Biological breakthrough

Tropical grapegrower toasts Petrik system

PRODUCING yield in Menindee seedless table grapes is a challenge in the tropics.

Duane Storey is Australia's northernmost producer for a good reason.

However, the same climate which can limit productivity does at times provide a market window.

In 2009, Burdekin-based Mr Storey began working with Shane Fitzgerald of Total Growers Services and adopted the Petrik biological farming system.

The system incorporates soil and tissue testing, irrigation monitoring and Petrik Biological products.

The soil test showed some elements such as potassium were oversupplied, while other elements critical to plant health and quality were quite limited.

These were addressed before the application of Digestor soil biology and Green Manure Plus microbe support product.

Setbest foliar was applied to support flowering and fruit retention.

The soil was then 'monitored' by soil testing to ensure key elements were maintained at required levels.

The 2009 season produced high quality fruit; however, the yield was disappointing as the vines were producing from the bud set in 2008 prior to any changes.

Early 2010, however, which was the 2009 bud set, saw a very good flowering, resulting in a crop that was just over twice the previous best yield.

"As a percentage of increase in yield, you could say 100%," Mr Storey said.

The overall health of the vines has been improved using the Petrik biological farming system.

"These yields on a Menindee seedless in the tropics are unheard of."

Mr Storey qualified his statement, however.

"I need to repeat this over a two-year period to be able to say I can do it on a year-to-year basis," he said.

"I don't think it is any one thing but a combination of a lot of little things that has given me this result. But the one major thing that has to be right is nutrition and I have no problems stating that nutrition via Petrik products and recommendations has certainly contributed very significantly."

Plant health improvements were an unexpected benefit.

This is a significant advantage of the system, as balancing the soil chemistry has resulted in improved disease resistance in many crops.

This relationship in a banana crop was published by Total Grower Services in the *Australian Journal of Experimental Agriculture* in 2003.

Mr Storey went on to say he had not before seen the general healthy look of the vines.

"And even though we had a long, consistent wet season, we had zero incidence of downey mildew," he said.

"The quality and taste and ability to get to required Brix levels this year has been quicker and better than all previous years."

A shorter time to the required Brix meant a faster turnaround to market, a critical component for a product like Menindee seedless grapes.

Duane Storey, Burdekin, Queensland, picking his Menindee grapes after substantial yield increases.

New insecticide a hit

Information to help you get the very best from your crops

WELCOME to this month's edition of Scotty's Tips. Bringing you information from the field, to help you get the best out of your crops.

I am pleased to announce some exciting news for the vegetable industry, in particular to brassica, fruiting vegetable, lettuce and leafy vegetable growers.

The new insecticide option Durivo is now registered and will be available from September for these growers to use in their crops (brassicas: including broccoli, Brussels sprouts, cabbage, cauliflower; fruiting vegetables: including tomatoes, capsicum; and leafy vegetables: including lettuce, endive, silverbeet, spinach).

The feedback that I am receiving from growers in my travels is that Durivo is one of the most exciting innovations these growers have had in many years.

Durivo is the only broad-spectrum soil systemic insecticide, that controls both Lepidoptera and sucking pests via root uptake, providing up to 40 days' control.

Along with the residual activity that growers are seeing, they have also made some interesting observations when using Durivo under the minor use trial permit that allowed growers to treat commercial crops.

A number of the growers across Australian growing regions commented on a noticeable vigour effect they observed where the Durivo-treated plants suffered reduced transplant shock compared to standard treatments.

The treated plants showed more vigorous early growth which resulted in healthier and stronger crops, and in certain situations growers found that this translated into higher marketable yields.

Durivo is also registered for the control of diamondback moth *Plutella xylostella*.

As we head into spring and summer, keep an eye out for the diamondback moth, which can be one of the most destructive insect pests of brassica crops throughout the world.

Broadacre farmers on the Eyre Peninsula of South Australia have had huge problems with this pest, which will in turn lead to large numbers being present when the broadacre crops start to hay off in the spring.

Resistance of diamondback moth to a number of registered insecticides was first detected in 1993 and is present in all Australian states.

Given this fact, it is essential to have a robust resistance management strategy to ensure further resistance development is prevented.

By utilising a range of products from different chemical classes, with alternative modes of action, we can retain these products for as long as possible because they will remain effective.

Please refer to the CropLife website for the latest insecticide resistance management strategies.

Australian plague locusts (*Chortoicetes terminfera*) are certainly a very topical insect pest at the moment, and have the potential to be just as devastating to horticultural crops as they can be to broadacre crops.

Growers will certainly need to keep up to date with the situation on flights and products that are registered for the control of locusts or approved for use under the Australian Pesticides and Veterinary Medicines Authority (www.apvma.gov.au/) minor use permit system.

Please refer to the APVMA and the Australian Plague Locust Commission (www.daff.gov.au/animal-plant-health/locusts) websites for approved products.

TIP:

When your insecticide is working well, don't stick to it – use it in rotation with other insecticide groups to prolong the effective life of it.

Finally, always remember to seek professional advice for your specific situation.

Until next month,

Scotty

● For more information, please call the Syngenta technical product advice line on 1800 067 108 or visit www.syngenta.com.au