



One of the early Quantum Mist sprayers built by New Zealander George Eady, original developer of the Quantum Mist sprayer technology



Croplands Quantum Mist sprayers are now used extensively in many key crops



The smaller diameter QM380 was launched last year

The evolving Quantum Mist

This year Croplands Equipment and Fruitfed Supplies celebrate a 30-year commercial relationship that has the Quantum Mist sprayer at its core.

The Quantum Mist™ axial spray head commenced development nearly 20 years ago, says Croplands territory manager Greg Evans. "And as we all know, the New Zealand horticulture industry has grown and changed considerably in these last 20 years with the Quantum Mist evolving to meet growers' changing needs."

During the 1990s manufacturers of spraying equipment, along with research bodies, searched for ways to increase the efficiency of spray application. Croplands recognised the potential for directional air application of sprays using axial fan technology. The South Australian Research and Development Institute (SARDI) designed a five-blade one-piece axial fan. In what has proved to be a valuable collaboration with SARDI, Croplands used the newly-developed fan on the Quantum Mist sprayers to achieve much more effective coverage at lower fan revs per minute.

The Quantum Mist sprayers fitted with the SARDI-developed axial fan have evolved over the past two decades, giving rise to multi-row sprayers and enhanced application efficiencies.

"New Zealand orchardist and inventor George Eady has also played a major role in helping Croplands evolve and develop the Quantum Mist sprayers both locally and internationally," comments Greg.

In 2004 a new cowl design was introduced to incorporate the nozzle spray-ring inside the cowl. The diameter of this ring was made larger to allow higher liquid application rates when required. The nozzles were also recessed slightly to avoid the potential for them to 'catch' on the canopy during late season spraying operations. Improvements in airflow were also noted from the new cowl design.

In 2006 Croplands looked into the specific chemicals being applied with Quantum Mist sprayers with the help of adjuvant specialists Elliott Technologies, which introduced the super spreader, DuWett®, to the equation. Trials in grapes, apples and citrus using DuWett showed that water rates in all these canopies could be reduced significantly, travel speeds increased (especially early in the season), and coverage dramatically improved. Today the use of DuWett with Quantum Mist sprayers is common practice.

Last year Croplands launched the smaller QM380 fan. The 380mm fan was specifically designed for cool-climate spraying particularly in the New Zealand regions where canopies are smaller and often more heavily trimmed/managed. Benefits include reduced hydraulic oil-input and oil pressure without a reduction in air velocity making three-row spraying possible without the need for a hydraulic power-pack. The smaller fan also has better ability to band-spray for targeted applications such as flowering and bunch line sprays.

"Croplands and Fruitfed are committed to continuing to improve spray application technology while providing safe, environmentally sound and effective products to horticultural growers," says Greg.

An attractive promotional finance offer is currently available on all Quantum Mist units with a 4.9% rate for 24-month finance periods. For more information about this offer and Croplands sprayers in general, talk to your local Fruitfed Supplies representative. ❖

DuWett® is a registered trademark of Elliott Technologies Ltd.



Thinking about getting a wind machine?

For peace of mind this spring, now's the time to secure an Orchard-Rite wind machine, says Fruitfed Supplies category manager, Rob Lamb.

Tired of wondering if you call the choppers in for the night? Thinking about building that dam large enough to cover you for three nights, four?

Equipped with your personal pre-set temperature automatic ignition, an Orchard-Rite wind machine takes the guess work out of frost fighting. If it's cold, it'll turn on, and it will do that for the next twenty-plus years.

It's this durability as much as the performance that has seen Orchard-Rite become the benchmark of this industry and the power behind frost fighting in New Zealand's orchards, vineyards and gardens for 30 years.

The hardworking CAT C6.6 and JD6080 turbo diesels are proving ideal power plants to drive blades demanding up to 180HP. The Caterpillar is setting the standard in the wind machine industry for clean emissions being a Tier 3 rated electronic engine with new common rail fuel delivery.

