

2011 brings opportunities and challenges

Stephen Guerin, Fruitfed Supplies' general manager, considers the opportunities and challenges ahead for customers and staff in the New Year.

The world needs our food. That message comes through clearly via numerous means.

But we have challenges – some are relatively new like the kiwifruit Psa infection, some are ongoing like high tariffs, variable exchange rates and the weather. The wet, cold spring has given way to very dry conditions in many parts of the country, but as I write the prediction for northern areas is for wetter than normal conditions by the end of the month.

Despite these and other issues, we continue to grow, sell and export quality produce, ranging from commodity crops like onions through to the ultimate value-added product, award-winning wine.

The grape sector, in particular, is experiencing tight financial conditions. Yet our viticulturists and winemakers can be proud of their continued focus on quality as being the only way forward. The extremely high standard of medal and trophy-winning wines in this year's Air New Zealand Wine Awards illustrate that this is the best path for New Zealand wine to maintain and improve its position on the world stage.

Also of note from this year's Air New Zealand Wine Awards is the emphasis on sustainable production. All entries for wine made from 2010 onwards must be produced according to the standards established by Sustainable Winegrowing New Zealand. Chair of judges Steve Smith, MW, says: "The 2010 vintage entries this year were a world first for any major wine competition anywhere in the world, where all had to be grown and produced sustainably. This approach is not just a symbolic message; it shows a commitment to sustainable production that no



other primary based industry anywhere in the world has even got close to matching. Almost 39% of all 1,579 entries at this year's Air New Zealand Wine Awards were grown and produced sustainably, up from 7% in 2007, when we introduced the category of entry, and the Champion Sustainable Wine Trophy has become one of the most coveted awards to win."

At the heart of New Zealand's success as a horticultural exporter are the talents, passion and calibre of our people. Now, as much as ever, the Kiwi 'can do' attitude – the ability to innovate, adapt and thrive – stands us in good stead for the future as one of the world's vital food baskets.

We recognise the need to continually invest in people, to feed and inspire the desire to learn and develop new skills in this diverse industry. That's why Fruitfed Supplies continues to support events like the Silver Secateurs national grapevine pruning competition and the Young Horticulturist of the Year which encourage excellence from the people working in our industry.

The team at Fruitfed Supplies is here to support your efforts to maximise crop performance, yields and quality. We wish you all the best for a good summer leading into the peak harvest period and that market conditions help deliver good returns for your produce. 🍷



BAYER APPOINTS NEW NZ MANAGER

Holger Detje now heads Bayer New Zealand's CropScience division, following the resignation of Jon Neal. Originally from Germany, Holger has held senior national and regional roles in marketing, sales and business development in the UK, Australia and Japan. For the last eight years, he has been head of marketing at Bayer CropScience in Australia.

Holger says his main focus in New Zealand will be on customer relations and innovation. "Bayer CropScience has a great team in New Zealand that contains some of the country's leading experts in crop protection. With research laboratories throughout the world, we are also fortunate to have a broad field of scientific knowledge that we are able to utilise for developing solutions specifically for the New Zealand market."



Understanding onion neck rot

Fruitfed Supplies Technical advisor Tim Herman outlines the causes of neck rot in onions.

A number of different pathogens can infect onion bulbs by moving down the neck of onions and into the bulb. Often the rots caused by these pathogens do not show up until after the onions are harvested and are in storage or shipping where the spread of rot causes considerable post-harvest loss.

The most common of the pathogens, *Botrytis allii*, causes *Botrytis* neck rot, and can infect an onion at any stage during its growth. Infected seeds can lead to a latent infection in the cotyledon and subsequent leaves, remaining symptomless until it moves through to infect the neck tissue late in the growth of the plant. Infection of onion crops can also result from airborne conidia being released from volunteer onions from previous crops and cull piles.

Conidia are released when rain is about and free water is required for germination. Mechanical wounds on plants allow infection to occur very rapidly, but direct penetration of leaves may be possible in suitable conditions.

