Quality Cotton

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Introduction

The Australian cotton industry has enjoyed a reputation as a reliable supplier of high quality cotton. This reputation is underpinned by a progressive, effective and responsible industry. A new and emerging challenge to the industry is to maintain its reputation as a quality supplier of cotton. The industry has demonstrated in the past its ability to meet and effectively deal with challenges, this has never being more important than today. As Australia continues to produce good quality cottons and meet spinners needs, so now are many other foreign growths. Today spinning mills are demanding and requiring superior fibre characteristics to meet their needs. The specifications are becoming tighter and tighter as is reflected in the premium and discount schedules for growers. The challenge has been laid down before us, we must continue to raise the quality bar and differentiate Australian cotton from the rest of the world.

Background

The Australian cotton industry has been in a unique position in relation to producing quality cotton. In the past Australian cotton could boast a superior fibre quality package when compared to other growths. The strong points for our cotton are as followed:

- *Low contamination levels*
- *Prompt and reliable shipment*
- *Consistent quality*
- *Low trash content*
- *Generally good length*
- *Generally good colour*
- *Spinning ability*

As with all good fibre traits, there are some not so good, therefore there is the need for improvement. They are as followed:

- *Strength*
- *Micronaire (a little high in more recent years)*
- *Short fibre content*
- *Neps*
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Over the last few years the progress on furthering good quality traits has stagnated, or in some cases deteriorated slightly, in particular micronaire performance. Fibre properties are affected by many varying factors such as climate, crop management, variety, and processing.

Climate- This variable plays a significant role in determining quality performance. As a grower it is the only variable we have no control over and are at its discretion. We have experienced extreme drought, long periods of hot dry weather and clear skies over the last few years. Micronaire has been the most affected casualty of these conditions. These conditions have tended to fully mature bolls resulting in higher micronaire. The other fibre trait affected is colour through rain events and overcast weather.

Management- Managing a cotton crop is no easy recipe, however it gives the grower the opportunity to influence fibre properties. Growers face many challenges when managing a crop such as nutrition, soil health, irrigation scheduling, crop physiology, integrated pest management, and defoliation. All these have an influence on fibre quality; the challenge is to get them all right. The industry's R&D effort has gone a long way ensuring growers have the knowledge and recourses to assist in making the right decision when managing a crop for yield and quality.

Variety- One of the most important decisions a grower will make when considering quality is varietal selection. Both seed companies have been effective in responding to industry needs. The CSIRO breeding team have a rigorous selection process when considering quality. If a certain cultivar does not meet certain high quality specifications it is then not considered for the market. However we must not sit on our laurels, we must continue to strive for improved traits and lead the way with fibre development.

Processing- Cotton ginning and harvesting is a crucial leg in the outcome of fibre development and its overall performance. The affect that ginning has on fibre properties appears to be a little unclear, although there is evidence that this process can have a negative affect on length and neps. The CRDC and the CRC has invested in this area to promote a clear understanding of what influences quality. One issue that raises some concern is that the breeders have done an exceptional job in leading the world in fibre development, and then the growing and ginning processes reduce some of the gains.

Overall the performance of quality is based on getting all of these factors right, it only takes one factor to under perform and get it wrong.

Rewarded

As mentioned earlier, the Australian cotton industry has enjoyed a reputation as producing superior cotton when compared to other producing countries. However, this trend is changing and we are now competing to maintain our traditional market share from other growths. As Australia's quality is maintained, other growths are now competing and meeting the needs of spinners equally to Australian cotton. A clear example of this is the performance of SJV, Fibermax and Brazil cotton of recent years. As a grower you would have seen a large move in the premium and discount (P&D) sheets over the last 10 years, the difference is the quality that falls below base grade (31-3-35) which is the grade we sell our cotton and enter into a contract with a merchant. The difference between a middling(base grade) and a strict low middling(lower grade) ranges from 4.5US cents per pound to 7US cents per pound or assuming an exchange rate of .6500 it would be $35/bale to $54/bale discount to the contract price.

The discount for micronaire which measures the fibre's maturity and fineness is also increasing to as high as $50/bale. Recent history has shown the majority of cotton grown meets base grade or better.

The issue is that base grade is no longer in demand as much as it once was. The question is, are we being rewarded for delivering good fibre properties? When a grower looks at the premium and discount sheet you would consider the answer to be no. Upon completion of some investigation and discussion with shippers and processors I think it is fair to say we are being rewarded, we just don't know it! The cotton shippers are highly competitive for Australian cotton. Whilst this competition exists you can be assured prices for cotton through basis will remain firm. This gives me sufficient reason to believe that when a merchant offers a grower a price/bale the reward is factored in the price.

