



Australian Government

Cotton Research and  
Development Corporation

# CGA FINAL REPORT 2015/16

## ***Part 1 - Summary Details***

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Please use your TAB key to complete Parts 1 & 2.

CRDC Project Number: WIN1701

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**Project Title:**        **Understanding and Building women's  
participation in the cotton industry**

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**Project Commencement Date:**        **1/07/2016**

**Project Completion Date:**        **30/11/2016**

## ***Part 2 – Contact Details***

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**Administrator:**        Sally Dickinson, Chair Wincott

**Organisation:**        Wincott

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Goondiwindi QLD

## ***Part 3 – Final Report***

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(The points below are to be used as a guideline when completing your final report.)

### ***Background***

#### **1. Outline the background to the project.**

CRDC, together with Wincott acknowledge the lack of understanding of the contribution and engagement of women in the cotton industry. It is essential to have a handle on if, how and why women are engaged in the industry, in order to engage at a research, extension, technical and networking. In order to understand this information, we need to answer a series questions.

Wincott was initially formed by a passionate group of women to share their experiences and to assist others to develop their skills, increase their knowledge in an industry they share and be able to initiate change to be able to better support their families, business and grow their own confidence in 2012 we now call this 'human capacity building'.

The key fundamental of WinCott's philosophy is to ensure that the support provided continues to focus on human capacity building, empowerment, knowledge and

leadership skills which allows individuals to become more involved in industry issues, business opportunities or just simply to build confidence.

The network is an inclusive organisation and is unique in that it brings all industry sectors together, sharing information and increasing their knowledge.

Wincott membership consists of cotton industry advocates from all industry sectors, including cotton growers, processors, financial institutions, agribusiness, media, insurance, superannuation, telecommunications,

Wincott:

- Is a support network, not only for women in the cotton industry, but all industry participants.
- Promotes communication between women within the industry.
- Aims to increase awareness of industry issues.
- Is an avenue for constructive feedback to both industry and government.
- Provides support for women new to the industry.
- Distributes information.
- Supports regional activities such as field days, training and networking events.
- Provides a connection to all industry activities.

### ***Objectives***

#### **2. List the project objectives (from the application) and the extent to which these have been achieved.**

The aim of this project is to obtain qualitative and quantitative data to answer the following questions:

1. The demographic of women in the industry
2. What role do Women play in the cotton industry
3. Perception of women's role in the cotton industry
4. To understand what influences the role of women in the cotton industry
5. What areas do women contribute to or make decisions in?
6. Understand if the current status is the "desired" status. What opportunities are women looking for? What would facilitate the change?
7. How do women engage and communicate in the industry?

## **Methods**

### **3. Detail the methodology and justify the methodology used. Include any discoveries in methods that may benefit other related projects.**

This project aimed to engage in women from all facets of the cotton industry. This included a wide demographic of roles, locations, ages and contributions. 298 surveys were conducted, with additional focus groups to validate finding. To remove sample bias, and maximize sample size to allow accurate trends can be drawn, four individual points of data collection were utilised:

- **Written survey** – over 200 women are convened on behalf of Wincott at a lunch at the Australian Cotton Conference every two years. This was an excellent opportunity to get a snap shot of the demographic of women in the industry and base line data for the project. During this survey the women were able to nominate if they would be happy to receive a follow up survey.
  - 190 individual responses to that survey were recorded
- **Electronic survey** – an electronic survey was conducted using survey monkey. This survey was emailed out to industry contacts and promoted using social media. This survey further delved into the role and engagement of women in the industry (and what influences these). The survey is attached as appendix two.
  - 66 individual responses to that survey recorded
- **Semi-structured telephone interviews** – semi structured telephone interviews were conducted with the aim of expanding the anecdotal response from the cotton conference survey attendant as well as ensuring non-conference participants were represented in the sample.
  - The survey (consistent with the electronic survey)
  - 42 interviews were conducted
- **Focus groups** – two focus groups were conducted to further validate the findings of telephone, electronic survey and written surveys. 21 women attended.
  - Moree – 12 participants
  - Dalby – 9 participants

## **Outcomes**

### **4. Describe how the project's outputs will contribute to the planned outcomes identified in the project application. Describe the planned outcomes achieved to date.**

### **5. Please report on any:-**

- a) Feedback forms used and what the results were
- b) The highlights for participants or key learnings achieved
- c) The number of people participating and any comments on level of participation

## **Conclusion**

- 6. Provide an assessment of the likely impact of the results and conclusions of the research project for the cotton industry. What are the take home messages?**

### **TAKE HOME MESSAGES**

#### **1. Demographic**

- a. The demographic of women in cotton is large in scope with women seeking different levels of engagement. As a result, there isn't and will never be an effective "one size fits all" engagement, extension and communication that suits all women who are actively engaged in the cotton industry.
- b. There are differences across regions, age and stage of life and industry versus growers. Opportunities exist in emerging cotton areas (e.g. Southern NSW) for information delivery and engagement activities where there is a genuine thirst for knowledge about cotton as a crop and the industry in general.
- c. Women in all facets of the cotton industry are generally very well educated. Providing flexible opportunities for involvement and employment may see increased engagement and participation.

#### **2. Roles & Engagement**

- a. Women are relatively well represented across industry and farm base roles. Furthermore, women in cotton, both farm and industry based are generally content with the level of engagement and perception of women in the industry.
- b. Roles are often assumed by women as they are what no one is currently doing, not based on skills and interest. As a result, women are seeking opportunities to improve the way they complete the roles they are in and are seeking information about the areas they are actively engaged in.
- c. Women's role in various aspects of the business
  - i. People – women "assume" the role of managing people, wellbeing and WHS in many business. Often with little underlying prior knowledge. Providing tools to manage these will increase efficiency and confidence in this area
  - ii. Business – majority of women are actively involved in the business, particularly women based on farm. Again, this role is "assumed" so there is a genuine appetite for knowledge in this area to improve processes efficiency and limit the "fumbling our way through".
  - iii. Production – there is a desire to be technically astute in production, not to be further involved in decision making, but to be more involved and understand conversations based on production. There is an acknowledged gender biased that "the male business partner" covers it and there is no need to double up!
  - iv. Industry – women typically focus of the areas of influence immediately before them. With competing priorities, industry

participation is often limited. Increased confidence and understanding of opportunities, as well as invitation to be involved may see in increase in industry involvement.

- d. Women are often juggling many roles in their lives and are realistic about and comfortable with their ability to commit. While there is a desire for change, it is often not practical to change or increase role due to competing priorities. Again, increased flexibility may be needed to increase participation.
- e. Acknowledge that lack of skills, knowledge, confidence and experience are strong barriers to increased engagement of women in the industry. Investment to build these personal characteristics may lead to increased engagement.

### **3. Extension & Communication**

- a. To more effectively connect with women in the cotton industry, review the extension module from “Building women’s participation in the wool industry” Howard, K., Stelling, A., & Mahoney, C. (2015). Barriers and opportunities in the model outlined in this work are consistent with findings of this project.
- b. Communicate novel, relevant, technical information; electronically in the first instance
- c. Where possible, ensure content provides tools and resources for personal development or professional improvement
- d. Tie networking and social opportunities around delivery of technical information

### **4. Wincott**

- a. There is an urgency for Wincott to define and communicate its purpose, charter, role and demographic to clear any confusion.
- b. Improved and regular communication (including using communication methods other than social media) and continuity of activities (between the Australia Cotton Conference) will increase awareness and participation. Reinstatement of the Wincott newsletter is recommended.
- c. Ensure Wincott is not just another place pushing information, that is already being addressed by other services

### ***Extension Opportunities***

- 7. Detail a plan for the activities or other steps that may be taken:
  - (a) To tell other CGAs/growers/regions about your project.
  - (b) To keep in touch with participants.
  - (c) For future projects.

There are many extension opportunities arising from this very important research however many of these are resource dependant.

It is important the this report and its findings are communicated with key cotton industry organisations. Initially these groups would include CRDC, CottonInfo, Cotton Australia and Cotton Seed Distributors, however this project has a much broader reach and there are many other key industry organisations that would also find this data useful

such as the Cotton Growers Associations, Australian Cotton Shippers Association, Australian Cotton Ginners Association and Crop Consultants Australia. One method for dissemination this information is through the Wincott committee and its members and supporters, however as a volunteer organisation resources may be limited. Another avenue is through the Australian Cotton Industry Forum, of which Wincott is a member. There may also be an opportunity to present this data at any upcoming industry conferences.

There is an opportunity for training in the industry more broadly on extension and engagement and to also include methods and techniques that would enhance the participation of women in the industry, particularly in those areas that have been identified where women have a larger influence in on farm decision making.

There are a number of other agricultural based women's networks and organisations who would also be very interested in this data and any opportunity to communicate this project and its findings would be beneficial.

In order for Wincott to increase its support for women in the industry and extend key outcomes of this report it is important for the organisation to increase its communication capacity. This must be a resourced position with very clear outcomes that would include the compilation and dissemination of information that is a priority for women in the industry.

# Understanding and Building Women's Participation in the Cotton Industry



## CONTRIBUTORS

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Nicole McDonald (USQ)

NOVEMBER 2016



Australian Government  
Cotton Research and  
Development Corporation

# UNDERSTANDING AND BUILDING WOMEN'S PARTICIPATION IN THE AUSTRALIAN COTTON INDUSTRY

November 2016

## *Project Leader*

**Rebecca Fing**

House Paddock Training and Consulting

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**Australian Government**  
**Cotton Research and  
Development Corporation**



## EXECUTIVE SUMMARY

The cotton industry has a reputation of being forward thinking, generous with knowledge, encouraging and inclusive. The same can (largely) be said for the reality and perception of the role and value of women in the industry. Women who are both farm based and involved in the industry, whether it is in a professional and engagement capacity, are generally well represented and well engaged.

The Cotton Research and Development Corporation, through Wincott, undertook this project to better understand the roles and contribution women make to all facets of the cotton industry. Four points of contact, resulting in a sample size of 298, were used to understand the role, level of engagement and interests of women working in both farm based and industry roles. The demographic of women is varied with ages ranging from students less than 20 years to retirees over 65 ranging from North Queensland to the Victoria border along the eastern coast of Australia. In general, women are highly educated, and juggle many concurrent roles – with varying percentage of their “professional” time spent in a cotton business.

This project quantified the valuable contribution women make to all facets of farm based and industry businesses; with specific focus on “business” and “people” areas, and to a lesser extent, “production” and “industry” areas. There are many factors or barriers that impact the contribution women make to both their business and the industry at large, none more than the many and varied roles they hold concurrently in their lives leading to a genuine competition for time to commit. Roles outside the core cotton business, lack of confidence, experience, skills and knowledge are lesser barriers to engagement. While half of all women are interested in increasing their level of engagement, most are happy with their current role. The reality of the fore-mentioned barriers makes change unrealistic for most respondents.

