



PICK OF THE CROP

April 2009

From the early MAF days, growers have always relied on researchers to provide innovation and technology transfer. From government funded to user pays how times have changed. Value for money of research must be the important driver now more than ever.

So when the FRST funded research programme **Human Dimensions of Pesticide Risk Reduction in Horticulture** led by Plant and Food rears its head in a popular periodical, growers could be forgiven for asking a few pertinent questions. Such as, where is this research into pest reduction taking us? And what is the cost during these extremely tight funding times. Perhaps lastly, the goal of all this is?

On the surface, it seems just another survey into how much chemical is used on each crop and the accuracy of recording systems.

Justification for reducing the use of pesticides in modern IPM programmes is now common place anyway, the drivers being market access, effects on predators, environmental impacts and obviously, cost to the grower. On the whole applications are far more strategic.

If there are problems with growers misinforming the industry or infringing then yes correct it; but when ultimately this information is released, will the public really understand why weekly sprays are essential to control a new pest in tomatoes? There could be a case for some quick education.

Andrew Whitfield

MESUROL PRO SLUG BAIT – NEW FORMULATION

Pastoral farmers, market gardeners, and other cropping operators have a new tool in the war on the slugs. **Mesuroi Pro** is a new wet extruded formulation of methiocarb and is much smaller in size compared with existing Mesuroi. Methiocarb acts on nerve tissue in the pest causing inactivity and subsequent death.

Major improvements have been made to the speed of mortality, resistance to weathering (half life of three to four weeks) and bait size resulting in more baits per square metre with less dust.

Autumn weather conditions are perfect for major damage scenarios by grey field slug populations due to light rain, heavy dews and moderate temperatures of up

to 20 degrees. Heavy rain is actually detrimental to slug survival.

Rate of application is now a simplified 6kg per hectare and pack size a convenient 25kg bag. Slug control is easier with this new product, and this autumn is the perfect time to bid farewell to those slimy hermaphrodites once and for all.

NEW TOOL FOR BRASSICA INSECT CONTROL

Vegetable Brassica growers now have a new tool for caterpillar control in the form of **Coragen**, an insecticide from Dupont.

Coragen's unique mode of action targets the muscle fibres in a way that is different from other products. Other features include being active on all growth stages, translaminar absorption, and reliability under a wide range of spraying conditions.

Sound rotation policy has Coragen used in the September to January period of the Resistance Management Strategy. This strategy, brought about after poor control using old SP / OP technology, means growers now have a range of alternative chemistry to rotate for control of Diamond Back Moth and White Butterfly.

Coragen's unique attributes and soft environmental package should see further reduction in the reliance on old chemistry which in turn, helps reduce the effect on predators from older products.

Brassica growers can look forward to better control of lepidoptera pests in the years to come.

PSYLLID: 'SCOURGE OF SOLANUMS'

Few pests have caused more headaches for growers than the recent importation of the Potato / Tomato Psyllid. Now highly publicised around the country for its debilitating effects on crop health and yield, this pest looks likely to be around for some time.

Growers and agronomists alike began the past season aware and keen to eradicate this pest from their crops. However the significant yield reduction that occurred due to infestation was underestimated.

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PSYLLID: 'SCOURGE OF SOLANUMS' *cont*

Monitoring began in earnest last spring with few sightings but by mid December it was 'full-on', and spraying started in response to thresholds. What followed was one of the hottest and driest periods from November that provided conditions conducive to rapid spread of psyllid.

Now the season is over and the true cost of controlling the pest is calculated, the question can be asked "was it all worth it?" Given the tools we had, namely OPs and SPs, and one or two others, success has been limited at best.

Fungicides have normally been applied every seven to 14 days depending on growth etc. Perhaps insecticides for psyllids should have been applied at shorter intervals to have any chance of effect. However this can be economically impractical especially with the high water rates suggested.

For growers to have a chance of maintaining yields, margins and livelihoods, better strategies need investigation and actions implemented before it's too late and our clean green image is tarnished.

METALOSATE RANGE LAUNCHED

A new range of nutrients called **Metalosates**, launched by Grochem in the past season, found favour with many growers through a tough and stressful growing season.

Based on chelated amino acids, the US developed Metalosate range differs from other amino acid products in that it allows for rapid absorption and translocation. The key advantage of this being nutrients are absorbed within hours providing quicker results.

A true chelated Metalosate spray can be applied at much lower rates compared to alternative less soluble products and, unlike insoluble sprays, will not sit on the outside of the leaf.

Perhaps one of the most responsive crops, and one which certainly required a 'kick' along this past season, was squash which struggled in searing temperatures. However once the right nutrient and soil conditions were reached, some excellent yields of high quality fruit and corresponding out-turns in the market occurred.

Keeping quality has also been excellent. Foliar nutrition certainly played its part in this result.

Metalosate products namely calcium, boron, zinc, manganese are best applied after a leaf analysis indicates that deficiency is apparent. Normally one or two applications are required for certain vegetables e.g. for squash third flower and fruit starting to colour is the recommended stage.

More trial work will be done next year to determine varietal susceptibility of squash, and further expansion into other vegetable crops looks promising.

BROOM-CORN MILLET HERE TO STAY

The sweetcorn season this year has been hampered by dry conditions over certain soils and areas, but good yields have been harvested also.

Of major concern to sweetcorn and maize growers is the proliferation of the hybrid grass Broom-corn Millet. All industry personnel are concerned because of its suppression on yield (up to 30 percent) and effects on rotation crops like onions and tomatoes.

The increase in Broom-corn Millet is thought to be spread via machinery and harvesters, even with comprehensive between-paddock cleaning. Normal grass seeds usually spout, grow or rot with a short life span. Broom-corn Millet is a very hard seed with a protective coat that can survive for up to five years.

SFF funding has now been approved for research into controlling this aggressive weed.

Some control measures suggested are to avoid planting into paddock corners or close to fence lines, and using a different pre-emergent herbicide. It would appear acetochlor pre-plant incorporated is not the answer.

A good suggestion seems to be investigating the temperature at which germination occurs and hence when control needs to begin, similar to other crop disease models based on temperature.

For more information on any of these articles contact Andrew Whitworth 027 442 8946.