

Young Horticulturist search is on

The seventh annual Young Horticulturist of the Year competition is underway with a prize pool of more than \$40,000 and exciting challenges awaiting the eight sector finalists at November's grand final.



Young Horticulturist of the year 2011 COMPETITION

PARTNERED BY:



Stephen Guerin, general manager of Fruitfed Supplies, says there is great value in Fruitfed Supplies continuing to support the Young Horticulturist competition.

"Like other key organisations in the horticultural sector, we want to encourage the participation of career-oriented young people in this competition, especially those who are willing to take on extra challenges which may initiate future leadership roles," Stephen says.

Throughout May and June, horticulturists aged 30 years or under representing eight industry groups are encouraged to enter their relevant sector competition with the winners contesting the grand final in Auckland on 9 and 10 November. The sector competitions are administered by the NZ Arboriculture Association; the Fruit and Vegetable Sectors of Horticulture NZ; Florists NZ Inc (FLONZI) and NZ Flower Growers; Landscaping NZ; the Nursery and Garden Industry Association; NZ Recreation Association-Amenity Horticulture and NZ Winegrowers.

Stephen says: "By entering a sector competition, candidates show they're motivated and keen to progress in this dynamic industry. Should you get through to contest the grand final, there are many rewards, not only the great prizes. The opportunity for learning, not just about the industry, but about yourself as one previous years' finalists says, is really worthwhile and sparks further professional and self-development."

From a prize pool of more than \$40,000 the overall winner receives a selection of prizes including \$9,000 worth of travel.

Stephen notes: "In addition to the main prizes, there are a number of awards on offer. This year, Fruitfed Supplies is supporting Bayer CropScience in offering a new best practice award. The finalist who receives the highest score for a range of activities with a focus on crop management practices and sustainability receives a \$2,000 Bayer scholarship, plus \$500 cash."

The Young Horticulturist of the Year competition is managed by the Royal New Zealand Institute of Horticulture Education

Trust in conjunction with the partnering sponsors Fruitfed Supplies, NZ Horticulture ITO, AGMARDT and Turners & Growers.

Last year's winner was Stuart Dudley, a viticulturist at Delegat's Wines Estate, Blenheim, who is using his travel prize this year to study cooler climate wine regions in South America and Europe.

"This is a project I had always dreamed about," says Stuart. "The Young Hort competition has opened that door, plus assisted in identifying contacts to meet when I am overseas. The contacts I have made through the competition are invaluable."

Stuart admits he had to work on his confidence as he progressed through regional and sector competitions to the final. "I also had to face my weaknesses. Mine is a technical job, so I had to clue up on more practical

industry applications, such as the use of machinery and work place safety. Based on the strength of my fellow competitors I didn't go into the final confident I was going to win. Just being in the final was an achievement. It was well worth it. Apart from the amazing prizes, I learnt so much – it is a great process to go through."

In 2009 another viticulturist – Caine Thompson, a vineyards manager at Mission Estate Napier – took out the top honours. Nurseryman Jason Greene, of Ramarama, won in 2008; viticulturist Emma Taylor of Napier took the honours in 2007; vineyard manager Marcus Wickham of Blenheim won in 2006 and the 2005 winner was fruit export manager Dean Astill of Hastings.

Closing times for applications varies between sectors, but are no later than 30 June 2011. Visit <http://www.hortito.org.nz/> or talk to your local sector group for more details. **F**



Stuart Dudley, Young Horticulturist of the Year 2010 winner, puts his practical skills to the test during the finals in Auckland last year.

LeaderBrand's successful pouch corn operation

Major Gisborne based grower LeaderBrand have been involved in pouch corn production since the inception of the retort factory in New Zealand. Having identified opportunities to both further develop what has become one of their core products and provide increased crop rotation options with their export squash crop, LeaderBrand took the opportunity to purchase the retort factory to realise these benefits.