Consistent with being time poor, women find the most efficient and effective way to receive information is electronically. Face to face activities that deliver technical information to improve business or life will be prioritised based on need. Similarly social or networking activities are more valuable with delivery of technical information.

Many roles women hold are those which are “assumed” rather than “chosen”. To this end, there is a strong appetite for personal and professional development around the areas women are already involved in such as business and finance. There is also an interest in production related information so women can better understand and be more involved in conversation that happens “in the paddock”. Consistent with confidence and experience being a barrier to engagement, there is strong interest in improving interpersonal skills; such as communication, leadership and public speaking.

This report demonstrates that women involved in the cotton industry generally feel accepted and engaged, but are always looking for growth and change and a creative and efficient way to “do things better”.

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## LITERATURE REVIEW

It is estimated that women are responsible for 40% – 50% of the output of Australian family farms (Howard, Stelling, & Mahoney, 2015). In the past, there have been concerns raised that while women make significant contributions to the economic and social wellbeing of the family farm, this is often underestimated or goes unrecognised (Alston, 2003; Wright & Annes, 2016). Furthermore, it is worrying that this trend may extend beyond the farm gate to the wider agriculture industry. This has negative impacts for both women involved in agriculture and for the wider industry in a number of ways; including, (a) the implementation of agricultural policy that fails to recognise the perspectives of women (e.g. gender-blind policy despite evidence that men and women respond to drought differently), (b) challenging leadership experiences for women (e.g. women are expected to magnify some typical feminine traits (communicative relationship-builders) while ensuring they remain objective, rational, unencumbered by domestic and household duties, and make evident their on-farm skill and expertise when this is implicitly assumed of their male colleagues), and (c) missed opportunities for innovation in the agricultural industry as a result of under-utilisation of diversity in decision making or misunderstanding the role of women as joint decision makers and early adopters of new technology (Alston, 2009; Pini, 2005; RIRDC, 1998; Hay & Pearce, 2014).

The establishment of numerous women's groups including Australian Women in Agriculture (AWiA), founded in the early nineties, and the cotton industry's group Women In Cotton (WinCott), founded in 2000, have aimed to improve the profile and recognition of women in agriculture. While the "women in agriculture" movement initially made progress in this area, it has been argued that for the last decade it has stalled and an appraisal of the agriculture industry as a whole is critical of the minimal representation of women in mainstream farmer groups (Marslen, 2015). Despite the overarching trend, currently the cotton industry has female representation at the board level, in policy roles, finance roles, education roles, and research and extension roles, in both peak industry bodies Cotton Australia and the Cotton Research Development Corporation, as well as in each of the production valley Cotton Grower Associations. While the women in these roles have the opportunity to participate in shaping the direction of the cotton industry and influence the future agenda for any policy reform or new initiatives, there is limited knowledge of the roles and engagement experiences of the broader population of women in cotton. This is essential for the cotton industry to assess, re-examine, and maximise the effectiveness of any existing communication, support, and capacity building strategies.

A review of the literature on women in cotton found one in depth case study, conducted 10 years ago, which examined the lives of women cotton growers and their adoption and use of a software package for decision making. In the investigation, Mackrell (2006) interviewed 32 men and women about the labour contributions women make to the running of a cotton farm business. A brief summary of the findings relevant to the current study follows:

### **Perceptions of Women in the Cotton Industry**

One participant relayed a less than flattering perception of women held by the wider industry; that while women on cotton farms were thought of as intelligent, in many cases they were still seen as 'behind the eight ball' (Mackrell, 2006, p.176). But in saying this, women on farms were seen as competent users of technology but not in terms of 'how it works' (which tended to be the male growers response) but rather 'seeing what it can do' (application of computer to manage/analyse information). Female agronomists were perceived as more confident and conscientious than their male counterparts. For the industry, the gendered division of tasks seemed to disappear for women who had a professional background and had received adequate and appropriate education and training. It was argued that the impact of women on the agricultural agenda may be limited unless women maintain membership and representation in non-segregated industry networks and that organisations such as Wincott may benefit from stronger links to male networks.

### **Women's Work Tasks on Farm**

It was found that (a) women's input as part of the farm management team was vital to meeting production goals, (b) their work included tasks traditionally considered men's work, and (c) their contributions were recognised and valued by their male farm partners. There was a perception that gender differences did influence some role performance in industry, with women on farm doing more 'inside work' like book-keeping. It was also reported that women were often the person connected to formal communications (received by email, fax, and mail) and would filter information considered useful through to their male partner.

### **Women's role in Decision Making on Farm**

Mackrell (2006) found that women were influencers in long term strategic decisions on farms involving finances, such as purchasing machinery. It was reported they lacked the agricultural knowledge to participate in decisions associated with the day-to-day production side of farming. In a separate study, women on farms were identified as the dominant computer user in the family and this technology proficiency increased their ability in farm management due to an increasing reliance on computer-based decision support tools (Bellamy et al. 2002, as cited in Mackrell, 2006). It was hoped with an increase in reliance on technology to make objective, data driven decisions, rather than hurried, in field, intuitive decisions may increase women's participation rate in decision making on farm (Mackrell, 2006).

### **Influencing Factors on the Participation of Women in the Cotton Industry**

Three key factors were identified as influencing women's participation in farm activities:

1. **Time limitations due to competing demands:** Time is a limited resource which women allocate to the performance of roles according to necessity, and current responsibilities may restrict their involvement in the cotton industry. Family demands may require women to step back from their engagement with the industry and assume more traditional spousal and care-taking roles, particularly when their children are young.
2. **Knowledge and skills:** Women's knowledge and skills either facilitate or limit their ability to participate in certain aspects of the industry.

3. **The business structure of the farm:** The business structure of a farm influences women's ability to participate in decision making such that it increases if they along with their partner operate a business separate from any extended family involvement.

There are insights from other industries on factors influencing women's participation in agriculture which may prove valuable, including the recent work by the wool industry in trying to engage women in capacity building activities (Howard, Stelling, & Mahoney, 2015). In their research, a model was developed which mapped the internal and external environmental factors that impact women's participation in extension. Internal factors included: (a) confidence to participate, (b) a willingness or need to be involved, (c) capability, and (d) permission and support to participate. External factors included: (a) logistics/program design and promotional factors that support diversity, (b) needs/topics, (c) role model/mentors, and (d) perceptions of others about women's roles and diversity. Whether these factors are relevant or generalisable to women in the cotton industry is yet to be seen, but this model may be useful for consideration in the development of future extension activities. It is essential that up-to-date information about women in the cotton industry is gathered and analysed to ensure the cotton industry successfully engages with and benefits from women's participation.

## OVERVIEW OF THE BRIEF

Investing in the capacity development of women in the cotton industry (and the service providers who work with women) would enable women to actively contribute their knowledge and skills to their farm businesses and the cotton industry; realizing the potential of, arguably, half the industry's human resource base. The Cotton Research Development Corporation (CRDC), together with Wincott, are looking to better understand the role of women in the cotton industry. The aim of this project is to build an accurate knowledge base around the following points of interest:

1. The demographic of women in the industry
2. What role do women play in the cotton industry?
3. Perception of women's role in the cotton industry
4. To understand what influences the role of women in the cotton industry
5. What areas do women contribute to or make decisions in?
6. Understand if the current status is the "desired" status. Are women happy with their current role, position and perception? Are they interested in change? What would facilitate the change?
7. How do women engage and communicate in the industry?

Quantitative and qualitative data will be analysed and recommendations will be made to assist and potentially lead to the development model of women's participation in extension and communication strategy to "Building Women's Capacity in the Cotton Industry".

## ABOUT THE CONSULTANTS

House Paddock Director **Rebecca Fing** has been associated with the cotton industry for over 15 years. She has conducted her own consulting and project management business with a workforce and training interest for over 10 years. Rebecca has a Bachelor of Rural Science (hons), a Diploma of Human Resource Management and Certificate IV in Workplace Training and Assessment. Prior knowledge of the cotton industry and leadership roles in Wincott positioned Rebecca well to oversee this project.

**Heidi Smith** was the project lead on this project. Heidi has a Bachelor of Agricultural Economics, a Certificate IV in Workplace Training and Assessment, 10 years' experience in project management, community engagement and marketing and an eye for detail – all attributes that resulted in the project being carried out with a level of integrity and rigour.

**Nicole McDonald** is a USQ post-doctoral candidate looking at Career Development in Agriculture. Her current project, Investigating Farm Worker's Experiences of Job Satisfaction was supported by the CRDC and seeks to improve attraction and retention of good workers to the cotton industry. Nicole also has a Bachelor of Science (Psychology) and is experienced in research methodology, interpretation and presentation of results.

## RESEARCH APPROACH

This project aimed to engage women from all facets of the cotton industry. This included a wide demographic of roles, locations, ages and contributions. 298 surveys were conducted, with additional focus groups to validate findings. To remove sample bias, and maximize sample size to allow accurate trends to be drawn, four individual points of data collection were utilised:

- **Written survey** – over 200 women are convened on behalf of Wincott at a lunch at the Australian Cotton Conference every two years. This was an excellent opportunity to get a snap shot of the demographic of women in the industry and base line data for the project. During this survey the women were able to nominate if they would be happy to receive a follow up survey.
  - 190 individual responses to that survey were recorded
- **Electronic survey** – an electronic survey was conducted using survey monkey. This survey was emailed out to industry contacts and promoted using social media. This survey further delved into the role and engagement of women in the industry (and what influences these).
  - 66 individual responses to that survey were recorded
- **Semi-structured telephone interviews** – semi structured telephone interviews were conducted with the aim of expanding the anecdotal responses from the cotton conference survey attendant as well as ensuring non-conference participants were represented in the sample.
  - 42 interviews were conducted
- **Focus groups** – two focus groups were conducted to further validate the findings of telephone, electronic survey and written surveys. 21 women attended.
  - Moree – 12 participants
  - Dalby – 9 participants

To understand the potential variation in roles, distinctions have been made in the analysis between women based on farm (42% of sample, N=124) and women who are working in an industry role (48% of sample, N = 143). For the purpose of this report, women based on farm, including farm owners, farm employees and those who identify as partners to growers or employees have been labelled “Growers”, while women who work in any industry role including office and field based positions have been labelled “Industry”.

10% Women (N=31) whose role didn't fit the categories on offer in the survey, identified as other. Please note that this group was discounted during more detailed analysis to compare the grower and industry group.

## Challenge with data collection

Women were generally receptive to engagement in the research. When sourcing and contacting participants, the following challenges had to be overcome:

- The demographic of interest is extensive – it was important to keep a handle on the demographic of respondents to ensure a cross-section of the industry were engaged. This included ensuring women on farm and with industry roles, across a range of ages and locations were included in the sample. It was a challenge to ensure a geographic spread across the industry.



