate/weather:** Many of the growers related the availability of water or the experience of climatic extremes to specific workforce strategies undertaken (Figures 5, 6, 7). For instance one farm noted that because the farm had secure water, they were able to recruit a good manager who was jaded by previous positions where they had to lay off workers every year or two dependent on water availability (B). For corporate farms there appeared to be a trade-off between the amounts of water purchased (and price) relative to the impact and costs from laying off staff and needing to rehire at a later stage if a decision was made not to grow cotton (A). Other farms mentioned being ‘under pressure’ because of variability in weather or the need to try different models as it was ‘survival of the fittest’ (P, L). Tactically, this meant growers had to “balance jobs in tough weather” and know in a bad year areas of crop grown could be 20-30% of the best year. Other growers noted that the location of their farm with less “trouble with water” means that they could

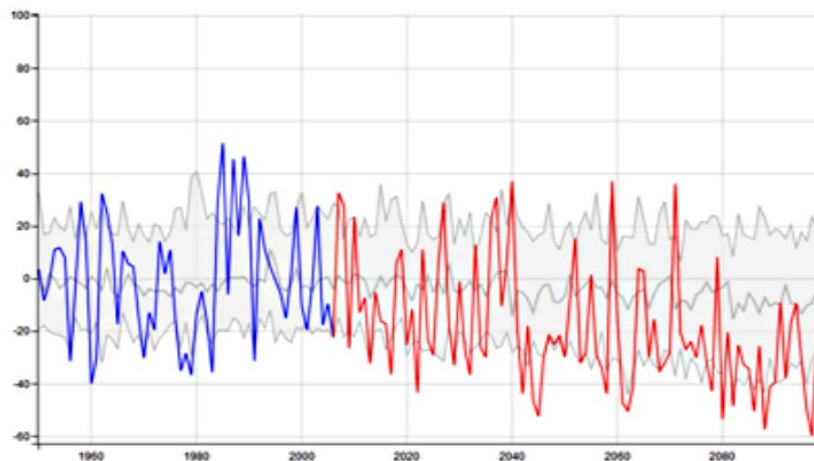
grow a range of crops that offered stability for the workforce and a range of work even in quieter years. These farms were not “boom and bust” with one noting “we’ve only reduced our area once in about 48 years” (O). These farms had a stable, permanent workforce over many years and were now investing in efficiency measures and technologies to reduce the workforce in the irrigation season.

Figure 2: Farmers in Southern Australia have had a long experience with dealing with a variable climate



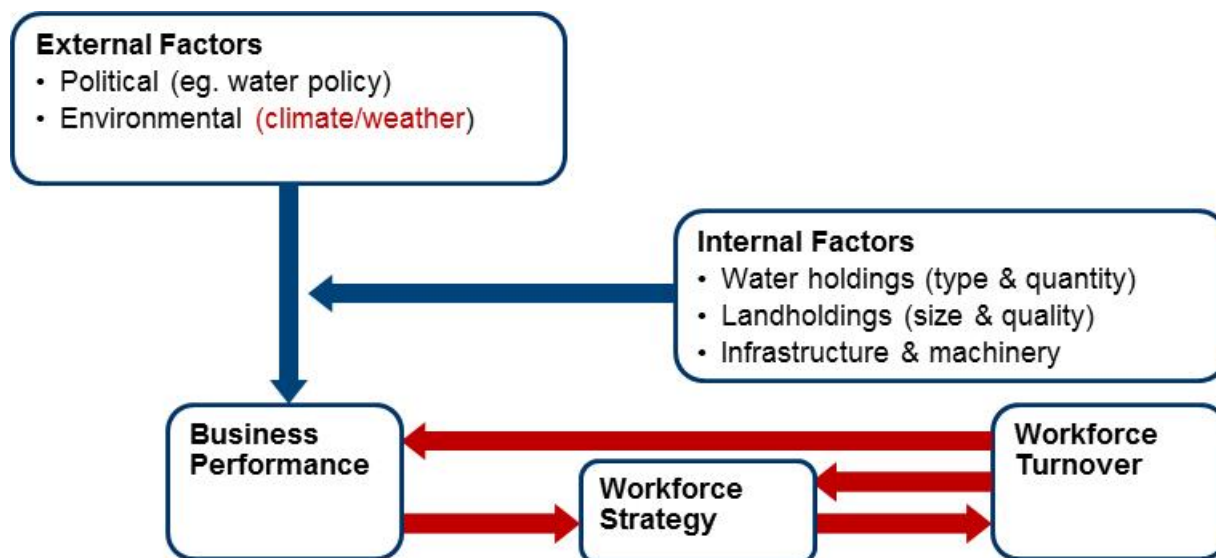
(CSIRO and Bureau of Meteorology 2015)

Figure 3: Projected rainfall fluctuations in Southern Australia



(CSIRO and Bureau of Meteorology 2015)

Figure 4: Climate and weather has an impact on workforce turnover



C. **Investment in technology and infrastructure:** Case study farms varied in their consideration of investment in technologies /infrastructure with many reporting investment as a consequence of workforce issues. Some farms specifically noted their investment related to “trying to reduce staff numbers” or “reducing over-reliance on staff” or ‘increase efficiency’ (L, F, O, N) or to “be more attractive to staff” (e.g. related to being able to do a range of jobs on the farm (enriched work) and retaining the skills base. Others stated that such investment was ‘too expensive’ and they recruited more staff to cover picking and irrigation (G).

3 Main Workforce Strategies

This range of internal and external factors influenced decisions related to workforce strategies. Three main workforce strategies were defined across the cases, made visible through the organisation of the workforce or the workforce structures.

1. **Core-Contract:** Apart from key managers, all staff on farm are employed through a contractor – this strategy was favoured when external and internal factors favoured retention of a managers and a desire to outsource all operations related to attracting and retaining a workforce.
2. **Core-casuals (skilled):** This was the predominant strategy across farms in the study, consisting of key managers/experienced farm hands employed on a permanent basis and responsible for the management of a casual workforce generally made up of skilled/trade-qualified workers. This strategy suited many of the farms constrained through water security issues and needing flexibility in total workforce numbers from year to year as well as those
3. **Core-casuals (inexperienced):** Similar to the second strategy but with heavy use of backpackers and short-term inexperienced staff. This strategy suited many farms constrained by location or water security and with less interest in technology options to reduce staff requirements.

Although internal and external factors played a large role in the workforce strategies undertaken, the choices were also seen to be mediated by the ‘worldview’ of the farmers (values, attitudes and beliefs about how the world works/what is most important), particularly with respect to the relative importance of valuing people and their needs to achieve business outcomes.

Three predominant world-views related to workforce were noted across the case farms:

1. **'Get the job done'**: a worldview related to a transactional/traditional arrangement in that work is about money being exchanged for work output. This worldview emphasises efficiency, and was most strongly related to workforce strategies of contracting or core-casual unskilled.

Values, attitudes and beliefs associated with this worldview on case farms included:

- Casual staff are considered “more disposable” “it doesn't matter if they are casuals” (K)
 - Reliance on backpackers to ‘do what they are told needs to be done’.
 - Different employees have different attributes therefore farms develop a preference for e.g. avoid younger (D) or older staff (N).
 - Farms use less staff – high work hours to compensate in busy times
 - Growers report it is “Hard to manage expectations seems expectations are getting higher” (N)
 - Good to have people that can come and go and don't need accommodation (G)
 - Backpackers staying for the designated time and turning over to other backpackers is not considered ‘real turnover’.
 - Backpackers are either a hassle (M) or are motivated
 - The constant need to supervise: “You need to be there daily or problems arise”
 - “Some staff are interested and get involved, but half won't” (I).
 - Training is seen as something to get the job done: “The problem with training new staff is that there's so many different jobs and every farm is different – so it may not matter that they've worked on another farm” (I)
2. **'Look after people'**: a world view related to needing to meet the needs of people in order to get the best performance (work output) for the farm. This world view emphasises retention.
 3. **'Get the best people'**: a world view related to needing to find people with the best fit and match with the farm culture and goals. This worldview emphasises recruitment, selection and induction.

Values, attitudes and beliefs associated with these worldviews (2 and 3) on case farms included:

- Prefer not to rely on backpackers (A)
- Avoid turnover actively (thresholds of acceptable turnover) (A)
- Graduate internships for grooming managers
- Build farm around key people (O, D) , avoid backpackers
- Work environment important – need to get rid of people that negatively affect the team
- Old and young have different strengths or attributes (F) , focus on people willing to learn (G); with decency (K, H), passion (J) and reliable (I)
- Emphasise training
- Good people are hard to find when you do find them you try hard to keep them
- Without people we wouldn't be able to do a lot of our operations (J)

These worldviews and workforce strategies led to particular management practices related to turnover:

Difference in management practices:

A) Growers 'managing' turnover: management practices associated with core-contract and core-casual (inexperienced) strategies and worldviews aligned with “get the job done” include:

- Labour contracting (outsourcing HRM) (B)
- Selection favours particular attributes of employees based on ease of recruitment/short-term (e.g. backpackers; younger or older staff) (D, L)
- High expectations of managers to lead:

- Human resources management tasks/responsibilities
- And model desired behaviour (A,B,K,F,M)

B) Growers ‘actively avoiding’ turnover:

Growers favouring strong recruitment, selection, induction and retention processes had a clear perception that the costs of turnover were too high and hence management practices were put in place to avoid turnover. Growers described the costs of turnover in terms of : lost time, lost expertise, a heavy burden on the manager, the cost of continual training, and the negative impact on staff morale/staff productivity unless “good turnover” (removing those having a negative impact on the team culture)

Management practices of those farms focusing on recruitment/selection procedures were:

- Select on fit with culture (e.g. employees can live together/get on) and observation skills
- Strong training and induction
- Match personalities, Match with buddies (C)
- Graduate internships (C)

Management practices of those farms focusing on retention included:

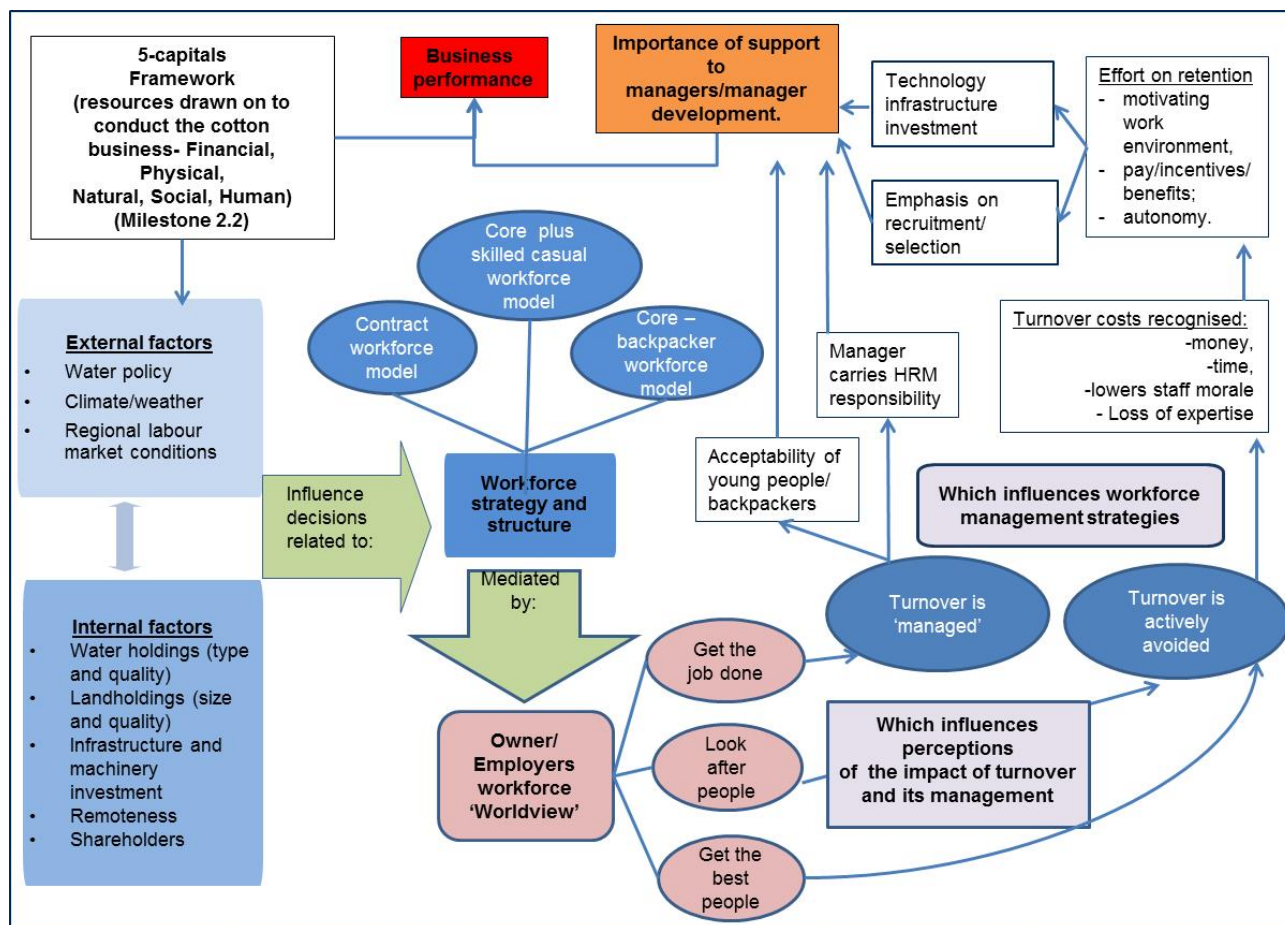
- Employees empowered with autonomy and develop a sense of ownership in the business (A,C,F)
- Use feedback rewards and incentives
- Explore options for retaining staff through drought
- Manager models behaviour, works closely with staff
- Non-hierarchical
- Time and effort is put to the workplace culture and being attuned to staff.

These farms also appeared more likely to consider technology options to assist or augment workforce strategies.

Each workforce strategy therefore has risks and consequences, in particular related to effective support for managers, development pathways for managers and the additional burden on managers with high-turnover/casual inexperienced staff. Therefore, irrespective of the workforce strategy deployed, the attraction, retention and development of managers on cotton enterprises is an important consideration for individual farms and also the industry collectively. Whilst no direct quantitative measure was identified to link different strategies to business performance outcomes, these results indicate that different strategies bring different risks and consequences and therefore need to be considered or re-adjusted. It also hints at an expanded set of criteria for considering new business ventures to not only consider water security and return on assets, but access to appropriate human and social capital.

These concepts and their interrelationships are summarised in a conceptual diagram (figure 5.)

Figure 5: Conceptual diagram summarising the influences on farm workforce turnover, perception of business impacts from workforce turnover and the management of turnover in 16 cotton businesses.