Pre-cooked, heat-and-eat vacuum-packed corn on the cob is a mature product in Japan, and to a lesser extent in the UK and Europe. While the product is shelf-stable unrefrigerated, it eats better fresher, explains LeaderBrand's export manager Andrew Vette. "So New Zealand offers these Northern Hemisphere markets a 'fresh' option in their off-season."

"When the opportunity arose to take over the factory's operations, we saw numerous opportunities with the product in existing and new markets. "We initially leased the factory for a year as we worked through the best ways to incorporate the business into our wider sweet corn programme and figure out a number of quality challenges the factory had faced. Simplistically, as a grower-packer-shipper, we realised that 'quality in equals quality out' and with a high variable cost of production we needed to maximise the value from every cob processed."

Andrew says one of the first changes was to hand-pick the sweet corn into crates and deliver it daily to the factory like a fresh corn programme.

"Hand selecting our raw material for size and maturity naturally increased our yields within the factory and gave better eating quality. While it looks a relatively simple product and process, like any processor, we learnt it isn't so easy keeping all our ducks in row."

Another significant benefit of the pouch corn business, says Andrew, are the crop rotation options.

"We were already a large sweet corn grower, but our buttercup squash business has grown significantly in recent years and we needed rotation crops, so this all fit together to ensure we could maintain the rotations we require to ensure high quality produce."

Having addressed the main quality and efficiency issues in the factory, Andrew says LeaderBrand has doubled the pouch corn production volume in the second year and looks set to increase by at least 50% for the coming season.

"We have been able to provide a better eating experience and we are developing new initiatives to improve convenience, which we think are the keys to developing markets for this product. Pouch corn has no additives or artificial preservatives; it's shelf-stable for 16 months requiring no refrigeration, so there are numerous markets where these benefits will offer sales opportunities."

Andrew also notes that the team at LeaderBrand would like to take this opportunity to acknowledge the ongoing support of Fruited and its team here in Gisborne. LeaderBrand currently has 2,600ha being cropped in Gisborne and 400ha in Canterbury. **F**





Sclerotinia diseases of vegetables

While there are numerous species of the genus *Sclerotinia* present in New Zealand only two of them are a serious problem in horticultural crops, explains Fruitfed Supplies' technical adviser **Tim Herman**.

Sclerotinia sclerotiorum and *S. minor* can infect many different crops and are widespread throughout New Zealand's horticultural areas. Over 400 host plants can be affected by *S. sclerotiorum* and almost 100 by *S. minor*. Both pathogens infect numerous vegetable crops: brassicas, lettuce, cucurbits, carrots, parsnip, celery, potatoes, tomatoes, beans, and so on.

In the absence of suitable hosts, both pathogens survive as sclerotia, bundles of mycelia in a hardened black rind. Sclerotia of *S. minor* are small and round, less than 2mm in diameter while those of *S. sclerotiorum* are larger, up to 10mm in length and variable in size. The sclerotia can survive in soil for 3-5 years, but numbers decline rapidly after the first year.

Germination requires favourable conditions and suitable host plants. The most common form of infection by *S. minor* is via mycelial germination, where mycelia grow from sclerotia to infect stems and/or leaves touching the soil surface of nearby plants. In lettuce, this is called lettuce drop as infected outer leaves collapse. Another method of germination sees a stipe produced from the resting sclerotia, growing up to the soil surface and producing an apothecium (small inverted mushroom) which discharges spores in favourable conditions. Spores are carried by wind to nearby plants where infections may occur. This is the predominant means of infection by *S. sclerotiorum*.

After infection, *Sclerotinia* spreads rapidly to form a soft, wet rot in the host plant, eventually killing the infected plant parts. Infected tomato and potato stems become hollow, turning a bleached white-light grey colour; white mycelium and black sclerotia may be found inside stems. Soft leafy plants like lettuce can be completely infected and killed, leaving sclerotia on soil and plant surfaces. Under wet, humid conditions the pathogen may grow out from infected plants to infect neighbours if plants are touching.

