

## Nelson market gardener takes delivery of massive sprayer

*A specialised vegetable crop self-propelled sprayer with an 18-metre boom has recently been commissioned for Nelson market gardener John Ewers.*

The Barigelli Gambetti – or more commonly Bargam – 2500-litre sprayer arrived at the Waimea Plains home block of JS Ewers Ltd in early August and is expected to make a significant improvement to overall efficiency, says John.

The features of such a specialised sprayer are considerable, but some key benefits appealed to John. "There is one metre of clearance under the tractor unit so it's very unlikely you'll damage any tall crops like celery. Its 2500-litre spray tank means a lot less stopping and making up new tanks of spray. And the 18-metre boom will obviously cover a lot more crop than our existing 12-metre unit."

John says they have made a slight adjustment to crop row spacing to better fit the wheel tracks of the Bargam. "Potentially this unit could cover in one day what the other unit could do in a week."

Rod French, John's Fruitfed Supplies representative, estimates that approximately 50% more ground can be covered per pass with the Bargam sprayer due to the boom length. There is also potential for much greater ground speed due to the increased stability and air-assisted boom.

With a range of settings able to be changed from the cab by the operator, such as boom height which can vary from 0.5-metres to 2.0-metres, the all-hydraulic Bargam is extremely flexible. "We can get some pretty strong winds so it's an advantage to be able to lower the boom right down over the crop and keep spraying. The air-assisted nozzles also offer good penetration," says John.

*Continued on page 3.*



*Nelson market gardener John Ewers has just taken delivery of this 2500-litre, height-adjustable Bargam sprayer with a 18-metre boom*

In this issue we look at:

- ✓ Netafim irrigation controller improves quality
- ✓ Fruitfed Expo in Blenheim, 4 September
- ✓ Bayer launches Flint Star
- ✓ DuPont offer asparagus herbicide options
- ✓ YaraVita foliar range on market
- ✓ Control late blight with Revus
- ✓ Spectacular golfing at Cape Kidnappers



*Operator Kelvin Trower hopes to be able to cover around 50 per cent more crop with each pass in the Bargam than with the previous unit*

## Stronger seedlings with Netafim fertigation system

*Nelson vegetable seedling propagator Rob Conning installed a new Netafim Netajet inline dosing system two months ago. The quality and evenness of the resultant seedlings has impressed him, his team and his customers.*

The Conning team produces millions of vegetable seedlings for customers around the region as well as their own market gardening operation on the Waimea Plains.

Richmond-based Fruitfed Supplies irrigation representative Bill Lucre takes *Facts* through the details of the Netajet inline dosing system, one of only two in the country.

"Netafim developed these controller units after first asking growers what they want in a fertigation system. The menu-driven programmes are logical, allowing a combination of programmable elements to structure a watering and fertigation schedule to suit your exact requirements. Several channels allow specific soluble fertilisers, and other products like anti-mildew fungicides, to be added to the water by the measurement you stipulate, such as ph and EC, quantity, time or ratio of product versus water volume," says Bill.

"This may sound complex, but once the key elements are established, it's very easy to review the programmes once they have run via the reports to fine-tune the application as required. Geoff Hayes, Rob Conning's operations manager, finds the unit very easy to use and reports improved quality and consistency of all seedling varieties.

"As part of the irrigation system upgrade that we designed, new Netafim sprinkler heads, hoses, valves and pipes were installed. The aim – which we have achieved – is to ensure 98% uniformity across all seedling trays no matter which bay they are in, inside and out. They also have the option of adjusting each bay's programme to suit a specific seed variety or time of year."

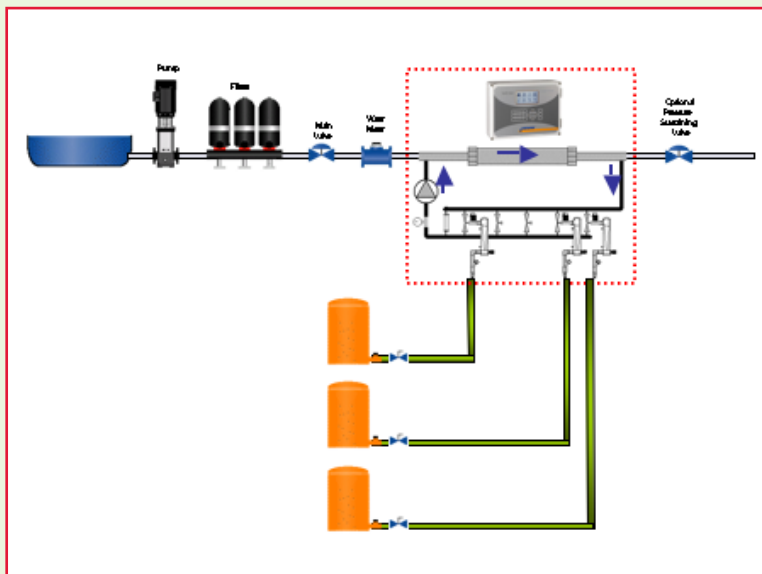
Bill has recently been working with Rob to install a link from the controller unit to the main office computer, allowing easier access to reports and menus. When a modem is installed, Rob will be able to have remote access to the system from any internet-enabled computer. A future step is likely to include an automated water sensor to turn the irrigation on automatically. ⇨



*One of only two in the country, the Netajet inline dosing system has helped Rob Conning and his team produce better quality, more evenly developed vegetable seedlings*



*The irrigation system upgrade included new hoses, sprinklers and valves throughout the seedling shadehouse*



### TECHNICAL DATA:

Method	Bulk or proportional
System flow rates	0.5 – 20 m <sup>3</sup> /hr
Number of dosing channels	Up to 5
Injection rate	30 to 300 L/hr per channel
Working pressure	2.5 – 5 Bar
Sensors	EC & pH

# Fruitfed-branded citrus fertiliser offers sound base programme

*Three versions of a new Fruitfed-developed and branded citrus fertiliser are now available.*

Following the success of Fruitfed's avocado and kiwifruit fertiliser mixes, which have been available for some time, the technical team has developed a Fruitfed citrus mix range.