Limitations of the study

The cross case analysis has been made difficult because of incomplete data. The incomplete data came about because:

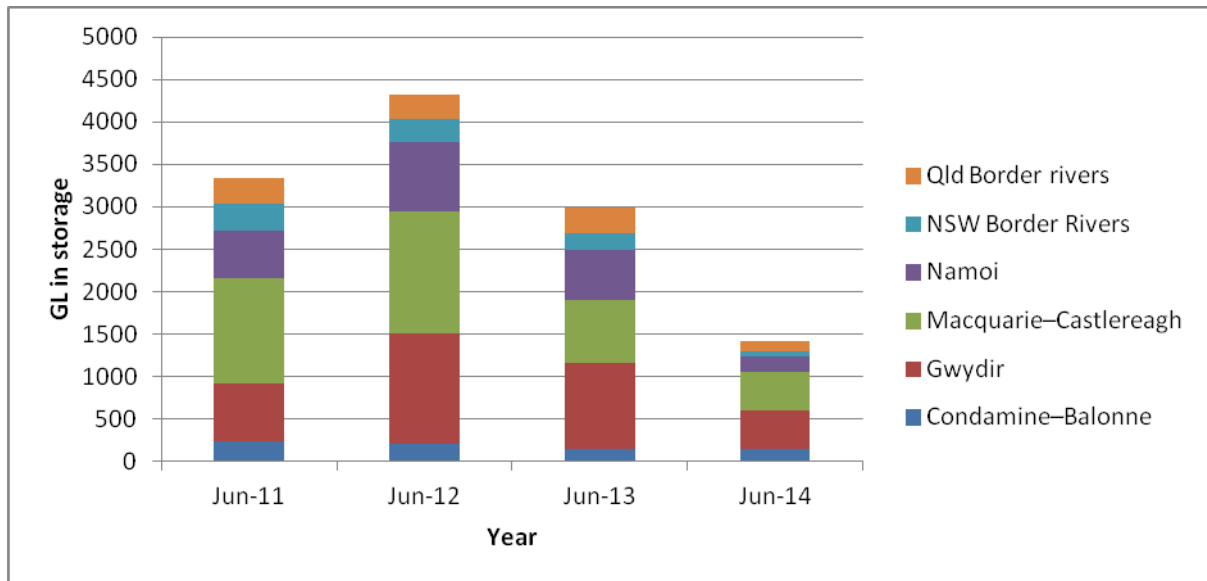
- The variables used for comparison need to be identified before the interviews so that each of the interviewees are asked the same questions.
- The added difficulty was that most of the interviews were scheduled during the weeks leading up to picking which meant that interviewees had limited time available for the interviews.
- The information that was initially requested was too complex to be easily provided at the time of the interviews.
- As more information was gained over the course of the interviews many of the semi-structured interview questions became less important.

Importantly, this research took place in a context of severely reduced production and consequently reduced staff levels. The reduction in area planted for 2014 compared to a 'normal' year for each of the interviewees' valleys was:

- 2 growers from valleys with reductions of 20-30%
- 5 growers from valleys with reductions of 25-33%
- 4 growers from valleys with reductions of <50%
- 4 growers from valleys with reductions of 50%

The reduced plantings were caused by low water availability (see 6).

Figure 6: The amount of stored water in the Northern Basin at the time of the research was substantially lower than in recent years



(Bureau of Meteorology 2015)

Individual interviewee's production levels will have been influenced by the amount of water available in their respective valleys, but will also vary according to the amount and the security of their own water holdings, and also by their water trading strategy. They can own a mix of groundwater and surface water, and a mix of different types of surface water with different levels of security. In addition to this they can have different approaches to trading water in and out of their business.

6 Conclusion

This project has built on existing employee turnover research by examining the positive and negative economic *and* social impacts on the business, rather than just focusing on turnover rates by themselves. These research results should be useful for engaging growers in considering the impact of workforce turnover on their own business and the potential changes they could make to their workforce strategies. At the industry level, this research will add to the knowledge about the variation in employee turnover and its impacts, across a range of cotton farms. These research results will assist the cotton sector in developing interventions targeted at supporting human resource management practices on-farm, assist in measuring change such as the cost-benefit analysis of activities to support on-farm human resource management, and metrics aimed at the human resources side of the business. In addition it will provide information that could usefully be incorporated into myBMP (myBMP 2015) and other farm benchmarking programs. These research results have provided an argument to support the business case for both farm businesses and the industry in investing in people.

Until now these impacts have remained hidden from conventional farm business analysis and have not contributed to clear messages about employee management. In addition, there are no explicit measures of staff turnover currently used either on-farm or in the industry to track improved performance or assess the impact from activities to improve human resource management like changes to employee induction, employer training or employer participation in MyBMP (myBMP 2015).

7 Recommendations

1. Consider alternative means of tracking turnover

- Recognise costs of turnover and monitor turnover of managers and groups of employees
- Industry surveys to identify industry turnover to plan interventions related to training/manager development.

2. Greater investment in Business Management and Benchmarking in the Cotton Industry

Some of the areas where there may be potential for improvement are:

- Using the benchmarking activity to build more capability in the Farm Business Management area amongst extension staff, such as the Cotton Info team.
- Fostering stronger links between the agronomic and farm business management disciplines.
- Wider participation from farmers (it appeared that the smaller family businesses may be underrepresented in the CCA analysis). Participation may increase if a service provider with reasonable industry knowledge was available to come out and carry out the data collection in an interview style process.
- Improved timeliness in data availability. The benchmarking exercise would be more valuable if the data was collected soon after the financial year finished. It would enable the data to be used more when making plans for the following season. It would also provide more timely information for industry and policy groups. The accuracy of the data may also improve if collected earlier.

The involvement of the CottonInfo team in the data collection and validation process could address many of these issues.

A greater emphasis on Return to Total Assets managed would provide more useful insights when looking at data from farms with substantial variation in land and water values.

In terms of the Business Management area for the Cotton Industry, most of the resources are going into 'backward looking' benchmarking of historical performance, and less into 'forward looking' or 'what-if' type analyses for decisions into the future. A good benchmarking program can be very useful in building capability, ensuring common methods of analysis and terminology, and in fostering an inquisitive business culture. However, extension/development activities relating to forward looking analysis are likely to contribute more in terms of improved decision making.

3. More attention to employees, particularly managers

Employees' experiences at work influence the way that they feel about and conduct their work. This has important implications for business outcomes and for employees' wellbeing and general life satisfaction. This research has shed light on the employee perspective and started to assess how this is related to farm owners' perspectives and farm financial performance. Because of the low number of employee surveys returned from a small number of participating farms it is difficult to extend these results to the entire cotton sector.

With this in mind, we propose a nation-wide employee engagement survey. This could examine both positive and negative experiences at work, as well as the types of resources that we can provide for employees to better manage the demands of their jobs. This survey may examine links between farm demographics, existing people management practices, and employee engagement and burnout. As part of this survey it is important to ask employees about the types of demands or hassles that they face at work, as well as they types of strategies or resources that most help them deal with those demands. Identifying the resources that most help employees currently, and considering additional resources that can be provided, has implications for employee performance, their commitment to the farm and their job, and attitudes towards managers and colleagues. These outcomes are all important for farm businesses. It is also possible that this survey could be extended to examining employees across multiple farm sectors.

4. Directly support industry people management strategies and focus on:

a. Increase awareness of business costs from workforce turnover:

Employers can reduce the costs from workforce turnover by paying particular attention to recruitment and selection of employees so that the most suitable person is identified and employed. Once they are employed the focus can change to training and focusing on encouraging their engagement.

This strategy won't always appear to be successful in reducing workforce turnover because some turnover of the workforce will always be expected. For example high workforce turnover is expected with low skilled casual workers who are employed for a period of time and a specific task such as starting syphons during the time the crops are irrigated. On the other hand turnover of skilled staff can also be expected from the effects of seasonality, such as when water becomes scarce and production falls.

Employees' circumstances and expectations change over time; for example when children reach high school age and locally available options are unsatisfactory. Mostly turnover of skilled staff is caused by how the business is performing (usually as a result of water scarcity) rather than causing poor business performance. This strategy could be useful for lowering the costs from unexpected and undesired turnover and might be particularly relevant in those circumstances when employees are not readily available.

b. Promote strategic HRM and change in worldview when it comes to people in the cotton business

Good managers consider the employee as a whole person and make decisions with that in mind. They do not just see them as a unit of labour that appears at the start of the day and disappears at the end of the day. Employers that are able or willing to empathise and engage with employees are likely to encourage their workforce to develop a greater level of commitment and ownership, and a greater willingness to take actions that can flow through to the business's bottom line. This option can also encourage choices around physical infrastructure towards those that are more compatible with the workforce (see next option).

c. Support grower investment decisions related to infrastructure by considering and communicating business, environmental and workforce benefits (e.g. retain skilled employees)

The return on investment from investing in infrastructure improvements can be saved water, saved labour, or increased yield. They may also be due to the total quantity of labour saved being less significant than the change in the nature (and the cost) of the labour required. Improved infrastructure that eliminates or reduces mundane and repetitive tasks may increase the ability of a business to attract and retain skilled workers. This research identified that even when investments in irrigation infrastructure received Government support the returns from these investments were still not immediately compelling. Cotton growers are very unlikely to justify investments in improving infrastructure for the purpose of retaining or attracting skilled employees, but they could use the benefits to the workforce, and to the business from a more satisfied workforce, as an added argument for the investment.

d. Support growers to consider different ways to reward and motivate employees

Equity partnerships or profit-sharing schemes may help employers to retain skilled managers with flow on effects from retaining institutional knowledge, improving employee engagement, and motivating employees. This is likely to be most suitable for staff who have been employed for longer periods (typically already in management roles) and who have already demonstrated their value to the business through their actions. This strategy is most likely to be successful in influencing workforce retention in situations where high performing working relationships already exist, and not as a way to change underperforming employees into higher performing employees.

7.1 Remaining areas for research

This study has uncovered four key areas where further research is needed. They are about developing a better understanding of the:

1. Foundations of employee/employer engagement
2. Employee as a whole person
3. Impact of climate change on workforce turnover
4. Responsiveness of employers to workforce changes

Understanding the foundations for employee engagement: This could be achieved through a large scale survey focused on gathering and analysing measures of employee engagement and burnout and other workplace data. This would allow recommendations to be provided that would be useful for informing employers' workforce management options.

Understand the employee as a whole person: The aim of this research area would be to better determine the non-economic values of employees so that people related measures could be incorporated into business analysis and benchmarking. This would result in a greater focus on people leadership than HR training. It would also be helpful to understand how the employer's business goals and employee needs can be combined without too great a compromise being made by one or the other.

Impact of climate challenges and variability on workforce turnover: There needs to be a better understanding of the interaction between climate, water (amount held and reliability), infrastructure, technology and workforce strategy. Farmers in southern Australia have had a long experience in managing variable rainfall (see Figure 6). However, with the projected effects of climate change (see Figure 6) leading to fewer good years and more poor years, the variability in rainfall that farmers have always managed will become more pronounced. Production levels, and the demand for labour, are likely to become increasingly variable. Analysis of management options that might help farm businesses to adapt to the changing climate and manage risks associated with cotton production and workforce turnover is likely to provide very useful insights. Understanding the interrelated factors (Figure 5) that combine to effect workforce turnover would be very useful for future workforce planning.

Responsiveness of employers to workforce change: Better understand the dynamics of a responsive workforce that expand and contract as needed due to competition for labour or the effects of changes in climate/weather. It would be useful to explore how this fluctuating demand for labour could potentially be managed by using a combination of permanent core, casual, contract and seasonal workers, and how this combination might vary for different farmers.

7.2 Communication Activities – Completed to date:

The communication of these outputs to the industry has been thorough:

- First Milestone Report November 2014 – Planning of the project.
- Second Milestone Report June 2015 – Progress of the project.
- Discussions with the advisory group about the progress of research.
- Preliminary results presented to Boyce Accounting and to representatives of the Cotton Info team in September 2015.
- Presentation at the CRDC Workforce Strategy Meeting Dec 11 2015.

7.3 Communication Activities – Planned to the future:

Future communication activities are:

- Advisory group teleconference to inform of findings : March 2016
- Presentation of results to cotton-info team
- Publishing one paper in an academic journal.
- Article to be developed for Spotlight
- Conference paper and presentation on farm work research (Brazil, November, 2016)

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Appendix A. Individual farm reports/analysis

Example of information provided to individual farms in the study (next page)



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Definitions

Engagement: being absorbed in, dedicated to, and enthusiastic about work.

Burnout: stress associated with cynicism, exhaustion, and not feeling effective at work

Annual operating profit: gross income—variable & overhead costs

Return on assets (ROA): operating profit expressed as a percentage of the value of total farm assets.

Labour costs % income: includes wages, contractors, farming, & family labour.

The impact of farm workforce turnover in the cotton sector

Thank you for participating in the University of Melbourne project "The impact of farm workforce turnover in the cotton sector". As part of your involvement with this project, we are providing you with some of our observations of your business. These are based on the Australian Cotton Comparative Analysis (ACCA), the interview that we did with you, and an employee survey of some of the ACCA farms. We have also added some of our thoughts on how employee strategies could be impacting on businesses like yours. You may have already considered these issues, but if not we hope that they might make some small contribution when you think about employment issues in the future.

Your farm analysis (A)

Business performance (from ACCA):

	2012		2013		2014	
	Farm A	CCA Average	Farm A	CCA Average	Farm A	CCA Average
Hectares of cotton grown	6650	1676		1,518	7,105	1,593
Yield per hectare (bales/ha)	9.0	10.1		10.8	7.6	10
Value per bale	\$ 471	\$ 474		\$ 435	\$ 487	\$ 473
Cost of production per bale	\$ 356	\$ 363		\$ 354	\$ 455	\$ 382
Cost of production per ha	\$ 3,209	\$ 3,601		\$ 3,763	\$ 3,474	\$ 3,973
Operating profit/(loss) per bale	\$ 115	\$ 116		\$ 82	\$ 32	\$ 96
Operating Profit per Ha	\$ 1,032	\$ 1,157		\$ 886	\$ 246	\$ 998
Return on Assets Managed (cotton enterprise)#	13.0%				3.3%	
Total Labour Costs as % of Income*	22%	16%		21%	23%	22%
Owner/Family Labour as % of total Labour Costs	0%	3%		4%	0%	3%

The per ha and per bale operating expenses were not markedly different to the average farm participating in the ACCA in 2012, but were less in 2014. The lower yield than the average ACCA participant reduced per ha operating profit, but lower asset values per ha meant that a high ROA was still achieved in 2012. In 2012 the ROA was 13%, but decreased to 3.3% in 2014. This farm was one of the largest farms involved in the study which may account for the slightly lower yields compared to the ACCA average which includes farms that are more intensively managed. Compared to some other cotton growing districts, the opportunities to trade irrigation water in your district appear to provide the business with a competitive advantage, but when water is traded away from the business (and production is reduced) it also impacts on the morale and the ability to retain motivated staff.