Crop management strategies that can be implemented to provide cultural control include:

- Conventional deep ploughing buries sclerotia, reducing the production of apothecia and infection of new crops.
- Rotating with non-host crops, e.g. grass, cereals, maize or sweet corn, reduces soil inoculum levels when host crops are planted again. Ensure broad-leaf weeds are controlled in these crops as many are hosts of *Sclerotinia* and can bridge across the non-host period.
- It has been noted that soils higher in organic matter have lower levels of *Sclerotinia* in their crops, possibly because enhanced soil microbial activity decreases sclerotia survival.
- Solarisation with plastic mulches, prior to planting, is an option for high value crops. Leaving the plastic down during crop growth can further reduce infection by preventing foliage touching the ground.
- Plant density, water management and nutrition, and their effect on crop canopy, can be managed to reduce periods of favourable infection conditions.

Chemical control of *Sclerotinia* is limited for most crops. Carbendazim, e.g. Prolific®, Topsin™M-4A and Sumisclex®500SC, have multiple crop registrations. Good control with fungicides relies on early detection of infections and, more importantly, timing of applications to growth stages when conditions are becoming more favourable, e.g. applying fungicides just as the canopy closes over potentially creating a micro-climate favourable for infection. A number of biofungicides are coming on to the market, and some are showing some promise for the control of *Sclerotinia*. However further research is needed to confirm their efficacy and none have gained registration yet. **F**

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Vege Tech Bytes

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



Now that field trials are largely behind us for the season and the data analysis begins to give us a complete picture of how products have performed, we move into the 'meetings phase' of the year where we share with you what we can about the results of this year's trials.

Over the next few months I will conduct staff and grower meetings around the country, and should be able to communicate to you which new products are likely to gain registration in the coming season and best practice use guidelines for these. Also we can discuss any new information we have generated for existing products.

These meetings are largely arranged by Fruitfed field representatives and area managers, so if you have a specific interest or enquiry, please share this with your local Fruitfed contact so that this can be incorporated into a meeting or visit to your region. **F**



Find the **right grass** for your vineyard

Establish the perfect grass sward for your vineyard by sourcing the right cultivars and seed blends through Fruitfed Supplies.



There are more grass seed options available for vineyards than many people realise, according to Jason Weller, a South Island-based technical representative with PGG Wrightson Turf.

"Fruitfed Supplies provides vineyards around the country with the well-regarded Dionysus range of cover crop options, including the Bio-Ley seed options for enhancing food sources for beneficial insects. Another Dionysus blend is Lo-Gro, a popular grass seed blend commonly sown in autumn to complement Bio-Ley," says Jason.

"Lo-Gro is a blend of turf-type perennial ryegrasses, fine fescue and browntop which provide vineyard managers with a turf-type surface at an economical price. The blend can be customised for your situation, ensuring rapid establishment even in the most difficult sowing conditions."

The grasses that go into the Lo-Gro blend include:

- Turf-type perennial ryegrasses – Arena and Colosseum. Jason says there are no other turf perennial ryegrasses like these on the market at present. These are New Zealand-developed

ryegrasses bred with Mediterranean genetics allowing them to germinate freely down to 5°C, giving managers the option to leave sowing till later in the season if needed. They have very strong growth in cool conditions, especially 5-10°C, so often remain active over winter months and recover faster going into spring.

- Governor's fine fescue is the first naturalised New Zealand fine fescue to be bred into a turf cultivar and commercialised. Fine fescue can be badly damaged by insect activity, notes Jason. "Governor's contains an endophyte, a fungus which lives within the plant and protects it to some degree from insect feeding. The endophyte improves the plant's summer survival and performance by reducing insect feeding."
- Browntop – PGG Wrightson Turf is the world leader in breeding colonial browntop for turf use. "We strongly recommended that certified seed of a named browntop cultivar is sown in every situation. There is a vast difference in turf quality and plant

type between uncertified browntop and a certified named cultivar. Much uncertified browntop is in fact dryland bent, a coarse, open type that forms a poor turf."