Richard Bawden, Katikati branch manager and northern region technical manager, played a key role in specifying the nutrients and their proportions to make the three targeted citrus mixes.

The three mixes are:

- ✓ **Zero K mix** which contains 18.4% nitrogen, 3% phosphorus and no potassium. This is ideally suited to Gisborne and Hawkes Bay soils with high reserves of potassium.
- ✓ **General citrus mix** containing 9.9% nitrogen, 4.2% phosphorus and 12% potassium. Suited to other areas where potassium inputs are required.
- ✓ **Lemon mix** containing 15% nitrogen, 2% phosphorus and 6% potassium, i.e. nutrients in proportions required by lemons.



Richard says all three mixes contain high levels of magnesium – required by citrus in general – and a complete trace element package.

"The Fruitfed citrus mixes are also chloride-free. They offer growers three correctly-proportioned mixes of nutrients to suit local varieties/growing conditions and are a simple way to supply most of the plants' requirements," says Richard.

"Additional fertilisers may be necessary following soil and leaf analysis to 'personalise' the fertiliser programme for given situations, but the citrus fertiliser range offers a good base programme to build on."

Available bagged through all Fruitfed Supplies stores or in bulk from Ballance depots. ➡



*Phil Wither, Katikati Fruitfed Supplies customer service representative, shows the citrus fertiliser mixes available by the 25kg bag*

*Continued from page 1.*

The Bargam has three different nozzles fitted to each boom outlet, and the operator simply needs to click the fitting around to the right nozzle.

Rob Marshall, South Island territory manager for Croplands which imported the sprayer, says the air-assisted boom kit is an important feature. "It enables the operator to 'dial up' air on demand from the cab. This opens up foliage and pushes spray droplets in, giving unbeatable crop penetration and spray coverage. Other advantages of the air-assisted boom include faster speed, lower water rates and an increased spray window due to its ability to protect against spray drift."

The Ewers' vegetable cropping operation is one of the largest in the Nelson area, with John having established some key markets keen to take their year-round production. With around 250 acres in outdoor crops, John makes the most of the different microclimates and soil types around Nelson to ensure they can maintain quality and quantity of supply year-round. Heavier soils on the plains are too wet and frost-prone for winter crops but are ideal in summer with their water-holding properties, while a sheltered valley towards the Richmond hills offers a frost-free warm microclimate to keep supplies of traditional outdoor crops like celery, cabbage and cauliflower running through the winter months.

As well as the variety of outdoor crops, seven hectares under glass produce capsicums, tomatoes and cucumbers and John's enterprise keeps 80-100 people in full-time employment.

The unit was imported by Croplands Equipment Pty Ltd into Australia from Italian manufacturers Barigelli Gambetti. From there, it was shipped to Wellington where Fruitfed Supplies Richmond engineer Stuart Flowers fitted the spray boom and commissioned the sprayer before it was shipped to Nelson. John says it's very important to him that Fruitfed Supplies can provide the right kind of support for a sprayer such as this and therefore Stuart's expertise and knowledge with this particular unit will be vital. ➡

## BARGAM OPTIONS

- 4 wheel drive with traction control
- 4 wheel steer (selectable between 2 wheel steer, 4 wheel steer and 'crab' steer)
- 130hp (up to 230hp available on request)
- Automated tank-filling pump
- Range of tank sizes: 1000-5000L
- Range of boom sizes: 12m-36m
- Hydrostatic or mechanical-drive options
- Air-conditioned cab with ROPS
- Mid-mounted cab for maximum visibility and operator comfort

Talk to your Fruitfed Supplies representative for a full list of features or a brochure.



## **METAREX**<sup>®</sup> ALL WEATHER SLUG BAIT

### METAREX

- More persistent
  - More palatable
  - More performance
  - More IPM friendly
  - More bait points
- } = End of the trail for slugs and snails

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

*Metarex, the all-weather slug and snail bait with an 'attract and kill' mode of action, has arrived on the New Zealand market.*

New Zealand growers now have a highly effective bait that doesn't fall apart during the first shower of rain says John Read, CEO of Elliott Technologies Ltd which imports and distributes Metarex. "It's also IPM friendly and is so palatable to slugs and snails that they will choose to feed on the bait rather than the crop," says John.

Metarex 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."

The key ingredient is a high strength metaldehyde carried in a homogenous durum wheat bait. "The bait is highly palatable to slugs and snails, giving Metarex both the 'attract and kill' feature as well as its direct contact action against both molluscs."

With good safety to earthworms and carabid beetles, Metarex is IPM compatible. The addition of Bitrex animal repellent makes it a user friendly option whatever your on-farm situation, says John.