The market preference for the confidence the Orchard-Rite solid fibreglass blades provide in terms of performance and a proven track record moving around a million cubic feet of air a minute prove with every passing year just how bullet proof these blades are.

With finance available on terms of up to ten years to suit your business, the opportunity exists to protect your crops with the most cost effective and user-friendly option and take the guesswork out of frost fighting.

Remember to schedule your pre-spring wind machine service. Your local service agents can discuss maintenance options for your machines. Be sure to check your fuel and batteries before any frost event and periodically test run.

With lead times of up to 12 weeks, confirm your requirements now with your Fruitfed Supplies representative to secure yourself an Orchard-Rite wind machine and peace of mind for spring. ➡

An Orchard-Rite wind machine being flown into position on difficult terrain in Te Puke

New Goal Advanced for residual weed control in wine grapes

For many years, Goal XL has been the residual herbicide of choice by growers for weed control in wine grapes and now its successor is here.

"After very successful launches overseas, Dow AgroSciences is pleased to announce the arrival of new Goal™ Advanced in New Zealand," says Dow AgroSciences marketing manager Glen Surgenor.

Goal Advanced is a double strength, water based, flowable formulation with low odour that is very easy to mix and measure," says Glen.

"Storage stability is improved in very cold winter conditions. Growers familiar with Goal XL will welcome these significant improvements.

"Goal Advanced can now be used with greater confidence. Its improved crop safety profile is due to reduced potential for lift-off (co-distillation in water vapour in moist conditions). However, dormancy remains the preferred time to use Goal Advanced in wine grapes."

Goal Advanced provides long-lasting, pre- and post-emergence activity on a wide range of broadleaf weeds and grasses, making it ideal for residual herbicide programmes in wine grapes.

"When mixed with glyphosate, Goal Advanced provides superior knockdown and brownout of mallows, nettle, storksbill, field speedwell and other hard-to-kill weeds," says Glen. "The long-term residual control offered by Goal Advanced means less time weed spraying, as well as lower fuel usage and reduced soil compaction."

Goal Advanced is also registered for use in pipfruit, stonefruit and kiwifruit. Please check your export schedule to determine acceptable use patterns. For further information about Goal Advanced, please contact your local Fruitfed Supplies representative. ➡



Goal™ is a registered trademark of Dow AgroSciences (NZ) Ltd. Registered pursuant of the ACVM act 1997, P7836.

Adding value to summerfruit

Fruitfed Supplies technical advisor Paul Hassan attended this year's annual Summerfruit New Zealand conference in Auckland in June. He summarises the key points for Facts.

This year the Summerfruit New Zealand conference was brought to Auckland to give attendees an opportunity to visit the Mt Wellington markets, through which a very significant proportion of summerfruit grown in New Zealand passes.

The overarching theme of the conference was 'adding value' through various stages of the production system, with strong sub-themes of 'precision horticulture' and 'environmental sustainability' coming through from many of the speakers.

PGG Wrightson Fruitfed Supplies was well represented at the conference this year with four delegates attending: Mark Cosgriff from Alexandra, Philip Carter and Andrew Davis from Hastings and me from Richmond.

A particular highlight was the field trip to the Plant and Food Research station in Mt Albert on Wednesday. There we heard presentations from several notable scientists on a range of project topics. One covered innovative approaches to pest control, such as using pheromone-treated and sterilised Mediterranean flies as a mechanism to facilitate 'mobile mating disruption' of light brown apple moth populations. Another covered ways of manipulating the parthosystems to favour 'good' fungi and exclude the 'bad' ones, i.e. pathogens, on fruit trees. A third presentation covered non-destructive techniques for measuring quality parameters of fruit, enabling the progress of individual fruit to be tracked on the tree throughout the season.

