

Executive Summary

If Australia is to maintain its reputation as a consistent supplier of high quality cotton it will need to ensure that the entire cotton pipeline from growing to ginning conforms to industry Best Management Practices (BMP). The Australian classing sector has thus been independently assessed since 2004 by CSIRO Materials Science and Engineering (CMSE), with the cooperation of the Cotton Classers Association of Australia (CCAA). This work involved a number of initiatives; 1) conduct domestic and participate in international check tests programs, 2) expand BMP handbook for classing and conduct BMP audits, and 3) conduct formal round trials.

The reproducibility results from the local CCAA Check Test program, which determines the long term reproducibility of all HVI instruments, has been consistently improving over the last three years, with the reproducibility results for length, length uniformity, and strength consistently $> 90\%$, with micronaire $\geq 80\%$ and colour both Rd and +b now consistently $\geq 85\%$. Similarly the performance of the Australian instruments in the CSITC Round Trials has been encouraging, with the Australian instruments, with a few exceptions, generally performing better than the world average, the exception being the results for b+. These results and the results from the colour trial should give the industry confidence in the transition from the current manual and subjective classification of colour to the objective classification by HVI.

The Best Management Practice (BMP) Handbook for Classing has been extensively updated and expanded over the last three years and also linked to the BMP Handbook for Ginning. All the classing facilities that were operational over the last three years have been audited and four classing facilities are currently certified by CA. Similarly the BMP Handbook for Ginning has been extensively updated over the last 3 years and thirty two gins are currently certified by CA. The compilation of a Handbook for Harvesting with consistent, standardised guidelines will assist in ensuring that the full potential of the fibre is delivered to the gin.

Work in this area will continue over the next 3 years as the industry needs to be proactive in improving industry practices in terms of quality, consistency, specification and traceability of its own product will be reflected in increased demand and increased profitability for the grower.