"Its unique new technology formulation allows for uniform spreading, with high number of bait points with no dust, no hassle spreading.

"And its all-weather properties ensure growers get a long field life no matter what the weather. It's used at a low use rate, so provides a cost-effective slug and snail control option for all horticultural and agricultural crops." ❖

Metarex is registered pursuant to the ACVM Act 1997, No P7708.

### USAGE IN VEGETABLE AND NURSERY SITUATIONS

Rate: 4-8 kg/ha. Slugs are active year round whenever temperature and moisture conditions are favourable. This varies by species, however generally damp, mild, calm conditions favour activity.

- ACTIONS:
1. Monitor slug numbers (place a sack or tile on ground overnight), reduce weeds, crop litter and materials that harbour and/or provide a food source;
  2. Cultivate a fine seed bed (vegetables);
  3. Bait again under moist conditions if pressure continues.

DO NOT apply to edible parts of crops. Please refer to label before use.

### FRUITFED SUPPLIES BLenheim EXPO

Tuesday 4 September 2007  
11:00am to 6:00pm

The Stadium,  
Kinross Street, Blenheim

Contact the branch on  
(03) 578 5389  
for more details.

# Raising the bar on black spot control in apples

*After three years of testing in New Zealand conditions, Bayer CropScience launches Flint Star, a newly formulated fungicide, for black spot control in apples.*

Bayer CropScience's New Zealand marketing manager Peter Fisher says Flint® Star is a good example of the innovation coming out of the company's global product pipeline.

"There are a number of fungicides available to the apple grower to help control black spot – all have their limitations. Some are less effective at cooler temperatures, while others may wash off after only 25 mm of rain, or are only effective as a protectant," says Peter.

"Flint Star has all the attributes of the ideal apple fungicide. It provides long lasting protection and has a strong curative action against black spot. After application, Flint Star is rainfast when dried (two hours) and can withstand heavy rainfall (up to 60 mm, after which it should be reapplied)."

A block of two applications at seven day intervals will provide a grower with 14 days to get on with time-critical orchard operations without having to worry about what the weather is going to do next.

Flint Star gives excellent fruit finish and is the most effective fungicide available for control of powdery mildew. It has no effect on beneficials (including *Typhlodromus pyri*) making it ideal for use in IFP programmes.

"What makes Flint Star so effective is its co-formulation of two very effective active ingredients, trifloxystrobin and pyrimethanil," says Peter. "These two active ingredients work on black spot in different but complementary ways."

Trifloxystrobin (also found in Flint) is a protectant fungicide, which, once dried becomes locked onto the leaf surface and waxy layers of the plant



## FLINT STAR OFFERS COVER AT CRITICAL TIME

Hastings-based Fruitfed Supplies' field representative Gary Speers says one of the key advantages of Flint Star he has discussed with clients is the fact the fungicide can handle up to 60 mm of rain before re-application is required.

"That critical early season timing for black spot control – full bloom to petal-fall – is also an important time for jobs, such as chemical thinning, which have very specific requirements for hot temperatures," says Gary. "If you can be confident that your black spot protective fungicide, i.e. two applications of Flint Star at seven day intervals, gives ongoing protection through this period – subject to rainfall, of course – then you have an excellent opportunity to complete other time-critical jobs on the orchard."

to form a rain-resistant reservoir of fungicide. Pyrimethanil (also found in Scala®) is a systemic fungicide that is rapidly taken into leaf tissue. It is rainfast on drying, has protectant and curative properties (up to 72 hours) and works at low temperatures.

"The recently introduced restrictions on late season use of black spot fungicides mean that your early season programme is more important than ever.

"Keeping your crop clean revolves around regular application of effective fungicides – starting early and keeping a tight programme. This is where Flint Star should fit into your spray programme – in the period pink to 90% petal-fall. Applied according to label directions, Flint Star will help build the foundation of a crop of high quality fruit, free of black spot. ❖❖"

Flint Star is registered pursuant to the ACVM Act 1997, No. P7500 and is approved pursuant to the HSN0 Act 1996, No HSR007673.

Royal Gala trees treated with Flint Star in last season's trial



The untreated Royal Gala from last season's trial



## YaraVita foliar products hit the market

*Yara, supplier partner to Fruitfed Supplies, is launching the YaraVita range of foliar products this coming season.*



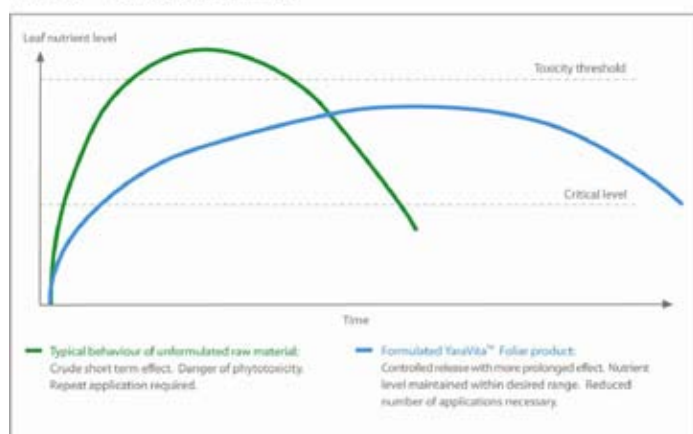
Previously distributed under the Phosyn brand, the new YaraVita range consists of the traditional proven products like Bortrac, Bud Builder and Hydromag, and several exciting new formulations says Michael Waites, Yara NZ general manager.

