

WE'RE ALL ABOUT AVO'S!

NEWSLETTER - MARCH-APRIL 2018

www.justavocados.co.nz

54 Woodland Road, Katikati

07 549 3027



The Just Avocados team was the winner of the Katikati A&P Show AVOCO sponsored(!) tug-of-War competition. John Emett, Nathan Darling, Midge Munro, Ashley Fraser and Jacob Darling had the stamina and might to beat the AVOCO team and then the Katikati Wrestling Club team in the final.

Welcome to the March-April Newsletter,

With the export season now well and truly behind us, focus has moved to reviewing the season gone and of course planning for 2018-19.

An addition we have made to the season review process is a sit down chat with growers to discuss your orchard management drivers, your experiences with contractors, with us, with our reporting and processes and getting your feedback on some initiatives. This chat is an opportunity to check in and ensure that we are meeting your needs and requirements - it's the opportune time to assess if our model delivers the outcomes you are looking for from a total orchard value perspective. We have started this process and thank those that have already participated, we are already seeing great value in going through this process.

Another current area of focus for the grower services team is crop estimation and how to improve this. Some of us are good at it but the majority of estimates across the industry

are well below actuals. The industry crop estimate started at 2.8 million trays and once completed we had only managed 2.2 million trays, which represents a 27% decrease in estimated volumes. When you consider that we front end load our Asian programmes, this can leave a lot of money on the table in the valuable Australian market window from December onwards. The grower services team have reviewed various crop estimation methods and will be taking a new approach for the coming season.

China is still very much on the agenda. As the packer that represented the industry through the trial and OAP sign off

process, we have provided an article in the current AvoScene for all packers in our industry explaining the new compliance regulations and our experience meeting those.

For us and growers, there are plenty of questions regarding marketing and pricing in China. What I can say is that it will be a measured approach as with other new markets we have developed - building the volumes and value proposition on a season by season basis.

After three years with Just Avocados, we farewelled Kim Muir who has taken up a position with St John Ambulance in Rotorua. She had throughout her time with us been a volunteer with the Tauranga service and has studied towards qualifications to further her ability in this field. We wish her the best with this career path. Jazz Richardson, who usually works in EDI in the Just Avocados packhouse, has stepped into the reception and admin role for the interim.

See you at our upcoming field days - details on the next two pages.

Regards,

Jarrod



Jarrod Redwood General Manager Operations and Grower Services jarrod@justavocados.co.nz 027 200 0295

ON THE ORCHARD

GREG'S CORNER - ORCHARD NEWS FROM THE BAY OF PLENTY The last of the late local market fruit is being tidied up now and we are starting our review of the season with growers.

HARVEST REVIEW

The harvesting co-ordination generally went to plan this season and growers got their fruit off when and how they wanted; however, this is always easier in a low volume year.

Could growers please have a look around their orchards for any Just Avocados bins - stamped with JAL, that may have been left behind after the harvest. Please phone me and I'll organise for them to be collected.



CROP ESTIMATION

We came up short of our original estimated volume which is disappointing and although there are many reasons on why this has happened, as an industry and more importantly as a packhouse we need to improve our crop estimation accuracy.

The Just Avocados Grower Services Team has been discussing ways of getting this estimate more accurate and we will be visiting growers individually over the next few months to make this happen.

2018-19 CROP

The orchards that I have visited over the last few weeks in the BOP are showing me good clean fruit but there is certainly variation in crop volumes across a variety of different orchards.

I think the record hot summer with the sporadic rainfall has allowed the fruit to size quickly, but will this lead to an early maturing season only time will tell.

The new flush on most orchards can also be put down to the hot wet summer, and of course adequate nutrient application, which augers well for a good flowering in the coming spring.

PHYTOPHTHORA

Now is the time to be injecting against phytophthora. There are choices to be made when doing this; do you inject every tree or do you just treat the ones that are showing symptoms of the root disease? Before treating trees, be sure in your mind that it is a phytophthora problem and not just a nutrient imbalance.