Healthy onions that have been properly cured, particularly the necks, are less likely to be infected. For control during the growth of the crop, plant clean, appropriately-treated seed in ground that hasn't grown onions for at least two years. Also ensure you rogue volunteer onions out of the

crop and surrounding areas and do not over fertilise with nitrogen. Apply fungicide covers at key timings – Prolific® or Amistar® at flag stage and first-to-second true leaf, Dithane® Rainshield covers mid-season, and Prolific®, Amistar®, and/or Switch® during bulb formation – and always check pre-harvest intervals with your exporter before use.

A number of bacterial pathogens may also infect onion bulbs causing rots that can be present in the field and in storage. The bacteria live on crop debris in the field and are splashed on to plants by rain or irrigation and infect the plant via wounds. Lifting and harvest methods, prevailing weather conditions during lifting and harvest, and during curing are keys determinants for bulb infection.

Cultural strategies are the key for control of the bacteria – keep the crop in good health via irrigation and nutrient management, and avoid crop damage via herbicide and harvest management. Copper fungicides may provide some limited control but must be applied before any crop damage occurs, e.g. from hail, wind or herbicides.

Another factor to consider in all this is that these plant pathogens can all be present on the same bulb and they take advantage of a weakened or wounded onion bulb. ⇨

Agnew Horticulture values Fruitfed connection

Support, technical advice and good products all play a role in why Agnew Horticulture uses Fruitfed Supplies as a key supplier.

Hawke's Bay-based Agnew Horticulture is a highly productive, successful vegetable and fruit growing enterprise. General manager Willie Agnew says the backup provided by field representative Vaughan Redshaw, other staff at Fruitfed Supplies Hastings, and the wider Fruitfed team contributes to the operation's success.

"I've been a client of Fruitfed Supplies for twenty years," says Willie. "This business relationship has continued due to the friendly staff and ability to source good quality, proven chemical brands. Another big plus is the professional field representatives who give me great support and technical advice."

Agnew Horticulture currently has 180 ha of vegetable crops, including tomatoes, carrots, beetroot, pumpkins, maize, sweet corn and green beans. Throughout the key growing period, Vaughan walks through many hectares of crop each week, reporting back to Willie and his production team on key insect and disease issues that need attention.



"With such a variety of crops, we must contend with many different weeds, diseases and pests, while taking into account any specific requirements of the vegetable processing companies we often grow for," notes Willie. "Without the backup of Fruitfed's staff, these issues would be harder to overcome and our company would not be able to achieve the top-end yields that are required to

survive in these tough economic times."

Vaughan adds that Willie and his team understand how to produce high yields efficiently and sustainably. "In recent years they have achieved process tomato yields as high as 130 tonne per hectare, which shows what a great job they do."

The Agnew Group also includes Agnew Transport Services Ltd, which has a particular speciality carrying produce around the Hawke's Bay and throughout the North Island. Organic fruit is another aspect of the operation, as is a commitment to sustainable cropping practices. ⇨



Coragen and Steward – the perfect pair

DuPont™ Coragen® and Steward® insecticides work side-by-side to protect head lettuce and vegetable brassica crops.

With Coragen's new registration for use in lettuces, Raeleen Watherston, market development manager for DuPont New Zealand, says there is no better combination than Coragen and Steward to protect your vegetable brassicas and head lettuces from a range of caterpillars all season.

For vegetable brassicas, Coragen should be used in the early window of the brassica insecticide resistance management strategy, i.e. from September to January, while Steward should be used during the late window from February to August.

For head lettuce, using Coragen early in the crop, just as the head starts to form, provides excellent protection on both sides of the developing wrapper leaves and prevents heliothis, in particular, from getting entrenched inside the developing head.

"You want to use your strongest tool when it counts most," says Raeleen. "Two consecutive applications of Coragen deliver the best results and provide the best residual control."

"Applying both Coragen and Steward provides a robust strategy for controlling looper and heliothis caterpillars in head lettuce whilst preserving most beneficial insects. Coragen's new lettuce registration reduces the dependence on Steward for caterpillar control in lettuce where there are few chemicals registered.

"Both Coragen and Steward quickly stop larvae feeding, thus minimising crop damage. They are IPM compatible, have unique modes of action assisting with resistance management, and are rainfast soon after application."

