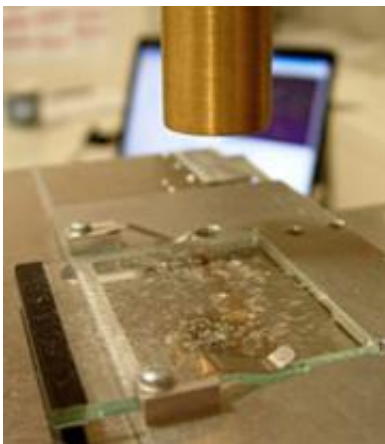


New fibre testing device gives cotton an edge

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The Cottonscope instrument directly measures the maturity of cotton fibres within 25 seconds. (CSIRO)

(PhysOrg.com) -- A 'fibre maturity' testing device designed to improve the quality of fibre produced by Australian cotton growers and yarn quality in overseas spinning mills has been licensed to new-start Australian company, Cottonscope Pty Ltd.

Developed by CSIRO's Cotton Research Unit - with support from the Cotton Research Development Corporation (CRDC) and the Cotton Catchment Communities CRC - the 'Cottonscope' instrument automatically measures cotton maturity, directly and accurately, in around 25 seconds.

"A fast, accurate and direct measurement of cotton fibre maturity has

been sought by the industry for decades," says the Unit's Leader, Dr Stuart Gordon.

"In 2001, a CSIRO team took up the challenge to create and test a new prototype instrument for the industry. The team built several prototypes and put them through some rigorous trials to verify consistency of performance and results."

Those trials were followed by 'real-life' tests in which the instrument's results were used to measure when a crop was mature enough for harvest, thereby allowing for predictions of the 'textile consequences' of immature fibre on neps and dye uptake in fabric generated from in-field and ginning practices. (Neps are small fibre knots associated with immature fibre that cause cotton yarn and fabric quality to be downgraded.)

"Cottonscope will also be valuable in the spinning mill where it will enable more accurate prediction of nep creation, dye uptake and overall quality control when cotton bales are laid down for processing at the mill," Dr Gordon says.

"Of further benefit is the instrument's ability to monitor the maturity and fineness of various cotton breeds to assist in the selection of better [cotton](#) varieties for the production of high quality fabric."

BSC Electronics Pty Ltd in Western Australia has established Cottonscope Pty Ltd to produce and market the instrument in Australia and overseas.

Provided by CSIRO

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