

# Another field to fabric course

Following the success of the two “Field to Fabric” courses presented by CSIRO Textile and Fibre Technology at Geelong this year, a further course will be held on November 28–30.

The course consists of 10 modules which will be presented by leading researchers (Martin Prins, Mike Bange, Stuart Gordon, David King and Rene van der Sluijs) and industry experts (Geoff Dunlop, Cliff White).

The course covers management for quality through the production chain. It is designed to give participants an overview of the entire cotton pipeline from farm to predicting fabric performance.

It is designed for people who are involved in any part of the cotton industry from grower to technologist.

It aims to give a better understanding of how segments of the industry operate and how each relates to one another.

The 10 modules will cover the following subjects:

## Global perspective

- Production and consumption of fibres.
- Spinning, knitting and weaving machinery statistics.
- Change in global textile production.

## Fibre properties

All of the usual fibre properties plus others such as:

- Neps.
- Seed coats.
- Stickiness.

- Contamination.
- Moisture.
- Future trends.
- Compression properties.
- Wax content.
- Microbial attack.
- Indices of fibre quality.

## Agronomy

- Fibre development in the field.
- Phenology of fibre development.
- Climatic impacts on fibre development.
- Crop management for improved fibre quality (strength, length, micronaire, and neps and grade).

## Picking

- Defoliation.
- Picker set up and operation.
- Module building.
- Human resources.

## Ginning

- Technological change.
- Quality measurements.
- Conflicting aims.
- Human resources.
- Challenges.

## Classing

- History of classing.
- Classing in Australia
- Requirements of BMP.
- Subjective classing: USDA classing boxes
- Objective classing: High Volume Instrument (HVI)
- Nep testing.

## Market

- History of cotton trading.
- Recent trade trends.
- Historical trade trends.
- Types of merchants; international, regional and local.
- What is the added value that cotton merchants provide?
- Contract sanctity and performance.
- The role of the International Cotton Association.
- Primary market influences.
- Secondary market influences — supply/demand etc.
- Additional market influences — world economies, quotas etc.
- Long term market influences — oil prices, market share etc.
- Environmental issues.

## Yarn manufacture

- General principles of yarn manufacture.
- Process flow of various spinning systems.
- Explanation of various count systems.
- Comparison of ring and rotor yarn.
- Advantages and disadvantages of rotor spinning.
- Air jet/vortex — comparison to other spinning systems.
- Measuring yarn properties.

## Fabric formation

- Circular knitting.
- Flat-bed knitting.
- Weft knitting.
- Warp knitting.
- Weaving.
- Fabric designs.
- Measuring fabric properties.

## Dyeing and finishing

- Preparation.
- Scouring.
- Bleaching.
- Dyeing and dyeing machinery.
- Classes of dyes.
- Printing.
- Chemical finishing.
- Easy care.
- Durable press.
- Softeners: assessing product performance.

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Participants at a Field to Fabric course at Geelong earlier this year.