Some tips for best results:

- Apply at the first sign of pest activity (or egg presence);
- Repeat at 7 to 14 day intervals depending on when the threshold is exceeded;
- For resistance management, do not make more than two successive applications of Coragen (no more than three in total per crop) and no more than four applications of Steward per crop;
- Always read and follow label directions.

Further details are available from your local Fruitfed Supplies field representative. ➡

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Vege Tech Bytes

A monthly technical update from Tim Herman, the Fruitfed Supplies regional technical advisor specialising in vegetable crops.

The La Nina weather pattern that is in effect over the country is starting to make its presence felt.

During spring, western regions that typically have regular rainfall are moving into drought conditions and parts of the eastern side of the country are having some drizzly, misty weather. Crops in western regions will be having less disease issues and more insect problems, while in eastern regions diseases such as downy mildew may be more common. This may have an impact on pests such as TPP,

onion thrips and diamondback moth, which may appear earlier in some areas than they have in the past, so don't rely on traditional spray timings to ensure control. Current activity for the tech team involves monitoring TPP and onion thrips trials, with a number of new candidate compounds for controlling these pests. We also currently have trial activity in squash – watch this space for updates over the coming months. ➡



Vivando proves its worth

Vivando, the protectant fungicide launched by BASF early in 2010, heads into its second season of use for powdery mildew control in pumpkins and squash.

Independent trials in New Zealand show Vivando provides outstanding control of powdery mildew in squash and pumpkin crops when used as part of a well managed spray programme.

BASF territory manager Weston Hazelwood notes that Vivando does not require the use of an adjuvant. "It's also superbly rainfast once dried on the crop and, unlike other fungicides, requires no tank-mixing to be effective. Vivando also has the benefits of a short pre-harvest interval of only 14 days."

Vivando contains 500 g/l of a completely new active ingredient called metrafenone which offers growers an important option to help combat disease resistance. Metrafenone's unique mode of action provides excellent protectant activity against powdery mildew for up to 21 days after application.

Weston says: "Vivando controls powdery mildew by inhibiting growth of



fungal mycelium on the surface of the leaf and preventing sporulation. Onset of this disease reduces the photosynthetic area of affected leaves and this can progress to defoliation and total collapse of the crop canopy. The end result is often devastating in terms of quality and marketable yield as fruit is downgraded due to reduced size and sunburnt rind."

Vivando has added to BASF's impressive crop protection package available to pumpkin and squash growers, including the fungicides Kumulus DF and Colliss, as well as the popular pre-emergent herbicide Frontier P.

For further information on Vivando or any BASF products, talk to your local Fruitfed Supplies representative. ❖

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Early blight on potatoes

New Amistar Opti: broader spectrum and better efficacy in potatoes

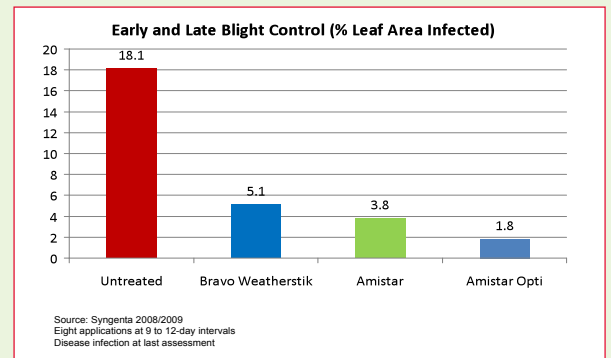
Combining Amistar and Bravo Weatherstik in one product – Amistar Opti – offers potato growers additional benefits.

Many growers use Amistar at some stage of their potato fungicide programme, either applied in-furrow at planting to control *Rhizoctonia* (black scurf) and silver scurf, and/or as a foliar spray towards the end of the season for early blight control and green leaf retention.

Syngenta has now developed Amistar Opti for potatoes, which combines two active ingredients, azoxystrobin and chlorothalonil (as in Bravo Weatherstik). The optimised ratios of the active ingredients delivers broader spectrum and even better disease control, as well as built-in disease resistance management.