A popular customised Lo-Gro blend for organic growers uses the New Zealand-bred Governor's fine fescue in place of imported American fine fescue. Fruitfed Supplies is the only company which offers this mix as an untreated option by using Governor's fine fescue. This is ideal for those growers with very strict guidelines on pesticide use.

Jason says that "At present fine fescue imported into New Zealand is required by MAF to be treated with Vitaflow 200, which contains 200g/kg carboxin and 200g/kg thiram. New Zealand grown Governor's does not have this requirement, and provides a fungicide free alternative."

"With the help from your local Fruitfed representative, a blend of the right grass cultivars to suit your needs can be sourced from the large portfolio of seed available to them through PGG Wrightson Seeds." **F**

Give your **vines** an essential post-harvest boost

Crop loads place great demand on grapevines up until harvest, so assisting the accumulation of essential carbohydrates for next season is vitally important to build strong buds and healthy foliage.

As grapevines burst into bud in spring, transpiration rates are low and soil temperatures are cool which limits the uptake of any nitrogen applications made at the time. However nitrogen is important to sustain vine growth to the 4-to-5 leaf stage and it's thought that the vines source it from stored reserves.

Therefore, immediately post-harvest, it's important to assist vines build their carbohydrate reserves. Nitrogen is a key macro-nutrient for such functions as: plant growth, carbohydrate production, photosynthesis and chlorophyll production, promotion of strong fruit buds, and good flavour and aroma compounds in the wine.

Research in Marlborough suggests that a 10 tonne/ha crop of Sauvignon Blanc removes approx. 7 kg of elemental nitrogen with the fruit. This nitrogen



can be replaced by applying 10 to 20 l/ha of YaraVita Ezy-N. The goal is to make this application as soon as possible post-harvest as there is an active period of new root flush when the plant needs carbohydrates before the vine shuts down for the season. This period of new root development is very critical; the new roots play an important role in optimal uptake of water and key nutrients in spring.

YaraVita Ezy-N is a high analysis (42.5% N w/v) formulated liquid nitrogen that enables rapid uptake by plants via fertigation or foliar application. It is easily absorbed via roots and leaves and enhances new root development. Ezy-N has good tank-mix compatibility and is easy to mix and use. It has been used extensively on Marlborough vineyards for many seasons, so talk to your Fruitfed Supplies representative about how Ezy-N can benefit your vines next season. **F**

DuPont New Zealand: delivering science to horticulture

The next five years represent an exciting time for DuPont™ in New Zealand with the launch of some new innovative chemicals to add to the existing portfolio of horticultural insecticides and fungicides.



According to DuPont New Zealand country manager Mark Christie the new products are the result of many years' of substantial R&D investment. "DuPont is committed to an extensive research and development programme to produce world-leading products," says Mark.

New Zealand growers have already seen several new DuPont products, such as the introduction of DuPont Altacor® and DuPont Coragen® insecticides powered by Rynaxypyr®.

"As an active ingredient, Rynaxypyr represents a breakthrough for Lepidoptera caterpillar control," says Mark. "Its unique mode of action delivers fast-acting, long-lasting protection to help growers achieve high-quality, high-yielding fruit and vegetable crops. The results in the field speak for themselves."

As well as the innovative Rynaxypyr-based products, DuPont have other

exciting products in discovery and development phases which include new herbicides, fungicides and insecticides. These new chemicals represent a substantial step forward with products that are more effective, easier to use and with better environmental profiles than existing agricultural products.

Several new products are now being trialled in New Zealand conditions and become available to growers from the end of 2011.

"New products and technologies in our crop protection and biotech pipelines will deliver powerful new tools and choices to farmers in New Zealand and around the globe," says Mark. "Whether it's launching new products from our promising pipeline or developing new answers to the changing needs of today's growers, DuPont continues its momentum to advance New Zealand horticulture." **F**

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DIARY DATES

NELSON YOUNG FRUIT GROWER 24 June

Run for the first time in 2010, Nelson's fruit growers are holding their second Young Fruit Grower competition in June.