Employee management: There is a clear emphasis on people management on this farm, with community orientation for new employees a clear example. This seems to reflect the reliance on social capital to attract and retain staff in a remote location. An internal promotions focus means that many managers come from within the business which has distinct advantages with benefits gained from retained institutional knowledge, but it may also mean that greater efforts are needed to ensure that ideas are still sought from outside of the business to maintain business innovativeness.

Employees from your business reported relatively high levels of supervisor support and engagement in their work, and low levels of burnout. They report enjoying the 'challenges' and 'opportunities' their jobs provide. At the same time, they are conscious of the uncertainty surrounding their jobs, commenting on water scarcity and possible takeover bids as sources of concern.

Considerations for farms like yours: Properties employing large numbers of employees could consider retention strategies which allow suitable and interested employees to build equity in the business over time. Making it possible for employees to build equity (either through bonuses or salary sacrifice) could improve employee engagement, with the potential for a wide range of benefits from more motivated employees.

Feedback: If you'd like to discuss your farm summary please contact Dr Geoff Kuehne on Tel: 0417 831 591.

Appendix B. Research analysis of case-study farms

B.1 Table of results from integrative analysis of each farm (economic, employee engagement/burnout and turnover intent and interview results)

	Context	Workforce strategy/philosophy	Management practices	Employee perspective	Staff numbers	Turnover estimate	Remoteness	2014-15 % of full planting	Labour costs	Profitability
Farm A	<ul style="list-style-type: none"> Isolated, but seen as an advantage to build culture & means no competition—have built staff housing etc. Very large corporate—other farms report they don't want to be like this one 	<ul style="list-style-type: none"> People core of business Employ a stable core of staff Actively avoid turnover—use technology to minimise staff numbers/reliance 	<ul style="list-style-type: none"> Recruitment: managers= people-people, strong staff selection, strong staff induction to reinforce culture Retention: training managers to create team, promote from within Managers: model desired behaviour Communication: praise & feedback, staff input/ideas Job: provide challenges, diversity, autonomy, resources 	<ul style="list-style-type: none"> Age: 35-44, on farm for 5 yrs (less) Hrs/wk= 57, busy= 72 (same) Engagement 5.4/7 (same) Burnout 2/7 (less) Turnover intent 2/7 (same) 	Large	High	Remote		23%	Medium, 1yr low
Farm C	<ul style="list-style-type: none"> Doesn't want to turn into (A) Isolated- believes could hamper staffing 	<ul style="list-style-type: none"> Core staff and backpackers Distinguishes between younger/older employees— younger seen as an advantage 	<ul style="list-style-type: none"> Recruitment: graduate internships, match with buddies through personality profiles 		Large	High		25-33	9%	High*
Farm K	<ul style="list-style-type: none"> Us vs. them attitude towards corporates- doesn't want to turn into (A) 	<ul style="list-style-type: none"> Core staff and casuals Don't value casual staff "it doesn't matter if they're casuals" 	<ul style="list-style-type: none"> Manager: same as staff to gain compliance/respect, model desired behaviour 		Large	Low	Close	20-30	15%	Medium
Farm B	<ul style="list-style-type: none"> Rapid organisational growth Secure water 	<ul style="list-style-type: none"> Contract staffing with one farmhand Distance from staff- expensive, hassles, and need to fire in lean times— don't have to hire unskilled staff Turnover: lack continuity and loss of corporate knowledge 	<ul style="list-style-type: none"> Manager: model desired behaviour Organisation: push decisions & admin to individual farms Job: Believe provides pay & autonomy—best of family & corporate farms 		Large	High		<50	19%	Medium

	Context	Workforce strategy/philosophy	Management practices	Employee perspective	Staff numbers	Turnover estimate	Remoteness	2014-15 % of full planting	Labour costs	Profitability
Farm E	□	□	□	<ul style="list-style-type: none"> Age: 55-64, Working on farm for 18 yrs (more) Hrs/wk= 51, busy= 75 (same) Engagement 4.9/7 (same) Burnout 2.3/7 (less) Turnover intent 3.5/7 (more) 	Large	High	Close	25-33	13%	Medium
Farm H	□	□	□				Remote	<50	10%	Medium to High
Farm D	<ul style="list-style-type: none"> No turnover for past 2 years No problems finding/keeping staff even through mining boom *I think they involved in an Indigenous employment program* 	<ul style="list-style-type: none"> Expect lots from employees & they deliver Need to know how to manage people—like us, not like other farms Hierarchy with staff—us vs. them 	<ul style="list-style-type: none"> Staff: have high expectations of rewards/benefits i.e. accommodation, hire enough staff (many places try and get by with 3 instead of 4), expect lots from staff, involved in decision-making Worldview: problems with younger staff 	<ul style="list-style-type: none"> Age: 40% 25-34 & 40% 35-44, Working on farm for 5.8 yrs (less) Hrs/wk= 43, busy= 86 (less, more) Engagement 5/7 (same) Burnout 4.1/7 (same) Turnover intent 1.8/7 (same) 			Close	25-33	12%	Medium, 1yr low
Farm F	<ul style="list-style-type: none"> Compete with mining for staff Used dryland cropping and technology to stabilize finances and staff requirements Location of this farm means that there are more stable crops—further west= more trouble with water—they also focus on 	<ul style="list-style-type: none"> Positive turnover: gets rid of bad apples Expect lots from employees & they deliver—just be honest about finances Keep core staff at all costs 	<ul style="list-style-type: none"> Managers: managers model desired behaviour Job: provide challenges, diversity, autonomy, resources Communication: regular informal chats with staff, ask for input, positive/constructive feedback Retention: flexibility for family commitments Worldview: distinction between younger tech savvy workers and older reliable workers 			Low	Close	50	20% (18% is owner)	Medium

UM1501 CRDC PROJECT
THE IMPACT OF FARM WORKFORCE TURNOVER IN THE COTTON SECTOR – MILESTONE REPORT

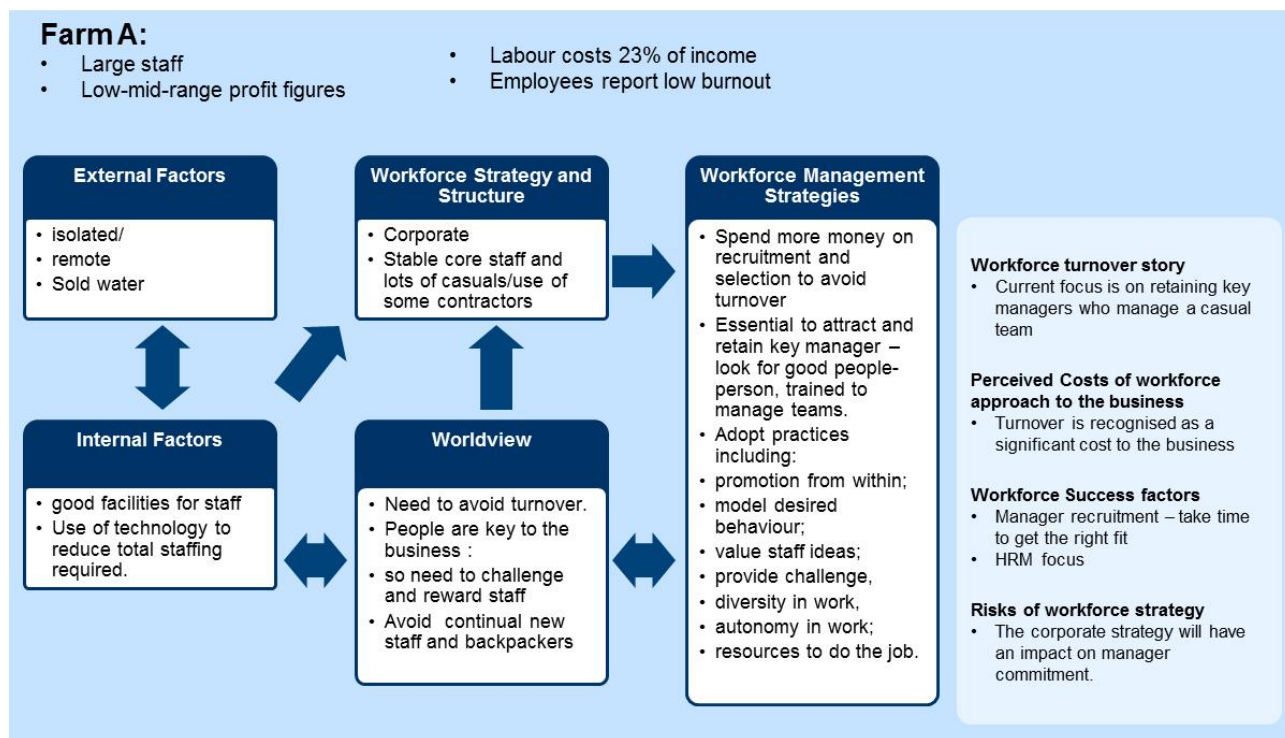
	Context	Workforce strategy/philosophy	Management practices	Employee perspective	Staff numbers	Turnover estimate	Remoteness	2014-15 % of full planting	Labour costs	Profitability
	<p>infrastructure in quieter years</p> <ul style="list-style-type: none"> They try to do most things on farm themselves—this retains their skill base 									
Farm G	<ul style="list-style-type: none"> Lots of turnover Close to town so attracts lots of younger workers 	<ul style="list-style-type: none"> Core & casuals Focus on can-do attitude—like to train to do things their way Technology: too expensive, so rely on larger staff easier to get locals rather than having to put up outsiders at their house, but then become close Rely on one manager—would need a while to train up anyone else 	<ul style="list-style-type: none"> Recruitment: through agency, friends etc.—blank canvases Retention: flexible—irrigator can do picking, staff leave and come back later Communication: is key—makes workers feel valued—meetings every few weeks, listen to ideas, engagement & satisfaction Rewards: 30% above award, phone, ute Manager: does everything staff do 	<ul style="list-style-type: none"> Age: 25-44 Working on farm for 10 yrs (more) Hrs/wk= 47.5, busy= 57.5 (less) Engagement 5.8/7 (same) Burnout 2.1/7 (less) Turnover intent 1.3/7 (less) 			Close	20-30	8% (17% is owner)	Very High*
Farm L	<ul style="list-style-type: none"> No turnover in years—actively avoiding it 'cleaned house' during previous drought—reduced workforce and readvertised roles—didn't rehire problem staff & now more pleasant workplace Great facilities—can be picky with casuals 	<ul style="list-style-type: none"> Core & casual—avoiding backpackers due to problems—take manager time Want to minimise staff & attract contractor—smaller staff means manager more attuned to needs Onus on management to ensure staff stay—onus on staff to support manager 	<ul style="list-style-type: none"> Technology: use e technology/innovation (round bales & round up) to minimise staff, OHS issues—minimising labour changes to boost morale Rewards: ute, housing, tools—element of ownership—but money not only thing important—switched to salary over casual rates Communication: daily chat with staff Environment (social): don't keep problem staff Job: enrichment for core staff as casuals given all unskilled labour Retention: flexibility, lifestyle, money Manager: work as one of staff 	<ul style="list-style-type: none"> Age: 35-44, Working on farm for 16 yrs (double) Hrs/wk= 53, busy= 77 (same) Engagement 4.3/7 (less) Burnout 2.4/7 (less) Turnover intent 2/7 (same) 				50	NA	
Farm M	<ul style="list-style-type: none"> Removed previous staff member—positive effect on team 	<ul style="list-style-type: none"> Keep core staff—turnover costs in expertise—casuals lots of work 	<ul style="list-style-type: none"> Manager: model desired behaviour, does same thing as staff Communication: autonomy over jobs, 					50	NA	

	Context	Workforce strategy/philosophy	Management practices	Employee perspective	Staff numbers	Turnover estimate	Remoteness	2014-15 % of full planting	Labour costs	Profitability
		<ul style="list-style-type: none"> No backpackers—too much hassle—only simple short jobs—machinery 	<ul style="list-style-type: none"> positive feedback, coaching team Job enrichment: can structure job, get involved in farm/work for interest Retention: internal promotion, flexibility for family—values/interest in staff 							
<i>Farm N</i>	<ul style="list-style-type: none"> Anti-corporate farms (but more opportunities for growth) Lots of pressure from climate/weather 	<ul style="list-style-type: none"> Use technology to reduce reliance on staff—but typically won't put people off—keep core staff Focus on getting right person—turnover costs in time, manager time, team, expertise High expectations of staff—need to adjust down and they get upset—biggest risk not asking enough 	<ul style="list-style-type: none"> Communication: positive feedback, informal chats Rewards: Christmas bonus, attending cotton show for training, can work longer hours for extra \$\$ Technology: picker innovation to reduce staff Recruitment: if can't get right person, significant financial & morale cost, only if they bring something to farm, word of mouth, personality, local better, trade valued for backpackers, induction & training—tend to return Retention: staff ownership over equipment & roles, interest in life outside & flexibility Job: choose jobs for interest 					<50	NA	
<i>Farm P</i>	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Focus on good relationships over lean/low-cost management—regular turnover is crippling Core & casual Empower staff to take charge 	<ul style="list-style-type: none"> Recruitment: select if pay attention to what's going on on farm Environment (social): enjoyable—against leanest/meanest style—costs in terms of people Job: enrichment for core staff who get high value roles—challenge/diversity/autonomy etc. Rewards: money Communication: feedback, appreciation Manager: one of staff Worldview: other farms want our staff but they don't manage properly 					50	NA	
<i>Farm I</i>	<ul style="list-style-type: none"> Affected by turnover: put into people and they take off Competition from 	<ul style="list-style-type: none"> Affected by turnover: put into people and they take off—don't like backpackers as have to train and they 	<ul style="list-style-type: none"> Managers: do technical jobs Environment (social): want teams, but they talk too much so split up, give breaks so don't work too hard 				Close	25-33	9%*(30%ow	Medium

	Context	Workforce strategy/ philosophy	Management practices	Employee perspective	Staff numbers	Turnover estimate	Remoteness	2014-15 % of full planting	Labour costs	Profitability
	mining—needed backpackers	<ul style="list-style-type: none"> leave—training focus Don't feel staff involved enough and they're not satisfied Staff over deliver on expectations Building up another manager so don't rely on just one Reliability valued Staff valued 	<ul style="list-style-type: none"> Retention: internal promotion—worked their way up so you help them, motivate staff, flexibility in tenure & hours, training hard as so varied (4months) Rewards: high pay for good manager—pay won't make a difference if they don't like their job Communication: positive feedback 						ner)	
<i>Farm J</i>	<ul style="list-style-type: none"> Many staff now coming from mining Good year= 800 hectares, currently 257 	<ul style="list-style-type: none"> Value older workers Hierarchical—staff report to manager Encourage staff engagement/ enjoyment—do the little things Turnover costs in time, staff pressure, expertise Pay not sole motivator—passion—then over deliver 	<ul style="list-style-type: none"> Recruitment: advertise on gumtree, don't want backpackers (more experience) Communication: formal performance feedback, informal positive feedback Manager: models behaviour and employees follow Retention: flexibility—keep in touch with staff and some return Rewards: pay, housing, vehicles, maintenance Environment (physical): planning new gear 				Remote	<50	NA	Variable, 1yr high, 1yr low/medium
<i>Farm O</i>	<ul style="list-style-type: none"> People leave if town doesn't offer enough Only reduced area once in 48 years Focus on infrastructure building to keep staff levels employed—water innovations to maintain staff 	<ul style="list-style-type: none"> Strong opinions on suitable employees—problems with younger workers who don't want to work—too emotional Focus on technology Transactional focus—I pay so they should do the job accordingly Traditional view—man should work hard 	<ul style="list-style-type: none"> Technology: innovation (round baler)—costs more but can do greater area Worldview: long-term staff want me to manage retirement Communication: criticism helpful, but not allowed to anymore Rewards: money most important—people say it's not, but that's what staff complain about Retention: recognition 					25-33	NA	

B.2 Conceptual summary of results from integrative analysis of each farm

Farm A



Selected quotes from the interview

This farmer explained what he needed to do to manage staff, “... a lot of my job is just getting around, talking to people and making sure that people understand what we're doing and what that guy over there is doing compared to this guy and how those things interrelate and how they need to work with it and around each other. That's sort of bringing the whole thing together.”