"In trials, Amistar Opti significantly improved the level of blight control compared to using Amistar alone," says Syngenta's New Zealand marketing manager John Yates. "We were surprised how much longer the Amistar Opti treated crop stayed green at the end of the season due to outstanding early blight control."

Amistar Opti's liquid formulation benefits from Bravo Weatherstik's surfactant technology to improve rainfastness. The addition of



chlorothalonil means Amistar Opti can be used in high late blight pressure situations, where previously a tank-mix partner like such as mancozeb was required with Amistar.

Amistar Opti is approved for use on potatoes for early and late blight control, with a use rate of 1.25 l/ha. Apply as a protective spray at 7 to 10 day intervals during periods of active growth, or at 10 to 14 day intervals later in the season as haulm growth ceases. For more information, contact your local Fruitfed Supplies technical field representative. ❖

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Cultilène introduces new high performance X-fibre slabs

A new range of stonewool growing substrate slabs, featuring X-fibre technology, is available from Cultilène.

Growing substrate experts Cultilène have utilised their unique X-fibre technology to create four new growing slabs ideal for use in New Zealand glasshouses.

The X-fibre structure of the growing medium is characterised by fibres that run in all directions, explains Cultilène's Kim Harding.

"This structure promotes faster initial rooting and better root distribution throughout the entire slab," says Kim. "The new X-fibre slabs, under the names MaXXima, EXXelent, OptimaXX and ReaXXion, give growers an even greater number of options to tailor their growing media to their specific production requirements and maximise yield potential."

Claire Mills, Fruitfed Supplies category manager, says the company has supplied New Zealand glasshouse producers with Cultilène stonewool products for many years.

"The Cultilène product line-up is comprehensive and well proven in New Zealand conditions," notes Claire. "Glasshouse production requires specific management and attention to detail to maximise yields of these high value crops, and even small changes to production variables can result in significant production gains."

"We have observed the X-fibre growing media being used successfully by many European clients, and look forward to seeing the new X-fibre slabs in use here. The slabs are complemented by Cultilène's propagation plugs and blocks used extensively by growers and nurseries in New Zealand."

As well as its mixed-direction fibres and excellent homogeneity, the



X-fibre range provides unique air-water ratios, very accurate control over water content and EC, faster and more efficient draining, and is easy to re-wet for the life of the crop.

The X-fibre slab range

MaXXima: WC range 45 - 85

- The most even distribution of water content and EC
- Very large water content control possibilities for vegetative/generative balance
- Very good where the floor is uneven or sloped and for growers looking to use slabs 10cm high.
- Ideal for growers looking for more water buffer during the summer months

EXXelent: WC range 45 - 80

- Excellent water and EC distribution
- Large water content control options with good EC control
- Fast and accurate water content control
- A sophisticated slab; good on gutters or the floor

OptimaXX: WC range 50 - 80

- Faster response to water content with good EC control
- More responsive to changes in growing conditions
- Very even water and EC distribution
- Formerly called X-fibre, this is already a very popular slab for all growing conditions and systems

ReaXXion: WC range 50 - 75

- The most reactive slab in the range for a fast response to changeable growing conditions
- Very good for gutter systems and growers using sensors for tight control over water content and EC
- Excellent for growers looking for a generative slab for winter or low light use. ➡



Clean up *Botrytis* with Clenza

Clenza® is a unique new, soft, residue-free Botrytis fungicide and insecticide that recently received ACVM approval.

Trial work with Clenza for *Botrytis* control in grapes started with Hort Research in 2002. Pete de Jong, Etec Crop Solutions South Island manager, says that a number of studies, including wine making and wine tasting panels, were undertaken towards registration approval.

"Clenza contains 250 g/l of potassium salt fatty acids in a soluble concentrate. It is based on a vegetable oil, which is processed into a fatty acid insecticidal and fungicidal soap. This base is a sustainable and renewable resource, nothing like the controversial palm oil frequently targeted by environmentalists," notes Pete.

"Being residue-free, Clenza suits those aiming for a nil residue spray programme. We recommend Clenza is used in February around veraison. That timing fits perfectly with Clenza's 28-day PHI for grapes and makes it a good follow-up spray after pre-bunch closure without the likelihood of spray residue."