The post-harvest phase of production was not neglected either, with a presentation about recent experiments to investigate ideal storage conditions for maintaining high quality of fruit while in transit to export markets. The research was seemingly forward-thinking and relevant, focusing on the day-to-day issues facing the summerfruit industry as well as being anticipatory of some potential future opportunities and threats as the industry moves inexorably toward an ultra-low residue approach to export production.

The field trip and many of the other presentations throughout the conference left the impression that the summerfruit industry is in good hands.

Fruitfed's Technical team is also playing its part by conducting field trials to bring new products to the market that have a good fit within our clients' ever-evolving production systems. Our ongoing commitment to research investment in the summerfruit sector aims to find new, practical solutions for growers as they try to add value to their businesses through the production of high quality fruit while operating sustainably and with environmental integrity. ➡



Fruitfed Supplies' Mark Cosgriff and Paul Hassan at this year's Summerfruit conference



Looking ahead to leek planting time

Seminis, the world's largest supplier of commercial vegetable seed, has two key leek varieties in the New Zealand market.

Two highly productive leek varieties cover the early and mid-season, says Seminis Vegetable Seeds territory manager Hazim Arafef.

"Nobel is an early maturing hybrid leek which offers excellent bulbing tolerance and very good bolt tolerance. It's a summer variety with broad dark green foliage that produces very long, white shanks. Nobel can be harvested from December until March.

"Last year's new introduction, Volta, has proved to be very adaptable across the country in the main season harvest window," says Hazim. "Volta is a fast growing hybrid with a long bulb-free shank and small root implantation. It's extremely upright, providing an impressive shank length and attractive dark green leaves."

Fruitfed Supplies Levin field representative Donna Daken says Volta has proved its value to Manawatu and Horowhenua growers in just one season.

"The very uniform, upright, long shanks and its dark green leaves make Volta very attractive in the field and when harvested. It's one of the better varieties in the country at present," says Donna who is working with growers to confirm seed orders at present in preparation for sowing around the end of July.

"Both Nobel and Volta provide growers with easy clean varieties that produce an attractive leek that presents and sells well in the retail environment," adds Hazim. "We continue to trial new leek varieties as they come available and would particularly like to find a leek that performs well in the later slot to follow on from Volta."

If you have further questions about Nobel and Volta, please contact your Fruitfed Supplies representative. ➡

Seminis Volta is proving a popular leek



Pressure creates exciting avocado marketing opportunities

Utilising ultra high pressure technology, a newly formed company, FressureFoods Limited aims to create a grower-owned avocado processing plant.



Brand and packaging concepts for the UHP processed avocado

Ultra high pressure, or UHP, processing of a wide range of foods, including seafood, meat, juice and fruits, is a successful and well established food technology. This cutting edge process ticks all the right boxes, says Jim Clark of Far North Packers who's heavily involved with the FressureFoods project. "It more than satisfies consumers increasing demand for convenience, food safety, taste and freshness."

The UHP process is very straightforward, simply the pressure treatment of prepared foods which kills pathogens and bacteria. "But, of course, the technology to do the job is vastly complex and requires major investment in specialised machinery and plant."

Avocados are one crop which comes through the UHP in excellent form for sale, explains Jim.

"Ripe fruit is simply cut in half or slices, or made into ready-to-eat guacamole, then hermetically sealed into its end packaging. The sealed pack is placed in fresh water and the water pressurised to around 87,000 PSI within the UHP vessel, such as the Avure 350-litre processor shown here. After a couple of minutes, the treatment is complete.

"The ultra high pressure kills pathogens and bacteria, yet the taste, texture, appearance, vitamin and nutritional content are all totally unchanged. And of course there are no additives or preservatives, just pure fresh 100% avocado with a refrigerated shelf-life of around 60 days.

The benefits of applying this technology within our own avocado industry are obvious, says Jim.

"Cosmetically-challenged fruit can be taken off the local market, processed via UHP into a valuable product for sale locally or internationally. Export prices could be obtained for what might have been local or oil grade fruit."