Contact competition co-ordinator Andrew Kininmonth via email andrew@hoddysorchard.co.nz for more details.

REMEMBER: All horticultural organisations are welcome to list their events on the Fruitfed Supplies website. Simply go to the Events tab on www.fruitfed.co.nz, click 'add your event for listing' and fill in the requested details.

ICE EXPO & HAWKE'S BAY YOUNG FRUIT GROWER

1-2 June

9am to 4:30pm

Hawke's Bay Showgrounds, Hastings



ICE is a trade show, it's an education hub, it's a launching spot for new innovations and importantly it's a celebration of what we do. The 2011 ICE Expo includes this year's Hawke's Bay Young Fruit Grower competition. More information from <http://www.iceexpo.org.nz/> or Hawke's Bay Fruit Growers Assn (06) 870 8541.

YOUNG VEGETABLE GROWER 12 May

Chateau on the Park, Christchurch

Support Canterbury and young growers from all over the country as they compete to become the Young Vegetable Grower of the Year. More information from graham.martin@paradise.net.nz



HORTNZ CONFERENCE 2011

26-27 July

Rotorua Energy Events Centre

New Zealand horticulture's biggest annual conference.

Watch for details via the Conference tab on www.hortnz.co.nz.

AVOCADO



Reminders for May:

- ✓ It is important to monitor for **greenhouse thrips** and **leafroller** as they continue to be an issue through into May. There have been some severe infestations of GHT this season and as they tend to increase in numbers rapidly in autumn, they can damage fruit if uncontrolled. Calypso is the product of choice. Remember, as with other 'soft' compounds, effective control relies on good application practices and complete coverage of the target. Consider using mineral oil or super-spreaders like Du-Wett to achieve this.
- ✓ **Du-Wett** is widely used in kiwifruit, apples, grapes and vegetables and recent work shows its ability to greatly assist spray coverage when combined with low water rate applications in avocados.
- ✓ As in past seasons, this year **six-spotted mite** numbers hit a low point mid-summer, particularly in BOP orchards. However, a resurgence of SSM often occurs in autumn, particularly on blocks with previous SSM history. Careful monitoring now ensures early detection and allows control measures to reduce the over-wintering population that has the potential to cause major issues in spring. For details on Fruitfed Supplies Crop Monitoring Service, contact Sue O'Malley (Whangarei and Far North) on 0274 988 174 or Alastair Reed (Bay of Plenty) on 0274 347 971.
- ✓ Continue to maintain a **fungicide cover** with copper products such as Kocide Opti or Blue Shield. Kocide Opti provides good control of avocado fungal pathogens with less elemental copper applied per hectare and less impact on soils. Blue Shield has the advantage of Bio-Gro registration. Industry best practice recommends eight fungicide applications per year for optimum fruit quality.
- ✓ April/May is the correct time to take **leaf and soil samples** in avocado blocks. The resulting analysis provides an accurate indication of plant and soil nutrient status and is necessary to design the coming year's fertiliser programme.
- ✓ Apply **Fruitfed Supplies Avocado Mix** to feed developing fruit, as per your fertiliser programme. Time regular applications to coincide with rain or irrigation when possible. Fertigation options are also available.

Avocados are susceptible to frost so ensure adequate frost protection is in place, particularly for young trees and/or higher altitude and colder areas. Frost protection methods include options such as overhead watering, wind machines, frost covers on young trees (see photo) or application of low-biuret urea. Your local Fruitfed Supplies representative can help with information on the best frost protection system to suit your situation.



Young avocado tree well insulated against frost

CITRUS



Reminders for May:

- ✓ Through autumn and approaching harvest, **greenhouse thrips** levels may rise very rapidly, causing typical silvery scarring damage. Control options are limited, particularly for export crops, so talk to your Fruitfed Supplies representative.
- ✓ Monitor for **scale crawler** release as this may continue through May. The young stages are most easily controlled, whereas heavy adult populations are extremely difficult to remedy.