He went on to explain his approach to staff management:

Yeah, well it's listening to what they need or what makes life easier for them, and trying to provide good equipment to work with and good accommodation. We always try and accommodate that sort of stuff to keep the family happy. Or sometimes it might be school or whatever else you can help them out. Might be the use of a vehicle sometimes if they're stuck. Generally it's not more money. There's usually something else.

Employees seem to recognise this and report high levels of workplace support and engagement in work, as well as low levels of burnout. They report enjoying the ‘challenges’ and ‘opportunities’ their jobs provide.

Preliminary observations

The manager thinks that their workers are happy but they have had to reduce staff numbers because of reduced irrigation water availability.

They emphasise belonging to a team. It seems to be that managers demonstrate that they are willing to do the job themselves. (It's them demonstrating that they are a part of the team.) What seems to set them apart is an empowered workforce that is threatened by the loss of water. It seems that staff will have to go and the team will need to be rebuilt at a later date. Employees are aware of these issues and report uncertainty around their jobs although do not seem to be intending to voluntarily leave the farm.

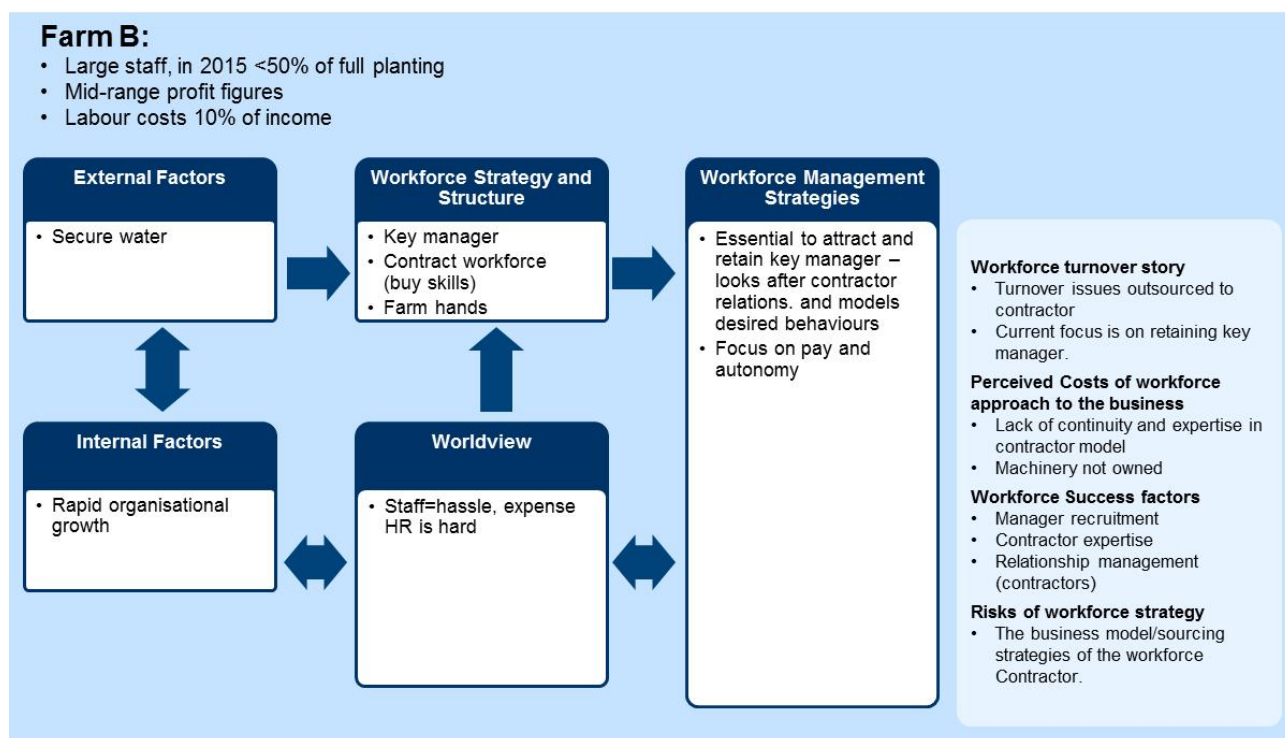
There is no perceived impact from workforce turnover because they have a lot of skilled workers. Employees also report that their jobs require a high level of skills/qualifications and that it provides them with opportunities to further develop their existing skills and knowledge. Managers come from within the business. Expertise such as agronomists and mechanics come from outside.

They grow about 4 to 5 times the area of cotton compared to the average CCA participant, and produce about 50,000 to 60,000 bales. Their yield per ha was below the average farm in the 2 years which their data was available for. Their operating profit per bale and per ha was below average in both years. Their operating expenses per ha and per bale were not markedly different to the average farm, but the lower yield per ha had an impact on operating profit per ha.

Questions to consider

What is the relationship between teamwork and empathy and 'ownership'? What are the factors that contributed to the lower yield per ha, was it, for example, poorer soil types, or less irrigation water applied? Could it be less attention to detail with the large scale of the operation? Could it be that the land value or the cost of water is lower than for some farms in the sample and hence the return on total assets may be relatively efficient?

Farm B



Selected quotes from the interview

This interviewee explained the costs and benefits of a contractor model of staffing:

We use full contract irrigation and full contract for in-field operations; so planting, cultivating, harvesting, picking and spraying is all done on contract. We went to that contract model to bring in skilled people with the resources. The headaches that come with sourcing and managing all those staff, these guys are very happy to do that, there's a profit margin in it for them. We've just created that position where we're one step removed. I do understand that it is a big issue keeping skilled workers within the business. That is a disadvantage in our

system, because if you want business continuity of corporate knowledge, etc., that becomes difficult if you haven't got a 2IC in training.

Preliminary observations

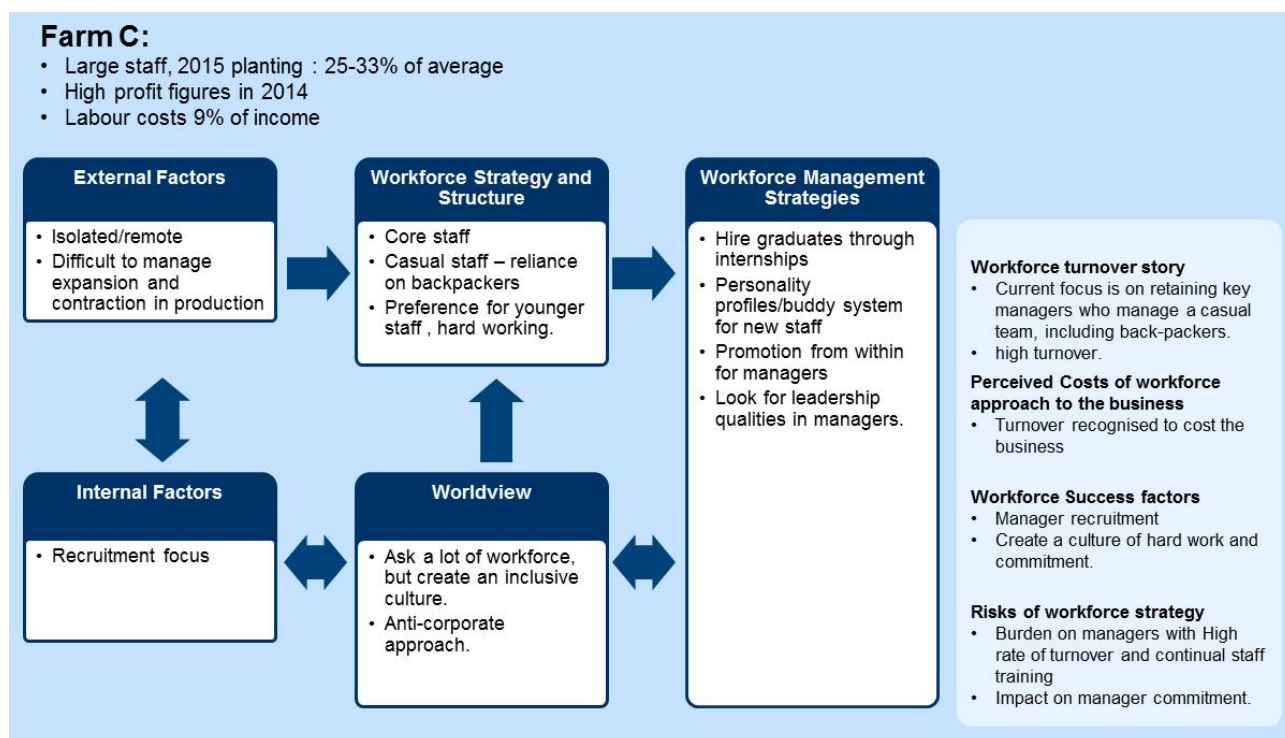
This business is about management. Contractors are employed for all operations. They expect to pay a premium to avoid the problems of managing a workforce. They recognise that the people who are attracted to work on a cotton farm are of a certain 'type', or at a certain level, and they do not want to be involved in that interaction.

Their yields per ha were similar to the average of the CCA farms. Their operating expenses per ha and per bale were a little lower than the average farm, resulting in an operating profit that is a little above the average per ha and per bale. It appears that their management processes are ensuring good yields with good cost control, which is a significant achievement with that scale of operation.

Questions to consider

In terms of the Five Capitals framework, the assets of this business are Natural, Financial, and Man-made. The question is how vulnerable are they to the loss of Human and Social resources? Could they maintain their cost control for longer than the 2 years that we have data for?

Farm C



Selected quotes from the interview

This interviewee explained what they thought was their biggest problem with staff:

Because the business is so cyclical, it's actually a very challenging time with labour, because we literally don't have any work. So we've had a very small cotton crop. We've tidied up essentially everything we can tidy up, post cotton crop. The fields that we want to have ready are ready, we've fertilised what we think we should fertilise. We got rid of casual staff a long time ago, now we've got our core staff that we're looking at and we're thinking, how do we justify having these people? ...we really try hard to keep hold of our salaried

guys, because we know it's very expensive for us to replace. But a lot of it is not necessarily in dollars, a lot of it is in, in productivity and it's in culture and for us, our culture is ... very important.

They went on to describe how working holiday makers fitted in with their labour demands, “The beauty of backpackers is that they're happy to come in, sometimes we might only need them for two months, so they can come in, do the work and go. It suits these sorts of people to come in, work for 2 months, live in single men's quarters, work 12 hours a day or whatever ...”

Preliminary observations

There seems to be a continual emphasis on the engaged family-style workforce. The owner sees it as important that he knows people's names. It is a team and a culture that comes from the owner. (It is a large business that could be seen as being a hybrid of a corporate and family business).

Use backpackers at times because they are a good match with their needs. This is because the characteristics of the WHM workforce fit with the requirements of the irrigated cotton industry.

Local people don't want to do seasonal work. This is not because they don't want to work but because it doesn't fit with their needs of security and on-going employment. Cost of staff is in not having good staff. Not in the cost of employing them.

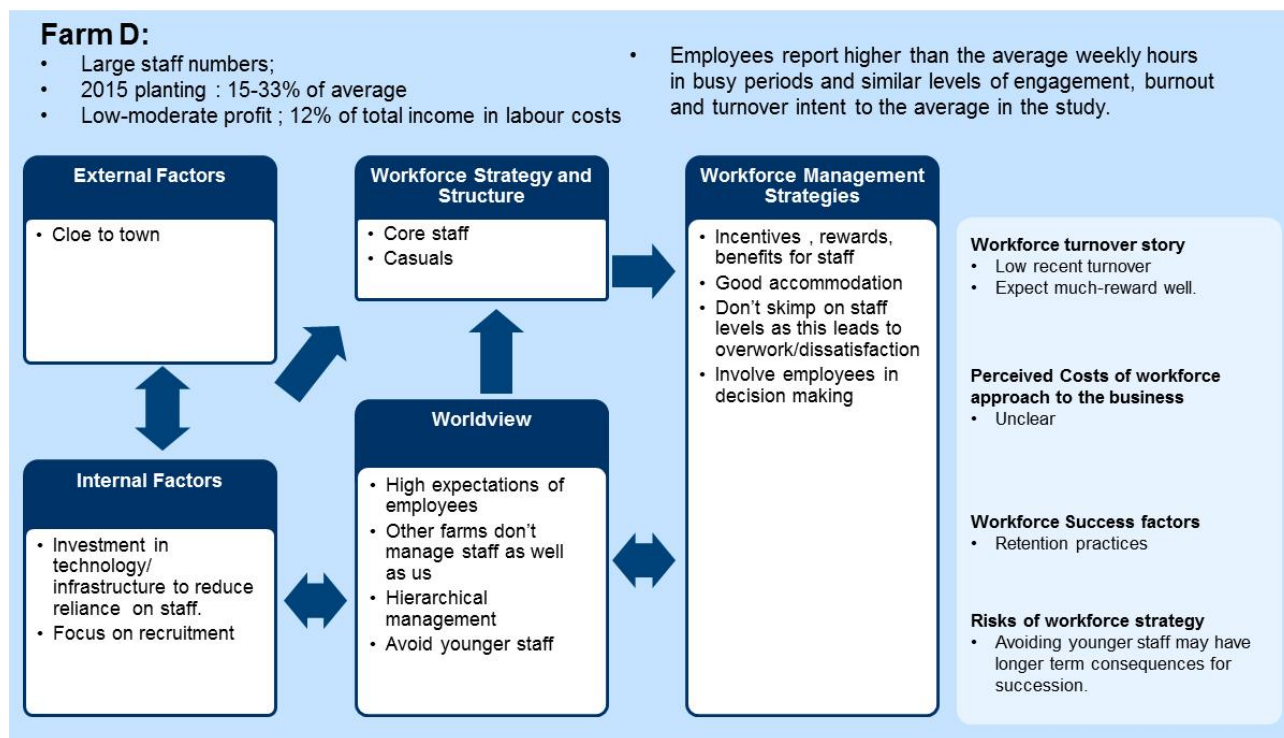
They grew over 2000 ha of cotton in 2014 compared to about 1500ha for the average CCA farm. Had a relatively high yield per ha and the operating expenses per ha and per bale were below average. The operating profit per ha and per bale were more than double that of the average CCA farm.

