

# Monthly Crop

August 2011



Pukekohe Growers  
Supplies Ltd

## **Metarex® ... end of the trail for slugs and snails**

Darren Faire, Regional Manager  
Etec Crop Solutions

**METAREX** all-weather slug and snail bait with an 'attract and kill' mode of action delivers New Zealand growers a highly effective bait with excellent longevity characteristics under wet conditions that doesn't see the bait fall apart in the first shower of rain. In addition to these key benefits **METAREX** is also IPM friendly and will not impact earthworms or the slug predator Carabid Beetles as some other baits do. **METAREX** does not rely on random contact with the bait but is highly attractive. Numerous trials have demonstrated its palatability to slugs and that they will frequently choose to feed on the bait rather than the crop.

Produced by the largest manufacturer of slug baits in the world, **METAREX** contains the proven active - metaldehyde at nearly three times the strength of other metaldehyde based products and is homogenous right throughout the bait. The secret of the superior performance of **METAREX** is in the unique wet manufacturing process which results in a durum wheat based bait that is very rainfast and highly palatable to slugs and snails. This gives **METAREX** both the 'attract and kill' feature as well as its direct contact action. Metaldehyde causes irreversible damage to the mucus cells of slugs and snail. "They won't recover from a toxic dose no matter how wet the conditions." says Darren.

Excellent bait ballistics, uniform spreading, high number of bait points and the no dust, no hassle spreading features makes for a very effective and user friendly option for any on-farm slug or snail problem.

The safety to beneficial insects and Earthworms makes **METAREX** IPM compatible and allows beneficial insects to lend a helping hand for a sustainable pest solution, and its all-weather properties ensure growers get a long field life no matter what the weather. **METAREX** is used at significantly lower use rates than any other product so there is less bulk to transport and apply.

### Getting the best out of **METAREX**

1. Monitor for slug populations before sowing or planting
2. Consider pre-baiting with **METAREX** if the block has a history of high slug pressure. Crops grown under minimum tillage, trashy and/or moist conditions will be at greater risk from slug attack
3. Continue to monitor throughout crop emergence and establishment. If baits are no longer present and crop damage still occurs, re-apply **METAREX**

### **METAREX** benefits:

- Rainfast and very stable in wet conditions
- Attract and kill
- Easy to spread or drill
- No dust formulation
- Cost effective
- Soft on beneficial insects

**METAREX®**  
ALL WEATHER SLUG AND SNAIL BAIT

For further information on **METAREX** contact your PGSL agronomist or Darren Faire, Etec Crop Solutions on 021 392 740

# WHO CUT THE CHEESE??



**The Horticulture New Zealand conference** was well attended. Personally I thought it was a success, enjoying the guest speakers I found them to be stimulating and motivational.

Tuesday morning, 26 of July was clear and crisp, the temperature falling to  $-3^{\circ}\text{C}$  in places on our journey south. Conditions were great for driving, limited traffic and great visibility. Arriving in Rotorua you can't go past the overwhelming smell of Sulphur and I am sure everybody in the car initially had the same question in the back of their mind, looking at the person next to them, what have you been eating?

Fortunately you get used to the sulphur smell before too long. One thing is certain that there is no shortage of S in these local soils. This brings me to introduce two Sulphur based products PGSL has recently introduced and are currently available, ASN and Tiger-Sul®.

Sulphur is often over looked when evaluating a fertility programme. We need to specify S tests in lab analysis as an extra to accompany the Basic soil test. The application of Superphosphate in the past, primarily for the P content meant S was being added. Not all blends and composite fertilisers contain S, so with naturally occurring losses, soil S levels may be reduced and plant deficiencies may occur.

The main function of S in plants is protein and lipid synthesis. S compounds such as volatile sulphoxides are responsible for the smell and flavour of onions, brassicas and garlic. Sulphur is also a constituent of glucosinolate compounds which is what gives Caliente mustard its biofumigant properties.

Sulphur deficiencies are often confused with N deficiencies, growth rate is slowed, maturity is delayed, over all colour is pale with older leaves showing symptoms first. Loss to the system occurs through crop removal, immobilisation, or in anaerobic conditions sulphate is reduced to hydrogen sulphide, and through leaching. Losses from both leaching and anaerobic conditions can be a problem caused by high rainfall. We have looked at options for supplying S to crops and have two products available that are specifically targeted to address S levels. ASN (Ammonium Sulphate Nitrogen) and Tiger-Sul®+ trace elements.

ASN (NPKS 26:0:0:14). (7% Nitrate: 19%Ammonium S in Sulphate form)

ASN comes in 1.2t slings, is a Nitrogen source that can be applied as an alternative to CAN or Urea.