New Zealand is not unique in having an oversupplied local market and

many other avocado exporting nations have resolved local oversupply by adopting UHP processing technology.

About 12 months ago, a group of growers and others with vested interests in the avocado industry, including Jim Clark, formed UHP Technologies Limited with a simple mandate: establish a UHP processing facility with the primary objective of processing lower quality avocados for the benefit of all avocado growers.

Experienced key personnel are in place, markets have been researched, brand strategies developed, trade presentations undertaken, building and equipment design completed, and suitable land for development identified, says Jim.

"We have also created FressureFoods Ltd as a new entity to take the project forward into a commercial reality. Given enthusiastic industry support coupled with the company's very advanced stage of planning, we're working towards FressureFoods being operational for the 2010 season."

Those interested to find out more information about the project are invited to contact Jim Clark via email jim@fressurefoods.co.nz or Geoff Greenwood geoff@fressurefoods.co.nz. ⇨



Robert Peregrina, Fressure Foods' vastly experienced production manager

The Avure 350-litre UHP food processor to be commissioned for Fressure Foods



Shielded sprayer for de-budding grapevines

Applying Shark via a modified trailer-mounted weed sprayer proved a very efficient method of de-budding for Marlborough grape grower Richard Holdaway.

On the family-owned Alfa Lea Vineyard, Richard Holdaway fitted an existing trailer-mounted weed sprayer with brushes, flaps and a spring-loaded breakaway mechanism to allow the safe application of Shark® as a de-budding spray last season. Richard has found that the modified sprayer not only works very well for the Shark de-budding process, but it that also helps minimise any potential drift for regular herbicide applications.

Alfa Lea Vineyard has 140 hectares of grapes on three sites in the Lower Wairau region. This past season, the mature blocks were treated with one application of Shark, rather than using contracted labour to physically rub the buds off. Richard says that Shark performed as well as advertised. "I was very pleased with the control of bud shoots. At the rate used, I believe it was quite economic with the overall cost slightly less or close to what we pay for contract labour to bud-rub."

An added bonus of doing the spraying himself was the considerably less time required to co-ordinate many vineyard workers at the required time for bud-rubbing.

"Also, the usual problem of new suckers growing after de-budding was not such an issue after applying Shark, as a lot less suckers were produced by the vines than are normally seen with bud-rubbing."

With the Shark spray directed at the vine trunk bud shoots through the shielded sprayer, Richard says he also achieved the added benefit of a good degree of weed control. This meant a glyphosate application following de-budding was not required with mallow, fat hen, and general problem broadleaf weeds being controlled. Richard notes there was little activity against grass weeds, but this was fixed with a few herbicide rounds via the shielded sprayer later in the season. With a slight adjustment of the nozzle angle to ensure ground coverage, Richard used Buster® and Shark together. Overall, Richard believes the de-budding spray application and its weed control saved him one weed spray application for the season.

Your Fruitfed Supplies representative can provide detailed information about Shark and purpose-made herbicide units that come complete with covered nozzles and ground tracking booms. These are now available with single or two-row options from Croplands and Fruitfed Supplies. ➔



Shark provided Alfa Lea Vineyard's Richard Holdaway with an effective de-budding process

SHARK OFFERS GROWERS:

- Fast and effective sucker burn-off
- Longer lasting control than bud-rubbing
- Cost effective and labour saving
- Bonus weed control
- Low toxicity; good environmental profile

Shark® is a registered trademark of FMC Corporation, USA. Shark is registered pursuant to ACVM Act 1997, No P7808. Buster® is a registered trademark of Bayer

TECH-KNOW TIPS

AVOCADOS



Reminders for July:

