

# Harvest more with long term canegrub control

**O**n the Lay family farm at Homebush in the Mackay district, the difference between treating and not treating the 2006 plant cane crop with a long term canegrub control was 86 tonnes per hectare over the following three harvests (2007 to 2009).

Recently-completed trials by BSES Ltd and Crop Care quantified the potential yield losses from this major sugarcane pest on the district's grub-prone sandier soils.

The Lays were one of several Mackay-district farms to cooperate with BSES Ltd in canegrub monitoring. This indicated that the sandier soil areas of the farm alongside Sandy Creek were susceptible to greyback canegrub attack.

This site was selected to conduct three-year trials on the effectiveness of the controlled-release grub control suSCon Maxi, and the potential for extending the number of years of control.

Sections of the 2006 plant cane were managed in several different ways – left

untreated; treated with a single application of suSCon Maxi granules; or treated with a single application of new sustained-release formulations.

## Eighty-six tonnes per hectare extra cane

Plant cane treated with suSCon Maxi granules in 2006 produced a total of 86 tonnes per hectare more than untreated cane over the plant, first-ratoon and second-ratoon harvests.

The same trials on the Lay farm showed even greater yield increases from new sustained-release formulations, which release the active more slowly, but at sufficient quantities for good grub control. Cane treated with the new formulation NUQ05011 responded with a total yield increase (over three harvests) of 105 tonnes per hectare.

Compared with untreated cane, there were 60 per cent fewer greyback grubs in second ratoons of cane treated at planting.

## Long term treatment at planting worthwhile

Crop Care research and development coordinator for insecticide projects, Glen Tucker: "The successful trial established by BSES on the Lay family farm confirmed that applying a sustained-release grub control to plant cane is worthwhile.

"With promising new formulations, cane growers can look forward to even longer protection from canegrubs with a single, environmentally-friendly application at planting.

"The selected block at Lays had been subject to a lot of grub damage in the past. Throughout the trial period the block continued to be infested with greyback canegrubs every year – in the 2006–07 plant crop, in the 2007–08 first ratoon, and in the 2008–09 second ratoon.

"This provided a good opportunity to compare yields between treated and untreated plots within the block.

"suSCon Maxi provided very good con-



Gary and John Lay with the equipment used to apply controlled-release grub-control granules after planting at the fill-in stage.

trol of greyback canegrubs in plant and first ratoon crops, with benefits flowing through to increased cane yields in at least the second ratoon, harvested at the end of 2009.

“At today’s sugar prices, these represent very large increases in farm income from a single treatment of the plant crop.”

**More studies**

One trial of suSCon Maxi treatment against Childers canegrub at Graham Webb’s farm, Childers showed very good control of Childers canegrub in the first and second ratoon crops, with ongoing control in the third ratoon. Substantial yield increases were obtained in the first and second ratoon crops with suSCon Maxi, and are expected in the third ratoon crop to be harvested later this year.

In the Burdekin severe attacks of canegrubs can lead to tipping of the stool, and removal of the whole stool at harvest – which effects both that harvest and subsequent ratoon crops, due to loss of plants.

Burdekin cane grower Frank Scarabel, Giru found no tipped stools when harvesting his plant cane or first ratoon crops, following a trial application of suSCon Maxi to plant cane in 2007. Frank said that when harvesting the suSCon Maxi-treated crop, it was as if the stools were concreted into the ground.

Continuing R&D work between BSES



**Frank Scarabel, Giru said that when harvesting the grub treated crop, it was as if the stools were concreted into the ground.**

Ltd and Crop Care with controlled-release products includes extending the number of years of effective control; applying controlled-release products into ratoon cane; and understanding the action of the chemicals on the grubs and the soil – including different grub susceptibility.

Crop Care’s on-farm trials include strip trials using growers’ application equip-

ment, to make sure the sustained-release treatments are compatible with their planting techniques and equipment – for example the use of microband applicators in the southern growing areas of Childers and Bundaberg.

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**Burdekin crops with grub damage.**