Brown soft scale

- ✓ **Brown rot** may infect healthy fruit pre-harvest, especially if conditions are wet. Control with Kocide Opti or Dithane Rainshield.
- ✓ Consider applying **Perk Supa** in autumn to strengthen trees and improve disease resistance.

GRAPES



Reminders for May:

- ✓ **Mulching** helps return organic matter to the soil and reduces the potential for disease carry-over by destroying the over-wintering structures of some grape diseases.
- ✓ The application of a product that promotes the break down of **organic matter** on the soil surface, like Digester, may help improve soil structure and enhance the release of nutrients into the soil to be used by the vines.
- ✓ If your vines display symptoms of **wood-invading diseases**, such as *Eutypa*, then remove infected parts during pruning and burn all infected wood, particularly all pruning wood more than a year old. It's also important to apply a suitable wound dressing such as Greenseal Ultra soon after pruning cuts have been made, i.e. on the same day, as vines are most susceptible to infection at this time.

Fruitfed's Technical team has again been busy during the growing season with its research activities. Two late season Botrytis trials, with a combined total of 19 treatments, were put down in Nelson this year. The main focus was on ultra low-residue biofungicides and elicitors as these have the best potential for the post-bunch closure window in the current environment. The relatively dry conditions in March have made for challenging conditions, highlighting the difficulties with running field trials. Despite this we hope to generate some meaningful data.

With the warm and dry conditions that prevailed in the top of the South Island in January and February more success was had in the powdery mildew research arena. A high-pressure site yielded some excellent results with a new product expected to be registered next season performing very well. We look forward to presenting these results to growers in our pre-season technical seminars scheduled for August and September.

KIWIFRUIT



Reminders for May:

- ✓ Continue to monitor for **leafroller** up to harvest as late season infestations, particularly of the black lyre leafroller and pink caterpillar, may cause an issue in some blocks. Control with Delfin WG as required (2-day PHI).
- ✓ As we head into May, remember to visit Fruitfed Supplies for all your **harvest requirements**.
- ✓ Assess crops prior to harvest to determine whether **stain removal** is required. A relatively small gain in the number of packed trays is all that is required to economically justify a stain remover application. Research by Fruitfed Supplies Technical team combined with growers' field experience over close to 20 years, has demonstrated the effectiveness of KiwiLustre (a lactic acid formulation) for the removal of kiwifruit stains. In addition, Du-Wett Stainless allows application of stain removal products such as KiwiLustre at reduced water rates, helps cover the ground faster, more efficiently and more economically. Treated fruit also dries rapidly, an important consideration leading into

harvest. Your Fruited Supplies representative can help with more information on fruit staining causes, remedies and best application practices, including the use of Du-Wett Stainless.

- ✓ A key period where **nitrogen** is required by vines is during early season vegetative growth (canopy development) and flowering. However, due to cool soil temperatures and poor root function at this time, nitrogen is largely sourced from stores in the vines' woody parts. Application of low-biuret urea immediately after harvest is standard practice and gives an opportunity to supply nitrogen to the upper part of the plant, which is then stored for use the following season. The application of trace elements like boron, magnesium and zinc may also be useful in some situations if levels are limited.