Attendees at the Wincott Luncheon at the Australian Cotton conference



Dalby Focus Group discussing research findings



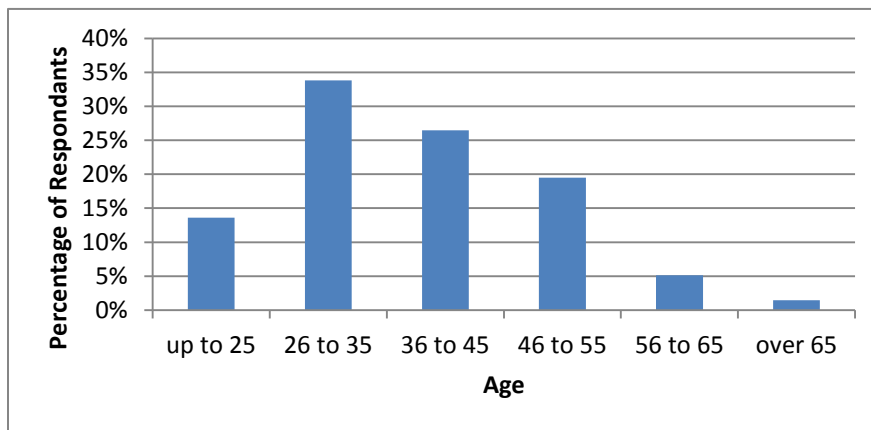
## RESULTS

### What is the demographic of women in the cotton industry?

The demographic of women in the cotton industry is varied; there is no “typical woman” in the cotton industry. Women are “engaged” from school level, through to those enjoying retirement after a life of involvement. The industry continues to spread geographically with interests from Northern Queensland to over the Victorian border. The survey showed women have varying levels of education, are paid or voluntary, involved in corporate or family businesses and commit a varying portion of their professional time to the industry. Our research suggested the following information:

#### Age

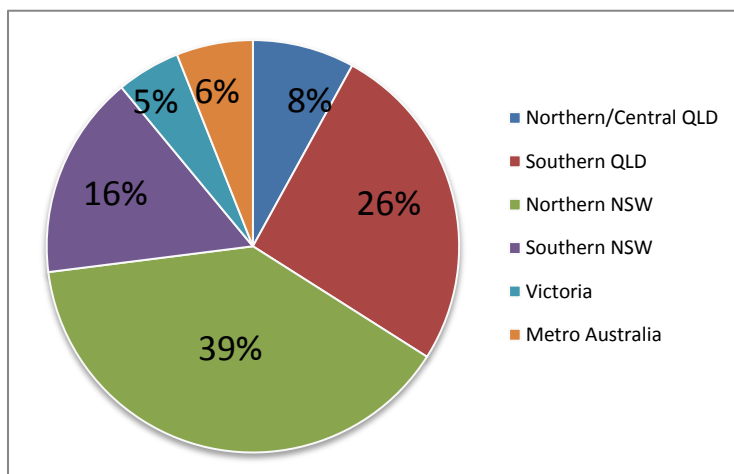
Graph 1 The age of participants engaged in the project. N=272



Participants in this research were aged from under 25 to over 65. 60% fell between the age of 26 and 45.

#### Location

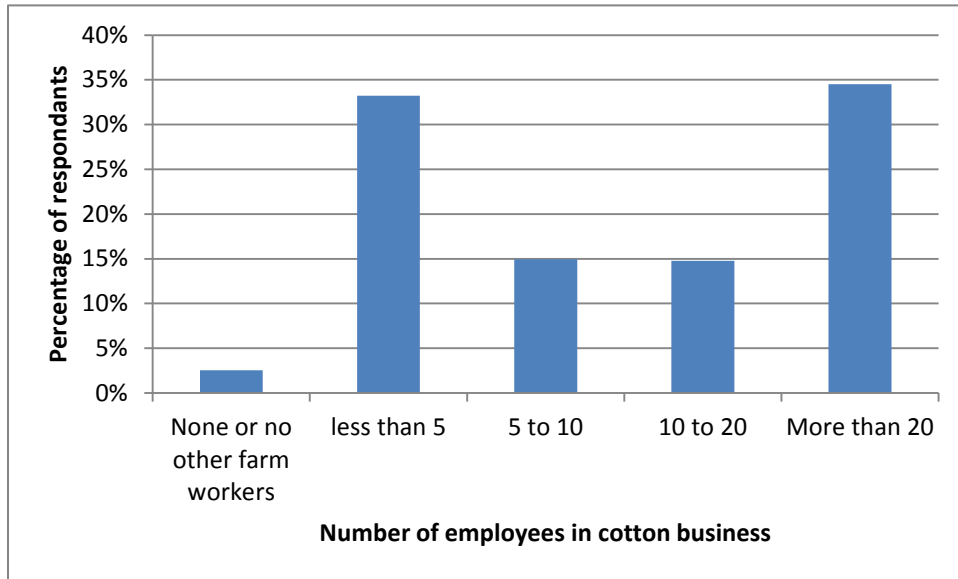
Graph 2 Location of participants in the research N=272



The cotton industry reaches from below the Victoria border to Northern Queensland, with industry personnel located in metropolitan areas. The research aimed to capture a cross section of all areas.

Variation in responses can be loosely attributed to the “density” of the growing valley. Respondents in the more traditional cotton growing valleys (i.e. northern NSW and Southern Queensland) are generally greater in numbers so represented in a greater proportion.

**Graph 3 Size of operation – employees in the cotton business**



The cotton industry has a range of employment demographics. 36% of respondents, majority of which were farm owners or staff are engaged in a “small” business that employs less than 5 people. An additional 35%, majority industry employees working for a corporate company, are employed by large businesses that employ over 20 people.

**Percentage of work hours spent on cotton business**

To understand the role women play in the cotton industry, it is important to understand the percentage of time they can and do allocate to their primary cotton business. When investigated, it became clear that almost half of the women who are engaged in the industry spent LESS than 50% of their business hours in their primary cotton business (Table 1). This finding supports the information collected regarding the professional, family and community roles women concurrently hold – women wear “many hats” in life, sometimes “scaling back” professional commitments to focus on family and community commitments.

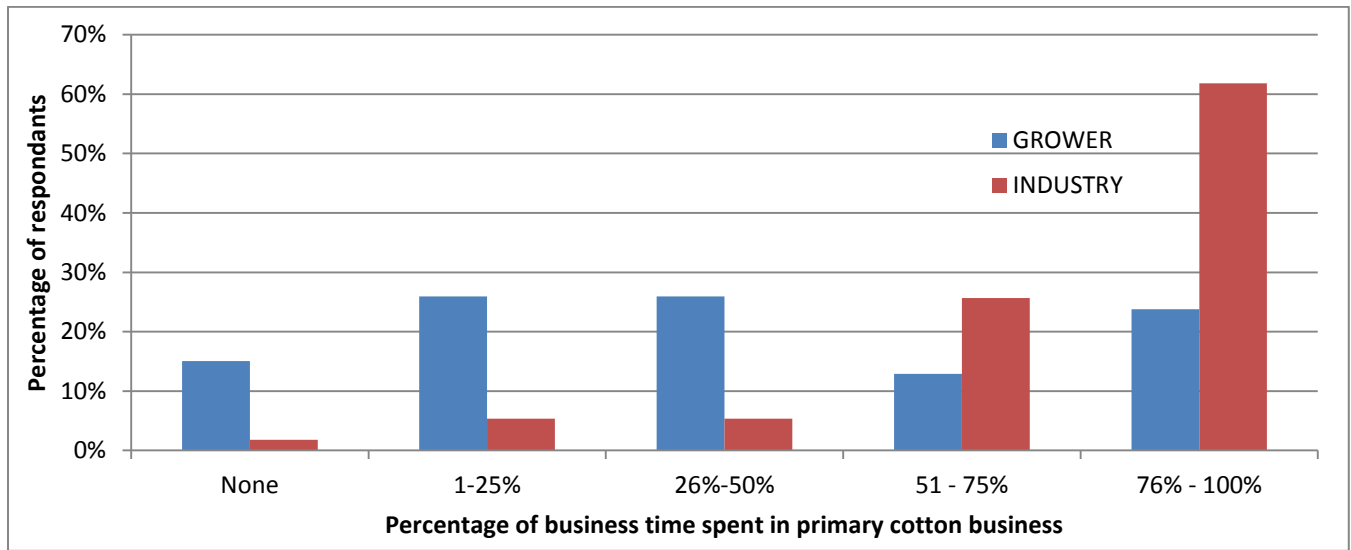
**Table 1 Percentage of business hours spent of primary cotton business**

	None	1-25%	26%-50%	51 - 75%	76% - 100%
% Respondents	8%	18%	16%	16%	43%

Further investigation showed that the portion of time women spent on the primary cotton business was also affected by the sector in which they were employed (Graph 4). 62% of women employed in an industry role spend over 75% of their business time in the cotton business, while only 12% spend less than 50% of their business time on the cotton business. Women owning and working on farms were quite different. 67% spend less than 50% of their business time on the cotton business while only 24% spend over 75% of their time. This suggests that women industry roles are more likely to be full time or “almost full time” while women based on farms are not employed at all, employed part time or run concurrent professional interests outside the cotton farming business.

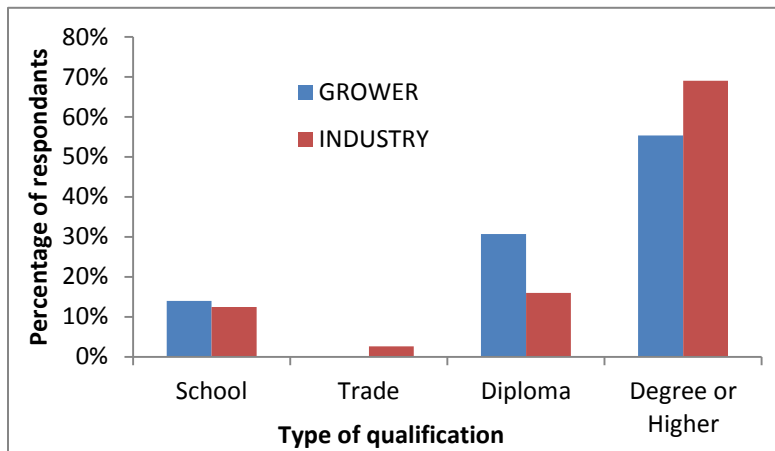
The high commitment of women employed in industry potentially reflects the possible lack of flexible working conditions that exist, or are taken up, or a personal preference to full time employment in this demographic.

**Graph 4 Percentage of business time spent in primary cotton business**



**Education**

**Graph 5 Level of education completed by research respondents**



According to ABS, in 2015, 9.4 million (61%) Australians aged 15–64 years had a non-school qualification. By comparison, the Cotton Industry Resilience Report suggests that the number of cotton growers with a diploma level or above qualification has risen from 30% in 1990 to 50% in 2011 (Andreoni, Ryan, Cape, Currey, & Houghton, 2016).

This project suggests that 88% of women in an industry role and 86% of women based on farm have a diploma, degree or higher

(Graph 5). These statistics suggest the highly educated nature of the women who make up the industry. The sector of the qualifications were not confirmed during the research, but it can be assumed that the qualifications held by women working industry roles are typically in agriculture, business or management when the qualifications held by women identifying as growers may be of any discipline as they may have entered a farming business by marriage with an existing degree from another sector.