"YaraVita products are not simply nutrients; they are finished products designed right from the outset with maximum crop nutrition in mind. When you choose YaraVita you can be sure that what you apply will be easy and convenient to use and safe for your crops," says Michael. "Foliar sprays ensure precise application of the right nutrient(s) at the right time and can be specifically targeted to the leaf or fruit to suit immediate crop needs."

Each YaraVita foliar product is formulated from consistently high quality nutrient compounds. "The range includes soluble powders, liquids and suspension products, all based on raw materials with low impurities. They are manufactured to very

### THERE IS ONLY ONE WAY TO MEASURE A FERTILISER: RESULTS

#### YaraVita™ Formulation Summary



### YARAVITA:

- A complete line of products to help you get greater yields and quality
- Unique range of benefits and unrivalled performance
- Designed and formulated for maximum efficiency
- Can be applied exactly when nutrients are required, and therefore taken up, by the crop
- Yara's attention to detail throughout product design and manufacture aids grower's overall income

## Weed protection in asparagus important

*DuPont has five superb herbicides registered for keeping weeds out of asparagus beds.*

As a general rule Krovar®, Hyvar®, Karmex® are suitable for use in established beds while Lexone®, Linuron® and Karmex can be used in established and younger beds.

Weed control during the cutting season and at close-up is critical for a productive, profitable asparagus crop.

For many years, Hyvar, Karmex and Krovar have provided the backbone of grass and broadleaf weed control at opening and close-up, delivering crop safety as well as weed-free days during the cutting season.

Krovar, a formulated mixture of the two actives in Hyvar and Karmex, provides the best value and efficacy on a wide range of grass and broadleaf weeds. Where Karmex tends to sit higher in the soil profile, with a shorter residual, Hyvar sits lower, is more active and has a longer residual. Both products together, or in the formulated mix as Krovar, give a great spectrum of weed control, over the key weeks of the harvest season. Used at close-up they allow the asparagus to maximize fern growth with minimum competition from weeds.

Linuron and Lexone are both active on a variety of grass and broadleaf weeds. In younger crops (seedlings and transplants), they achieve best results when sprayed on young but actively-growing weeds. They have less residual activity, but more initial knockdown than Krovar, Hyvar or Karmex. ⇄

**Don't let  
weeds eat  
into your  
profits.**



If you've got weeds in your asparagus beds, they're living out of your pocket. DuPont™ have a range of products to help make sure that doesn't happen. Hyvar®, Krovar®, Linuron®, Karmex® and Lexone® are specialist herbicides designed to ensure that the only thing feeding on the nutrients in your asparagus beds is asparagus.

All products registered pursuant to the ACVM Act 1997.

Hyvar P678, Krovar P2212, Linuron P565, Karmex P8 and Lexone P03949.

Always refer to the label before use. The DuPont oval logo™, the miracles of science™ and Hyvar®, Krovar®, Linuron®, Karmex® and Lexone® are registered trademarks or trademarks of DuPont or its affiliates.



*The miracles of science™*

FCB DUP0246

high – often food and even pharmaceutical grade – standards. Products contain co-formulants, such as wetters, stickers and absorption aids, to control and enhance the performance of the nutrient raw materials."

Easily tank-mixed with other agrochemical inputs, YaraVita products are also designed to make treatment convenient.

"Visit the website [www.tankmix.com](http://www.tankmix.com) to find results of over 40,000 tank mix tests; this database is updated daily and is searchable by product or active ingredient," says Michael.

Yara's rigorous quality control ensures consistency and performance and the company's global presence allows it to work with growers all over the world to gain invaluable in-field experience.

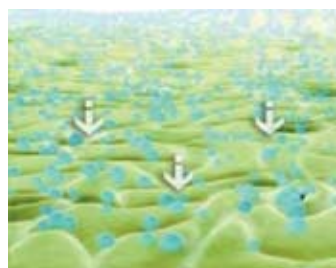
"We know that the choice of product and timing of application is extremely important to achieve optimal plant growth and performance. Our advice on our products takes into account all factors: the crop, projected yield, crop quality requirements, availability of nutrients from the soil, weather conditions and local crop husbandry methods," says Michael. ❖

## New standard of late blight control with Revus

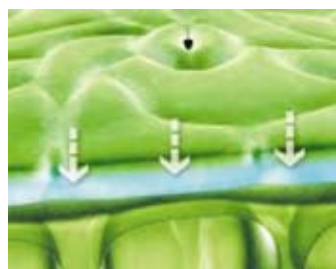
*Revus is a new potato fungicide developed by Syngenta Crop Protection for the control of late blight in potatoes.*

With 250 g/L of its active ingredient, mandipropamid – a new compound belonging to a new chemical class, the mandelamides – Revus offers advanced late blight control by providing powerful protection, reliable rainfastness and long lasting disease control.

Revus delivers a unique combination of three features called LOK+FLO



1. *Revus is highly active as soon as it hits the leaf surface – The active ingredient has a very high intrinsic activity against late blight, so Revus can be used alone at low dose rates and does not need to be mixed with contact fungicides, such as mancozeb.*



2. *Once applied, Revus bonds quickly and strongly to waxy layer of plant surfaces. In fact, Revus cannot be washed off by rain once the spray has dried; approximately one hour after spraying.*



3. *Revus gradually permeates the plant tissue to provide a reservoir of active ingredient for disease control on both sides of the leaf.*

As a result of LOK+FLO, Revus provides consistent, reliable, long lasting protection against late blight, no matter what the weather. It also provides limited curative activity (12 hours) during the initial infection phase of the disease (prior to visual symptoms), which adds to the robust performance of Revus when used in a preventative spray programme.