- ✓ Continue to maintain a **fungicide cover** with copper products such as Kocide 2000LF or the new Kocide Opti. Research by Kerry Everett, Plant and Food Research, clearly shows some avocado fruit rot pathogens may infect under cold conditions during winter and industry best practice recommends 8 fungicide applications per year for optimum fruit quality.
- ✓ Approaching harvest, be aware of **pre-harvest intervals** (withholding periods) when spraying, especially for fruit destined for the USA, Asian or European markets.
- ✓ **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. This issue is more common on trees that have been fertilised inadequately through late summer and/or are carrying a heavy crop. Current cold conditions will also increase leaf yellowing. Add magnesium sulphate to improve leaf-greening as required.
- ✓ If **soil tests** have not yet been taken, it is not too late. The information gained from these is extremely useful for designing the coming season's fertiliser programme.

Close monitoring for **greenhouse thrips** populations should continue this month. If not controlled, this pest can over-winter causing fruit damage

leading up to harvest. Keep an eye out also for over-wintering **six spotted mite** populations (see photo). Even moderate populations of SSM should be controlled at this time of year, to reduce risk of population explosions during the coming flowering period. SSM control is very difficult during flowering as product selection is limited, so effort must be made to ensure populations are controlled prior to this time. DC Tron Plus is a good option at this time of year, giving control of SSM, greenhouse thrips and scale, particularly when mixed with other agrichemicals. For further details, please contact your local Fruitfed Supplies branch or field representative.



Adult six spotted mite and eggs on avocado leaf

ASPARAGUS



Reminders for July:

- ✓ Mulch and bury dead ferns to ensure good rotting of crop debris. This will reduce the amount of **Stemphyllium inoculum** surviving into next season.
- ✓ Take a **soil test** to determine fertiliser requirements for the coming season.

BRASSICAS



Reminders for July:

- ✓ Maintain good protective fungicide cover for **ringspot** and use strategic applications of systemic fungicides in periods of favourable weather.
- ✓ Once seedling brassicas have established, apply a single spray of Ridomil® Gold MZ for control of **downy mildew**. This systemic fungicide will give some protection to new foliage. Subsequent to this, and for other established crops, only protectant fungicides are available for downy mildew control.
- ✓ Monitor **grey cabbage aphid** and **green peach aphid** infestations and act early to avoid product downgrade at harvest.

CARROTS



Reminders for July:

- ✓ Take **soil samples** from fields and have them analysed for nutrients, then apply and incorporate required fertilisers before planting.
- ✓ If **root knot nematode** is an issue, a soil test can be conducted to determine presence and concentration of cysts in the soil. It takes a month to get results, so plan ahead to allow plenty of time before planting.
- ✓ Likewise **seed and seed dressings** should be planned ahead of time.
- ✓ If **weevils, wireworms or other beetles** are considered to be a potential problem, sample the field and, if necessary, apply an appropriate insecticide around planting.
- ✓ Apply **pre-emergence herbicides**, such as Stomp® Xtra, after planting but before the crop has emerged.

CITRUS



Reminders for July:

- ✓ Keep an eye out for **greenhouse thrips**, as these pests will still be evident throughout autumn and early winter, especially in the warmer northern regions and on late-harvest varieties.

- ✓ If fruit have not yet been harvested, remember to keep up a fungicide cover to protect against **brown rot** and other wet-weather diseases, which may infect healthy fruit over the winter period. Control with Kocide 2000 LF or new Kocide Opti, or Dithane Rainshield. The copper hydroxide products such as Kocide also control a broad range of other wet-weather diseases, such as Melanose (see photo).



Melanose infection on grapefruit

- ✓ Consider application of **Perk Supra** to strengthen the plant and improve disease resistance. For further information, please contact your Fruitfed Supplies representative.
- ✓ June and July are also the optimum months to take **soil tests** used to determine fertiliser programmes for the coming season. Your Fruitfed Supplies representative receives ongoing training in making fertiliser recommendations – please contact them for assistance.