The high level of education of women in the industry suggests the resourcefulness, discipline, commitment and level of intellect of this demographic and the potentially transferability of these skills to the cotton industry. When you combine this with the information about the time women spend in the cotton business, especially for the grower group, it would appear the industry has at its fingertips a talented, and capable, potential workforce which is being underutilized in their current roles on farm. This could be the women’s choice, or reflect a lack of flexibility or opportunity.

## Remuneration

**Table 2 Remuneration status of respondents**

	Paid	Voluntary
<b>Grower</b>	<b>37%</b>	<b>63%</b>
<b>Industry</b>	<b>100%</b>	<b>0%</b>

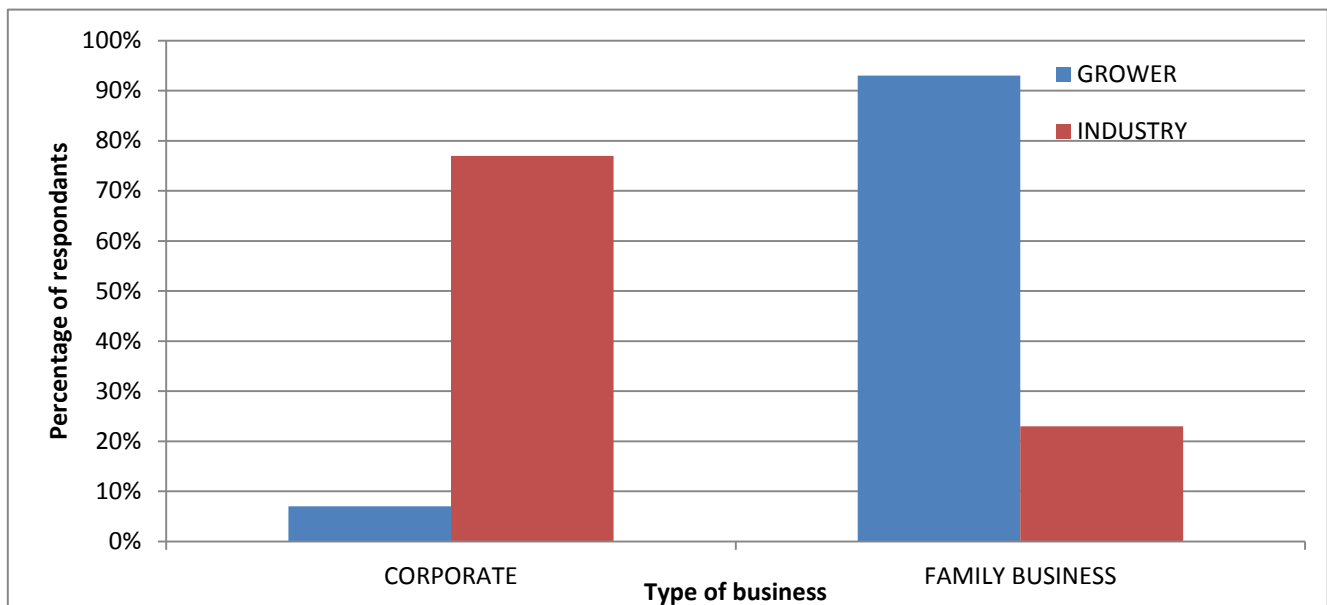
63% of the respondents based on farm identified themselves as unpaid. In many cases, household expenses and profit share were not classified as remuneration as wages were not drawn. There can be an assumption made that women who are involved in a cotton growing business who do not identify as being “paid” see benefit of profitability from the business, both in assets and stake holder dividend. They also receive economic benefit by way of expenses paid (especially tax deductible expenses such as car, phone, fuel, electricity) as well as provision of a home on farm. Contrary to this, all women surveyed who are engaged in the “industry” sector identified as being paid.

## Type of Business

**Table 3 Type of business – corporate or family**

	Corporate Business	Family Business
Total Response	37%	63%

**Graph 6 Type of Business**



The data collected suggested that the majority (77%) of industry employees who were surveyed were employed by a corporate business, while an even larger majority of the farming women surveyed (93%) were employed in a family business.

# What role do women play in the cotton industry?

**Table 4 Role of women in the cotton industry**

		Conference (N = 190)	Phone Survey (N=42)	Electronic Survey (N=66)	Total	% of sample
<b>Farm Owner - Employed on farm</b>		62*	11	14	100	34%
<b>Farm Owner - Employed off farm</b>			7	6		
<b>Farm Employee</b>		15	5	4	24	7%
<b>Industry, Office Based</b>	<b>Marketing/Ginning</b>	49*	4	4	70	24%
	<b>Marketing/Sales</b>		1	2		
	<b>Finance and Admin</b>		4	6		
<b>Industry, Field Based</b>	<b>Agronomy</b>	47*	4	4	73	24%
	<b>RD &amp; E /Industry</b>		6	12		
<b>Other (students, “supporters”)</b>		17	0	14	32	11%

\*Initial survey conducted at the Australian Cotton Conference did not differentiate between some roles. Further investigation into the roles women hold resulted in more division during subsequent sampling.

\*\*Inconsistency in numbers reflects some women choosing more than one role e.g. Marketing/Sales + farm owner

Survey participants were asked to identify what role they currently hold in the primary cotton business they are involved in. It was aimed to engage a wide cross section of women from all walks of the cotton industry. The research resulted in 48% of the sample being employed in an industry role, 41% being engaged in a cotton growing operations i.e. a “grower” and 11% other. “Other” was largely made up of partners of industry, retails/fashion and students – or women that didn’t identify with the categories available.

After an initial survey of the role women play in the cotton industry, the roles women play in their lives more broadly was further investigated. This information was used to understand the competing parameters for engagement in the industry. It was made clear that the majority of women hold multiple concurrent roles, including professional (within and additional to the cotton business they are involved in), family (including mother and carer) and in the community (often more than one role at any time).

*“It is essential that we make a contribution to the community so it remains vibrant so we can attract staff to work in our business and live in our town”*

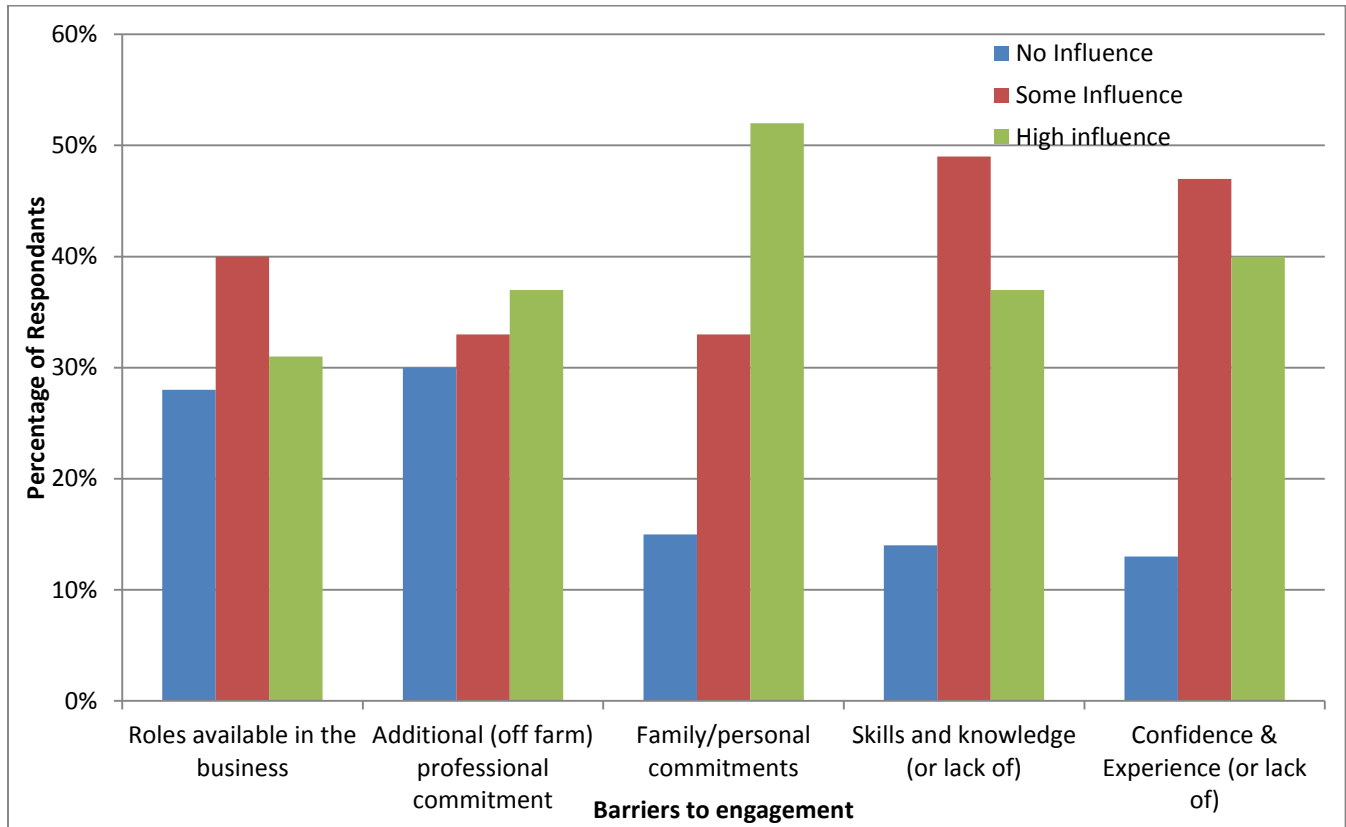
*“Full time work, corporate business, mother 3 teenagers, president chamber of commerce, carer for parents, part time bookwork for family farm”*

*“Mother, wife, agronomist, helper at kids sport, friend”*

*“Developing running and maintaining all aspects of a mixed farming family enterprise. Studying external for off farm income. Committees of community sporting groups including netball, horse sports and other town sporting bodies. Helping to maintain community awareness on elderly care and family support”*

## Influences of the role women play in the cotton industry

Graph 7 Barriers impacting the role women play in the cotton industry



As discussed through the literature review, there are many internal and external factors that compete to determine women’s engagement in the cotton industry and the cotton business they are associated with. The leading factor that influences women’s roles and engagement in the cotton industry is family or personal commitments – which are considered to have a high influence on the role of over 50% of the women engaged. Furthermore, 86% suggested that skills or knowledge (or lack of) has some or high influence and confidence and experience (or lack of) had an influence on the role of 86% of respondent (Graph 7). This suggests that while we have a highly educated cohort of women in the industry, there is an underlying perception/reality of lack of skills, knowledge, confidence and experience specific to the cotton industry.

70% of women surveyed were influenced by an additional off farm professional commitment, with 40% suggesting this has “some influence” and a further 31% suggesting it has a “high influence”. Juggling this commitment, often with family and community engagements meant time to dedicate to a role in the cotton industry/on farm was limited.