Erica has included an extensive article on Phytophthora from page 6 to help guide your approach.

SOIL AND LEAF TESTING

March and April are the months we take our soil and leaf samples for nutrient analysis and get fertiliser recommendations for the season ahead.

If you need help in getting a soil and leaf sample please just phone me and I'll get in and do one for you.

PESTS

Lastly from me, I have been doing some pest monitoring this last week and have observed Thrip on most of the orchards visited and also low levels of six spotted mite. The threat of leaf roller seems to have dropped away for now, but keep



Greg O'Carroll

Grower Services (BOP) greg@justavocados.co.nz 027 268 0374

up your guard and continue to monitor regularly even as we go into the colder months of autumn and winter. •

FIELD DAY

4 MAY - KATIKATI 10:00am - 1:00pm 1 Stokes Road

Just Avocados and NZ Avocado invite all growers to join us for a follow up to the pruning field day we held in February 2017.

lain and Liz McGillivray
have used the pruning
principles shared at this
field day so we will be
looking at what the results
of the method have been
for them.

Light lunch provided.

Please RSVP to NZ Avocado
07 571 6147 or to Just Avocados
info@justavocados.co.nz

JOHN'S JOTTINGS - ORCHARD NEWS FROM SOUTH AUCKLAND TO THE FAR NORTH

FAR NORTH FRUIT SET

All of our clients in the Far North have set good to very good return crops. The fruit size is also impressive in this region. I am sure all orchards have benefitted in fruit sizing from the regular rainfall we have been having, and the tropical conditions through summer and into autumn.

The drop is all but done, and fingers are crossed as we are having a year of tropical cyclones. The last two, Gita and Hola, have skipped past the north with very little impact.

The Whangarei area is not quite as good as the Far North for set, possibly due to rainfall and temperatures through pollination.



BLACK STAIN ON FRUIT

It would appear that one of the Mangawhai growers has remedied their problem with the black stain on their fruit. This issue had been a major reason for low export pack outs in the past few seasons.

At the first sign of the appearance of Passion Vine Hopper they used organophosphates sprays to control other pests in the block and it seems to have kept the PVH at bay as well. Their fruit was looking very clean last week.

I also had a good result with Cloverguard at high rates on a Bay of Plenty orchard that was also plagued with PVH.

There are some schools of thought that it is caused by old flower panicles.

FOLIAR SPRAYS

I continue to see improvement in tree health and appearance in orchards that have incorporated foliar sprays into their nutrition programme.

I can pick the difference even in orchards that previously had good tree health, and the difference in orchards that had poorer tree health is dramatic. Leaves take on a deeper green look, as well as getting a glossier healthier sheen to them.

PRUNING AND CHIPPING

Now that the searing heat of the summer sun has eased off, growers are getting into some pruning. There has been an increase in the number of orchardists that are now chipping their prunings back under the trees rather than leaving them whole under the tree.

There are many good reasons to be chipping your prunings; it reduces the inoculum levels in your block that result in fungal infection in your fruit, you have a safer work place when doing other tasks on your trees, and it provides a fantastic environment for feeder roots to grow into. Avocado roots love an aerated layer for nutrient



John Emett
Orchard Management &
Grower Services
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and oxygen absorption and it doesn't take long for new strong white roots to



grow up into a layer of chip. It is ok to use freshly chipped wood as long as you sprinkle a small amount of CAN fertiliser on it to compensate for the nitrogen drawdown.

UPCOMING JUST AVOCADOS FIELD DAYS

Erica Faber will explain how to dig deeper into your soil and leaf test results - use this information to increase the effectiveness of your fertiliser programme and ensure you are spending your money wisely!