GRAPES



Reminders for July:

- ✓ If possible, **avoid pruning vines** during rain or when rainfall is imminent. Apply a suitable wound dressing after vines have been pruned and burn prunings as they may later become a source of inoculum for wood-invading diseases in your vineyard.
- ✓ **Mulching**, after harvest, helps return organic matter to the soil. It also reduces potential disease carry-over by destroying disease over-wintering structures.
- ✓ The application of a product that promotes the **breakdown of organic matter** on the soil surface may help improve soil structure and enhance the release of nutrients into the soil to be used by the vines.

Soil testing is a useful means of monitoring the soil fertility on your property. Its main purpose is to quantify the availability to vines of key nutrients in the soil (e.g. P, S, K, Mg and Ca) and to indicate whether they are of a sufficient level to sustain the desired level of vine growth and crop yield. The test result reports are designed to plainly highlight deficiencies, toxicities and imbalances in your soil's nutrient status. This information provides a frame of reference for making prudent fertiliser decisions on your property. Other information presented in the reports which may be pertinent to this decision making process includes soil pH, cation exchange capacity and organic matter content. Fruitfed Supplies representatives are trained to properly collect soil samples for analysis, help interpret your test results and make fertiliser recommendations based on them. Please contact your local Fruitfed Supplies branch if you would like a soil test taken on your property this winter.

KIWIFRUIT



Reminders for July:

- ✓ June and July are the optimum months to take **soil tests** to determine fertiliser programmes for the coming season. Your Fruitfed Supplies representative receives ongoing training in making fertiliser recommendations – please contact them for assistance.
- ✓ Several winter jobs should also be underway, such as servicing/replacing **pruning gear** ready for the pruning season, checking **kiwifruit structures** and carrying out repairs, and preparing for any block conversions/new plantings. We are able to provide all your needs – please contact your local branch for details.

Hi-Cane applications should be made on Hort 16A later this month. Please read the label carefully and take note of all relevant safety precautions. Following a successful launch of air-inclusion (AI) nozzles and **DriftStop** during 2007, most kiwifruit nationwide were treated with this technology during 2008. Detailed research funded by Zespri has shown this combination to greatly reduce spray drift during application, without compromising efficacy. Please note that this work has not been carried out with alternative hydrogen cyanamide formulations or other surfactants. Your Fruitfed Supplies representative has experience and several resources to assist with correct Hi-Cane application rates, use of DriftStop, application method and timing. Please contact them for assistance.



Bud break

LETTUCE



Reminders for July:

- ✓ Strategic applications of Metarex® slug bait will limit slug and snail infestations as they move in from crop margins.
- ✓ Maintain a protective fungicide cover for downy mildew. Monitor crops for downy mildew and sclerotinia after spells of cool moist weather.



ONIONS



Reminders for July:

- ✓ Take **soil samples** from fields and have them analysed for nutrients prior to planting onion crops. Apply and incorporate required fertilisers before planting.
- ✓ Have **onion seed pelleted** with fertilisers and/or fungicides to maximise seed germination and crop establishment.
- ✓ Apply Stomp® Xtra within 3-4 days of the seeds being planted for **residual weed control**.
- ✓ Apply Roundup® Renew Xtra or Preeglone® to burn off **weed seedlings** before the onions emerge.
- ✓ Cereous should be applied for **white rot** control about four weeks after planting or at about 150 White Rot Degree Days (contact your Fruited Supplies representative for help with this). Two to three more applications should be made at 21-28 day intervals.
- ✓ Monitor seedlings for **onion fly** about the loop/flag stage.