These findings were confirmed anecdotally through interviews and focus groups. These discussions also suggested that other barriers included distance and isolations, and “finding the fit” of where a person can be more involved.

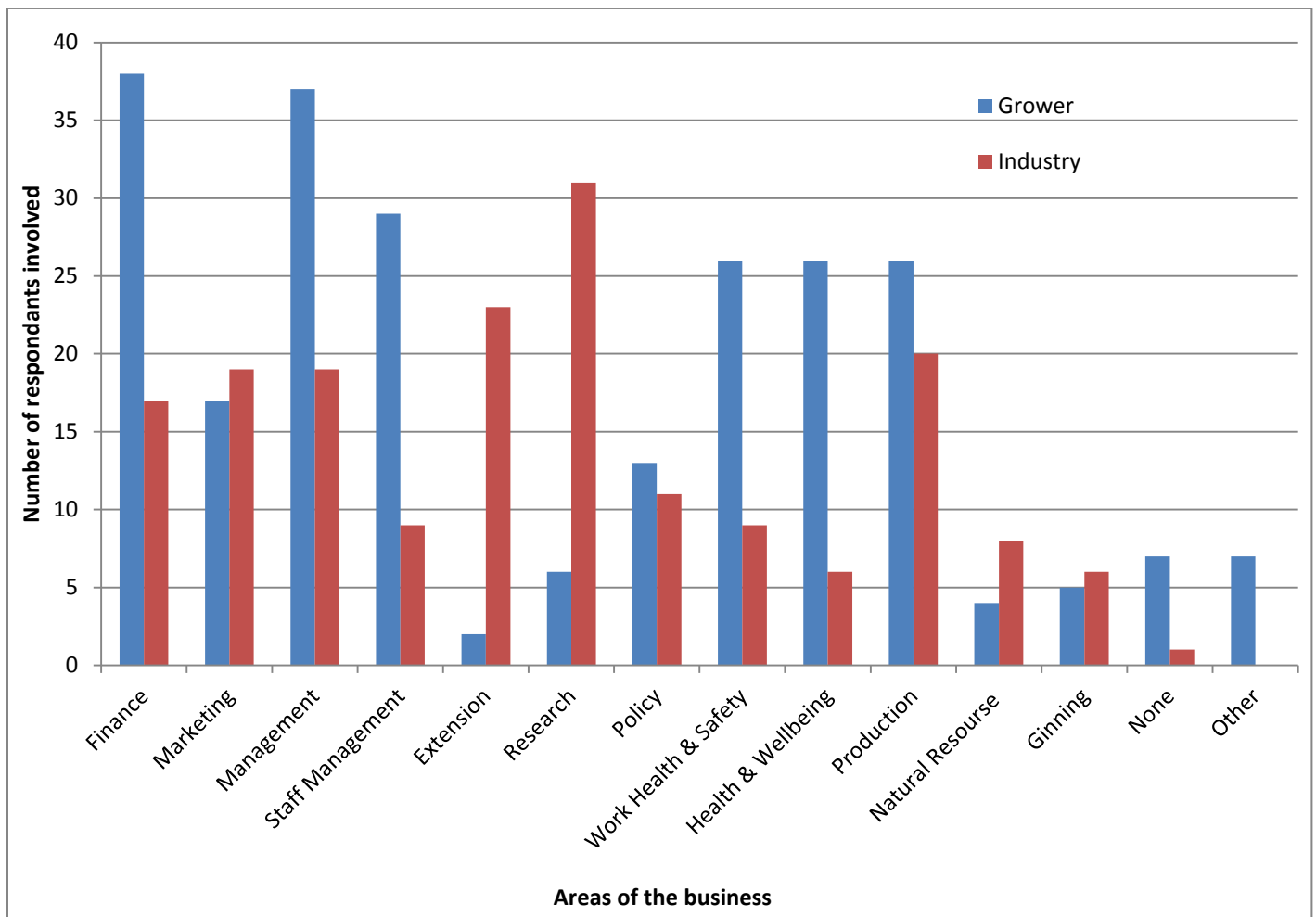
### What areas do women contribute to or make decision in?

After understanding the level of overall involvement that women have in the cotton business they are associated with, specific areas of the business, where women play a part, was then investigated.

Participants were asked to select the aspects of the cotton business they are actively involved in. There was an option to select more than one response, so data below may represent an individual being involved in more than one area. Finance, management, staff management, work health and safety, wellbeing and production are the areas farm-based women are most commonly involved in while research, extension, marketing, management and production are the areas a woman in an industry role is involved in.

**Graph 8 Areas of the cotton business women are involved in**

Grower N=78 Industry N=86



## What areas do women make decisions in?

**Table 5 Summary of key areas in which women in cotton have “some” or “full” influence over decisions, categorised by industry and grower.**

In order to better understand the level of involvement of women in the industry, it is imperative to understand the areas of the business and industry in which they make decisions. Review of data suggested that there are some stark differences between the areas in which industry women play a role compared to the areas that farm-based women are involved.

GROWERS		INDUSTRY	
Area	% respondents	Area	% respondents
Health and wellbeing	89%	Health and Wellbeing	89%
Strategic direction	84%	WHS	89%
Staff	79%	Introduction of new technology	84%
WHS	73%	Finance	72%
Finance	71%	Staff	72%
Major Investment	71%	Research	70%

By way of summary, the areas that women are most engaged in the decision making process are shown in table 5. This table shows a summary of the area of the business women have suggested they have SOME or FULL involvements in decision making.

Data has been split 3 ways to suggest the level of involvement in decision making.

**“No” involvement** – the respondent has NO involvement in decision making

**“Some” involvement** - the respondent has SOME involvement in the decision making process although the decision is usually made with input from other members of the business

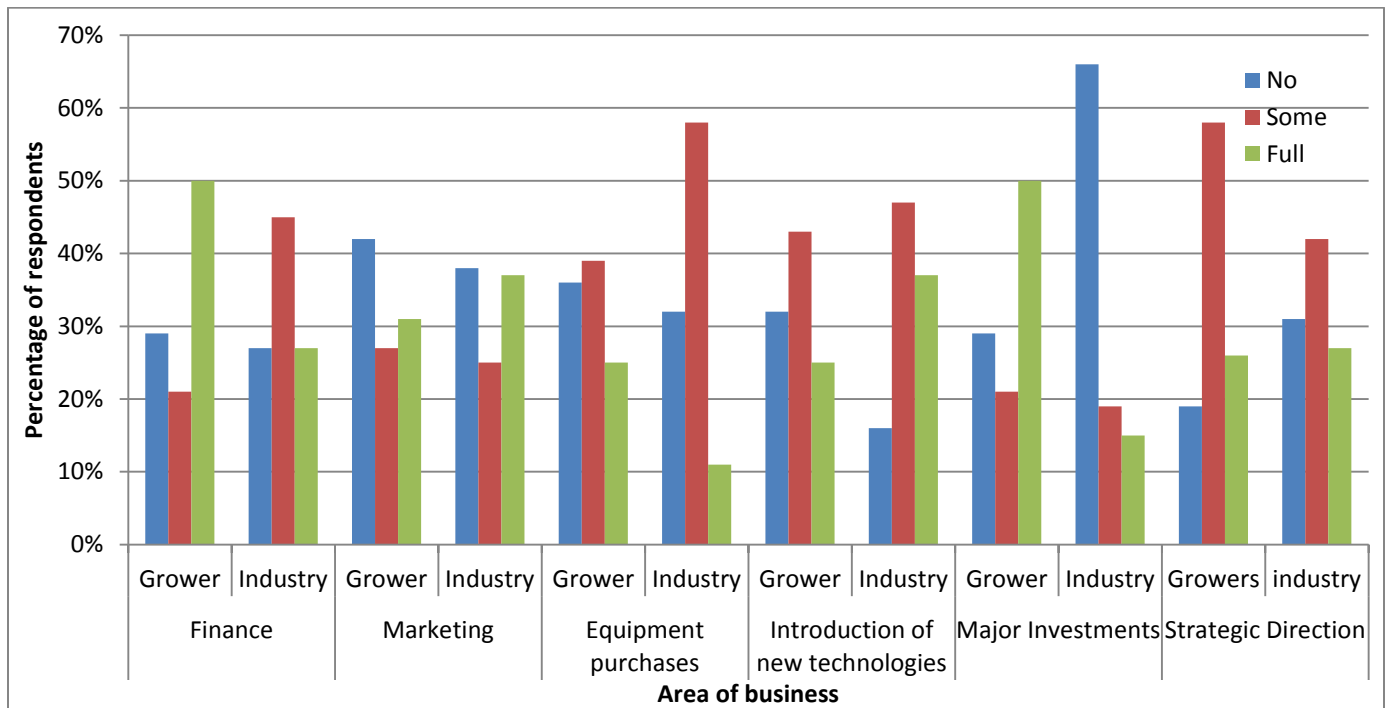
**“Full” involvement** - the respondent is FULLY engaged in the decision making process or has sole responsibility for the decision

To best look at this information, data has been divided into 4 areas – Business, People, Production and Industry.



