DEVELOPMENT OF AN INTEGRATED FARMING SYSTEM IN THE BURDEKIN REGION UTILISING GPS PREFORMED BEDS WITH DOUBLE DISC OPENER PLANTERS, DRIP IRRIGATION AND MINIMUM TILLAGE

By

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DRIP irrigation is not widely used in the Burdekin but, during 2006, the Rapisarda family in Clare established 130 ha of sugar cane on drip irrigation with the support of a grant from the Sugar Industry Innovation Fund through the Department of State Development, Trade and Innovation.

This project has evolved from the need to move to double disc opener planters (DDOP) to ensure more reliable crop emergence rates, and to GPS directed planting equipment to enable more consistent row spacings, and the urgency to minimise deep drainage losses from irrigation in the Mulgrave area where rising groundwater is a real concern. The GPS incorporated planting system will also allow accurate replanting over the drip tape in the future.

The Rapisarda family are not strangers to drip irrigation, having used this technique in their cucurbit cropping system for more than 20 years. They also have more than 10 years experience in drip irrigated sugar cane.

The outcomes of this project will include:

- Development of a drip irrigation manual from a practical farming perspective.
- Evaluation of the cost/benefit of a large commercial drip irrigated sugar cane operation.
- Demonstration of the irrigation efficiencies that are possible with drip irrigation in comparison to conventional furrow irrigation systems.
- Quantification of deep drainage losses under drip irrigated sugar cane through the use of lysimeters, and identification of losses of fertilisers and pesticides.