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**COTTON RESEARCH COUNCIL
FINAL REPORT
(SUMMARY)**

PROJECT CODE: DAQ28L

PROJECT TITLE: Irrigated cotton strain and cultivar testing in Queensland

RESEARCH ORGANISATION: Queensland Department of Primary Industries

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FINAL REPORT SUMMARY

The objective of this project was to evaluate preliminary and advanced breeding selections from the Narrabri and Biloela programs at up to five locations in Queensland.

Over the period 1986/87 to 1988/89 this project played a vital role in selecting new cotton varieties for commercial production. Hundreds of lines from the Biloela and Narrabri breeding programs were evaluated in preliminary trials at Emerald, Biloela and Brookstead, while advanced material was tested in the Australian Cotton Cultivar Trials at these sites plus Theodore.

Success achieved includes the identification of a number of new lines suitable for the cooler areas on Darling Downs. Siokra 324 and 82041-6 (CS 6S) are early maturing types with high micronaires and have shown the ability to produce good yields and acceptable fibre quality under the adverse conditions often encountered in the more marginal growing areas. Another Narrabri line to shine under bad *Verticillium* wilt conditions on the Downs is 83055-33 (Sicala V1).

For the longer season growing areas this project has also contributed to the rapid evolution of commercial varieties. Siokra 215 (1-4) has demonstrated wide adaptability and will replace Siokra 1-1 and 1-2. The high quality Sicala 3-2 replaced 3-1 in 1988/89 and a new line, 82237-175 (Sicala L22), has performed well in mainstream and hotter growing areas. It has more erect plant habit with shorter fruiting branches than Siokra 1-4 and also had good fibre quality. A normal leaf type which has demonstrated wide adaptation and some *Verticillium* tolerance is 83203-189 (CS 189).

Publications

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Mann, G.D. (1988), Cotton cultivar trial results, *Queensland Graingrower* (13/7/88).

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