

Part 1 - Summary Project Details

Final Report

Report Due Date:

29-Sept-00

CRDC Project Number

CSP89C

Project Title:
(< 15 words)

Field experiments with cotton at Myall Vale

Part 2 - Project Contact Details

Admin Contact:

Mr

Ken

Parker

Title (ie Mr/Ms) First Name

Last Name

Organisation:

CSIRO Cotton Research Unit

(Name of organisation that will be administering the funding)

Postal Address:

Locked Bag 59

Myall Vale, Wee Waa Road

PO Box

Street

Via Narrabri

NSW

2390

Town

State

Postcode

(02) 6799 1502

(02) 6793 1186

ken.parker@pi.csiro.au

Phone

Fax

Email

Principal Researcher:

Dr

Greg

Constable

Title (ie Mr/Ms) First Name

Last Name

Organisation:

CSIRO Cotton Research Unit

(Name of organisation that will be administering the funding)

Postal Address:

Locked Bag 59

Myall Vale, Wee Waa Road

PO Box

Street

via Narrabri

NSW

2390

Town

State

Postcode

(02) 6799 1522

(02) 6793 1186

greg.constable@pi.csiro.au

Phone

Fax

Email

Supervisor:

Title (ie Mr/Ms)

First Name

Last Name

Organisation:

(Name of organisation that will be administering the funding)

Postal Address:

PO Box

Street

Town

State

Postcode

Phone

Fax

Email

Part 3 - Final Report Format

1. Outline the background to the project.

CSIRO and NSW Agriculture are experiencing a shortage of research area on ACRI. With increasing staff numbers access to land suitable for the requirements of differing projects is an annual problem. We have in place a workable and co-operative process to address this issue. It has already become necessary for CSIRO to relocate a significant area of the cotton breeding plots to our leased area, separate from ACRI. Costs associated with growing cotton on ACRI have also increased as part of a new agreement between NSW Agriculture and CSIRO.

2. List the project objectives and the extent to which these have been achieved.

The aim is to conduct the routine management operations required on experiments done by CSIRO in CRDC funded projects at the Australian Cotton Research Institute in the disciplines of Plant Breeding, Entomology and Agronomy. Most operations are conducted by NSW Agriculture with costs charged back to CSIRO. Costs are those set by NSW Agriculture.

3. Detail the methodology and a justification for the methodology used.

The net cost of the project is greatly reduced by the revenue generated by the sale of the cotton which is credited to a revenue account. On ACRI, CSIRO will produce about 265 bales, worth \$106,000 at \$400 (allowing for discounts) per bale. The estimated costs of \$263,772 less the estimated revenue of \$106,000 results in a net cost of \$157,772. The net amount required from CRDC is 50% of the net cost ie. \$78,886.

4. Detail results including the statistical analysis of results

See individual reports.

5. Discuss the results, and include an analysis of research outcomes compared with objectives.

See individual reports.

6. Provide an assessment of the likely impact of the results and conclusions of the research project for the cotton industry. Where possible include a statement of the costs and potential benefits to the Australian cotton industry and future research needs.

See individual reports.

7. Describe the project technology (e.g. commercially significant developments, patents applied for or granted, licenses, etc).

See individual reports.

8. Provide a technical summary of any other information developed as a part of the research project. Include discoveries in methodology, equipment design, etc.

See individual reports.

9. State the recommendations on the activities or other steps that may be taken to further develop, disseminate, or to exploit the project technology.

See individual reports.

10. List the publications arising from the research project.

See individual reports.

Part 5 - Plain English Summary

You must submit a Plain English Summary of your completed research project that is not commercial in confidence, and that can be published by the Cotton Research & Development Corporation in print or on the world wide web. An electronic copy of the plain English summary must also be forwarded by E-mail (angela@crdc.org.au).

The objective is to fund the routine management operations on experimental cotton blocks by CSIRO for CRDC funded projects at the Australian Cotton Research Institute, Narrabri, in the disciplines of Plant Breeding, Entomology and Agronomy.

These costs are those charged by NSW Agriculture to CSIRO for growing crops on ACRI and maintaining irrigation channels and equipment. Revenue from sale of cotton from these experiments will be credited to the same account.

The project will ensure that the work currently being done by the CSIRO Cotton Research Unit continues. The cotton industry is benefiting greatly from this work. New varieties are now being released regularly, including improved selections of Siokra, Sicot and Sicala and rapid development of a suite of new transgenic varieties expressing Bt toxin proteins, Roundup Ready genes and other genetically engineered traits. Current entomological work will improve management of Heliothis, mites and focuses particularly on resistance management and pest management systems for transgenic cottons. Agronomic and crop modelling research will improve the applicability of the CERCOT crop model and improve water and nitrogen management. Agronomic research also includes studies of the physiological processes underlying compensation for pest damage the results of which will feed into crop modelling, pest management and breeding programs. Decision support systems (eg. cottonLOGIC) are being continually developed and will be further extended.