Pete notes Clenza is also registered as an insecticide to control aphids, thrips, mealybugs, two-spotted mite, European mite and whitefly in outdoor crops (except kiwifruit) where it has a 14-day PHI.

"Clenza spreads very well on plant surfaces, so it has also a label claim as a spreader/wetter at a very low concentration (0.5%). BioGro certification has already been granted which makes Clenza a useful option for organic growers as an organically-certified adjuvant and *Botrytis* fungicide. Using Clenza early in the season for grapes with regular copper and/or sulphur applications also helps give a synergistic additional disease control effect."

For further information on Clenza, please talk with your local Fruitfed Supplies representative. ➡

Clenza® is a registered trademark of Etec Crop Solutions Ltd. Registered pursuant to the ACVM Act, No. P8181.

AVOCADOS



Reminders for January:

- ✓ **Six-spotted mite** populations continue to remain at high levels, both in Bay of Plenty and northern orchards. Expect SSM pressure to ease during January, but keep monitoring. Control with Mit é mec plus DC Tron Plus if necessary to help retain mature leaves as long as possible and assist fruit-set and early fruitlet growth. Mit é mec gives particularly good control on new young flush at this time of year, including ovicidal control of mite eggs.
- ✓ **Leafroller control** is a priority to protect avocado fruitlets as pressure is usually high in spring and early summer. This pest moves between fruit as they start to size and form bunches, causing significant damage (see photo). Use soft compounds to control, such as Prodigy, a newly registered product offering excellent residual ovicidal and larvicidal control of this damaging pest.

Leafroller larva and feeding damage
- ✓ **Du-Wett** super-spreader has been widely used in kiwifruit, apple, grape and vegetable crops over several seasons. Recent work shows Du-Wett's ability to greatly assist spray coverage when combined with low water rate applications in avocados. Trials with aerial application also show substantial promise – watch this space. Your Fruitfed representative can provide more details on Du-Wett's technology.
- ✓ Maintain fungicide cover with copper products such as **Kocide Opti** as avocado fruit rot pathogens may infect developing fruitlets at any stage. Kocide Opti offers the highest amount of bio-available copper (useful for disease control) for the lowest amount of elemental copper applied per hectare.
- ✓ Fruit-set is looking good at this stage. Ensure adequate **nutrients** are available to promote summer flush and fruit growth. Your Fruitfed Supplies representative is fully trained in avocado nutrition – please contact them to discuss your situation. Seaweed fertilisers such as **Calibra** may also be useful to assist early fruitlet growth and encourage general tree health.

CITRUS



Reminders for January:

- ✓ Fruitfed Supplies CMS data from Gisborne last season shows **citrus whitefly** crawlers and nymphs continued to be present in numbers through January. However, the pupal stage, which is very difficult to control with insecticides, also started to increase in numbers through January. If this is the case on your orchard this season, early January may offer the last opportunity for effective control of the sensitive life stages in Gisborne. Historical data from Kerikeri shows a similar trend, with pupae numbers increasing rapidly from late January. For further information on control of this pest, please contact your local Fruitfed Supplies branch.
- ✓ Monitor closely for **Kelly's citrus thrips**, as this pest can severely damage young fruitlets after flowering. **Armoured scale** insects may also appear at this time. Keep a look-out also for **citrus red mite**, which often make an appearance mid-summer, particularly where hard compounds have been used to control KCT. Mit é mec is registered for citrus red mite control and has the advantage of ovicidal activity, ensuring all life stages of this pest are controlled.
- ✓ The **fungicide** programme needs to be maintained post-flowering to



Glomerella on mandarin (Photo courtesy Keith Pyle)