Extensive trials in New Zealand and overseas have shown Revus to provide powerful protection against late blight through its reliable and consistent disease control.

Revus has consistently shown to produce a cleaner and greener crop when compared to other fungicide treatments, due to its reliability and longer lasting disease control.

# REVUS

Other benefits:

- Resistance management

Mandipropamid, the active ingredient in Revus, together with

iprovalicarb and dimethomorph, belong to the same mode of action group, the carboxylic acid amides (CAA-fungicides, FRAC group 40). To minimise the risk of resistance no more than 50% of the fungicide applications used for late blight in a season, should contain a CAA fungicide. Always follow label directions.

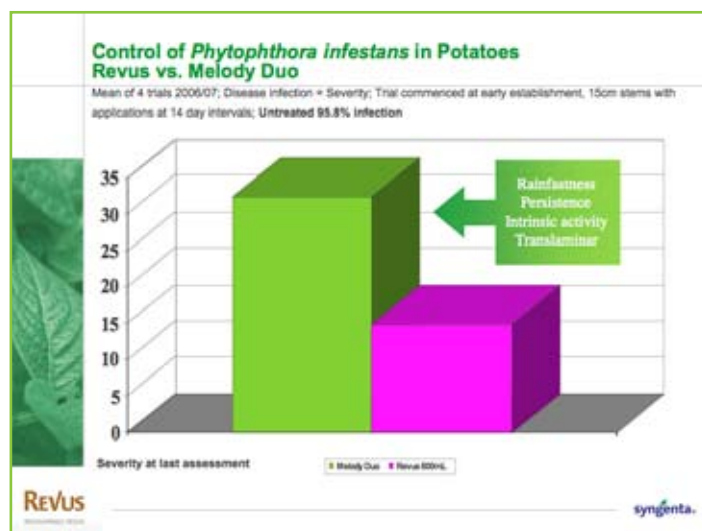
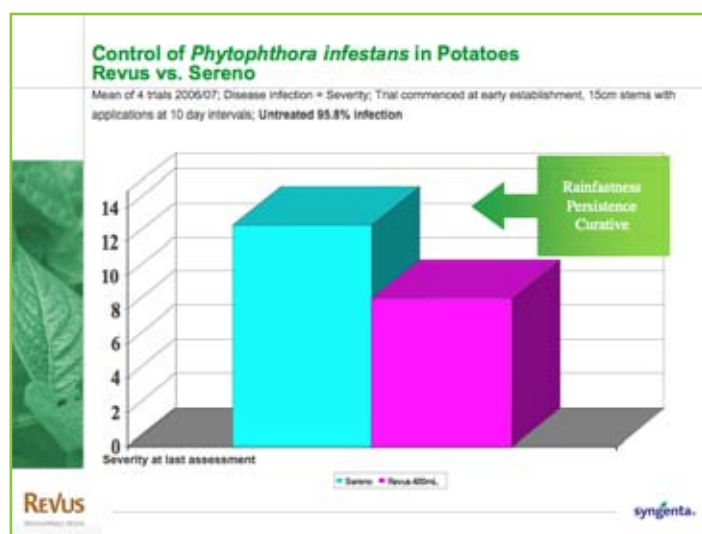
- Safety to users, consumers and the environment

Revus has a favourable toxicological and environmental profile. It has very low toxicity and therefore is user friendly. It is not hazardous to bees, beneficials, fish or other invertebrates. Revus shows very good degradation in the soil and poses no risk to ground water. It has excellent crop safety and meets modern requirements for minimal residues in the crop at harvest.

- Easy to use liquid formulation

Revus is an easy to use liquid formulation and comes packed in 5-litre plastic drums, enough to treat approximately 8 to 12 hectares, depending on use rate. ➡

Revus is registered pursuant to the ACVM Act 1997, No. P7598.



## ASPARAGUS



Areas that have had a wet winter could expect **phytophthora root rot** to be a problem in asparagus crops this season. Good drainage is the key to avoiding epidemics of this disease, but established beds should have Ridomil® Gold applied prior to spear emergence, particularly if phytophthora symptoms were seen last season.

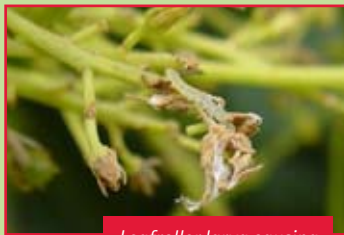
Take **root samples** prior to starting harvest to assess carbohydrate levels using AspireNZ. Further information on this Crop & Food Research product is at [www.aspirenz.com](http://www.aspirenz.com)

## AVOCADOS



### Reminders for September:

- ✓ **Foliar nitrogen**, e.g. Yara Safe-N or low-biuret urea, may need to be applied to remedy nitrogen deficiencies that often show as yellowing foliage through winter and into spring. Ensure only true low-biuret urea is used as a foliar spray, to reduce risk of phyto-toxicity from biuret. However, do not apply urea in combination with foliar boron close to flowering, as research in California indicates this combination may adversely affect fruit-set.
- ✓ As weather starts to warm in spring, keep an eye out for **six spotted mite, leafroller and greenhouse thrips**, especially on those blocks carrying a crop ready for harvest. Six spotted mite in particular should be controlled pre-flower if present, to reduce the risk of population explosions during the flowering period.
- ✓ Approaching harvest, be aware of **withholding periods** (pre-harvest intervals) when spraying, especially for fruit destined for the USA, Asian or European markets. Short PHI's favour the use of Mit é mec for six spotted mite control, Success Naturalyte for leafroller control and Calypso or Malathion for greenhouse thrips control.
- ✓ Recommended soil applications of **Fruitfed Avocado mix** and/or boron should start during September, as trees become more active with increasing temperatures.