PIPFRUIT



Reminders for July:

- ✓ Winter pruning provides the opportunity for an effective management program to control the disease pathogen **powdery mildew**. Selective pruning of the infected terminal shoots will assist to reduce the level of primary inoculum.
- ✓ The removal of over-wintering **European canker** and **fire blight** cankers during the dormant pruning operations is the most important cultural practice. Remember cankers become active in the spring as temperatures warm and buds begin to develop.
- ✓ To help prevent **silver leaf** aim to prune on fine days when no rain has fallen for 24 hours. Apply a wound protectant dressing on the same day as wounds are made. Do not leave wounds uncovered overnight.
- ✓ June and July are the optimum months to take soil tests to determine fertiliser programmes for the coming season. Correct soil pH is vital in apple production; if your pH is low, apply lime now. Your Fruited Supplies representative receives ongoing training in making fertiliser recommendations – please contact them for assistance.

Winter pruning is often the first step in the control of a number of disease pathogens. The removal of **powdery mildew-infected terminals, fire blight cankers and European cankers** will all assist to reduce inoculum pressure in the spring.

Pruning should be carried out with good equipment, which results in a clean cut and that does not induce pressure splitting, which leaves deep entry

points. Pruning cuts should be made at the correct angle leaving sufficient tissue to aid effective callus formation.

Remember if **silver leaf**, *Chondrostereum purpureum*, is present aim to prune on fine days when no rain has fallen for 24 hours. The wood is most susceptible during the first week after wounding but infection may occur up to a month later. It is important to apply a wound protectant dressing, such as Greenseal or Bacseal Super, on the same day as wounds are made. Do not leave wounds uncovered overnight.



Powdery mildew on terminal shoots

POTATOES



Reminders for July:

- ✓ Take **soil samples** from fields and have them analysed for nutrients prior to planting early crop potatoes. Apply and incorporate required fertilisers before planting.
- ✓ **Seed dressing fungicides**, such as Monceren®, should be used or, alternatively Amistar® can be applied in-furrow around the seed as it is planted. Choice of product is partly determined by the disease spectrum present in the field and on the seed.
- ✓ For **aphid** control use either Gaucho®, applied as a seed dressing, or Actara, applied in-furrow at planting.
- ✓ Monitor early crops for **late blight**. This pathogen can be active at a wide range of temperatures and may appear in crops during periods of favourable conditions.

STONEFRUIT



Reminders for July:

- ✓ Aim to prune on fine days when no rain has fallen for 24 hours to help prevent **silver leaf**. Apply a wound protectant dressing on the same day as wounds are made.
- ✓ June and July are the optimum months to take soil tests to determine fertiliser programmes for the coming season. Correct soil pH is vital in summerfruit production, if your pH is low, apply lime now. Your Fruited Supplies representative receives ongoing training in making fertiliser recommendations – please contact them for assistance.

The **silver leaf** pathogen *Chondrostereum purpureum* continues to cause significant tree losses in stone fruit production every year. We are not alone in this; US researchers claim 10% of trees are infected each year in severely affected areas.

Silver leaf is spread by air-borne basidiospores which are released from fruiting bodies often visible on infected host trees. Rainfall and relative humidity are key factors governing spore release. Therefore the first step is to aim to prune on fine days when no rain has fallen for 24 hours.

Basidiospores are minute and, when deposited on an unprotected pruning wound during moist weather, may germinate in place or be drawn up into xylem vessels. It is vital to apply a dressing such Greenseal or Bacseal to pruning wounds as soon as possible, at least on the same day. Note that spore trapping studies have shown low spore numbers present in the air even during dry periods, having come from fruit-bodies in damp shady locations. So cover that wound!

Profiling Richard Bawden

Richard Bawden took over as technical manager for Fruitfed Supplies upon the retirement of Ken Jeffery at the end of June.

"Essentially, it's steady as she goes," says Richard Bawden, who has been with Fruitfed Supplies since 2000. "Naturally a different person brings new things to a role, but the core elements of what our Technical team offers to the wider Fruitfed Supplies team and our growers remain the same."

Richard sees the key responsibilities of the Technical team as revolving around the core research abilities of each team member, with the information gained from research conveyed to other Fruitfed personnel and customers via timely and appropriate means.

