

DAN2L Executive Summary

Objectives

- o Determine optimum nitrogen rates for cotton under a range of conditions.
- o Determine the best time to apply this nitrogen.
- o Measure the pattern of nitrogen uptake in relation to rate and timing and hence calculate fertiliser recovery.
- o Examine the relationship between soil nitrate test and subsequent nitrogen extraction by a cotton crop.
- o Measure cotton crop requirements of the trace elements zinc, copper, iron and manganese.
- o Measure the effects of plant spacing, temperature and light on leaf growth in cotton.
- o Measure the penetration of light through cotton canopies.
- o Map the production and survival of cotton fruit.
- o Use the leaf growth, light interception and fruit map data to develop simulation models for cotton.

Some success was achieved in all objectives. A summary of results from the major projects follows. More comprehensive results of all topics are attached. Difficulties encountered are outlined in the projects where they occurred.