They have virtually no staff turnover. Although they currently have a problem in retaining their existing trained, enthusiastic and engaged workforce when there is no need for them. They have done things like infrastructure investments. But there is nothing else that makes sense to do. They have high quality, self-motivated staff that would be a loss if they were to leave, but it is difficult to carry them through times when they are not required for on-farm work.

Questions to consider

This farm only provided data for the 2014 benchmarking exercise. Can they maintain their current performance over the longer term?

Farm D



Selected quotes from the interview

This farmer explained the biggest problem with workforce turnover, simply saying, “you get good years and bad years, and in a bad year you've got to cut your staff numbers. That gives the farmers and the industry a headache.”

This farmer also saw workforce issues in the cotton industry as having multiple sources, one caused by the Government, “You look at a lot of the school kids coming out of the system and their training's not right. You've got more instability, and that comes from governments disempowering people. Like when you give kids the dole six months after they leave school, you create a brain dead person over time that's unemployable. He also suggested that farmers were also at fault, “I just find so many people out there running farms that don't understand human beings. They understand their own ego and how to get out and bash as much as they can out of men, but it's a 2-way deal, I don't think there's been enough work done on that.”

Preliminary observations

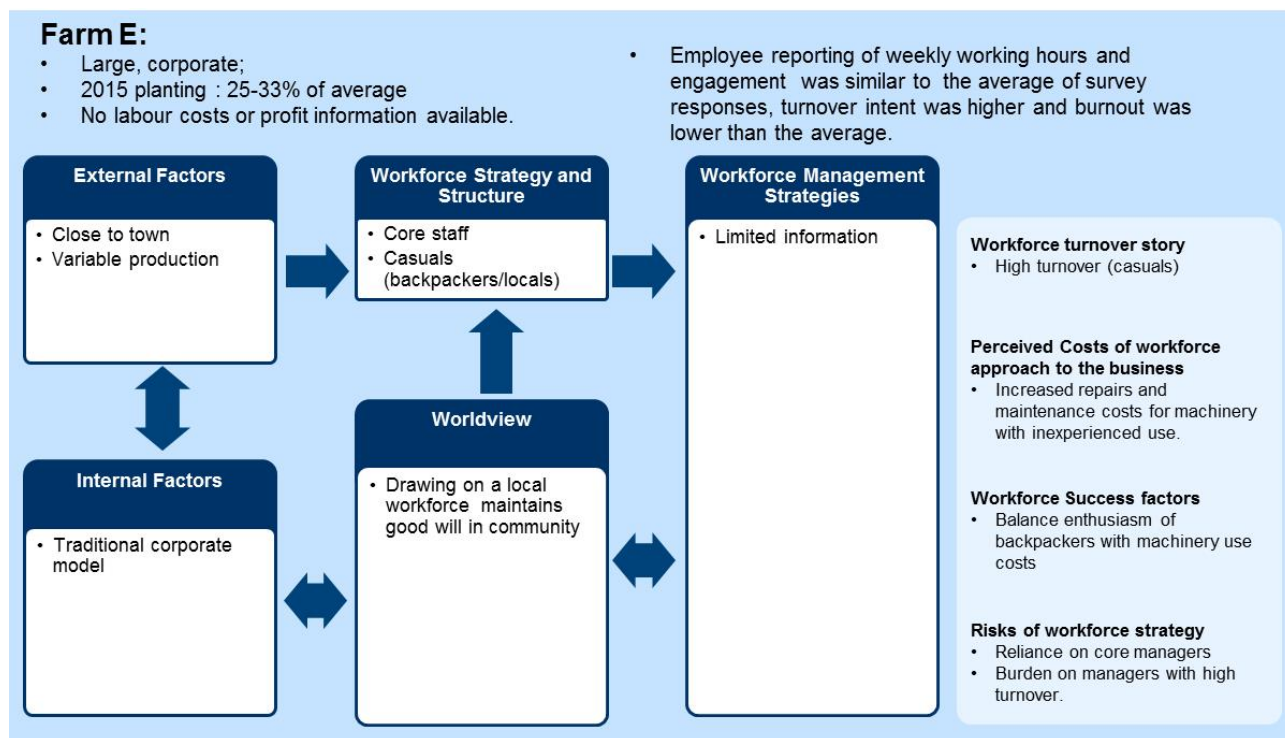
There was some suggestion that the use of groundwater removes the effects of seasonality. The central message from this interview was a focus on the value of communities, families and personal responsibility. The farmer suggested that cotton farmers, in general, do not understand people very well. They also identified that proximity to a town was an advantage for retaining their staff.

Area of cotton grown varied from nearly 2,000 ha in 2013 to just over 500 ha in 2014. Yield per ha was generally above average, but the costs per ha tended also to be above average. There was a large decrease in the total operating profit between 2013 (over \$3 million) to 2014 (\$0.25 million).

Questions to consider

As it doesn't appear to be related to water availability, what are the factors associated with the decrease in profit in 2014?

Farm E



Selected quotes from the interview

Commenting on their use of backpackers, this interviewee suggested,

“The ones with the better work ethic are the ones that travel. Because they're not frightened to get out, leave their comfort zone and go out and look for work. We've had American guys, Irish, we had Estonians. Terrific work ethics. Some of the locals from in town that have come from Centrelink can leave a little bit to be desired.”

Preliminary observations

Workforce composition on this farm is Core and Casual. But, the casuals have all gone. The casual staff consists of 50% backpackers and 50% locals. Locals are used to maintain goodwill in the community. Backpackers are used because they are enthusiastic, but they can be hard on the vehicles.

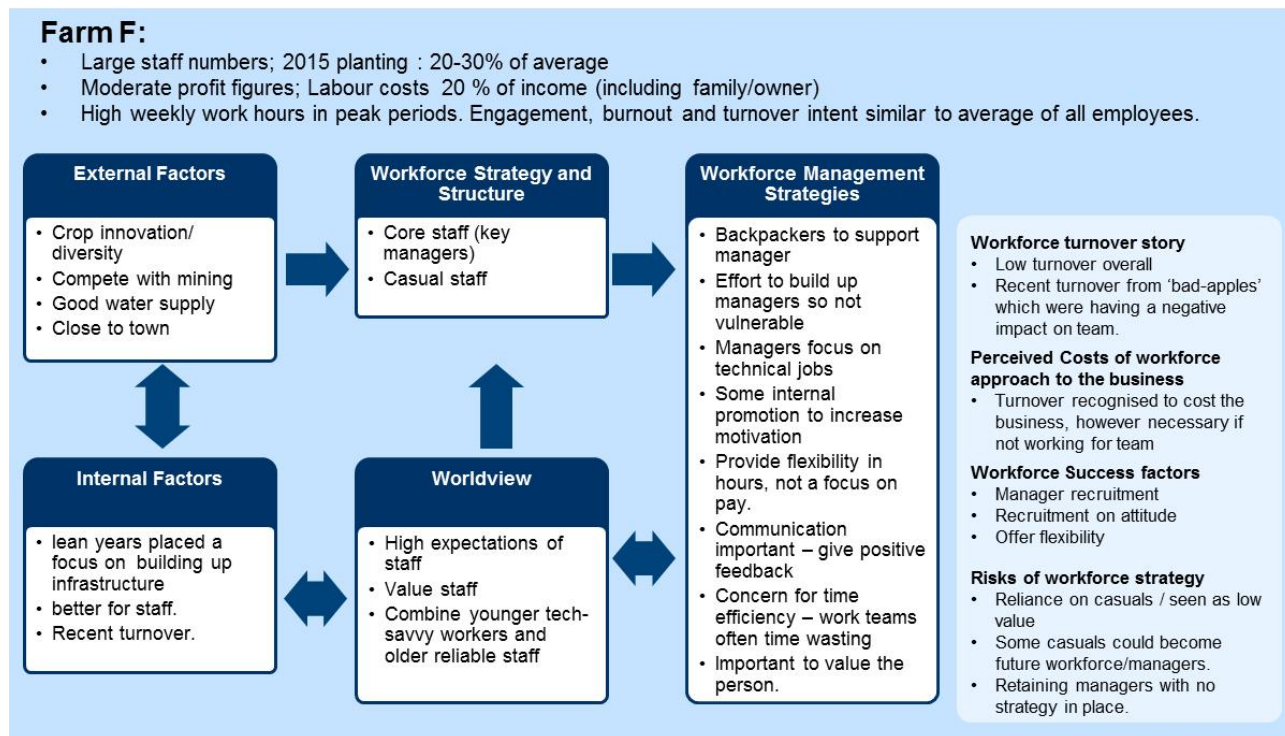
They have reduced their casual workforce and are now contemplating what they will do if they have to reduce their core workforce due to lack of water.

The area of cotton grown over the 3 years has varied between around 3,500 to nearly 5,000 ha. The yield per ha was generally about average, but was about 20% above average in 2012. The operating profit per ha and per bale was generally around the average for the CCA farms. The operating expenses were generally above average per ha and per bale. This business seemed to be able to maintain reasonable efficiency with a large scale operation.

Questions to consider

How could they maintain their core workforce? What would be the cost of replacing lost experience if they start reducing their core workforce?

Farm F



Selected quotes from the interview

Talking about how his workforce often went beyond what was expected from them he said, “The guys have been pretty entrenched in the farm, it's amazing they'll come out at night to do siphons and more than I ask. I've seen them out there at all sorts of hours to make sure that everything's done well. “

Explaining how he was able to maintain a workforce year round he suggested,

“Having dry land cropping has certainly given us a balance for the work force requirements through the year and that's been a real help. Plus we're in an area which is somewhat reliable for rainfall compared to the west, so we actually do harvest a winter crop, virtually every single year. And so while some years it's unreliable, other years it's good. There's kind of work all year round.”

Preliminary observations

This farmer wants their workers to be multi-skilled so that they are useful on a range of activities. They want to do as many of the jobs as they can on the farm with the staff they have without the use of contractors.

They were investing in mechanised irrigation because of the availability of government irrigation efficiency funding. It was recognised that a by-product of this investment was that they would need less staff for irrigation, or have staff who were happier not do a menial task. They identified sources of water as contributing to production variation. Some farmers had access to much more reliable water and were able to retain staff more easily. The sources differed between groundwater and surface water, between valleys and within valleys, and between farms whose water holdings were made of different security levels, and different amounts of water compared to their potentially irrigated land.

This farmer suggested that the satisfaction of staff will to some extent depend on the facilities of the local region.

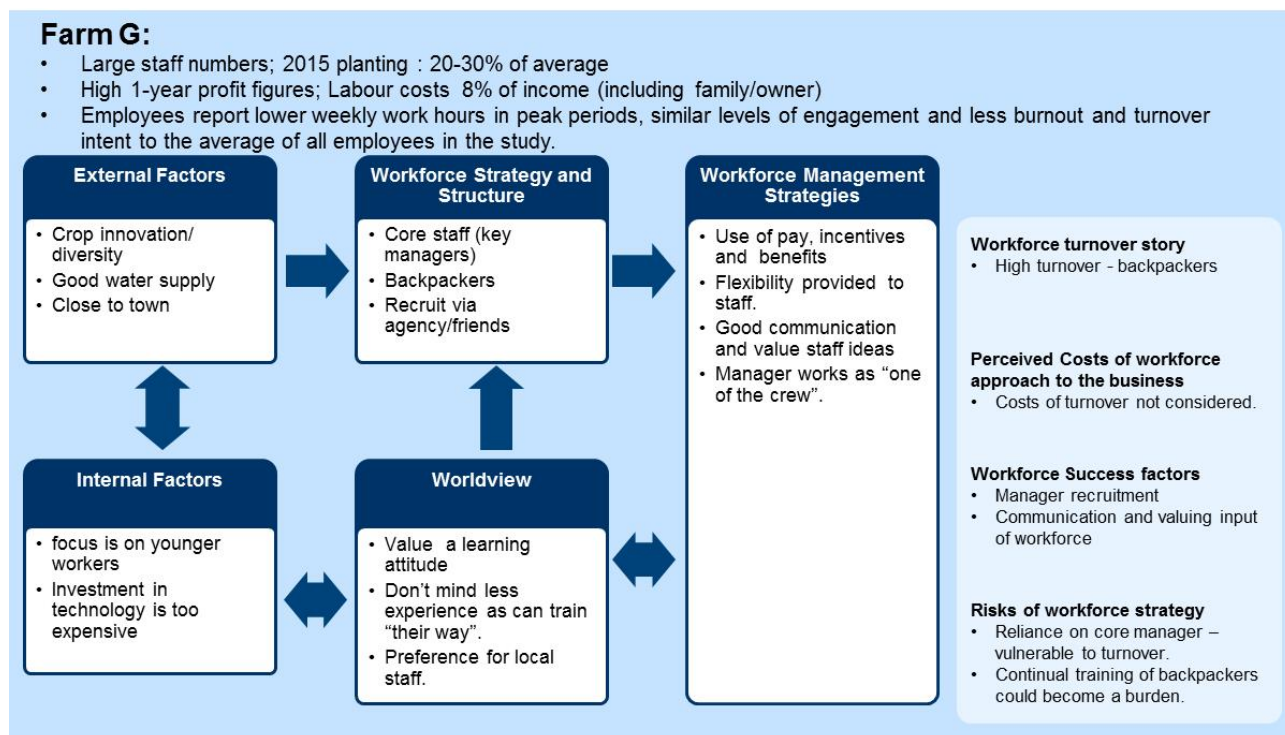
They grew about 500 ha of cotton in 2014, and data was only available for that year. The yield per ha was slightly below average and the operating expenses were above average per ha. The operating profit per ha

and per bale were below average. It appears this business may be going through a development phase and partial efficiency measures, such as operating profit per ha and per bale, may increase in subsequent years.

Questions to consider

How could the different water-holding strategies of farmers be related to their business performance (especially in years of low water availability)? And how does this affect demand for labour and staff turnover?