## Business area

**Graph 9 Percentage of women who make decisions in “business area” of their organisations**



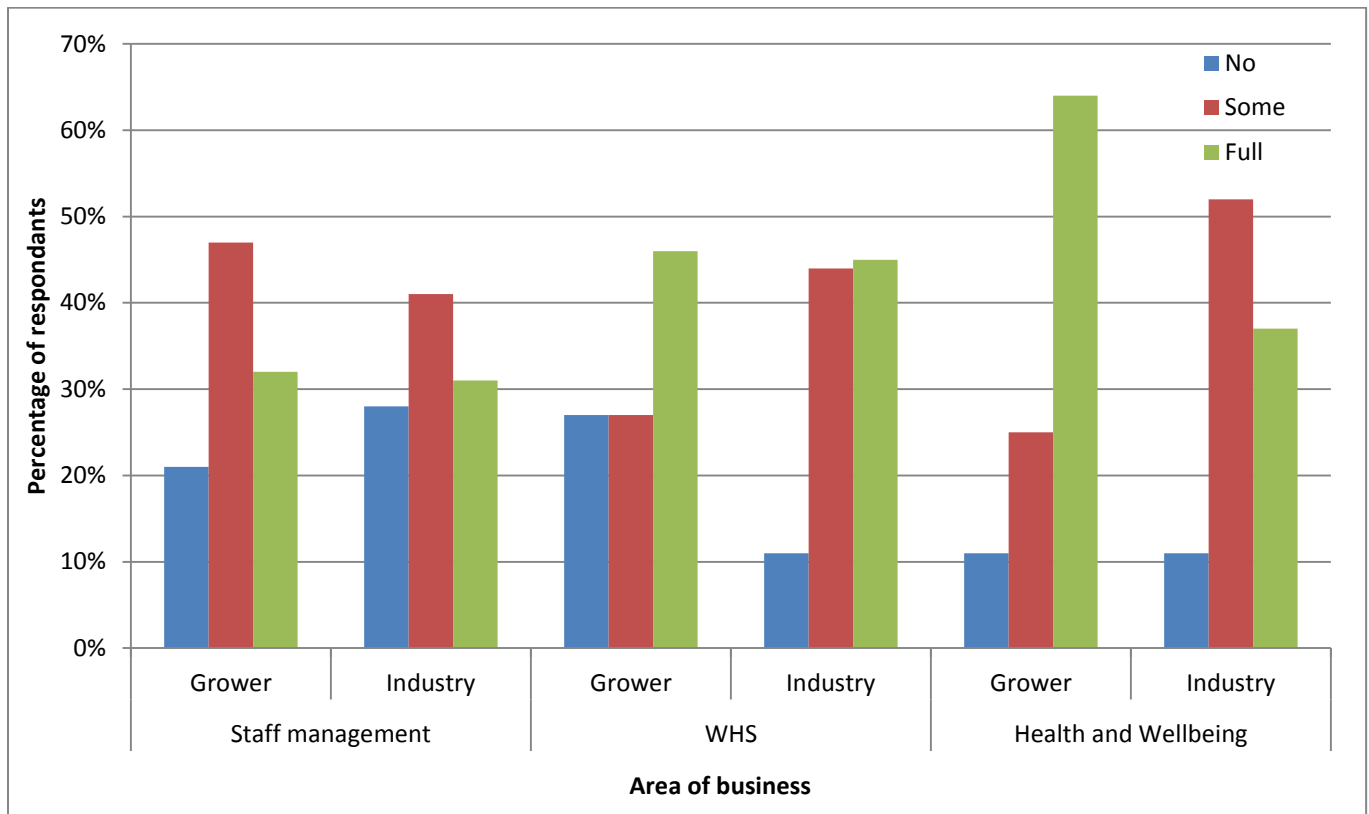
71% of women on farm are involved in decision making in terms of finance, with 50% having full responsibility for financial decisions. This is compared to a study in the wool industry suggesting 26% of women are involved in administration and account keeping. Similarly, 72% of women in industry roles have some or full inclusion in decisions around finance.

Over half of growers surveyed have some or full involvement in decision making in marketing (58%), new equipment purchases (64%), introduction of new technology (68%). These are largely consistent with women in industry roles with 62% having some or full involvement with marketing, 69% with equipment purchases although 84% of women in industry roles have some or full involvement in introduction of new technology. Literature suggests that women are early adopters of new technology. This can all be supported by a generalization that women in industry roles are exposed to and engage with technology regularly.

71% of women on farm are involved in the decision around major investments and 84% are involved in making decisions that affect the strategic direction of their business. Alternatively, only 34% of industry women have involvement in major investment with 66% percent suggesting they have no involvement. Similarly, a lower percentage of women are involved in the business’s strategic planning. Alliances can be drawn in this “higher level” planning to the corporate/family nature of the businesses that farming and industry women are involved in – with a higher level of industry women being engaged in corporate business, while farming women are engaged in family businesses. The farming business often has a “simpler” structure, with women more engaged in leadership and ownership which the women who were employed in industry may not have the opportunity to make strategic decisions due to the size and structure of the business.

## People Area

**Graph 10 Percentage of women who make decisions in “people area” of their organisation**



Three of the four main areas where farm based women play a role fall in the “people area”. 89% have some or full involvement in wellbeing, 79% have some or full involvement in decisions around staff management and 73% of women have some or full involvement in staff management. These results were supported by the participant responses in interviews and focus groups and it is suggested that farm based women often “assume” these roles by default, because it needs to be done and because no one else is dedicated to it.

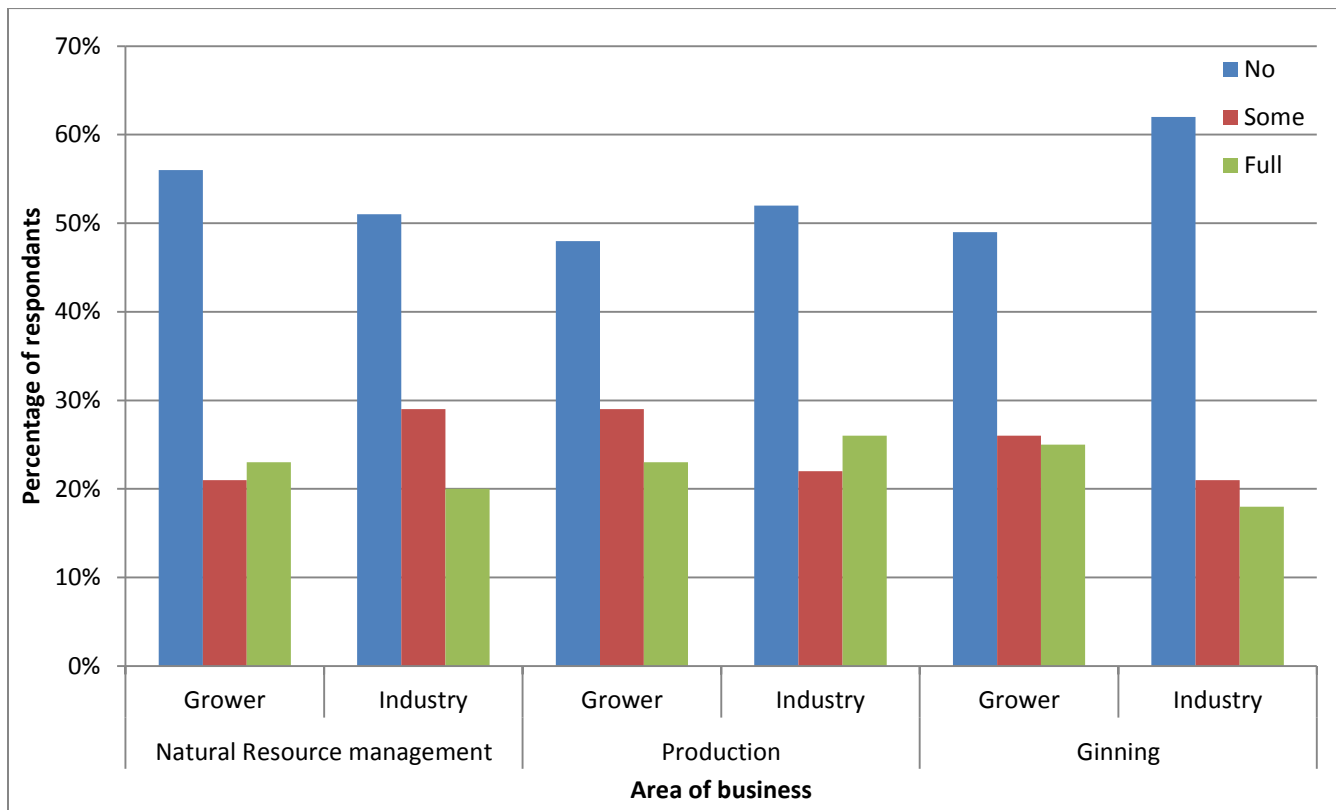
There is a gender stereotype evident, and an understanding that “managing people” is “typically a female role” — which is consistent with comments made that the male business partner assumes outside, physical jobs (typically around production) which is “where they prefer to be”. The findings suggest that women are largely content that these jobs fall with them – opposed to them not being tended to at all.

Similarly, women in industry roles are often making decisions in the “people area” as well. 89% of women in industry roles are making decisions around wellbeing, 89% around staff and 72% around work health and safety.

## Production Areas

Typical women on farms are LESS involved in production including farming, natural resource management and ginning than they are “business” and “people” side of their business. 44% of farm based women suggested they are involved in decision making around natural resource management, 52% around production issues on farm and 55% are involved in decisions around ginning. Industry women have a similar level of engagement – 49% are involved in decisions around natural resource management, 48% in production and 39% in ginning.

**Graph 11 Percentage of women who make decisions in “production” of their organisation**

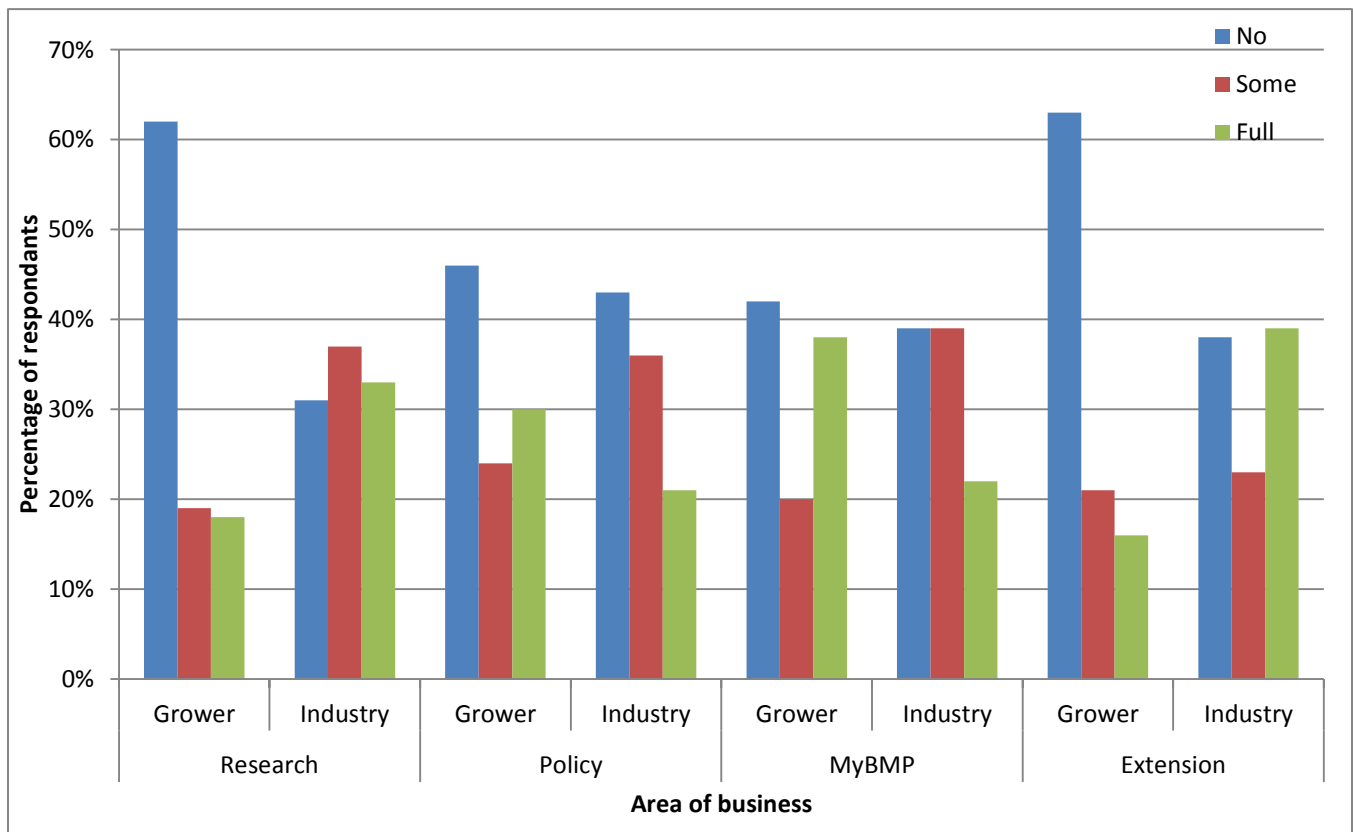


## Industry area

Expectedly; conducting, facilitating and engaging with research and extension is an area where farm based women are currently not heavily involved. 62% suggest they make no decisions in terms of research, and 63% make no decisions in terms of extension. Industry based women are often making decisions in this area, with 70% involved in research and 61% involved in extension.

