



CROP PROTECTION



'Soft' insecticide program produces results at Boggabri

John Watson and his sons Andrew and Peter, of "Kilmarnock", Boggabri were the first farmers in the district to grow cotton some 25 years ago. Today they are among an army of growers in the district using environmentally responsible 'soft' chemical options to manage insect pests as part of their overall farming program.

The Watsons also run a sizeable breeding herd using a Hereford x Charolais terminal sire to produce vealers for the local trade. For this reason, and their proximity to Boggabri, son Peter says they are very mindful of pesticide residues, keep spraying to a minimum and favour softer products wherever possible.

This interest led to their awareness of scientific field trials of the Caltex Petroleum Precision Spray Oil™, Canopy® which was successfully used to control major sucking pests in cotton without causing pesticide residue problems or disrupting the balance of beneficial insects.

Peter explained that the family normally grow up to 900 hectares of irrigated cotton, although this would depend on the season and the effect of ongoing groundwater cutbacks in NSW Zone 4.

"Kilmarnock" was also planted to large areas of winter cereals and summer crops including sorghum and corn in the past, but in these times of water shortages and increasing water costs, grain hadn't yielded a good enough return to justify irrigating summer grain crops in recent years.

"The cotton/cereal rotation works well for us and we are into a 1:1 or 2:1 rotation depending on water availability," Peter said. As long time irrigators, the Watsons have a sizeable investment in infrastructure and a solid history of irrigation of grain, fibre and fodder crops.

Peter recently attended a cotton course conducted by the Australian Cotton Research Institute (ACRI) at Narrabri which stressed the importance of using Petroleum Spray Oils such as Caltex's Canopy in conjunction with other 'soft' spray options as part of an Integrated Pest Management (IPM) program.

"It was really drummed into us that using a Petroleum Spray Oil such as Canopy was the way to go as it provides more consistent spray coverage and better adhesion. As I understand it, the oily coating will stick onto insects and physically smother them and will help retain the spray droplets on the leaf."



- Peter Watson: "Canopy is a soft IPM option which works."

These attributes were demonstrated during pre-registration trials of the product conducted by an ACRI Science Leader, Dr Robert Mensah, who has a strong interest in Integrated Pest Management (IPM) programs - which control pests while preserving 'beneficials' such as bees and predatory insects.

"Being an oil, Canopy produces a more even droplet size and that helps get them through the canopy and it's much less volatile than water so there is less chance of the spray mix volatilising and disappearing," Peter said.

Since first using the product under an experimental use permit a few seasons ago, Peter says Canopy has become a key plank of their cotton insect management strategy. "We're confident we're getting a benefit out of it - unlike some of the other 'soft' insecticide options which have been tried - and we wouldn't go on using it if it didn't work," Peter said.

- **Peter Watson, "Killmarnock", Boggabri and Caltex's Stuart Paterson discuss IPM pest control options using Canopy.**



"I really like the idea of Canopy and think its ideal because it's an environmentally responsible way of managing pests. We're also conscious of our neighbours and the cotton industry's reputation and also of our own stock.

"Canopy doesn't have a synthetic chemical as an active, so it's more of a 'biological' or 'physical' mode of action against the pest – not a poison. I feel much better about using a product like Canopy in terms of me and my family and the chippers going into the field.

"These days a spray wouldn't go out in a season without Canopy and we would have no hesitation in recommending it as a partner with other insecticides for pest control and as a defoliant aid. I'm sure if you were to show other farmers a product that works and won't harm people and the environment then more of them would use it," he said.

Caltex's Precision Spray Oils Manager, Dr David Johnson, said Canopy added to the activity of partner chemicals as well as possessing inherent insecticidal activity through its physical mode-of-action against common sucking pests like aphids and mirids (and small *Helicoverpa* larvae).

"As a spray adjuvant, Canopy softens the cuticle of the plant and shell of the insect which helps penetration of tank-mix partners. Because it is persistent on the leaf surface for up to 5 days, it also acts as an ovi-positional deterrent, making the leaf surface unattractive to egg laying insects," Dr Johnson explained.

Canopy was recently granted a new registration for the control of green mirids in addition to aphids and *Helicoverpa* spp. in cotton. Caltex and key rural resellers in NSW cotton valleys expect more of the product will be used to help control these major pests during coming cotton seasons.

"In addition to controlling the major sucking pests like aphids and mirids, anecdotal evidence suggests that silver leaf whitefly and green vegetable bugs could also be suppressed by Canopy so we will be conducting trials of Canopy in the coming seasons to confirm this," Dr Johnson said.

More information on Canopy is available from Stuart Paterson at Caltex Australia on 0408 682 087.



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