Farm G



Selected quotes from the interview

Commenting on the use of foreign workers this farmer stated, "They generally get into the swing of it pretty quickly.... if you're using backpackers they're obviously people with a little bit of initiative to get out to Australia in the first place. Sometimes language is an issue, but mostly it works pretty well. "

They explained their strategy for interacting with their workforce:

I think communication is the thing. It's a really big thing. If people are free to communicate, then how many issues are an issue? Also keeping them actively involved in what's going on, so that they don't get told this is what to do, and they understand why they're doing it. And if they can come up with a better way of doing it let's go with it. I think that's a lot of it, just keeping them engaged.

Preliminary observations

The farmer reported that their workers do what is asked of them, but do not do more. It is a family-base operation that seems dominated by the patriarch. They reinforced that the best employee is someone that wants to learn and asks questions.

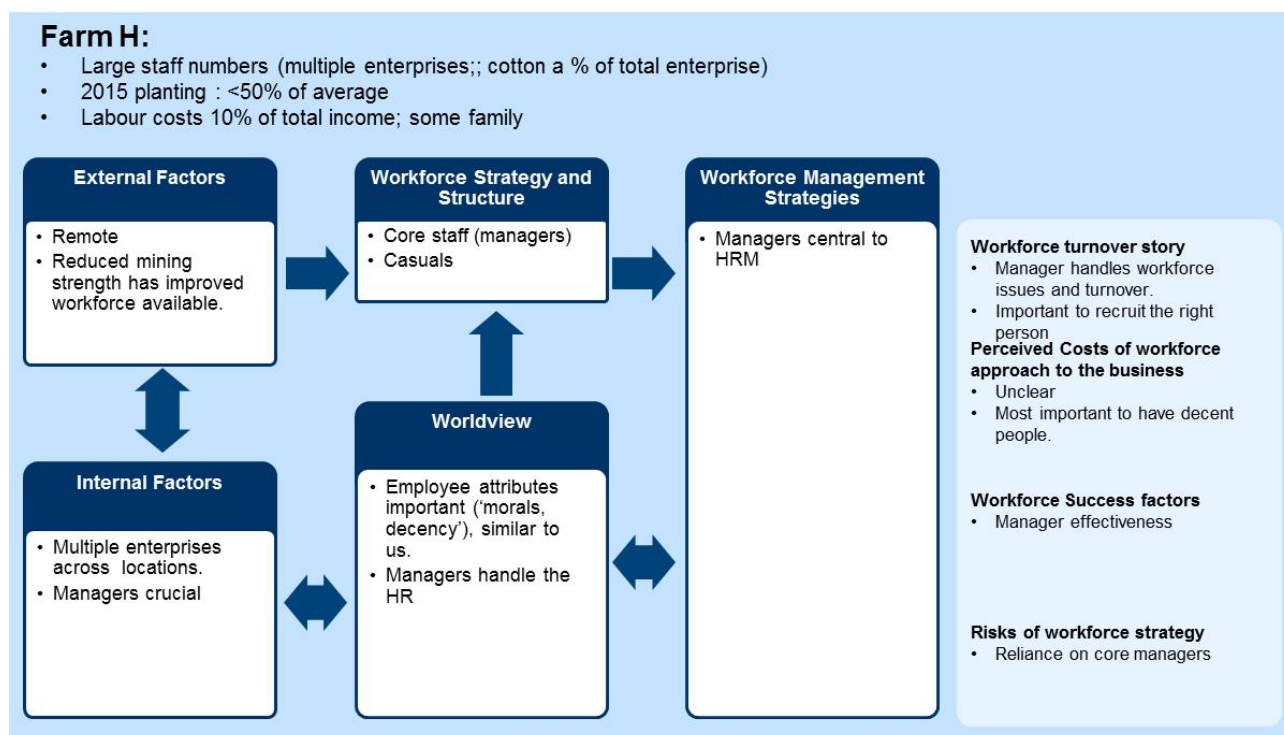
The evidence is that their workers stay a long time. Their longer term employees are paid significantly above the award. The farmer admits to asking a lot from their workers (so workers seldom surprise them by going above and beyond).

They grew about 1,000 ha of cotton in 2014 (the only year which data was available for), this is smaller than the average CCA farm and they have a relatively high proportion of family labour. They had above average yields per ha and below average costs per ha and per bale. This resulted in exceptionally high profit per ha and per bale, about 3 times the CCA average.

Questions to consider

Can this performance be maintained over the longer term? How much of their performance is due to their workers?

Farm H



Selected quotes from the interview

This farmer explained the costs and benefits of workforce turnover to his business:

... if people have left here, over the last 10 years, it's because the work's not there. We're not growing the same amount of cotton. The biggest cost of when someone leaves is the money you've invested in them. Both financially, but also from a time point of view and in training, is your biggest cost of loss. Lost expertise; that can be an issue. But at the moment we're finding the reverse. Due to the hard commodity down turn we're replacing men with better men at the moment.

Preliminary observations

Owner emphasises that he wants workers with morals and decency. Hinted at an us (high morals and decency) and a them (low morals and decency) situation. He talks about people from "our socio-economic background". He suggests that the next productivity improvement on cotton farms will be to employ more women. They are softer on machinery, but they do need to have the right facilities. His management style is a bit removed from employees. Managers are paid for managing the workers. Workers are seen as a resource. There appears to be a gulf between this owner and their workers. His strategy was to use contractors rather than direct employees to shift the problem to the contractors.

Owner has no issues with getting workers. As the mines have wound down high-quality workers are looking for jobs and are prepared to work for less money than they were while the mining boom was on.

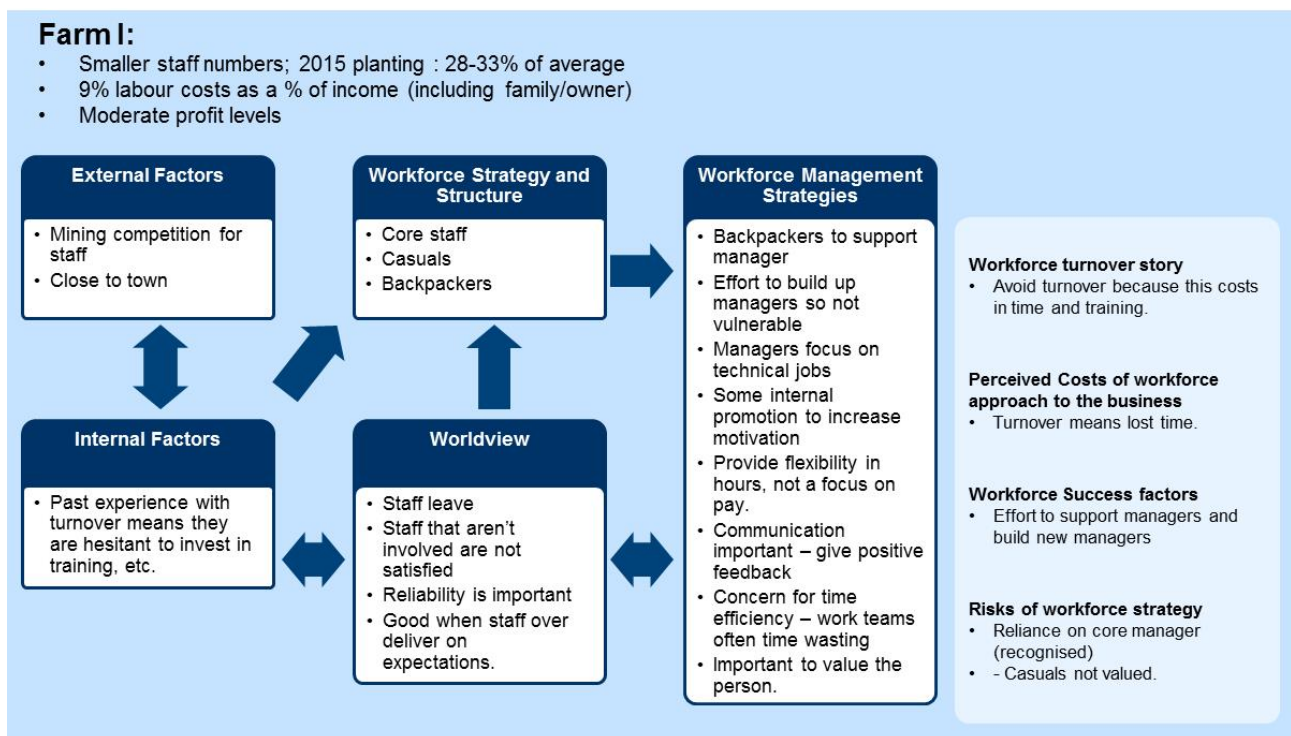
Owner appeared to be at arm's length. His managers are the communicators, or the bridge between labour and ownership. The owner can communicate with his managers because they have a similar background. He is less able to communicate with (or even really know) his employees.

The area sown to cotton was slightly less than the average of the CCA farms (about 1,200 to 1,400 ha). This operation had above average yields per ha and above average operating profit per ha and per bale in 2012 and 2013. However, in 2014 they had yields per ha that were below average and about average operating profit per ha and per bale. The costs per ha tended to be lower than the average farm.

Questions to consider

Were there any factors, other than low water availability, associated with the lower yields in 2014?

Farm I



Selected quotes from the interview

Describing low expectations for his staff this farmer suggested, “I wouldn't say [he's] good, but he's reliable. Turns up every day and tends to like to stand around and talk a lot. But yeah, he's here every day. He's honest. You know what to expect from him. And you tend to look after him a bit. If they're reliable, it just makes a big difference.”

This farmer explained some of the frustration with employing staff, “Some jobs are just fiddly jobs. And you actually get to the point where you end up just doing it yourself. But you try to keep all the repetitive jobs for a lot of them. Some guys you can get them interested and then there's other guys, you've just got to tell them everything. Like, I mean you try and get them interested, but unless you tell them to do that it doesn't seem to happen.”

Preliminary observations

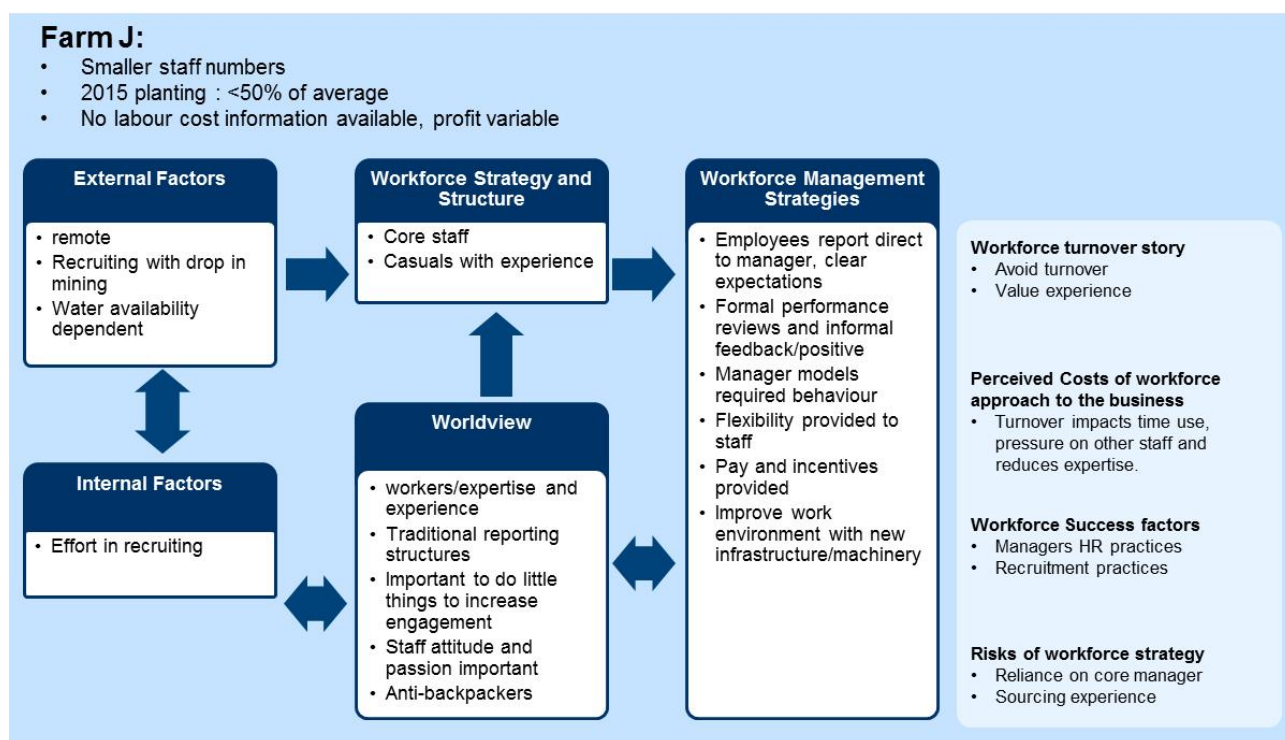
Staff management and training appeared to be a problem for this farmer. Workers classified according to whether they were good or not-so-good. Not so good workers were unmotivated and needed to be directed so that the grower often ended up doing the job himself because the workers can't do it. He does not feel that the situation will change.

This business had slightly less area sown to cotton than the average CCA farm and had a higher proportion of family labour than most of the farms interviewed. Yield per ha was close to the average for the CCA farms, as were total costs per ha and per bale. The operating profit per ha and per bale was below average in 2012, but above average in 2013 and 2014.

Questions to consider

Do unsatisfactory workforce cultures develop and get reinforced over time to such a level that they are difficult or impossible to change?

Farm J



Selected quotes from the interview

Suggesting that there were benefits to workforce turnover one farmer said, "... the ones that have had previous farming experience they've come with a different approach to farming, or having been in the mines they're a lot more work, health, and safety conscious."

They admitted that developing a team culture was difficult, but important:

...it's sometimes challenging to work as a team if you're sitting on a tractor for 12 hours. But then you've got the opportunity of the changeover and there's certainly a bit of teamwork that goes on there. Certainly trying to encourage a team culture is very important for us, because we've found if you have one non-type team player it affects the rest of the team and the employees and staff morale.

Preliminary observations

This farmer was not able to promote staff from within their workforce (but this may have been a timing issue) whereas others have too many people who were able to be promoted.

Casual workers are often criticised for their inexperience, but in this case the owner saw a problem with their older age. They also identified generational issues as being more important than gender issues.