3 MAY - WAIUKU 1:00PM - 4:00PM

316 Glenbrook Beach road

22 MAY - WHANGAREI

Diary this date
Details TBC

24 MAY - HOUHORA 10:00AM - 1:00PM

86 Hukatere road

Please RSVP to Just Avocados info@justavocados.co.nz or call John 027 476 9087

GETTING READY FOR CHINA

Having put up our hand to be part of the first audit in the process of gaining market access for the export of avocados to China, the Just Avocados pack house in Katikati underwent two Ministry for Primary Industries (MPI) audits followed by an audit from China's AQSIQ. Through this, the team and I at learnt a huge amount about the level of attention to detail required to achieve audit compliance to an Official Assurance Programme (OAP) level.

REGISTERING FOR CHINA FOR THE 2018-19 SEASON

All growers who wish to be eligible for China need to register as soon as possible. This is similar to the Thailand registration process. Just Avocados will supply a China registration form with the avocado supply agreement for exporting. Please return this with your supply agreement.

It's important to note that remaining china compliant is required regardless of whether you are holding a crop. Completion of the registration declaration will only be accepted when compliance to the official OAP is confirmed.

Please contact Jarrod Redwood as soon as possible if you are interested in exporting to China for the 2018-19 season.

There is a zero tolerance policy in the China protocol meaning orchards and entire packhouses can be excluded from China for a whole



As part of the market access negotiations with China, our existing industry AvoGreen programme was held up as the tool to manage the pests of concern to China. China expects all export registered orchards to comply with AvoGreen at all times, and the requirement for this compliance has been incorporated into the OAP. For growers, this will mean regular monitoring to ensure pest populations are managed early so that all subsequent pest mitigation steps through the supply chain are further reducing the presence of pests. There is a zero tolerance policy in the and entire packhouses can be excluded from China for a whole season if live actionable pests are



Helen Gray
Quality and Compliance Manager
heleng@justavocados.co.nz

found during border inspections.

Many of the pests of concern are already included in the existing AvoGreen programme but

AVOGREEN

GROWERS INTENTING TO EXPORT TO CHINA IN 2018-19 MUST:

- Be AvoGreen registered and complaint from 1 November 2017.
- Register under the China OAP (date yet to be confirmed), and annually thereafter by 30 October.
- Undertake regular AvoGreen monitoring and respond when thresholds are met or exceeded thresholds.
- Have been complying with the new requirements of AvoGreen since November 1, 2017.
- Maintain completed and up to date AvoGreen supporting documents e.g. Monitoring Plan and orchard map.
- Maintain completed and up to date AvoGreen pest monitoring records.
- Submit AvoGreen results to the packhouse at least monthly
- Enter all agrichemical applications into the industry spray diary ideally on the day sprays were applied.
- If sprays have occurred but are not yet entered into the spray diary there is evidence of the date of the spray, the product and rate of application **available at all times**.

Regular auditing of grower records will become the norm under the OAP. Therefore all records must be well maintained and up-to-date to pass a unannounced audit.

monitoring protocols will now also include additional pests; long-tailed mealy bug, Fuller's rose weevil, white wax scale and flower thrip.

There are no extra AvoGreen monitoring sites for the Grower to monitor – however, attention to detail, having all the required paperwork completed and responding to pest thresholds that have been met or exceeded is essential as the audit of the AvoGreen requirement for export is stepped up.

AvoGreen Operators and Monitors must include all twelve pest of concern in their monitoring protocols. AvoGreen training, awareness material, and pest monitoring templates have been amended by the industry to reflect this.

All AvoGreen monitoring results must be sent monthly to your packhouse if are an owner operator or use an external monitor such as Fruited. In this, case growers who pack at Just Avocados Woodland Road, Katikati, these details must be sent to Dale Gradon via email to daleg@justavocados.co.nz. Growers need to start doing this now. This allows us to check that all monitoring

and required sprays have been applied through the season prior to giving a clearance to pick. It needs to become a regular habit for growers or



long-tailed mealy bug, Fuller's rose weevil, white wax scale and flower thrip.

the operators they use to forward these results to the packhouse as they become available. Grower records will also need to be fully completed and up-to-date and have to pass audit. This is not done at the clearance to pick process it is reviewed at the beginning of the AvoGreen year and continually monitored and managed throughout the season. Any failure on the part of documentation or required practices will exclude product for eligibility to

export for China. Grower's files will now need to include other related certificates, licences and material which the facility will supply.