Tiger-Sul® is Sulphur with Mn and Zn input and comes in 25kg bags. Currently two grades are available;

ONION: S:67%, Zn:12%, Mn:4%

POTATO: S:85%, Zn:1.5%, Mn:1.5%

Both ASN and Tiger-sul can be broadcast at required rates.

Discuss these products with PGSL agronomists.

Written by Gary Graham

**Saturday opening.....**

**Spring is near, our store in Pukekohe will resume Saturday morning openings from mid September**

## New Word on the Block

One development in the fertilizer market over the last year has been the introduction of the word 'nutritionals.' It simply describes pop-up starter fertilizer (such as the classic 10-30-40) with micronutrients already added. Variations can include any number of micros, including some that contain sulphur, zinc, manganese, iron, and copper all in one blend.

Timed release products helped here. Ivan says TIGER 90CR Sulphur released throughout the season, improving nutrient utilization—and with less nutrients lost.

"We saw a fair amount of micronutrients go out with fall fertilizer, but growers also included specific micronutrient products, like TraFix Zn and KickStand Zn, with starter fertilizers at planting," says Helena's Powell. He says that the company is able to assist growers in monitoring crops with its MegaLab, a plant tissue analysis tool that provides prescription recommendations based on the specific needs of crops.

"This avoids a 'shotgun' approach to micronutrient recommendations, which is an advantage for our customers," he explains. Last summer, when heavy rains leached nitrogen, they recommended foliar applications of CoRoN controlled-release nitrogen.

"To provide lost N and micronutrients, we saw a lot of ENC (Ele-Max Nutrient Concentrate) go out, which gave growers N, P and K, plus a healthy load of micronutrients," adds Powell. That load included boron, iron, manganese, copper, zinc, cobalt, and molybdenum in a foliar application.

Smallwood also notes that recent years' tissue tests are revealing that boron is coming up short in plants. This nutrient is important for cell wall structure, membranes and metabolism, and deficiencies can affect crop yield and quality. He says the easiest way to combat low boron levels is application of granular boron to dry fertilizer, then a foliar application could be used later if needed. Many boron products are compatible with fungicides, for instance, and could be applied at the same time. Increased cotton acres will result in a need for boron, says Green. "Boron DDP is really flexible," as it can be used in starter fertilizer, in soil application as a coating on fertilizer, and in a foliar application that mixes quickly and easily, he says. In fact, almost all Wolf Trax DDP Micronutrients can be applied multiple ways. "Because of this flexibility, growers can address their crop's micronutrient needs, even if they applied fertilizer last fall," he explains.



### The season ahead

Froehlich points to the 2010 soil test summary completed by the International Plant Nutrition Institute (IPNI) as reason for concern in 2011. This work reveals there are still many areas of the country where nutrient application is not keeping pace with crop removal of nutrients. For instance, soil test phosphorus levels are very close to thresholds critical for optimum yield.

Froehlich also references recent research at the University of Illinois Champaign showing that corn root-worm resistant hybrids removed significantly more nutrients (N, P, K, S, and Zn) from the soil

than their non-resistant counterparts. "It's a challenge for retailers to continue to counsel their growers on the fact that updated fertilizer plans are needed to keep pace with the advancements in seed technology," he says.

Green says the new higher-yielding genetics can require 14% to 27% more zinc, for example. He believes WolfTrax Zinc DDP is a highly efficient way to deliver zinc to a young corn plant. The product has a unique ability to coat dry fertilizer and offers better placement closer to the seedling for earlier uptake. Green says the coating technology in all DDP products offers "more consistent blends and a nice, even blanket-like coverage across a field."

Froehlich also emphasizes the need for uniform distribution of readily available nutrients. He says Mosaic's Micro Essentials provides the crop with nitrogen, phosphorus, sulphur and zinc in a single granule, while K-Mag supplies potassium, magnesium, and sulphur, all in the highly available water soluble sulphate form.

Also for feeding demanding hybrids this year, Tiger-Sul is introducing Tiger Micronutrient Zn 4%, a low analysis zinc formulation combined with sulphur that Ivan says provides a much improved distribution of zinc in the soil. "Fifty pounds of our 4% Zn will result in 42 pounds actual sulphur with two pounds actual zinc," Ivan describes.

A huge aid in managing fertilizer efficacy is soil testing, say all the manufacturers we contacted. "Micronutrients can be very site-specific in a field, varying from deficient to sufficient in a small area," says Ivan. Site-specific management and application will improved outcomes. "New spreading technology such as the New Leader Multi Bin system has multiple bin hoppers that allow for different fertilizers, including micronutrients," he points out.

