

# FINAL REPORT Code: **CSP47C**

Office Use for New Projects

Application Code: \_\_\_\_\_

COMMENCEMENT DATE: 1/6/94 COMPLETION DATE: 31/5/97 Grant code: \_\_\_\_\_

PROJECT TITLE	<b>Development of hybrid cotton germplasm with glandless seed and other valuable traits from wild cotton</b>	
FIELD OF RESEARCH	<b>New Cultivars</b>	
FIELD CODE	<b>3.1</b>	
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## EXECUTIVE SUMMARY

This report is a summation of the background, objectives, and achievements of the research project funded by CRDC grant CSP47C. We would like to emphasize four particularly notable achievements.

- We assessed the risk of transgene escape from commercial cotton cultivars into wild Australian cotton species
- We synthesizing 18 new fertile intergenomic *Gossypium* polyploids
- We documented the production of unreduced gametes in hybrids between cultivated cottons and wild species indigenous to the Kimberley Plateau.
- We synthesized self-fertile cotton germplasm lines that incorporate genetic material from wild cotton species.

The significance of these achievements and their impact on sustainable cotton production in Australia are elaborated in later sections. Generally speaking, we have been successful in

- increasing our basic biological understanding of the wild Australian cotton species
- developing germplasm resources for exploiting the wild Australian cotton in the development of improved cotton cultivars, and
- assuring that the commercial release of transgenic cotton cultivars in Queensland and New South Wales will not endanger the wild cotton species or their ecosystems.