If there is a need to apply agrichemicals – a record of the date, the product used and the rate applied must be available to the grower on the day of application and entry into the spray diary within seven days.

TRACEABILITY

The OAP states that bin cards are attached and that the date of harvest and the block are clearly marked.

Just Avocados will continue to share any updates for China compliance via our newsletter and upcoming events. If you would like to chat to someone at Just Avocados about China compliance please contact Jarrod Redwood 027 200 0295.

Please also look out for information from Avocado Industry Council via Avoscene, Avoconnect and the industry website

www.nzavocado.co.nz/industry. •

AVOGREEN AND COMPLIANCE

Current avogreen monitoring is showing Thrip (GHT) on orchards, and there appears to be a new round of Six Spotted Mite (SSM). Traditionally SSM start to disappear at this time of year but they seem to be showing some resilience.

KEEP ON TOP OF SPRAYING

Remember that ultimately your orchard is your responsibility - check that sprays are being applied within the correct timeframe after a monitor (results are valid for 28 days) or if you choose to use the 'Justifying a spray other than by monitoring' option (refer

to section4.5 of the AvoGreen Manual) there are specifications around this.

And - Always remain compliant – e.g. do you have current certification for contractors you may be using?, do you have updated/correct emergency contact details at the correct location? Have there been any changes on you orchard?.

If you have any questions about AvoGreen, please call me. •



Dale Gradon Grower Services (Compliance) dale@justavocados.co.nz 027 315 5725

IF YOUR DETAILS HAVE CHANGED, PLEASE LET US KNOW

If any information you have given us on your grower details form has changed, can you please let us know so we can ensure we are posting, emailing and paying to the right place.

Email any contact detail updates to info@justavocados.co.nz.



ORCHARD MANAGEMENT WITH ERICA

THE FUSS ABOUT PHYTOPHTHORA
Phytophthora root rot (PRR) is a
disease that affects close to 5000
plant species across the globe
and is the most serious avocado
disease worldwide limiting
production. This destructive
pathogen has been included in
the list of the 10 most destructive
oomycetes globally and as one of
the 100 worst invasive species
worldwide by the Invasive Species
Specialist Group.

WHAT CAUSES PRR?

PRR is the result of root infection caused by a soil-borne oomycete, Phytophthora cinnamomi (Pc). After infection by Pc the feeder roots start to decay and turn black and brittle as the root tissue rots, giving rise to the name Phytophthora Root Rot. This restricts water and nutrient uptake by the roots and leads to branch-dieback, tree decline and if left untreated or is severe enough, eventual tree death.

SYMPTOMS OF PRR

The visual symptoms of a tree with PRR include small, pale green or yellowish leaves that often appear wilted during high temperatures. The canopy is sparse and as branches die back and leaves defoliate, the fruit and branches become exposed to sunburn.

The severity of the outward symptoms depends on the balance between feeder root death and feeder root replacement. Often these stressed trees set a heavy crop but it is of little worth as the fruit remain small and being exposed, become sunburnt.

The sunburnt branches exacerbate the tree decline even further as the damaged cambium cannot translocate water and nutrients efficiently.

PC BIOLOGY AND LIFECYCLE

In order to control PRR, we must first have a thorough understanding of the disease. Pc, the cause of PRR, is not a fungus although much about its biology and life cycle is fungus-like.

It belongs to the group of micro-organisms known as water moulds or oomycetes, which are related to algae.