In-season, plant tissue testing can provide an indication of micronutrient deficiencies, but often once a problem is spotted in a field, some of the negative impact on yield has already taken place, says Froehlich. "in years like this one, where there is a significant incentive to maximize yield results, it's important to make certain both primary and micronutrients are available to the crop throughout the season."

Manufacturers and dealers can step in to help growers assess their micronutrient needs. For instance, WolfTrax has rate recommendations based on soil and tissue test data, available at wolfrax.com.

Froehlich adds that dealers can help growers watch out for pitfalls. One situation to mention: In some high calcium soils, soil tests may show high levels of nutrients, but the calcium locks them up, keeping them from getting to the crop. "In these cases, products that contain nutrient in the readily available sulphate form, like K-Mag, are especially valuable," he says.





**Do you want to be one step ahead when disease strikes??**

**At PGSL we offer the following beneficial information vital in keeping you one step ahead of disease**

- \* **Downy mildew and blight infection alerts**—texted to your mobile daily.
- \* **Weather updates**- Updated three times weekly and obtainable by yourselves through our company website and/or faxed/emailed to you directly.
- \* **24/7 access to weather stations** giving you updates on:
  - \* **Temperature**
  - \* **Relative Humidity**
  - \* **Wind speed**
  - \* **Wind direction**
  - \* **Solar radiation**
  - \* **Soil Temp**
  - \* **Rainfall figures**
  - \* **Leaf Wetness**
  - \* **White Rot degree days to help determine first application of spray prevention**

\* *Enquire below for further information*

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## **Pukekohe Growers Supplies**



Mike Gordon	021 962 462
Gary Graham	021 992 829
Dean McMiken	021 717 934
Warren Hickford	021 2864634
Stuart Wood (Store)	021 717 924
Mark Abernathy (Store)	021 581101
Jerome Benefield (Waharoa)	021 778 073
Fred Smith (Waharoa)	021 790 181

Pukekohe Ph	09 2370430 0800 100 747
Fax Free Ph	09 2384226 0800 100 747
Waharoa Store	07 8887342

## NEW BASELIER GKB POTATO WEEDEE

The new Baselier GKB is a mechanical weeder for post emergence potato ridge cultivation, available in the UK and Ireland as part of the Standen-Person Potato Systems range.

The Baselier GKB series is available in 2-row, 4-row and 6-row formats and comprises of a strong frame, with mounting points for a variety of different cultivating systems. Most popular for a wide range of soil types, is a series of staggered tines, Vibro-Flex tines and ridging bodies, with the option of ridging discs for stony soils, followed by a ridge forming hood.

The ridge forming hood is parallel linkage mounted, with top plates that can be easily unbolted to allow post emergence cultivations without damage to plants. The forming hood is also (optionally) extended rearwards with stainless steel plates to allow high speed cultivations.

According to Standen-Pearson a large Lincolnshire growing company this year was operating a new Baselier GKB 4-row at up to 10km/h, cultivating in excess of 60 acres of potatoes a day.

“The new baseliner GKB offers low cost, high speed operation, with the added benefit of reducing chemical inputs as growers look to limit herbicide applications to meet the changing needs of their markets and legislators. Cultivation and ridge re-consolidation noticeably reinvigorates the crop and the effect can be clearly seen after just a few hours,” says Alex Matthias of Standen –Pearson.

Baselier GKB prices start at £4534.00 for the 2 row models.

The new baseliner GKB potato weeder is available in the UK from Standen Reflex



The Vegetable Farmer  
July 2011

## BASF Variety approved

Ludwigshafen, Germany—The European Commission approved Amflora, BASF's genetically optimised starch potato, for commercial application in Europe. The potato can now be used for the production of industrial starch.

Amflora produces pure amylopectin starch used in certain technical applications. Food use is not foreseen. It was developed in collaboration with experts from the European starch industry to respond to the demand for pure amylopectin starch. Conventional potatoes produce a mixture of amylopectin and amylose starch. For many technical applications, such as in the paper, textile and adhesives industries, pure amylopectin is advantageous, but separating the two starch components is uneconomical. The industry will benefit from high-quality Amflora starch that optimizes industrial processes: it gives paper a higher gloss, and concrete and adhesives can be processed for a longer period of time. This reduces the consumption of energy, additives and raw materials such as water.