Following the outbreak of *Pseudomonas syringae* pv. *actinidiae* (Psa) earlier this year, thought needs to be given to bacterial protection during the period after harvest to leaf-fall. Copper fungicide/bactericide products, like Kocide Opti, Blue Shield and Champ Flo are recognized worldwide as being a crucial part of any bacterial management programme. As leaf condition begins to deteriorate and leaves fall, numerous small entry points are available for bacteria to infect the vine during wet conditions. It is critical that these infection points are covered with a suitable copper product to reduce infection risk. Following harvest, an application of one of the copper products mentioned above is strongly recommended. Once leaf-fall begins later in May, copper sulphate (plus surfactant) may be used to hasten leaf-fall. Once copper sulphate dissolves in the spray tank it releases free copper ions, which have good bacterial efficacy, and also phyto-toxicity, hence being suitable for promoting leaf-drop. However, these highly-soluble ions do not have long-lasting efficacy on the plant, being easily washed off by rain. Therefore, once leaf-fall has progressed, apply a copper fungicide ahead of wet weather events to protect the leaf scars. Rain-fasteners such as Du-Wett Rainmaster or Bond Xtra may also be useful at this time.



Tayah Johnston assessing Psa efficacy trial within Te Puke priority zone

Kiwifruit growers outside the Te Puke priority zone cannot afford to be complacent in regards to Psa. It is a serious issue which has a major impact once vines become infected. The Fruited Supplies Technical team resources in the north have been almost totally focused on this issue this season. We have learned a lot already which will help guide our recommendations for next season and we have a research programme going forward to help search for the best control options, product use patterns and optimisation of controls. We have also been working closely with Zespri to assist understanding of many products, residue decay curves, crop safety and other issues.

PIPFRUIT



Reminders for May:

- ✓ If **boron** levels were found to be low in your trees this season, the application of a post-harvest, pre-leaf fall boron product, such as Bortrac, is the most effective option to ensure adequate levels are present next spring. If magnesium and zinc are also required, consider Budbuilder, the formulated product that supplies all three of the above nutrients. Alternatively, consider Organibor application to soil to provide long-term slow release of boron.
- ✓ The application of Digester and nitrogen to the orchard floor after leaf fall assists **leaf breakdown**; this aids the **reduction of black spot** spore carry over into next season.
- ✓ **Black spot** inoculum carryover can be further reduced by post-

harvest foliar application of urea, sweeping and mulching leaves and/or introducing sheep to the blocks. Be mindful of removing stock before they run out of food or they may attack orchard trees.

- ✓ Autumn is an important period for **controlling problem perennial weeds** to reduce the carryover next season. Correct herbicide application should provide a relatively weed-free strip through until spring. Contact your local Fruited Supplies store to discuss the most effective weed control programme for your orchard.

For blocks which had **black spot** this season it is worthwhile considering a fungicide programme between harvest and first leaf-fall. While most remaining leaf tissue is largely resistant, the high numbers of conidia being released (and the possibility of any new growth) means that given suitable weather conditions, infection may still take place. This allows a build-up of black spot lesions on leaf tissue and promotes high carryover into spring. A basic fungicide programme will suffice to keep remaining infection contained up to leaf-fall. Broad spectrum, multi-site fungicides such as captan have the best fit at this time and their use will not promote resistance.



The application of broad spectrum fungicides is also important for the protection of trees against **European canker**. As a general rule, applications should be made before significant rainfall when leaves are falling to protect leaf scars which offer pathogens a significant point of entry. Two new products, which have a combination of active ingredients with activity against European canker, are expected to gain registration and be available for use shortly. Talk to your local Fruited staff for details. When pruning affected blocks be sure to remove all infected wood. These should be finely-mulched or preferably burnt so they are not a source of disease.

SUMMERFRUIT

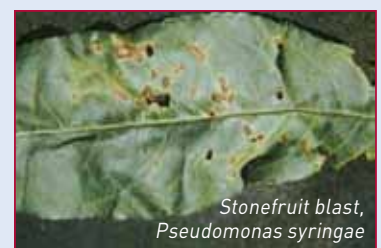


Reminders for May:

- ✓ The application of **coppers** during the period from harvest to complete leaf-fall is vital to protect leaf scars from bacterial disease infection.
- ✓ Autumn is an important period for **controlling problem perennial weeds** and will reduce the bulk of weeds surviving the winter period. Correct herbicide application should provide a relatively weed-free strip through until spring.

