

## **COTTON RESEARCH AND DEVELOPMENT CORPORATION**

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**PROJECT CODE: CSP6C**

**PROJECT TITLE: RE-EQUIPMENT AND RELOCATION OF NATIONAL  
FACILITY FOR ASSESSMENT OF COTTON**

**STAFF INVOLVED: Dr N.J. Thomson, Mr C.M. Patrick, Mr L Carpenter**

### **FINAL REPORT**

This project was concerned with the transfer of cotton fibre testing from the Division of Wool Research, Geelong Victoria to the Cotton Research Unit at Narrabri Agricultural Research Station (NARS). It involved the construction of a fibre testing laboratory within the CSIRO field shed, the purchase and installation of a Spinlab 900 series HVI length, strength and micronaire instrument by January 1989 and the purchase and installation of a Shirley Fineness Maturity Tester (FMT III) the following year. The project also called for the employment of casual staff to operate the equipment under the supervision of CRU staff and provided for the maintenance of the equipment.

All stages of the project have been carried out as envisaged in the original submission. The fibre quality laboratory was completed by December 1988 with the help of Plant Industry personnel from Canberra. The new Spinlab HVI equipment was then installed in time to test the 1989 harvest. The FMT III was also purchased and installed as planned in time for the 1990 harvest. However this unit proved defective. It persistently jammed in mid-cycle and produced excessively variable results. The Shirley company were unable to rectify the problem and therefore agreed to replace the unit. This they did in time for it to be used for the 1991 harvest. The replacement unit has functioned well and we have successfully used it conjunction with the Spinlab HVI instrument.

The relocation and re-equipment of the National Facility for assessment of cotton fibre quality has thus been successfully completed. Most importantly it has now allowed us to complete testing all our breeding material by July. This then allows us to

decide what material we will select and what we will discard in a timely fashion before the next planting season. Previously testing was not being completed till well after planting and thus much unwanted material was being carried forward. The use of this instrumentation is enabling us to progressively raise the quality of our releases from the breeding program. eg: The new Sicala 34 is 1.8 g/tex stronger than the variety (Sicala 33) it is replacing and the general level of our lines now entering the ACCT is approximately 2g/tex higher now than 5 years ago.