

COTTON RESEARCH AND DEVELOPMENT CORPORATION

FINAL REPORT 1990/91

PROJECT CODE : CSP8C
ORGANISATION : CSIRO Division of Plant Industry
PROJECT TITLE : Development of micro-computer cotton management packages

STAFF INVOLVED: Ms. S. Griffin
Mr. A.T. Wells
Mr. K.D. Brook
Dr. P. Cox
Mr. S. Marsden

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This project was initiated under the name "CS66L - SIRATAC Plus configuration and testing". However, the Siratac Plus project proved a failure and all development was abandoned in 1990. These developments were reported in progress reports for Project CS66L in 1990/91. At that time it was decided that the future for computer based pest management for the cotton industry was in standalone microcomputer packages. Consequently staff employed in design of the water balance model (A.T. Wells) and testing of SIRATAC Plus (S. Griffin) were re-deployed to the construction and testing of hydroLOGIC; a 3rd generation decision support system (DSS) for irrigation management, further development of the cotton model and to the development of entomoLOGIC, an expert system for pest management. This report covers these developments in detail.

Cotton model rewriting and development of hydroLOGIC.

Much work with components of the cotton model had been undertaken as part of SIRATAC Plus and was continued under this project. The existing water-balance and leaf growth sub-models were re-written, in parallel with similar work on other parts of the model by Steve Marsden and people from the CSIRO Division of Information Technology. The purpose of re-writing was to make a fresh start on the models so that the code could be more easily maintained and understood. This new "clean" code allowed fast development of the prototype irrigation decision support program "Hydrologic" originally developed on the VAX Mini-computer. It also greatly eased the work involved in porting the models to micro-computers.