Leafroller larva causing damage to flower truss

## BRASSICAS



The **diamondback moth resistance strategy** switches windows this month. If action thresholds are exceeded one of the Bt products with the *kurstaki* strain, e.g. Delfin Success Naturalyte, an organophosphate, endosulfan or a carbamate should be used.

If **aphids** are an issue, consider using one of the selective aphicides, Pirimor or Chess®, rather than the insecticides with broad spectrum activity.



Caterpillar damage on broccoli leaf

## CITRUS



### Reminders for September:

- ✓ The **fungicide** programme needs to be maintained up to and post-flowering to protect against scab and melanose infection of young shoots and fruitlets.
- ✓ As weather begins to warm in spring, keep an eye out for increasing pest populations, particularly **greenhouse thrips** (where fruit are still present) and **armoured scales**. Be on the lookout also for increasing **aphid** populations, particularly on young trees where they do most damage on young vegetative flush. Monitoring for these insect pests to determine control requirements allows justified use of agrichemicals, without the risk of unnecessary applications. For further details on **crop monitoring**, contact your nearest Fruitfed Supplies branch.
- ✓ With cool spring weather limiting nutrient uptake, **foliar fertilisers** such as Citrac should be considered, to promote strong flowering and fruit-set.
- ✓ Pruning trees from September onwards, when **lemon tree borer** adults are flying, may result in infestation as the adults are attracted to the fresh cuts (see photo).



Lemon tree borer damage

## GRAPES



### Reminders for September:

- ✓ When combining oil with insecticides in a tank mix remember to **add the oil last** when the spray tank is nearly full. Also, make sure the spray is agitated throughout the mixing process.
- ✓ **Select a narrow range oil** and check the unsulphonated residue level to minimise the risk of plant injury.
- ✓ Start spraying for **powdery mildew and erinose mite** soon after bud break (at approximately 2cm shoot growth) to ensure these do not establish on vine foliage.



Powdery mildew on grape berries

**Grapevine leafroll virus (GLR)** is a serious disease of grapevines that can result in reduced crop load and delayed maturity. Once a vine is infected there are no curative options available to the grower, so prevention is paramount. The management of mealy bugs, a known vector of GLR, in the vineyard will help mitigate the spread of GLR from infected to healthy vines. If GLR-infected vines are present in your vineyard or last season's monitoring results indicated the threshold for mealy bugs was exceeded, a good early season mealy bug control programme will be necessary. Contact your local Fruitfed Supplies field representative to discuss best practice for managing GLR and mealy bugs within your vineyard block.

## KIWIFRUIT



### Reminders for September:

✓ Following recent changes to the Zespri Crop Protection Programme, growers need to focus on **pre-flower control of scale**. Effort should be made to identify any sources of scale outside the vines (shelterbelts, for instance) and these should be sprayed before budbreak. To reduce potential hiding places on vines for scale infestations, lichen should be removed by applying Graphic Biocide or Lime Sulphur after Hi-Cane applications, but before budbreak i.e. before any green tissue is present. An early season application of insecticide should then be applied, with preference being given to the chloronicotinyl chemistry (Actara or Calypso) as these products have the best efficacy and systemic activity within the plant.

✓ Beware of **potential frost events** following bud-break. Ideally, overhead water or Orchard-Rite wind machines should be utilised for frost control. If these are not available, consider applications of low-biuret urea immediately prior to risk-periods. For further details on frost protection to best suit your situation, please contact your Fruitfed Supplies representative.



Young, new-season kiwifruit growth damaged

✓ **Base fertiliser** applications, if not already completed, along with the first of the **split nitrogen applications** may be made this month. These fertiliser applications should be based on leaf and soil tests taken over the last 12 months, along with historical data for each block. If you require assistance planning your fertiliser requirements, please contact your Fruitfed Supplies representative.

✓ Foliar Fertilisers such as **Tracel Plus** and/or seaweed products such as **SM6** are often used after bud break, as cold spring soil temperatures suppress nutrient uptake by the roots.

✓ **Late season frost** can damage onions allowing **botrytis** in. Use Prolific® to control botrytis (maximum of four benzimidazole fungicides per crop).

For good **white rot** control, a series of 3-4 applications of Cereous is required starting from about four weeks after germination. Pukekohe growers can use the White Rot Degree Day model HortResearch developed to time the first application (100-150 WRDD). Remaining applications should be done at 3-4 week intervals. Rain is needed to move the fungicide into the root zone.

## PIPFRUIT



### Reminders for September:

✓ All drums of **spraying oil**, especially if they are stock carried over from a previous season, should be agitated or rolled prior to mixing to ensure that the emulsifier are well mixed with the oil. Test first by adding a small amount of oil into water to ensure the emulsifier is active.