Potato Grower May 2010



# Repellant Priority

Imagine you're a rare beetle trying to smuggle yourself into NZ. You've heard it is a paradise for bugs—ideal conditions for multiplying, plenty of food and few natural predators. You hide away on a container bound for Auckland and creep ashore in the dead of night. You're free, luxuriating in the feel of pastures green under your tiny feet, when suddenly it all goes wrong. The jig is up.

You're spotted by an entomologist out walking his dog and taken into custody.

That's what happened to the hadda beetle - a leaf eater with a taste for bean, tomato, potato, capsicum and aubergine plants.

It had the extraordinarily bad luck to be seen by an off-duty scientist, someone who could distinguish it from its good-guy lookalike, the ladybird.

The trouble is, this hadda wasn't alone. More were found after it was first spotted in an Auckland park earlier this year and, despite spraying pesticide, MAF Biosecurity two months later admitted defeat. The hadda is here to stay....



It's not what fruit and vegetable growers wanted to hear—nor the home gardener, for that matter. At least, you at home with your veggie plot can accept the loss of your row of runner beans, but the commercial grower cannot. The likelihood is that when the hadda appears they will have to use more pesticide on their crops. The hadda follows on the heels of the Psyllid, a bug that is running rampant through potato and tomato crops as it explores the country, and the lettuce aphid, which home gardeners will also know.

Grower's first reaction is to reach for the sprayer to deal with these pests, which is a shame. NZ horticulture has been developing integrated pest management plans—which rely on encouraging other less harmful insects to prey on the bad guys—to persuade growers to be easier on the environment.

Scientists have discovered the Psyllid has several voracious enemies and are urging growers to put away the sprayer. However, the hadda is also on the way, and who knows what will follow that.

The fruit industry's biggest fear is that a species of fruit fly will get through. Its appearance would instantly close borders across the globe to our apples, kiwifruit and other fruit. Past discoveries have seen the mobilisation of aerial sprayers over Auckland suburbs.

The fruit fly tops our border patrol's list of baddies to watch out for. In the past week alone, two incursions have been thwarted—one by an eagle-eyed inspector who realised a black spot on one of the 600 oranges in a Californian consignment was fruit fly eggs.

From time to time there are grumbles about how efficiently MAF Biosecurity is doing its job. It is largely a thankless task, TV fame notwithstanding. The most difficult aspect is keeping an eye on thousands of shipping containers and the department has to rely on other countries to ensure they are clean.

Recent moves to cut staff numbers aroused great bitterness among growers and they are not impressed by moves under way to involve them in sharing the cost of biosecurity.

In a policy change that also includes other agricultural and horticultural industries, MAF Biosecurity is saying that along with sharing the costs, it will share planning and decision making with grower organisations. Behind this is the threat that if they don't agree, priority in dealing with an incursion will be given to those who have signed up and if they benefit from the response they will be levied their share of the costs.

Not surprisingly, many of the growers don't like this. They object to being forced to take on what they feel is the Government's responsibility. Some complain that when an incursion happens growers have to pay anyway. As an example, the costs of lost production and counter-measures to fight Psyllid in the past year alone is estimated at \$60 million. Paying for an ambulance at the top of the cliff could prevent a fleet of them being needed at the bottom.

Agriculture Minister David Carter has assured the various industry bodies that this is not a cost-cutting exercise and is a genuine attempt to improve biosecurity by involving the people most affected.

It won't be easy. It will take a change in mindset on both sides. But the opportunity for each industry to list its greatest pest or disease threats and have a say in how to guard against them and, if there is an incursion, how best to deal with it can't be missed.

After all, something has to be done to improve the country's biosecurity.

We could do with more sharp-eyed boarder inspectors. Not to mention dog-walking entomologists.

NZ Herald—Jon Morgan, June 1 2011

off the mark .com by Mark Parisi



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## No apologies for prices—Ag Brief July 20-26

The fresh fruit and vegetable industry is not benefiting from recent high prices and the industry doesn't apologise for high prices, because it doesn't control prices, says Hort NZ President Andrew Fenton. "Just in the last few weeks, with the announcements of the latest food and consumer price indexes, we saw the painful results of a perfect storm of conditions. Bad weather here and in Australia, increased on-farm costs and the increase in GST all pushed up what are already high winter prices, particularly for tomatoes, lettuce and capsicum." A Hort NZ staff member found tomatoes selling in Wellington recently for \$1.99 each, he said. "When product is in short supply, it will be more expensive and there are some consumers who shouldn't be trying to buy the same product all year round, because it is expensive to do so. Seasonality is the key to sensible fresh fruit and vegetable purchasing, for example, buying fresh strawberries in NZ in July is a luxury for most of us," he said.