- protect against scab and melanose infection of young shoots and fruitlets. NZCGI-funded research indicates that to assist prevention of **Glomerella** in Satsuma mandarins (see photo), apply Dithane DF Rainshield as soon as possible after hand-thinning, which is generally necessary on blocks with heavy fruit-set to ensure optimum fruit size at harvest.
- ✓ Orange and mandarin growers have a new tool for increasing fruit size with **Corasil's** recent registration. It increases the amount of large, high value fruit at harvest, without reducing yield, a point of difference from other plant growth regulators like naphthylacetic acid (NAA).
- ✓ The presence of soft new spring flush provides an ideal opportunity to apply foliar fertilisers, ensuring fruitlet growth is not limited by sub-optimal leaf levels. Yara **Citrac** is very well suited to citrus, supplying magnesium, zinc and manganese, all of which are often lacking. Timing is critical; please check with your Fruitfed Supplies representative for optimum application timing for your block.
- ✓ Seaweed fertilisers such as **SM6** or **Calibra** may also be useful, to assist early fruitlet growth during the cell division period and encourage general tree health.
- ✓ After flowering, feed trees with **Fruitfed Citrus Mix Fertiliser**. Both low-potassium and zero-potassium options are available, depending on your specific situation. These citrus mixes are high-quality blends containing both ammonium and nitrate forms of nitrogen, high levels of soluble magnesium, plus zinc, manganese, iron, boron and copper, but no chloride.

GRAPES



Reminders for January:

- ✓ Pre-bunch closure is one of the critical spray windows for **Botrytis** control. Apply a suitable fungicide before bunches close up.
- ✓ Monitor for **leafroller** and, if thresholds are breached and Prodigy® was not sprayed over flowering, apply a suitable insecticide before bunches close up.
- ✓ January is considered a high risk period for **powdery mildew** infection. Maintain a tight fungicide cover on vines through this month.
- ✓ Monitor for **downy mildew**. Apply an appropriate fungicide in anticipation of conditions conducive for infection.
- ✓ **Canopy management practices** that improve air movement through the vine will help improve foliage drying time and reduce humidity around the bunch line. This in turn helps improve spray coverage and reduce disease pressure.
- ✓ Remember to always carefully check the pre-harvest intervals (PHIs) of the sprays you intend to use before any application is made. Consult with your winery, if necessary.

At pre-bunch closure (PBC), berries are relatively immune to *Botrytis* infection but this is an important spray window to manage this disease as it represents the last opportunity before harvest to completely cover berries with a fungicide. Overseas studies demonstrate that from veraison onwards the basal berry end and the berry-pedicle union that are most susceptible parts of an intact berry to developing *Botrytis* infection.

Berries expand in size rapidly in January, so ensure the interior architecture of the bunch receives adequate spray coverage by being conservative and spraying early, rather than waiting too long and finding bunches have partially closed. Spraying earlier in the PBC window also further reduces the risk of residue being detected in wine.

Late season Botrytis infection

Your local Fruitfed Supplies personnel are available to discuss all relevant pest and disease control options for this part of the season.



KIWIFRUIT



Reminders for January:

- ✓ When considering options for **post-flower control of scale**, remember that application of mineral oil on Hayward during the period from 14 to 35 days after fruit-set is risky. Oil cannot be applied to Hort 16A from 21 days after fruit-set without considerable risk of fruit damage. There is also a lull in scale activity between the first and second generation crawler release during December and early January. Scale sprays applied more than 8 weeks after fruit-set (Hayward) must also be in response to monitoring. This means there is a period from 35 to 56 days after fruit-set where mineral oil may be applied on Hayward without justification through monitoring (advisable on blocks with a history of scale infestation). Please contact your Fruitfed Supplies representative or local branch for further details on control of scale through the summer period.
- ✓ The period immediately following fruit-set through January is the most critical period for control of **leafroller**. Two leafroller applications should always be made for optimum control; one either pre-flowering or at flowering and another one approximately 4 to 5 weeks later. Proclaim offers best efficacy at this second timing with a short pre-harvest interval (42 days) ensuring blocks meet PHI requirements for early start. Leafroller sprays applied more than 5 weeks (Hayward) or 7 weeks (Gold) after fruit-set must be in response to monitoring.
- ✓ **Foliar fertilisers**, such as Croplift K and Pentaflor, may be of use after fruit-set to help maintain leaf condition and assist with fruit quality. Magnesium and zinc, in particular, have been low in many spring leaf samples. This situation is best remedied with Pentaflor, which also provides calcium to developing fruitlets, assisting with fruit quality through the post-harvest chain.
- ✓ Specially-formulated seaweed fertilisers such as **SM6** or **Calibra** can also be considered from fruit-set onward to assist early fruitlet growth, and fruitlet and leaf quality.