✓ When combining oil spray with insecticides, remember to **add the oil last**, when the spray tank is nearly full, with the agitator going, or while circulating through the pump bypass. NB. Oil should be omitted from application to sensitive varieties, e.g. Cox.

✓ Monitor for **European red mite**. If 30% or more of branch nodes are infested with five or more ERM eggs, apply a late dormant oil application. If heavily infested with ERM eggs, then apply Gemini plus oil to infested trees.

✓ In the North Island, Nelson and Marlborough the application of a late dormant application of oil plus Applaud is highly recommended for the control of **scale** and **mealy bugs**. In Canterbury and Otago the application of oil is highly recommended. If any scale found at previous harvest the application of Applaud plus oil is highly recommended.

✓ If **woolly apple aphid** problems were experienced in the previous autumn, it is critical to apply an oil plus Pirimor at late dormant.

✓ Correct timing of your first **black spot** fungicide is vital. Ensure application is timed for green tip (buds burst) for each variety. Cool temperatures and extended bud break may require repeat applications to ensure all newly opening buds throughout the tree are protected.

✓ Where over-wintering primary mildew is present, apply the DMI fungicide Systhane + Polyram at open cluster to provide an antisporeulation and eradicant control of this disease pathogen.

## LETTUCE



Monitor lettuce crops carefully for both pests and natural enemies as the SFF-funded IPM for lettuces project has shown that predators, such as lacewings, ladybirds and hoverfly larvae, can effectively control lettuce aphid populations during spring.

## ONIONS



### Reminders for September:

✓ Crops at flag stage or 1-2 true leaf stage should have applications of Flag® FI, Chlora IPC and Peptoil™ Crop Oil for control of **broadleaf weeds and Poa annua**.

✓ Gallant NF at the 1-2 true leaf stage will control **other grasses**.

✓ **Self-set onions** are an important source of **thrips** in fields. Remove them now before the thrips start moving on to new crops.

Management of your **black spot** programme to control black spot begins with the first fungicide application correctly timed for green tip (buds burst) for each variety. Cool temperatures and extended bud break may require repeat applications to ensure newly opening buds throughout the tree are protected. Newly emerging leaves, which have a small surface area, are still very susceptible to the fungal pathogen. Fruit may also become infected at any stage of development, even as early as green tip. The apical portions of sepals and of leaves are the first susceptible parts exposed as the fruit buds open. Remember that new growth at this time is expanding rapidly; spray intervals should be adjusted to weather conditions and aim not to exceed seven days.

We continue to advise the use of Syllit for the first black spot fungicide application at green tip due to the translaminar action in the leaf which will assist spray coverage and will provide both curative and protectant action on this disease pathogen. The translaminar uptake of Syllit is

not affected by normal cool spring conditions and the penetration of this product into leaves ensure it is not washed off by rain. Remember Syllit requires a minimum of three hours drying time. NB. Syllit/Dodine a maximum of three applications per season and, for the Apple Futures programme, the pre-harvest interval is 31 September.

The anilinopyrimidine compound Chorus is also effective at low temperatures and being systemic is well suited to the early growth period.

Flint Star has just received ACVM registration. It contains both anilinopyrimidine and strobilurin chemistry in a SC formulation, and aims to minimise risk of resistance to these two



important fungicide groups. Their individual attributes of systemic and mesosystemic action provides excellent protection against rainfall events, with protectant and curative action on black spot. Fruitfed Supplies technical team has conducted four years research on this combination, which has provided excellent control on our extremely high black spot inoculum research orchard sites. Apply a maximum of two consecutive applications, then apply alternate chemistry and repeat a further two applications with a maximum of four per season. Flint Star also provides effective powdery mildew control and has a 90% petal-fall pre-harvest interval. For further advice on your individual programme, contact your Fruitfed Supplies representative.

## POTATOES



**Black scurf or stem canker** caused by the pathogen *Rhizoctonia solani* is most evident in the spring, not long after planting. The pathogen kills potato shoots under ground or emerging stems may develop cankers which can kill the stem if the canker totally girdles the stem.

An integrated control strategy should include a 2-3 year rotations into grass, cereals, sweet corn or maize and planting clean, treated seed no

more than 50mm deep (to encourage rapid emergence). Seed treatment can be either fungicides applied conventionally prior to planting, e.g. Monceren®, or Amistar® can be banded around the seed at planting.

## SUMMERFRUIT



### Reminders for September:

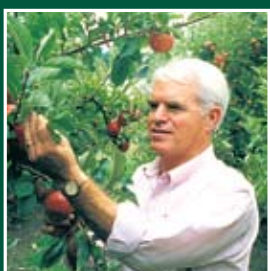
- ✓ The choice of your **first fungicide spray** should ideally be systemic, e.g. Folicur, in addition to good timing for pink/first flower. The product will contribute to further protectant action even prior to the flowers being open.
- ✓ During the bloom period, the application of Keystrepto (streptomycin) for **blast control** is most effective when used in anticipation of favourable infection conditions. Application immediately after frosts, hail or strong wind may also be wise to prevent disease establishment through damaged tissue. To reduce resistance risk, do not apply Keystrepto more than necessary. NB. Streptomycin shuck-fall PHI for export stonefruit.
- ✓ Monitor for **thrips** during the flowering period. If thresholds are exceeded, apply Mavrik. Studies have confirmed Mavrik is safe to bees, but limit its use to the flowering period, as it is toxic to predatory mites.