The autumn leaf-fall period is critical to control **bacterial disease** in stonefruit. Leaf scars remaining after leaf abscission provide ideal entry sites for blast and bacterial spot disease, when drops of water contaminated with bacteria are sucked into exposed vessels. Pruning wounds and other injuries also serve as penetration sites.

The key to satisfactory control of **blast and bacterial spot** is to keep bacterial populations low on plants at all times and to prevent opportunities for infections to establish. No resting stages are known in the blast lifecycle, but active bacterial sites alternate between branch cankers in winter and leaf spots in summer. Application of copper during the post-harvest (pre-leaf fall) and leaf-fall periods are vital to protect leaf scars from infection.





Mike Thompson (right), from Mahau Apple Orchard, chats with Gaston Monge-Grassi, of Allendale Garden Products, about the merits of a Zubat saw, part of the Silky range.

Silky Saws: the right tool for the job

The Silky range of Japanese pruning saws has demonstrated its worth to commercial horticultural pruners and professional arborists in New Zealand for almost 15 years.

With pruning the next big job on the list, Mike Thompson, from the Heartland Group's Mahau Apple Orchard near Richmond, turns to Silky Saws as being a pruning tool he can rely on to do the job to the standard he expects.

Mike says: "When it comes to pruning, Silky Saws are simply the best. I wouldn't use anything else."

Manufactured in Japan, Silky saws are made from laser-cut, impulse-hardened steel to deliver exceptional performance and long service, explains Gaston Monge-Grassi, sales manager for Allendale Garden Products which supplies the saws for sale through Fruitfed Supplies.

"The unique alloy steel creates a harder, longer lasting edge with incredible tensile strength and flexibility," says Gaston.

One of the key features is a Silky Saw's extremely effective pull-stroke, which minimises effort for the user and maximises speed of getting the job done. "The taper-ground blades are narrower along the back and wider at the tooth edge with four rows of teeth cutting and clearing the wood, resulting in a smooth finish which reduces bleeding and infection risk."

Gaston says the Japanese manufacturer has continued to invest in design and innovation since 1919. "The range includes pole and hand saws with curved, fixed and folding blades in all sizes to suit horticultural professionals, which is why Silky Saws have been sold through Fruitfed Supplies stores for more than a decade. Visit your local store to find the right Silky Saw for your pruning requirements." **F**

Quality German engineering with Löwe pruning tools

Löwe pruning tools have been used in New Zealand for many years, gaining a reputation for high quality, great reliability and excellent value.

Löwe – German for lion – have a worldwide reputation for providing robust and user friendly pruning equipment. In New Zealand the original Löwe #1 anvil secateur has become the most popular secateur in the market. "It's robustness makes the Löwe #1 the product of choice for pip and stonefruit pruning", says Craig Williams, Fruitfed Supplies Hastings merchandise manager. "A professional can make up to 12,000 cuts a day, so it makes sense to invest in tools known for their quality and reliability to support that workload."

Following many years of successful use and excellent user feedback, Fruitfed supplies have introduced an extended range of Löwe products to the market. The range now includes bypass and ergonomic-handled secateurs. These, along with the anvil and bypass loppers, are proving increasingly popular in both the horticultural and retail sectors.

A new development from Löwe is the #8 secateur



Löwe new 8 secateur – caption: The new #8 secateur features a curved anvil cutting head for optimum hold of the cutting material

(pictured) which features a curved anvil cutting head for optimum hold of the cutting material and an ergonomic handle.

"Löwe secateurs and loppers are designed to be easily disassembled, sharpened and reassembled with cost-effective replacement parts readily available locally", says Craig. "The range of loppers, both anvil and bypass, utilise the same high quality Teflon-coated steel alloy blades, come in a range of lightweight handle lengths manufactured from aircraft grade aluminium and feature bright orange hand grips and buffers to ensure they stand out among pruning debris in orchards and vineyards."

Get advice on the Löwe products to suit your pruning needs at your local Fruitfed Supplies store. **F**