Farm based women are more involved in policy decisions and MyBMP decisions, with 54% being involved with policy and 58% involved with MyBMP. Results suggest that 57% of industry women are involved in policy decisions and 61% of industry women are involved with MyBMP.

**Graph 12 Percentage of women who make decisions in “industry area” of their organisation**

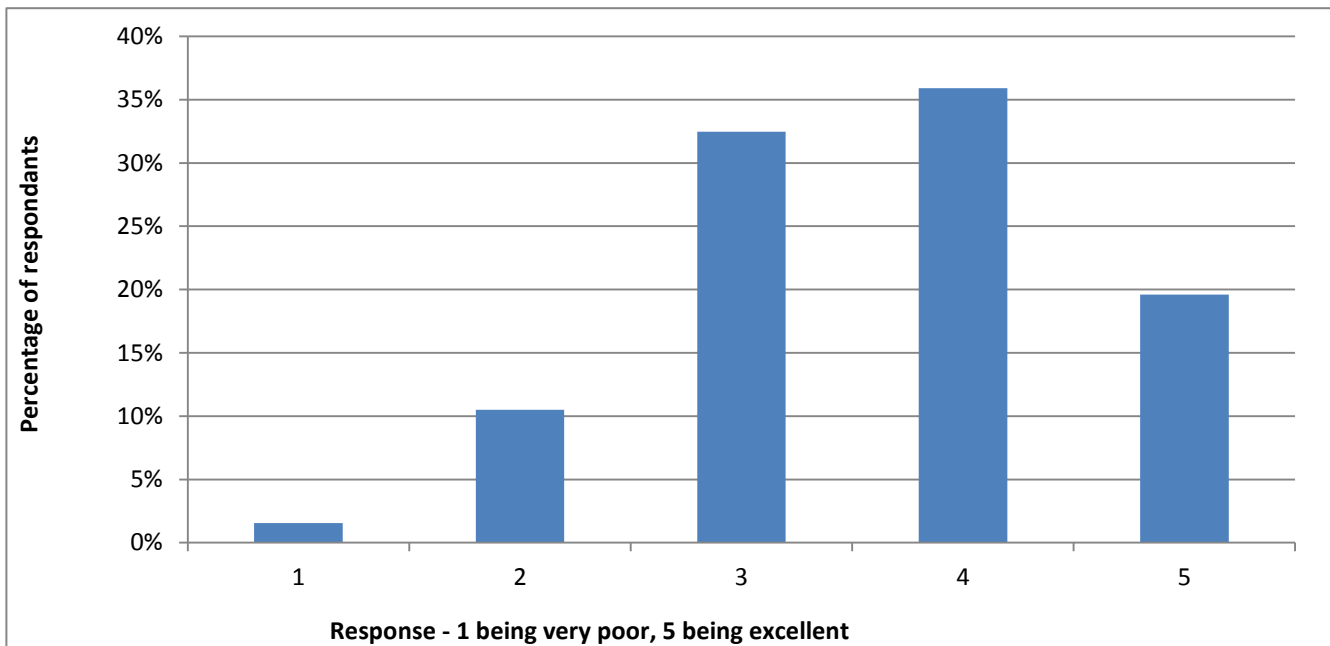


## Perception of women in cotton industry

Throughout the course of the research, participants were asked how they believe women are engaged within the cotton industry. This was done giving a score between one and five, where a one suggested that engagement was nonexistent or unspeakable and 5 was excellent. Encouragingly, respondents gave the level of engagement of women an average score of 3.5, with 56% giving a score of 4 or 5 (graph 13). As a whole the perception and engagement of women in the cotton industry is favorable.

Only 12% of respondents feel that the industry engages with women poorly (i.e. Ranked 1 or 2 out of 5 on the scale).

**Graph 13 How well does the cotton industry engage with women?**



From interviews and focus groups, consensus that there has been a dramatic improvement over the last 40 years and even more so last 10 years in the way that women are engaged with and the industry is always improving in terms of engagement of women. There was a general agreeance that cotton industry is “in front” of other industries in terms of engagement and perception of women and a consensus that if women are keen, they are accepted. More opportunities for women have evolved with the increased uptake of technology which has removed some of the “heavy lifting” and created specialist roles that are equally as accessible for women. All this being said, there is an acknowledgement that that there is a “male dominance” in the industry, which sometimes manifests as a “boys club”.

Women in more traditional growing valleys (including southern Queensland and northern New South Wales) are generally more engaged and comfortable with opportunities to engage with their business and industry. Alternatively, women in “newer” growing areas such as Southern NSW, are interested in information about all aspects of improving their business, are learning about the structure of the industry and seeking opportunities to more effectively be a part of the cotton industry at large.

- *"I feel like engagement of women at an industry body level and board level is well understood however, in the broader industry, particularly on-farm, the participation rates of women is less well known"*
  - *"The industry may not coming looking for you, but you will be welcomed if you put your hand up"*
- *"I think women are included at all levels of the industry. Whilst still dominated by males in numbers, I don't feel that women aren't heard in the cotton industry. I also think they are respected in their knowledge and skills as much as a man would be - which is unique for agriculture."*
- *"Women farmers are often perceived as 'farmers' wives', even if they are substantially involved in running the business. Some women are proud of this title, but it doesn't encourage the next generation of girls to consider farming as a profession they can do when they grow up. It also really annoys me when people talking about farmers constantly use the pronoun 'he' and don't realise they are alienating younger women in the audience (who expect to be included). As a scientist I interact with women and men in different areas of industry, from ginners to marketers, scientists and industry bodies. I always feel that my work and opinions are respected. I notice and appreciate when efforts are made to ensure equal representation of women at events, e.g. the Cotton Conference."*
- *There is nothing preventing woman engaging in the cotton industry. It entirely depends on the level of interest or engagement of the woman"*
- *"There are a lot of women in the cotton industry in many different and various roles however there is still a little chauvinism out there"*
- *"As someone who works across a number of different commodities, it is clear that women are valued and championed as equals in this industry evidenced by equal or high representation in levels of responsibility and authority at every level"*

**Status of women in the industry - understanding the current status and desire for change**

**Table 6 Contentment of women in core cotton business and broader cotton industry and desire for change**

	In your Cotton Business?		In the broader Industry?	
	YES	NO	YES	NO
Are you happy with your current level of engagement?	86%	14%	84%	16%
Would you like to change your current level of engagement	50%	50%	56%	44%

There is a genuine contentment in the current level of engagement of women in cotton. This is reflected with an average of 85% of all respondent (table 6) suggesting they are happy with their current level of engagement in both their cotton business and the industry at large. Despite this, half of the respondents would like to change their current involvement. This was expanded to understand they would like to upskill to take on a bigger or different role, or step into a leadership role. While this change is desired, the level of contentment confirms the unrealistic nature of change in many cases. As seen in the "barriers to engagement" and "current roles" women juggle in their lives, women are time poor and prioritize involvement and commitment dependent of internal and external business factors and the stage of their life and family.

There is a perception among women that it is possible to be involved in the cotton industry to varying degrees; (fully engaged, partially engaged, and not engaged at all). It is understood and accepted that at different times

women will need to take on roles that are not directly linked to the industry and inhibit their involvement, including caring roles within family, and generating off farm income. It is worth noting that both of these examples still indirectly benefit the cotton industry ensuring male growers can attend to the farm with domestic duties being taken care of, and have a potential financial buffer from an additional income not linked to the farm business. This doesn't mean that women don't want to be more involved, but flexible opportunities that facilitate women's management of competing roles could see an increase in direct involvement with the cotton industry.

*"I want to be more involved outside of my business with another board or committee"*

*"The only barriers are our own perceptions!"*

*"I currently juggle too many hats"*

*"I'm happy but would like to become more involved. Sometimes I worry that because I'm not actually a grower or connected to a farming business and am pretty new to the industry (I didn't grow up with an Ag background) I may not fit in or might sound stupid when trying to offer ideas or an opinion. I guess it's a confidence thing?  
Very little experience and knowledge, I only have administration skills limiting my expertise"*

*"A better understanding of pathways"*

*"Time management. I am so busy I am just tired"*

*"I couldn't possibly take on another commitment"*

## Industry engagement and information delivery

Information comes into women's personal and professional lives constantly by a range of different mechanisms. Comments were made about the volume of information that needs to be waded through and the requirement to keep information timely, relevant and concise. Understanding the preference in terms of delivery mechanism will ensure maximize the chance that information is received and taken up.

**Table 7 Desired information delivery method**

**N=190**

Respondents could choose more than one communication tool, so percentages add up to greater than 100%.

Tool	Preference
Electronically	63%
Industry groups	56%
Face to Face	36%
Phone	10%

Interestingly, while important, it can be said that delivery mechanism is over ridden by timeliness of information and content. If the information is important, pertinent and delivered at an appropriate time (or the season and day), the preference for information receipt is disregarded and an effort will be made to attend and/or receive the information.

Electronic information delivery is an outright preference (Table 7) for respondents as it is time efficient, provides an opportunity to review information in own time and make a decision whether to engage or investigate further.

The electronic preference is email communication. Use of social media was noted as valuable but unreliable and easy to “miss” if it is accessed infrequently and not used by those who don’t have it.

As women identify as “time poor” there is a strong preference towards activities with delivery of information that includes as a social element (before or after the event), opposed to stand alone social events. It is seen to be difficult to prioritise a social event, while an event with information that improves life or business was easier to justify. Socialising and networking either side of events is a bonus but not the priority for the biggest majority. Women who aren’t actively involved in a professional capacity in their farm or an industry business are more likely to prefer a stand-alone social gathering. There is a general feeling that social engagements do provide opportunities to initiate relationships that can later be called upon for professional/industry assistance.

### **Business and personal skill development**

To effectively engage with women, it is useful to understand the areas of their life or business they would like to further develop skills in. Respondents were asked to identify three personal or professional skills the cotton industry could assist them to improve.

Consistent with previous strategic planning exercise by Wincott, the key area of interest for personal development for women is finance, closely supported by interest in efficiencies in office management, book keeping etc. (Table 8). There is an appetite for production information about growing cotton, so women can more confidently engage in conversation and decisions in this area. Technical information around commodity marketing and Work Health and Safety is also of interest.

