
PLAIN ENGLISH SUMMARY

(not to exceed more than 200 words)

Type of Application: CONTINUING

For a Continuing Project, or Project derived from work currently
being funded, enter the Corporation's Code: DAQ 70C

A strip tiller machine was assembled and used prior to cotton planting this season. Some practical problems associated with heavy clay soils showed up, and are being addressed. Results from initial trial work were masked by rain occurring immediately after planting.

Trials involving the residual herbicide Ally were carried on three major cotton growing soils across the Darling Downs. Initial results indicates little carry over effect on cotton from 5 gm Ally applied as a fallow herbicide as late as April. The field work will be repeated this season.

Management of cotton stubble and cotton fields in dryland situation immediately after picking are being investigated. Various mechanical and herbicide treatments were looked at for their effectiveness in preventing cotton regrowth, and allowing subsequent operations, especially double cropping of cereals. Preliminary results indicate the Janke disc cutter appears to be the most flexible system currently available.

Further investigation of the effectiveness of various mechanical operations in preventing emergence of overwintering *Heliothis* pupae were carried out at Billa Billa. The results this season varied from those obtained in the previous season's trial. A single pass with a full disturbance light cultivator/planter failed to give an adequate level of control. Further investigations looking at various combinations of operations will continue this season.