Scale on fruit prior to harvest



PIPFRUIT



Reminders for January:

- ✓ The results of December's **black spot** monitoring, in conjunction with weather predictions, assist in determining the choice and frequency of fungicide covers required for the later part of the season. In January, maintain a regular protective fungicide cover with products like Fruitfed Captan®. Apply in anticipation of rain events and observe market PHIs.
- ✓ Fruitlets are very susceptible to **summer rots** during this period. If rain and warm temperatures are forecast, apply a protectant fungicide.
- ✓ Where **powdery mildew** monitoring has identified high risk blocks, maintain protectant fungicide covers with an appropriate fungicide.
- ✓ Continue to monitor for **codling moth**. Trapping activity and trap maintenance records are essential for audit purposes. The use of mating disruption ties assists control on many blocks, although if pest pressure is moderate to high, supplementary insecticides are likely to be required. The summer generation of **leafroller** larvae are active during January, so monitor pheromone traps and, if thresholds are exceeded, apply an appropriate insecticide, e.g. Proclaim®.
- ✓ Monitor for **European red mite** in early January. If thresholds are

exceeded apply Mit é mec® which has a 28-day PHI in both the Apple Futures and ROW programmes.

- ✓ In known high risk areas or where **scale-infested fruit** was detected last season, an insecticide may be necessary.
- ✓ Continue to monitor for **woolly apple aphid**.
- ✓ Before application of any insecticide to control the pests mentioned above, discuss product choice and PHI with your exporter.
- ✓ Continue with **regular calcium chloride** applications. Avoid spraying under hot, dry conditions or under slow drying conditions, as fruit and foliar injury can occur. Add a wetting agent if applied alone.

Codling moth mating disruption technology is a recent commercial introduction to New Zealand's horticultural industry. It works by inundating the orchard's atmosphere with a synthetic copy of the insect's sex pheromone. Males use pheromone trails to locate virgin females, flying down a concentration gradient of scent to find the females. The pheromone cloud masks the trails, reducing the incidence of males finding females and therefore mating and subsequent egg laying. Overseas studies and commercial practice, i.e. the technology's wide adoption in other apple growing regions around the world like Washington State, USA, highlight the technology's success.

It's important to note that not all blocks are universally suited to mating disruption. The blocks where it works best are large (1 ha minimum), flat in aspect, relatively uniform in dimension (square-shaped blocks are preferable to rectangles) and on a low-moderate wind site.

Some advantages of this mating disruption include season-long control, improved market access, reduced insecticide inputs and no residues on fruit. A notable disadvantage is the labour commitment required to put dispensers out in the block. Typically 500 to 1,000 dispensers per hectare are needed. Some products require ladder work. However, the CheckMate™ CM XL1000 dispenser has a clip and can be attached to trees from ground level using a PVC pipe (see photo), making for labour savings and ease of application. Contact your local Fruitfed Supplies branch for more information about mating disruption.

CheckMate™ CM XL1000 dispenser



Codling moth larvae



SUMMERFRUIT



Reminders for January:

- ✓ Before application of any agrichemical, discuss product choice and PHI with your exporter.
- ✓ For **brown rot** control, apply your pre-harvest fungicides prior to any anticipated wet events. Fruitfed Supplies research with Folicur® demonstrates an excellent level of brown rot control when used in the pre-harvest use pattern.
- ✓ The summer generation of **leafrollers** are active during January. For robust control, the application of Success Naturalyte® is recommended.
- ✓ Continue to monitor for **thrips**.

Brown rot infections occur on ripening fruit when the weather is wet during the 3 to 4 weeks prior to harvest. If wet weather occurs during this period, spores are produced abundantly on twig cankers and may land on, germinate and infect ripening fruit. Under optimum conditions, visible rot can be seen within 48 hours of infection. Fruit infection may also occur during dry conditions, possibly from latent infections within the fruit. Such latent infections are most serious if the fungicide programme was inadequate over a wet bloom window.