The first step to effective control of brown rot depends on the control of blossom infection. The anthers are very susceptible to the brown rot pathogen, it is important to apply the first protectant fungicide as the first flowers open to protect the anthers before rain. The choice of your first fungicide spray should ideally be a systemic fungicide, e.g. Folicur, because, in addition to good timing for pink/first flower, the product will contribute to further protectant action even prior to the flowers being open.

Further fungicides from a different chemical group e.g. Chorus, Flint or Bravo should be applied at regular intervals during the bloom period, particularly in the anticipation of wet weather. The interval between sprays will depend on weather conditions. Continue the programme until shuck-fall if necessary. A thorough schedule over the blossom period forms the basis for good control of flower infections. NB. Do not apply Chorus to cherries.



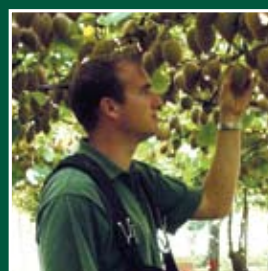
Anthers exposed at full bloom



Ken Jeffery – contributes for pipfruit and summerfruit.



Tim Herman – contributes for brassicas, onions, potatoes, squash and tomatoes.



Richard Bawden – contributes for avocados, citrus and kiwifruit.



Paul Hassan – contributes for grapes.

## TURF FEATURE

# Cape Kidnappers offers unique golf experience

*Selected by Golf Digest magazine this year as the tenth best golf course in the world outside the US, Cape Kidnappers Golf Course would have to be one of the most scenic courses in New Zealand.*

Occupying a large portion of the iconic cape east of Hastings – historic Clifton Station uses the remaining land – Cape Kidnappers Golf Course has now been open for four years with course manager Paul Delaney saying it plays hard and fast as originally intended by course designer Tom Doak.

The course and farm are owned by American Julian Robertson who also created Kauri Cliffs, the Northland golf course and luxury lodge complex.

A qualified green-keeper from Australia, Paul first came to New Zealand to work at Kauri Cliffs and has been involved with Cape Kidnappers since resource consent was granted in 2002. "I love it here in the Hawke's Bay; what an amazing place to work."

"Most of the front nine holes utilise the natural landscape as much as possible and although the back nine had more landscaping done, you can see that Tom has achieved his goal of designing a course with interesting holes you wouldn't find anywhere else," says Paul. Tom is quoted on the course website as saying, "this is seaside golf at its finest".

The designer specified native grass varieties browntop and fescue, but Paul says browntop has become the dominant fairway species. "We're happy to go with what works in this environment. It's obviously dry and windy here on the peninsula at times, but we keep watering to a minimum to keep the course playing hard and fast. There's a growing appreciation of managing courses according to the designer's original intentions and that's certainly the philosophy we follow here at Cape Kidnappers."

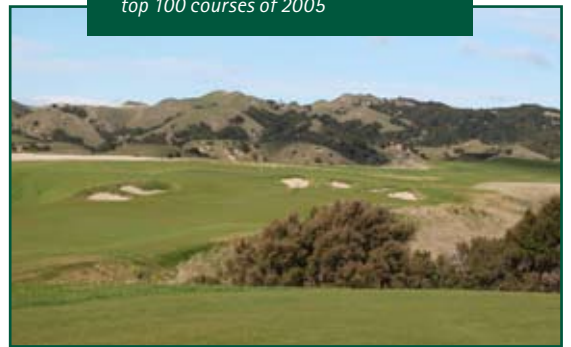
Paul also takes a fairly straightforward approach to turf care, working with Fruitfed Supplies representative Peter Roberts to find the best products to suit their management requirements. Products that enhance the soil's natural biological activity, such as the seaweed-based SM6 liquid fertiliser and Bio-Start's Mycorrin and Digester, have a role at Cape Kidnappers as do the specialised slow release Anderson's turf fertilisers.

Recently some of the steeper areas around the cliff tops have been fenced off and returned to the farm to manage and, safely held behind electric fences, black cattle graze some of the 'rough' areas of the course. "We were making hay in these areas each summer, but now we've found the cattle are quite happy to graze quietly. We're saved the job and cost of mowing and the browntop clumps are grazed in a way that looks natural and attractive."

Later this year a new accommodation complex called The Farm at Cape Kidnappers will be complete. It overlooks the course but won't have a solely golf-oriented focus, says Paul. Other proactive developments on the cape include a predator-proof fence, which Julian is building with the assistance of some neighbours. Eventually kiwis and other native birds will be released into area when free of predators. See [www.capekidnappers.com](http://www.capekidnappers.com) for more details and green fees. ❖



*Highly scenic and an extremely well-presented course of international standards, the Cape Kidnappers Golf Course was voted as the 27th best course in the world in Golf magazine's top 100 courses of 2005*



*The clubhouse offers golfers a stylish yet low-key place to relax after their game*

## Fruitfed Supplies

Facts is a monthly publication of Fruitfed Supplies. Feedback to the editor is welcome. Please contact Kate Gordon, Relish Communications, c/o PO Box 2116, Auckland, email: [kate@relishcomm.co.nz](mailto:kate@relishcomm.co.nz) or mobile 021 587 227. Subscription details and address updates, please phone Fruitfed Supplies national office on 09 448 0510.

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