Future Market

Australian cotton has a real battle on its hands. As mentioned earlier our customers are demanding and requiring tighter fibre specifications to meet their needs. The challenge is for us to continue advancing fibre development and differentiate Australian cotton from other growths. Another concern is Synthetics or man made fibres. They are strengthening their market dominance every year, and some strong points for these fibres are:

- *Accurate and comprehensive fibre specifications*
- *Improved quality and productivity*
- *New applications (non-textile)*

Man made fibres continue to substitute for natural fibres at a rapid rate.
It appears some mill customers are a little unhappy with aspects of Australian fibre quality. If we do not address these issues in a timely manner it will leave us in a vulnerable market place with mainstream growths and lower prices.

The Way Forward

The industry's value chain future depends on its ability to respond and meet the challenges before it. To do nothing would be irresponsible and a disservice to our industry.
The breeding programs adopted by the industry are first class and have been the backbone of the industry's progression for decades. The cotton breeders have continued to advance yield and fibre properties, however as the needs of our customer become tighter, the breeders ability to respond will be imperative. "Your deep understanding of the customer needs and the customer's belief in your ability to deliver on those needs". Variety is only one factor in fibre development, it can not alone be responsible for good quality outcomes. Good crop management is equally important in determining fibre quality. Australian cotton farmers are smart, efficient and innovative, they have to be when competing against subsidised countries. Good management can be defined in many ways, but when considering fibre traits the following are important: good nutrition, stress free growing environment, timely irrigations, integrated pest management, soil heath and good defoliation to name a few.

The cotton research and development organisations have been influential in assisting growers with best practice growing techniques to ensure optimum fibre quality outcomes. Effective research and development will be the spring board for the industry to meet the markets future needs. Currently the CRDC is implementing a project (Field to Fabric) to understand the complete journey of the fibre and what influences fibre traits from growing practices to the finished garment.

Fibre testing has always being a contentious issue for growers, particularly the occasional inaccurate classification between merchants. Instrument testing (HVI) is regarded as one of the most significant cotton fibre related innovations of the 20th century, marking the transition from manual to instrument classing. However there is a need for further advances to eliminate inaccuracies. There is a general agreement between sectors of the industry that there is a need for greater accuracy, consistency and repeatability of fibre measurements, which would benefit the whole cotton chain and improve cotton's ability to compete with man made fibres.

As you may be aware the Australian cotton industry is moving down the path of selling our BMP message to the end user. A joint CRDC/ACIC funding application has been approved under the federal government's "EMS Pathways" program that would:

-Investigate potential partners in a branded cotton product

-Investigate supply chain logistics for branded cotton

-Develop environmental guidelines for all sectors

-Develop fibre quality management guidelines for all sectors

This program has a lot of merit for the Australian cotton industry. If we can successfully brand Australian cotton as producing a superior quality product coupled with the product grown under a credible environmental management system that creates its own demand from end users, must be good news for our industry. Our cotton industry is in a great position to drive this opportunity. We have a small number of growers, a highly collaborative industry and the ability to commit resources without delay.

Consumers of product are becoming more and more interested on where and how their product is derived. "70% of European consumers say that a company's commitment to social responsibility is important when buying a product or service, and one in five would be willing to pay more for products that are socially and environmentally responsible". A clear example of responding to consumers needs and pre-empting future trends is the McDonalds fast food chains. They have clearly identified the threat of losing consumers if they maintain their existing core business (selling hamburgers). We have all seen the aggressive advertising campaign offering a healthier menu and greater description of ingredients on labels. This is a real success story for McDonalds and has had a positive financial affect on their business. The Australian cotton industry will need to respond and change to meet the customer's needs.

Conclusion

The Australian cotton industry is in a unique position in relation to its fibre quality. Our current quality is under pressure to maintain its competitiveness. In dealing with this issue, the pathway the industry adopts will be crucial in its ability to meet this challenge. Research and development has been partly responsible for the industry's progress and prosperity for decades, this will need to continue and focus more on value chain research. Grower's willingness and ability to change their focus to quality from yield outcomes will be important. This may have no direct tangible benefit to the grower immediately, however it will benefit the whole industry by maintaining and improving its markets with good consistent quality cotton.

Growers sometimes refer to the premium and discount sheets and suggest there is no incentive for premium quality. I would like to think the premium is a secured market destination for our product year in year out. Growers need to continue their good farming practices ensuring good quality along with good yield.
The Australian cotton industry is a highly motivated, resourceful and a collaborative industry, this gives us a great opportunity to drive and explore new opportunities for the value chain. The risk of doing nothing leaves our market perception vulnerable.

References

Geoff Naylor and Stuart Gordon report to the CRC review June 2004.
The 'cotton reel' produced by Cotton Australia.
The federal Governments 'EMS pathways' program coordinated by Allan Williams (ACGRA)