"Robust, relevant research is essential for the key commercial crops grown in New Zealand and remains at the heart of Fruitfed Supplies," says Richard. "The way we work with other Fruitfed staff to build direct relationships with customers to aid the transfer of technology and data is also vital. Our customers can expect to see a greater emphasis in the vegetable market, new developments arriving in perennial fruit crops and increasing direct client interaction with our team members."

In June Richard spent several weeks in Europe and the United States visiting the scientists at key product manufacturers with whom Ken Jeffery has built up such valued relationships over the years.

"This direct contact has been invaluable to Fruitfed as we look to source relevant crop protection products to provide the solutions our customers are looking for in New Zealand. We bring back a lot of valuable research data – the field trials at multinational companies, universities and other research institutions offer fantastic data relevant for our home market. We also have the opportunity to discuss our own market and growing conditions, putting a New Zealand perspective forward. University researchers and scientists with the global manufacturers are always keen to hear about New Zealand – we are often leaders in producing high-quality crops."

With Fruitfed Supplies often offered the opportunity to do local field trials with crop protection products several years before the products are registered for sale in New Zealand, this direct product expertise also aids the speed with which Fruitfed Supplies can provide growers with relevant in-field usage details.

"We have often had three to five years trial experience with a product before it's brought to market, so our Technical team – Tim Herman, Paul Hassan and I – have direct, hands-on experience with the product in local conditions across several seasons."

Richard says the Technical team will also play a role in helping Fruitfed Supplies source more innovative products to be sold under the Fruitfed Supplies brand. "We will also have Ken available to assist on specific projects, it's excellent to still have his expertise and knowledge as a resource for our team and our clients."

Fruitfed Supplies' general manager Stephen Guerin welcomes Richard into his new role. "While the person has changed, essentially the intentions and overall responsibilities for the Technical team are the same. The transfer of technical data to clients is one of Fruitfed Supplies' core strengths and we're looking to add a greater emphasis on these client relationships. Just as Ken Jeffery endorsed Richard's appointment as the technical manager, we have great confidence in the skill and enthusiasm Richard will bring to this role." ❖



RICHARD BAWDEN'S BACKGROUND AND PROFESSIONAL EXPERIENCE

- Hawke's Bay born and bred
- 1993 - 1995 horticultural cadet programme on pipfruit/stonefruit orchards and vineyard in Hawke's Bay
- 1996 - 2000 Massey University, Bachelor of Applied Science (Horticulture endorsement) and Post-graduate Diploma (Plant Science major); supported by scholarships from Hawke's Bay Fruitgrowers Association and NZ Fruitgrowers Federation.
- 2000 Started at Fruitfed Supplies Hastings as Technical Research Assistant
- 2001 - 2006 Northern Region Technical Advisor based at Pukekohe branch
- 2006 - 2008 Northern Region Technical Advisor and Branch Manager Fruitfed Katikati
- 2009 Northern Region Technical Advisor based at Fruitfed Supplies national office (Albany); appointed Technical Manager
- While at Fruitfed he's carried out research in a diverse range of crops: apples, pears, stonefruit, grapes, kiwifruit, avocados, citrus, brassicas, lettuces, onions and potatoes.

Fruitfed Supplies

Facts is a monthly publication of Fruitfed Supplies, the horticultural division of PGG Wrightson Ltd. Feedback to the editor, Kate Gordon, is welcome (email kate@relishcomm.co.nz or mobile 021 587 227). For address updates, please advise your local Fruitfed Supplies branch (refer to Branch Location page on www.fruitfed.co.nz) or contact the Fruitfed Supplies national office (phone 09 448 0510 or email jayne.bosher@fruitfedsupplies.co.nz).

The information contained in this publication is of a general nature and should not be relied upon as a substitute for professional advice in specific cases. All content of this publication is subject to copyright. Any further use or reproduction of images or content is forbidden without prior permission of Fruitfed Supplies head office.