

FIELD TO FABRIC TRAINING COURSE

I was fortunate enough to attend the Field to Fabric course in Geelong as one of the CRDC sponsored growers. The course covered a wide range of topics from growing through to the yarn manufacture. As well as the diverse range of topics there was an equally diverse group of people. The course attendees were a mixture of growers, ginners, classers, marketers, industry personnel, consultants and a reasonably large contingent of overseas visitors from China, Canada, America, South Africa and Singapore. The international contingent gave all the participants a chance to discuss their own area of knowledge and to gain an understanding of an international view of the Australian cotton industry.

A highlight in day one was to learn the quality of the other main cotton producing areas in the world and to see where Australian cotton fitted in. No surprise that our main competitor is the far west USA and their SJV upland cotton. SJV cotton has an advantage over our cotton with strength being slightly higher and micronaire being lower. If Australia can improve on its micronaire then there could be a possibility of gaining a share of the market for quality cotton as the area of the SJV crop in California is decreasing. Another competitor within America is Texas where they grow Fibremax which is essentially very similar quality to our main varieties.

We also learnt on day one the most important fibre properties for the spinning process and for the fabric appearance. Cotton agronomy, picking, ginning and classing were also discussed.

On day two the process of yarn manufacture was presented in detail. We learnt about the various spinning systems which are used and the process through which the fibre has to go through. This involves blending and cleaning. Mills have metal detectors to help remove contamination and we also saw film of Asian spinning mills employing a large number of workers to sort through the lint by hand removing various sources of contamination including human hair, and other foreign objects. After the lint is cleaned it then goes through the carding and combed process before it heads off for spinning. Inbetween learning about all these processes we had tours around CSIRO's facilities to actually see the machines we had been discussing and to see them in use. To see these machines and the actual process gave a better perspective on what the fibre has to go through along the way in fabric formation.

Day three saw the introduction of fabric formation and we learnt the differences between knitted and woven fabric and the process involved. We also compared non woven fabrics and their uses. The final stage of the process is the dyeing and finishing of the fabric. As well as the obvious process of dyeing this stage also includes the screen printing of cotton and digital printing if required. As with day 2 the talks were interspersed with tours around the facility to see the knitting and weaving machines and the dyeing vats and screen printing facilities.

As a general overview the topics were diverse but were well linked together. I believe that for everyone participating that to have an opportunity to be able to discuss the whole process from growing to the formation of fabric was invaluable. Whilst we might all have a good understanding of what we ourselves are doing to be able to see the big picture might help future decisions or actions more beneficial.

The main take home message I believe, is that Australia needs to concentrate on producing top quality cotton as there is enough of a supply of average cotton so we need to produce for a niche market.

I would like to thank CRDC for the funding available allowing me the opportunity in participating in this course and would highly recommend it to other growers.