Consistent with this project’s findings around barriers in confidence and experience, and Wincott’s previous strategic planning, there is an interest in development of interpersonal and communication skills such as leadership, public speaking, confidence, mental health and wellbeing.

It is interesting to note that areas that women are heavily involved in such as management business/finance and managing people are areas where women are most interested to develop skills. This is in line with the sediment that roles are often “assumed” and women “learn on the run” so are always looking for improved and more efficient ways to do things.



**Table 8 Areas of interest - professional and personal development**

**N=108**

Area	No of responses	Area	No of responses
Finance	25	Facilitation	5
Cotton Production including Agronomy	24	Social media	4
Office admin management, record keeping, business	16	Succession planning	4
Leadership	13	Staff Management	4
Commodity Marketing	12	MyBMP	4
Work health and safety	12	Corporate governance & Meeting protocols	4
Communication	12	Web design	2
Technology	10	Natural resource management	2
Public Speaking	9	Ginning	2
Networking	9	Decision making	1
Confidence	7	Report writing & Project management	2
Mental Health & Wellbeing	7	Shares and share portfolio management	1
Time management	7	Strategic management	1
Personal development including Memory, Mindfulness	9	Business development	1

### **Wincott – Roles and perceptions**

Majority of research participants are aware of the existence of Wincott (Table 9), but there is a general lack of understanding of the role that Wincott plays in the cotton industry. While there is a level of awareness of the existence of Wincott, as a women’s group, and an awareness of a presence at the cotton conference, there is little understanding of the core function of the organisations. Furthermore, women who are interested in being more involved are unsure where to go for more information.

**Table 9 Awareness and engagement in Wincott**

Question	Yes	No
Are you aware of Wincott	76%	24%
Are you actively involved in Wincott	18%	81%

There is a desire for local contact and activity and continuity of communication. 81% of respondents (Table 9) suggested they aren't actively involved in Wincott, citing that more information, more on-ground activities and

more time would encourage them to be more involved. There was a feeling of confusion around the demographic of participants in Wincott – with some growers thinking it was for women who work in an industry role and industry employees believing it was for growers. There was also a feeling of “Wincott is great, but not for me”. There were strong feelings around the need for Wincott to have a clearer and stronger charter and purpose and the need for them to share this with industry.

A consensus at the focus groups suggested that Wincott was a nice place for women who are new or starting out in the cotton industry to gain skills, confidence, contact and industry knowledge as a “starting point”. From here, women can move into broader industry groups.

It is important that Wincott provide information that is relevant and timely and is not seen to be pushing information that is available from other sources. Women suffer an information overload – respect will be gained by developing, sourcing and delivering information that is interesting, informative and most importantly, novel.

A small portion of respondents questioned the value and segregation of Wincott and rather suggested any capacity be put into existing cotton industry groups such as the Cotton Grower Associations. Similarly suggesting that a women's only group is not necessary. A larger portion sees the groups' value, but feels it will be enhanced with clarity of vision, purpose and direction.

*“Creating a network to engage all women in the industry (from those with professional roles, to the wives that play a support role to their husband's)”*

*“Providing women with the support they need, be it added skills or just advice to help them in their industry roles”*

*“Supporting all women in the cotton industry. Make sure all women within the industry know they can be a member of Wincott”*

## TAKE HOME MESSAGES & RECOMMENDATIONS

### 1. Demographic

- a. The demographic of women in cotton is large in scope with women seeking different levels of engagement. As a result, there isn't and will never be an effective "one size fits all" engagement, extension and communication that suits all women who are actively engaged in the cotton industry.
- b. There are differences across regions, age and stage of life and industry versus growers. Opportunities exist in emerging cotton areas (e.g. Southern NSW) for information delivery and engagement activities where there is a genuine thirst for knowledge about cotton as a crop and the industry in general.
- c. Women in all facets of the cotton industry are generally very well educated. Providing flexible opportunities for involvement and employment may see increased engagement and participation.

### 2. Roles & Engagement

- a. Women are relatively well represented across industry and farm base roles. Furthermore, women in cotton, both farm and industry based are generally content with the level of engagement and perception of women in the industry.
- b. Roles are often assumed by women as they are what no one is currently doing, not based on skills and interest. As a result, women are seeking opportunities to improve the way they complete the roles they are in and are seeking information about the areas they are actively engaged in.
- c. Women's role in various aspects of the business
  - i. People – women "assume" the role of managing people, wellbeing and WHS in many business. Often with little underlying prior knowledge. Providing tools to manage these will increase efficiency and confidence in this area
  - ii. Business – majority of women are actively involved in the business, particularly women based on farm. Again, this role is "assumed" so there is a genuine appetite for knowledge in this area to improve processes efficiency and limit the "fumbling our way through".
  - iii. Production – there is a desire to be technically astute in production, not to be further involved in decision making, but to be more involved and understand conversations based on production. There is an acknowledged gender biased that "the male business partner" covers it and there is no need to double up!
  - iv. Industry – women typically focus of the areas of influence immediately before them. With competing priorities, industry participation is often limited. Increased confidence and understanding of opportunities, as well as invitation to be involved may see in increase in industry involvement.
- d. Women are often juggling many roles in their lives and are realistic about and comfortable with their ability to commit. While there is a desire for change, it is often not practical to change or increase role due to competing priorities. Again, increased flexibility may need to increased participation.

- e. Acknowledge that lack of skills, knowledge, confidence and experience are strong barriers to increased engagement of women in the industry. Investment to build these personal characteristics may lead to increased engagement.

### 3. Extension & Communication

- a. To more effectively connect with women in the cotton industry, review the extension module from “Building women’s participation in the wool industry” Howard, K., Stelling, A., & Mahoney, C. (2015). Barriers and opportunities in the model outlined in this work are consistent with findings of this project.
- b. Communicate novel, relevant, technical information; electronically in the first instance
- c. Where possible, ensure content provides tools and resources for personal development or professional improvement
- d. Tie networking and social opportunities around delivery of technical information

### 4. Wincott

- a. There is an urgency for Wincott to define and communicate its purpose, charter, role and demographic to clear any confusion.
- b. Improved and regular communication (including using communication methods other than social media) and continuity of activities (between the Australia Cotton Conference) will increase awareness and participation. Reinstatement of the Wincott newsletter is recommended.
- c. Develop processes to ensure the database is reviewed and maintained on a regular basis and between committees. Ensure the platform for managing the database is usable and accessible.
- d. Ensure Wincott is not just another place pushing information, that is already being addressed by other services, rather an organisation that support the interests of the group and communicates novel, useful and relevant information.

## TAKE HOME QUOTES

*“Avoid reinforcing stereotypes that are more related to our personal anxieties and continue to promote the amazing opportunities that the cotton industry provides women (and men!)”*

*“Many women in cotton work tireless hours and don't get the help or understanding they may need to develop skills and stay on top of the industry as it changes so much so dramatically. Also access to information and training can be difficult as often the women are not the ones who get to leave the farm”*

*“The cotton industry has great women leading and making decisions. It's not just for show - it's because they're the right people for the job”*

*“Do not assume that because a husband is involved in the cotton industry, that the spouse is equally as interested. Much as you wouldn't assume that the wife of an engineer has any particular interest in engineering. If however, the wife is interested in the cotton industry. I find that the industry is very welcoming of our involvement - through the CGA's, events coordination, Wincott. We as a society have information and networking overload. For those field days or presentations, how do we put women first and develop something that helps them prove themselves??”*

## ACKNOWLEDGEMENTS

I have been extremely grateful to be involved in this project and hope the findings are the basis of continued engagement with women from all walks of the cotton industry. The project wouldn't have gone ahead or been a success without the input and support from the following:

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- **Nicole McDonald** – for support with results, analysis and the literature review
- **Wincott Committee** – for administering the project, assisting with dissemination of the surveys, contacts for the focus groups. A special mention to Wincott Chair **Sally Dickinson** for her enthusiasm towards the project and feedback throughout the project. Thanks to the Wincott executive committee (**Lauryn Riordan, Karen Kirkby, Georgia Colley, Sophie Davidson**) for assistance with administration of the project and to the **Wincott regional representatives** for assisting with contacts for interviews and focus groups and for distributing our electronic survey. For more information about Wincott see [www.wincott.com.au](http://www.wincott.com.au)

## REFERENCES

- Alston, M. (2003). Women in agriculture: The new entrepreneurs', *Australian Feminist Studies*, Vol.18, No. 41, p 163-171, doi:10.1080/0816464032000102247
- Alston, M. (2009). Drought policy in Australia: Gender mainstreaming or gender blindness?, *Gender, Place & Culture*, Vol. 16, No. 2, p 141-154. doi: 10.1080/09663690902795738.
- Andreoni, F., Ryan, P., Cape, J., Currey, A., & Houghton, K. (2016). *Resilience Assessment of the Australian Cotton Industry at Multiple Scales*. Cotton Research and Development Corporation, Australia.
- Hay, R., & Pearce, P. (2014). Technology adoption by rural women in Queensland, Australia: Women driving technology from the homestead for the paddock. *Journal of Rural Studies*, Vol. 36, p 318-327. doi: 10.1016/j.jrurstud.2014.10.002
- Hay, R., & Pearce, P. (2014). Technology adoption by rural women in Queensland, Australia: Women driving technology from the homestead for the paddock. *Journal of Rural Studies*, Vol. 36, p 318-327. doi: 10.1016/j.jrurstud.2014.10.002
- Howard, K., Stelling, A., & Mahoney, C. (2015). Building women's participation in the wool industry, *Rural Extension & Innovation Systems Journal*, 11(1), p. 103-113.
- Mackrell, D. C. (2006). Women as farm partners: Agricultural decision support systems in the Australian Cotton Industry. (unpublished PhD thesis). Griffith University, Brisbane.
- Marslen, T. (2015). *Empowering women in agriculture: Australia and beyond*. (Strategic Paper). Retrieved from: [http://futuredirections.org.au/wp-content/uploads/2015/01/FDI\\_Strategic\\_Analysis\\_Paper\\_-\\_Women\\_in\\_Agriculture.pdf](http://futuredirections.org.au/wp-content/uploads/2015/01/FDI_Strategic_Analysis_Paper_-_Women_in_Agriculture.pdf)
- Pini, B. (2005). The third sex: Women leaders in Australian agriculture, *Gender, Work, and Organization*, Vol. 12, No. 1, p 73-88.
- Rural Industries Research and Development Corporation. (1998). *Missed opportunities – harnessing the potential of women in Australian agriculture. Volume 1 Social Survey and Analysis*. Retrieved from: <http://awia.org.au/wp-content/uploads/2015/05/Missed-opportunities.pdf>
- Wright, W. & Annes, A., (2016). Farm women and the empowerment potential in value-added Agriculture, *Rural Sociology*, p. 1-27, doi: 10.1111/ruso.12105.