If wet weather is forecast in the 3 to 4 weeks leading into harvest, apply Folicur and maintain 7-day intervals between sprays while weather continues to be wet. Check PHIs for the various markets before application. Consult staff at your local Fruitfed Supplies store for more information.

Brown rot infection on a peach



Air NZ Wine Awards win exciting for Squawking Magpie

Squawking Magpie director Gavin Yortt was delighted to win the Fruitfed Supplies Champion Syrah at this year's Air New Zealand Wine Awards.

The 2008 Squawking Magpie 'The Stoned Crow' Gimblett Gravels Hawke's Bay Syrah was selected as the Fruitfed Supplies Champion Syrah at the 2010 Air New Zealand Wine Awards. Squawking Magpie founder Gavin Yortt says the category win confirms that they are achieving what they were aiming for – premium wines.

Gavin was one of the first growers to start growing in the shingle soil Gimblett Gravels area near Hastings and first planted Syrah vines about ten years ago.

"This is our first trophy at the Air New Zealand Wine Awards, which are perceived as the most prestigious wine awards in the country. We've won numerous gold medals before which is hard enough; it's extremely difficult to win the category trophy, so we're delighted with this success and the recognition it brings."

'The Stoned Crow' Syrah hasn't been released to the public yet and Gavin says, coincidentally, it's been selected by Air New Zealand for business class at the same time. "We've been invited to put wines forward to Air New Zealand business class tastings six times and have had our wines selected five times. With the international potential for premium New Zealand Syrah wines, it will be exciting to see the benefits of this additional profile for our champion wine and Squawking Magpie as a boutique producer of premium wines."

Roger Pierce, Fruitfed Supplies' northern regional manager, presented Gavin with the Fruitfed Supplies Champion Syrah trophy at the awards dinner. "We congratulate Gavin on his fantastic success, which highlights the very fine Hawke's Bay Syrah wines now being produced. In fact, all of this year's Syrah gold winners were from Hawke's Bay." ➡



Roger Pierce from Fruitfed Supplies presents Squawking Magpie's Gavin Yortt and Roz Mexted with the Fruitfed Supplies Champion Syrah Trophy



The trophy-winning 2008 Squawking Magpie 'The Stoned Crow' Gimblett Gravels Hawke's Bay Syrah is described by Steve Smith, MW, as: "The darling of Hawke's Bay, although this producer is more daring than darling. Wild purple flowers, white pepper, cocoa, dark stonefruit and liquorice on the nose all wrapped up in a big rug. Seriously fine feel on the palate; gravelly, black, serious and poised, enveloped in currants and velvet. A jewel."

Enhancing wine personality with YaraVita

For the last four years, the French Wine Research Center (IFV) has investigated the potential of foliar nitrogen application to improve a wine's aromatic profile, reflecting similar commercial trials being conducted locally.

The research documents YaraVita Safe-N's positive effect on the complex aromas that distinguish a superior wine, says Yara's South Island manager David Spencer.

"Our French Yara team tested the content and expression of thiol aromas in wine by the application of YaraVita Safe-N. Thiols bring a specific fruit flavour – like grapefruit and passionfruit or tropical fruits – but also sharper flavours like box tree," David explains.

During the trial, YaraVita Safe-N, a long-lasting, concentrated foliar nitrogen product, was applied twice, first at the beginning of veraison and again ten days later. Application before this stage would have seen the applied nitrogen incorporated into the leaves, not translocated towards the grapes.

Wines were produced from each treatment, and in a blind tasting, the assessors could identify an overall higher level of fermentation and

thiol aromas in the wines from the treated grapes. All in all, the global aromatic notes were highest for the wine coming from the grapevines treated with YaraVita Safe-N.

Adding nitrogen and sulphur together were shown to increase the level of varietal thiols even further. Sulphur can also increase the glutathione content of the grape. This molecule protects the thiol from oxidation in the wine once fermentation has revealed the aroma – oxidation would transform the thiols and ruin their impact on the aroma.

"This work in France ties in with what leading New Zealand growers have been looking at over the last couple of years," says David. "Nitrogen and sulphur applications have an effect on wine quality and aromas, so now it's a matter of fine-tuning for the desired end results." ➡

Fruitfed Supplies

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