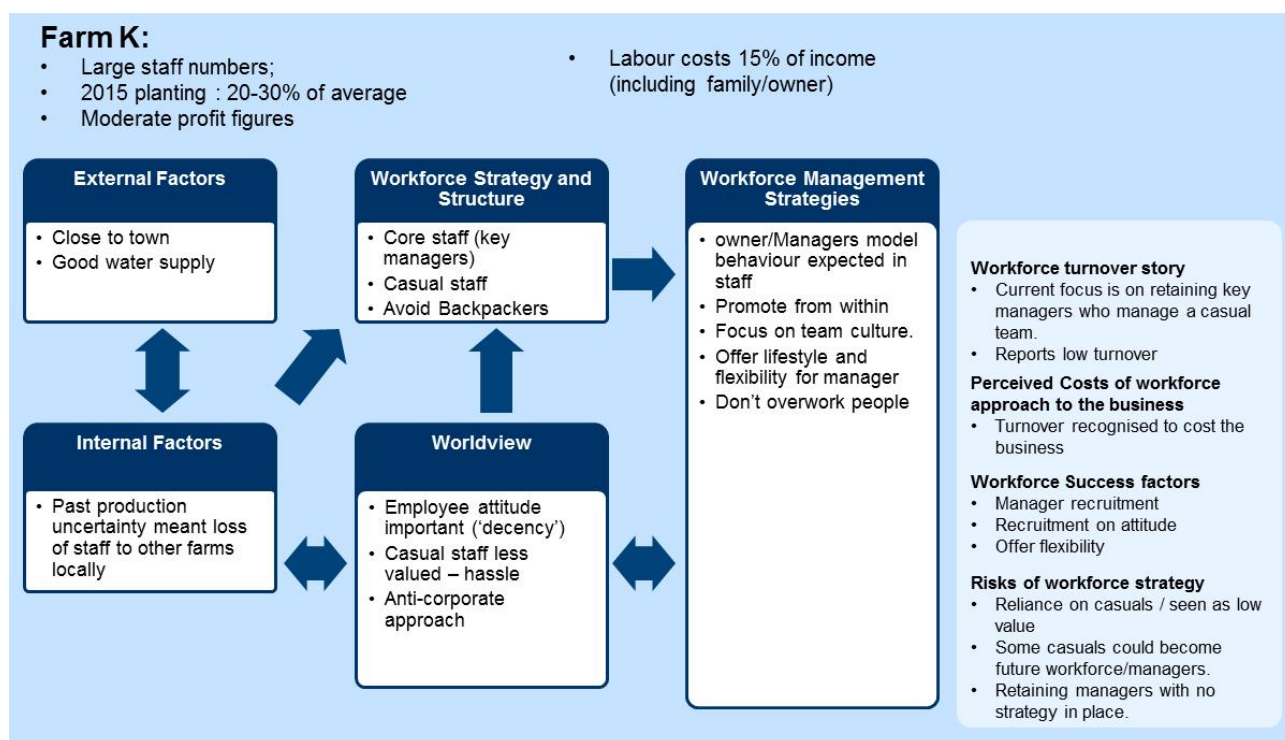
The farmer reported that casual staff from the mines bring with them a different approach to WHS issues and treat machinery better.

This was a smaller operation with from 500 to nearly 900 ha of cotton grown. Had above average yield per ha. The operating profit was about average in 2012, but well above average in 2013. There was no data available for 2014.

Questions to consider

As there was a higher proportion of family labour in 2013, is there a link between this and the increased profitability?

Farm K



Selected quotes from the interview

Talking about the difference drivers for corporate and family farms this interviewee said, “ we probably risk a little bit more than corporates ... the thing is a lot of the corporates have [external] money so therefore they always worry about losing money. “

The impact of low water allocations (and low levels of production) were felt on the need for staff, “Look, we're very fortunate we've got a lot of people who have been here a long time, 30 odd years, or 20 years or 15 years, or that sort of thing. Yeah, basically we let two good people go. All those casuals will be gone and part time will be gone. So there's 7 gone this year, .. It was a great pain. Terrible. But anyway, they all moved on to better things, we hope.”

Preliminary observations

This farmer reported low employee turnover and emphasised the importance of decency. They demonstrated empathy by mentioning that a long-term employee had given so much of his life to him, so he treated him more leniently. It appears he is respected/liked by his employees and seems to have an understanding of what motivates people. Older people want to see the boss doing the same job. He suggests that the attraction of working on a cotton farm is the lifestyle. He is very reliant on his workforce, and is not attempting to manage the whole operation by himself.

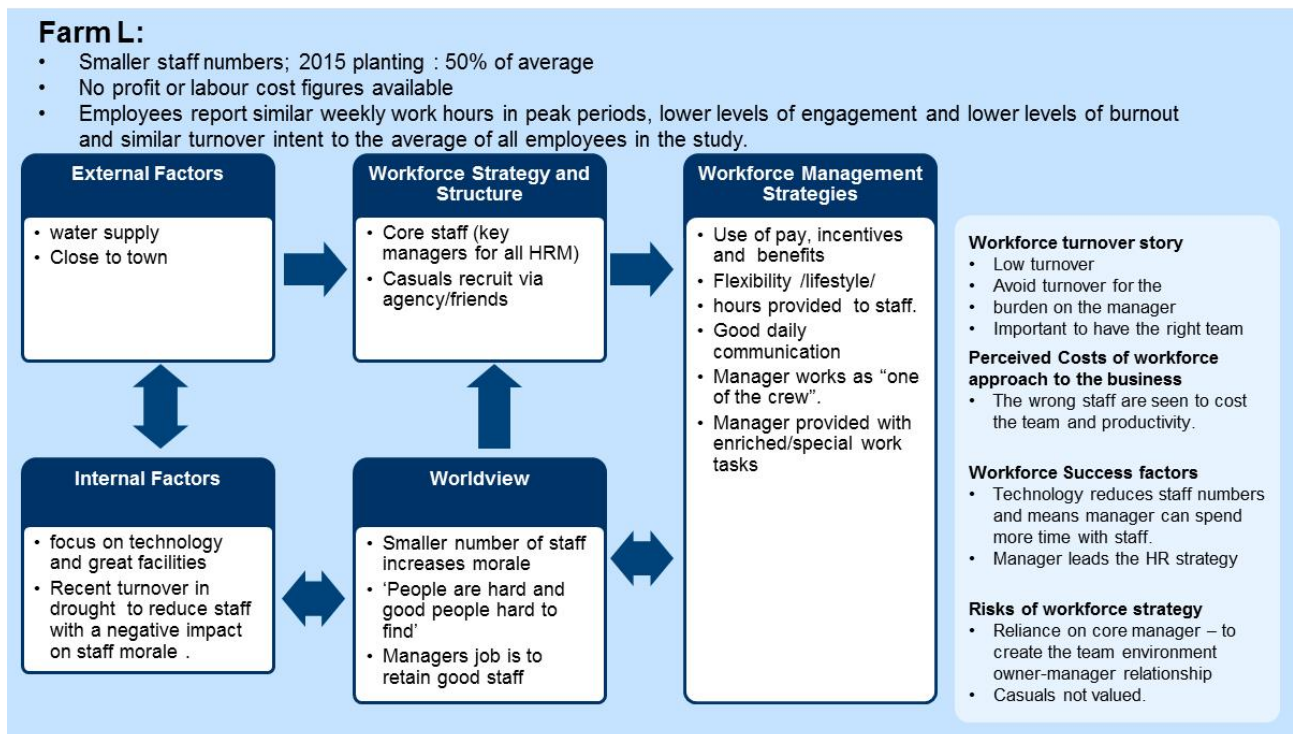
Low staff turnover and long-term employees have created a team culture. Two permanent staff and seven casual staff were not re-employed in the current year because of the lack of water. Generally grow about 2,000 ha of cotton, but varied slightly over the 3 years. The yields per ha were similar to the average for the CCA farms, except for 2013 when the yield was below average. The operating profit per ha and per bale was also well below average for 2013. The operating profit per ha and per bale was above average in 2012 and 2014.

Questions to consider

What are the issues associated with this growers lower yields and operating profit in 2013.

The participants in the following interviews were not part of the CCA. The material presented below is derived from interview notes. The interviews have not been transcribed at the time of writing this report.

Farm L



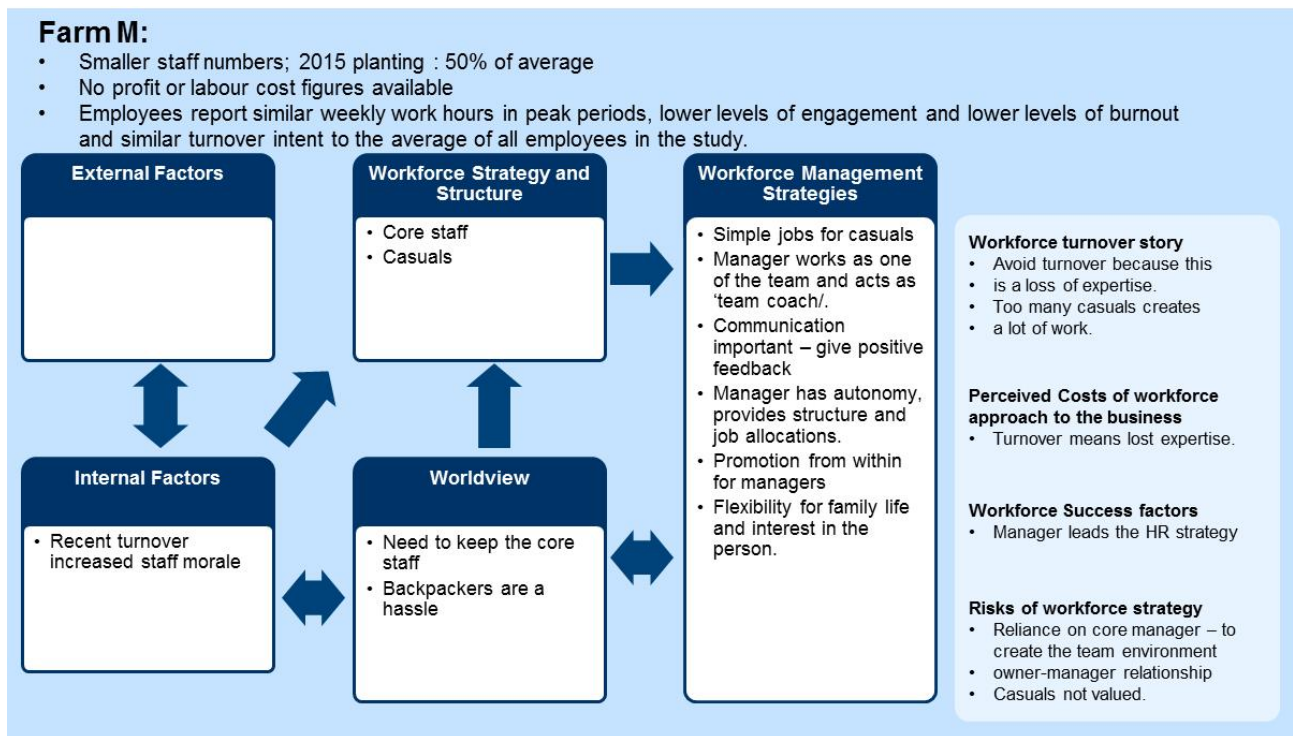
Preliminary observations

The focus for this farmer is on maintaining the core workforce and maintaining morale. They use backpackers to supplement when necessary. They have low or no turnover of core staff.

While it would not have an impact on their staff turnover (which is low or none) they are trialling irrigation technology to avoid using syphons. If this was successful the owner suggested that the morale of the whole team would be lifted, because nobody likes doing syphons. On this farm irrigation is the main seasonal requirement for labour.

The trialling of labour saving technology suggests that if the manager/owner is familiar with the tasks that are required from their employees (which this one was) they would be more likely to make decisions that made the work more enjoyable for their workers thereby increasing their morale. This is because they will be aware of the difficulties of the job and try to reduce those difficulties.

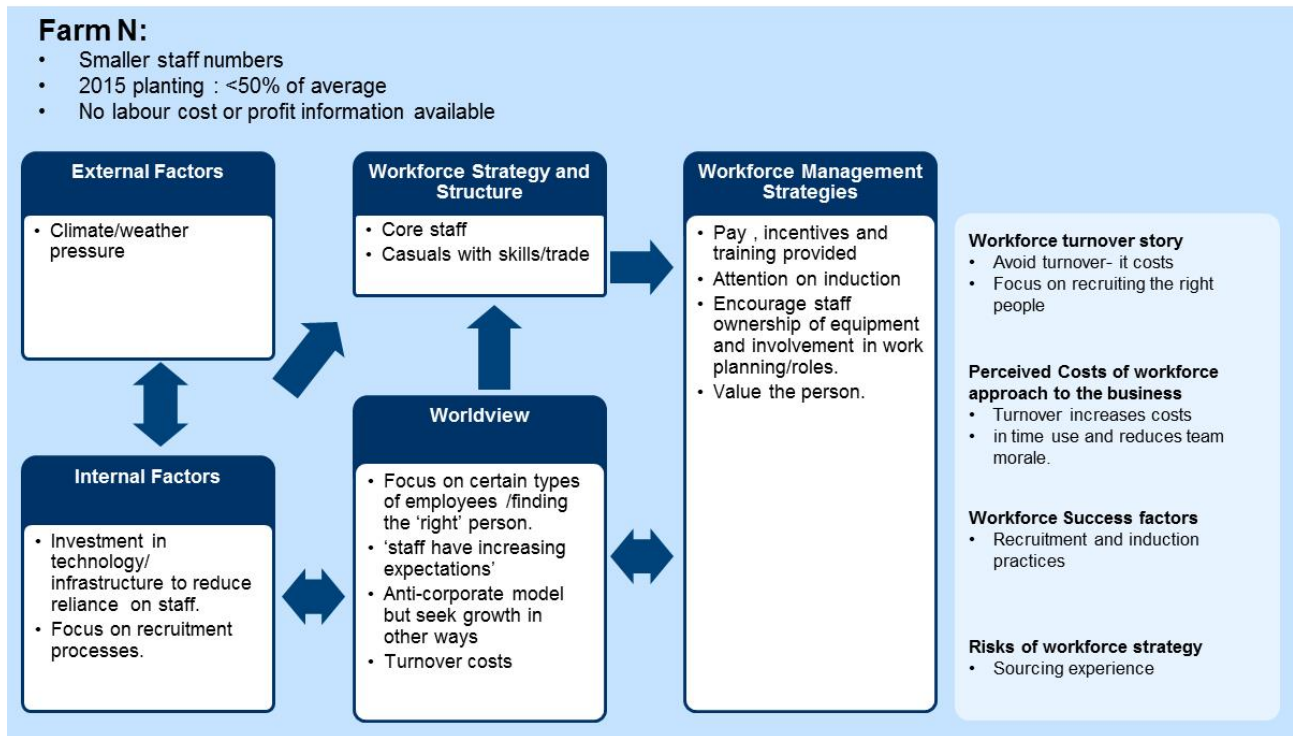
Farm M



Preliminary observations

This farmer reports trying to build a team. They have a core team and contractors for irrigation (seasonal surge). He is trying to think of his employees beyond their role on the farm. He is a new manager and is attempting to rebuild morale by instituting management changes that were needed but previously ignored.

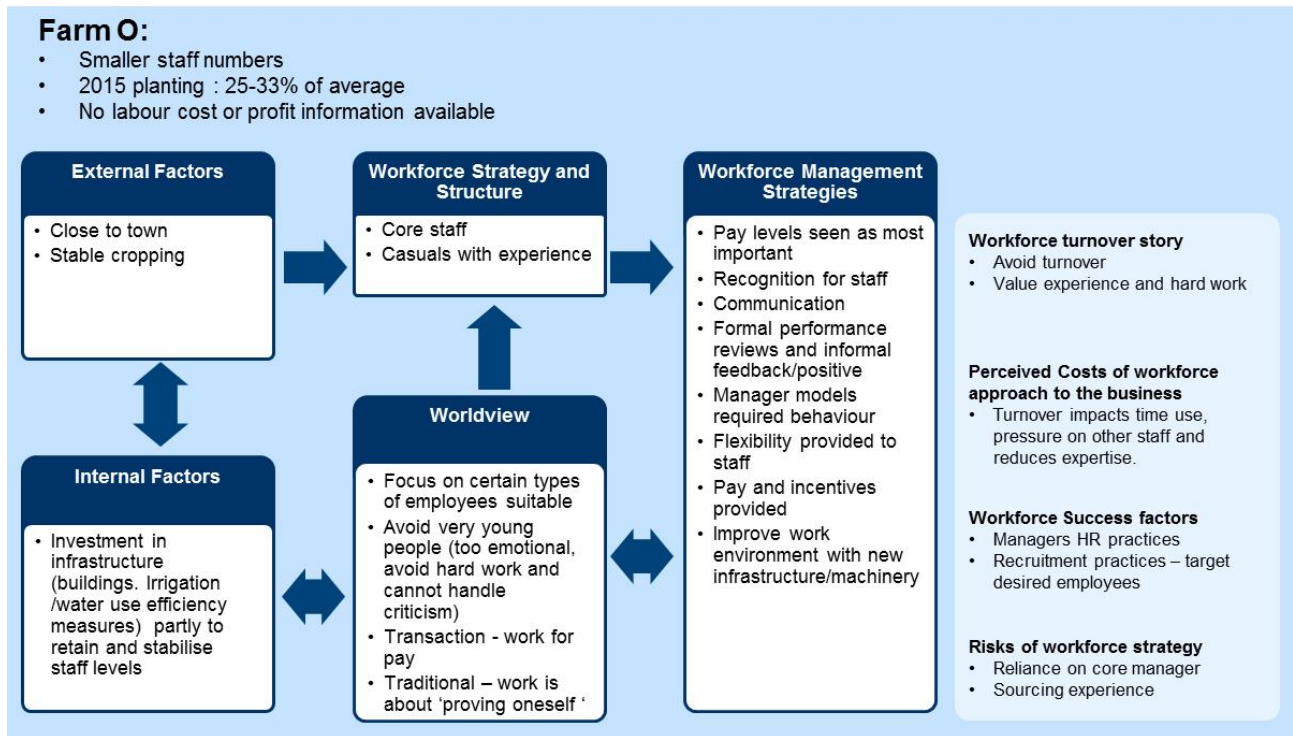
Farm N



Preliminary observations

This farmer wants a core team that doesn't change regardless of production and water availability but his strategy to achieve this is to have smaller workforce numbers. This can result in higher levels of work being required from employees in normal times, but when water is scarce (and the need for labour drops) he does not need to reduce staff numbers. He had higher levels of empathy demonstrated by his thinking about what was the most important thing for his workers.

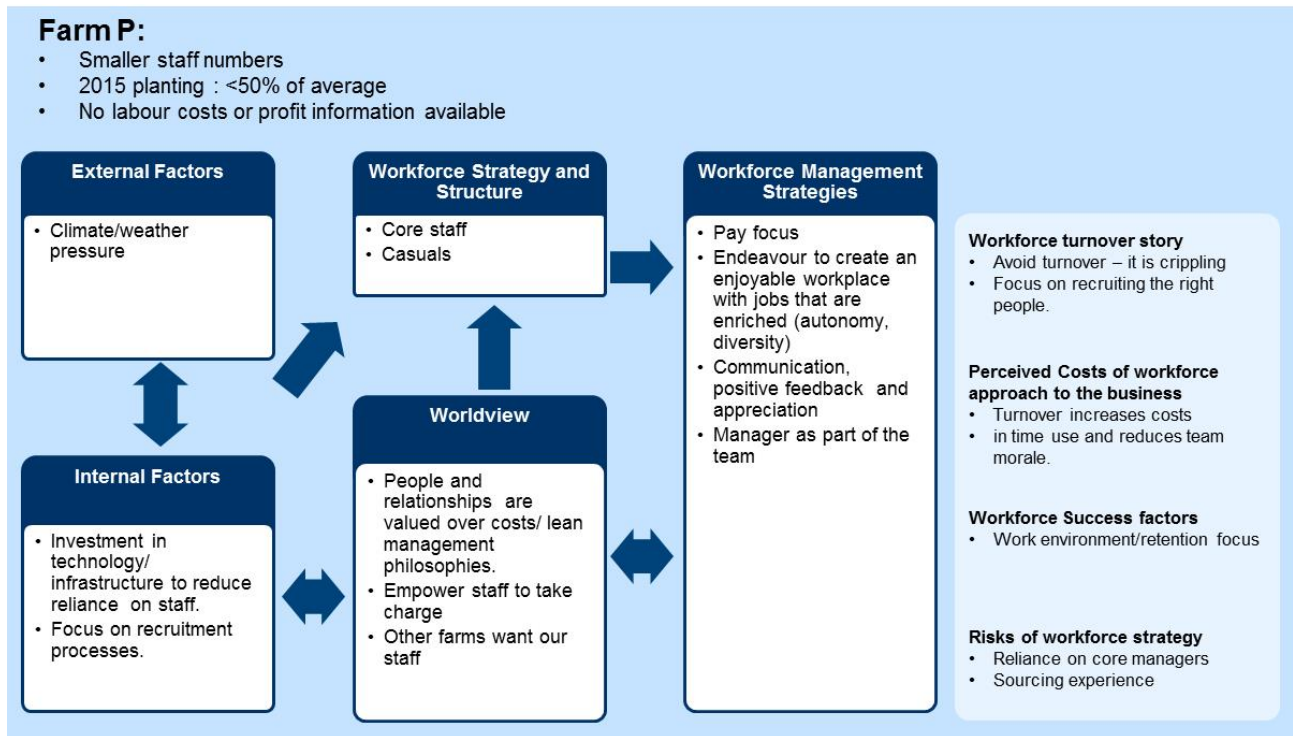
Farm O



Preliminary observations

This farmer appears to have a ‘no nonsense’ approach to managing staff. They have a long-term core staff and seem strongly critical of the younger generation. No apparent empathy. His existing staff appear to fit in with his personality. Staff will disagree with the owner, but will eventually need to back down because they realise they are arguing with the owner.

Farm P



Preliminary observations

This farmer admits to being soft on staff and consultative. They deliberately engage their staff in decisions that are made on the farm to encourage ownership. They realise that their non-authoritative style is the only way that they can manage the employees. They can't do it any differently than that. They were a very empathetic employer.

They obtain their casual workers by word of mouth from current employees. They see their employees as an overhead, not as a variable cost.

Appendix C. Early typology of farms to assist in cross-case analysis

Interviewees were firstly classified into a simple typology according to production size and their engagement with their employees (see Figure 2). These classifications were to some extent arbitrary subjective judgements. Some of the 'Large' farms had elements of family farms and some of the 'Small' had elements of corporate farms. Similarly the employee engagement criteria was not a dichotomous classification. In practice cotton growing businesses would have a range of approaches to their engagement with their workers.

Despite their arbitrariness these classifications are a useful way for helping to understand the differences and similarities between cotton businesses and to think about how those differences may impact on their workforce strategies.

The relative importance and impact of workforce turnover on case study farms was strongly influenced by the specific workforce strategies of the farm which in turn were strongly influenced by the business context and in turn the physical farm resources available.

Decisions influencing workforce strategies are part of a broader business context involving decisions about the farming system. Across the farms, decisions around workforce issues were of lesser prominence than broader business decisions such as investments in land (the type, size and location), water (the cost, security, tradability and amount), infrastructure development (the physical layout of the water delivery), technology (methods of irrigation and machines used for production). For some farms, workforce decisions related primarily to labour as a factor of production. In this research we label farmers with this attitude to their employees as being 'uninvolved'.

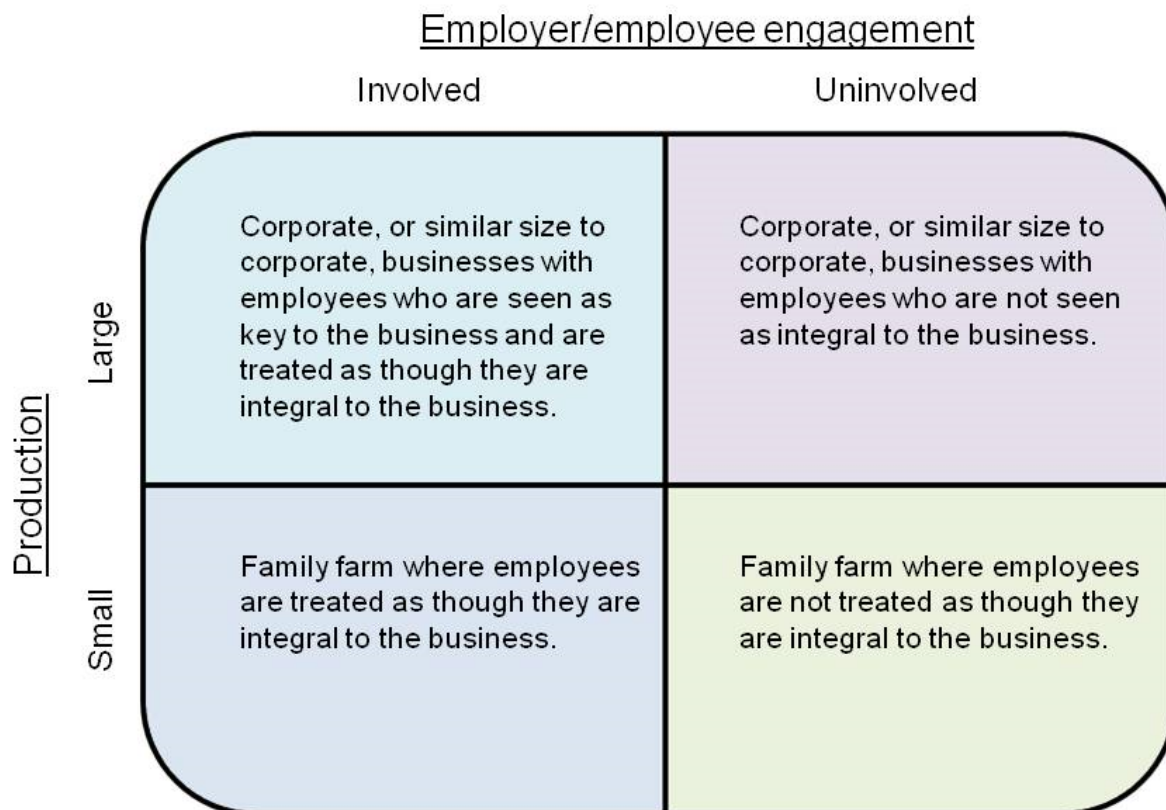
This attitude can be involved in terms of whether the farmer shows prosocial behaviour or not. Prosocial behaviour involves actions that "benefit one or more people other than oneself— behaviours such as helping, comforting, sharing, and cooperating" (Batson and Powell 2003, p. 463). The reasons why people act or do not act prosocially are complex and vary in different circumstances and at different times (Batson and Powell 2003). One prosocial norm with relevance to the employee/employer relationship is reciprocity. For cotton growers the norm of reciprocity requires that they help those who have helped them, and that they do not harm those who have helped them. The norm of reciprocity imposes obligations that are in relation to the benefits given by others (Gouldner 1960) When growers do not act in a prosocial manner towards their employees it may mean that they do not feel that they are subject to the norm of reciprocity, which is possibly because they perceive that their obligation to their employee has been satisfied. They may simply perceive that the payment for their employees' labour has extinguished their felt obligations. This theory suggests that those growers who are not acting in a prosocial manner are not bound by the obligations of a reciprocal relationship that would otherwise guide their behaviour.

The farmers that we label as having 'involved' management act more prosocially toward their employees and are likely to make workforce decisions that are primarily related to maintaining stability or capacity. The 'involved' and 'uninvolved' employers (see Figure 2) are each likely to give different weights to the importance of the workforce in the overall business context.

Whilst the types of decisions that cotton growers need to consider, and the decision choices that they have available to them, are in part as a result of past decisions made by them and others choices are also made subject to the constraints of:

- Finance; which includes ease of access to finance, who provides the finance, and the returns that the financier expects.
- The decision-makers' personal goals, and even whether they are the goals that need to be satisfied.
- Family goals which might be influenced by time of retirement choices or whether succession is expected.
- The personality and psychological makeup of the person making the decision.

Figure 6: Conceptualising according to production size and employer/employee engagement



This typology does not explain the heterogeneity of the groups. One way to examine the within-group variation is to use the Five-capitals framework that includes the capitals of Finance, Human, Physical, Social, and Natural (see Table 1).

Table 1: Conceptualising study participants according to the five capitals framework

Group	Farm ²	Finance	Human	Physical	Social	Natural
1) Large / Involved	A	X	X	X	X	X
	C	X	X		X	X
	K		X		X	X
2) Large / Uninvolved	B	X		X		X
	E	X		X		X
	H	X		X		X
3) Small / Involved	D		X			X
	F		X		X	X
	G		X		X	X
	L		X	X	X	X

² The individual farms are identified as A through to K.

	M		X	X	X	X
	N		X		X	X
	P		X	X	X	X
4) Small / Uninvolved	I					X
	J			X		X
	O			X		X

What Table 1 shows is how a complex set of circumstances can come together to produce a particular result. Individual cotton growing businesses are inherently complex, and are also substantially affected by the complexity of the context that they are operating in which means that the individual cases may not be able to be used to make generalisations.

Context is especially important in this situation because little can be known about the cause of workforce turnover until the context in which the workforce turnover occurs is described and the behaviour is understood from the position of the person who carries out the behaviour. Ragin (1987) describes the problem with this type of research by suggesting that the problem is not that there are a large number of variables affecting the research but that the problem is trying to unravel the multiple and complex ways in which the variables combine to produce an outcome. This research attempted to develop the needed contextual understanding through face-to-face interviews which aimed to develop a more intimate understanding of the situation than that gained from other methods (Maanen 1983).

The context of a farm can include features such as its soil type, its topography and climate, and include built infrastructure such as the physical layout of the farm. The farm context can also include considerations such as availability and timing of labour, or the type of irrigation technology in use (Kaine and Bewsell 2008).