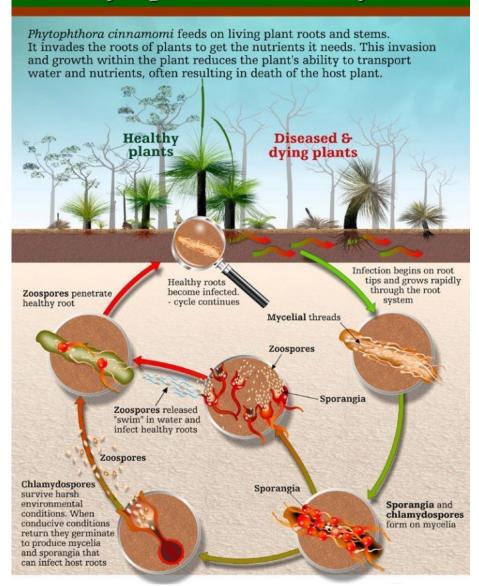
Water moulds were once included in the fungi kingdom and, as a result, Pc has been incorrectly classified as a fungus in earlier years.

As the name "water mould" suggests, it requires moist conditions to thrive. Zoospores swim in the soil water and find and infect the roots, it's food source, until the whole root system is destroyed and the plant dies.



Erica Faber Orchard Productivity Manager erica@justavocados.co.nz 027 549 8229

Phytophthora Life Cycle



PRR grows as microscopic sized filaments (mycelium) within the host plant's roots. It consumes the root tissue causing lesions (areas that

appear rotten). This weakens or kills the plants by reducing or stopping the movement of water and nutrients within the plant. During conditions that are unfavourable for Pc to survive or flourish i.e. when there are no hosts to infect or soil conditions are too dry to spread, two types of thick-walled resting spores are formed: chlamydospores and oospores. Both can survive for several years. The resilience of these chlamydospores and oospores, contributes to its persistence in soils and difficulty to control.

CONTROL STRATEGIES

In order to manage PRR effectively an integrated approach of cultural and chemical control as well as genetic selection needs to be adopted. If you are using chemical control alone, you are only treating the symptoms and not changing the conditions under which the Pc is thriving.

Rootstock selection

The use of tolerant rootstocks to control PRR is proposed as being the ultimate method for managing this disease. Research on developing Pc resistant or tolerant rootstocks has been a major focus of avocado research worldwide. Since the early 1950s, researchers have scouted for avocado trees surviving PRR. These selections, are subjected to rigorous screening and eventually placed in field trials throughout the world, in infested orchards.

In these field trials other characteristics such as yield, nutrient uptake, excessive vigour, scion and rootstock compatibility, overall tree performance, etc. are also monitored.

Due to the genetic variability of seeds, the only way to retain the resistance or tolerance and characteristics of these rootstock selections is to propagate them clonally. The predictability of genetically uniform, root rot tolerant, productive trees is a distinct advantage over the variability of seedling rootstocks. Using a rootstock that has a high tolerance to Pc e.g. Dusa, is the most effective and easiest control strategy.

Cultural controls

Site selection

If you are wanting to plant avocados,

the most important consideration is site selection. Root rot thrives in poorly drained soils. Saturated soils not only provide a perfect environment for spore release and dispersal but are also not favourable to plant growth and can predispose plants to infection.

Well-drained, fertile soils with good organic matter content and balanced soil microbiology will ensure healthy root development and natural suppression of the disease.

Poor drainage can be improved by planting on ridges, installing drainage or deep cross ripping - soil layers such as hardpans also impede drainage and often allow free water to accumulate above the hardpan.

Certified disease-free trees
Only buy certified disease-free trees
from registered, certified avocado
nurseries. By planting trees that are
already infected with Pc, not only will
you infect your orchard but you will
be fighting a constant battle against
the disease.

Limit the spread of the disease PRR is not only spread through water and root-to-root contact between trees but is also spread through infected soil, especially by vehicles and even footwear.

To prevent spread, ensure there is no water runoff from areas with diseased trees to healthy trees. When working with tractors or hydra ladders, work in the most diseased areas last. Sanitise implements regularly e.g. disinfect your spade with dilute bleach solution between holes when interplanting in an already established orchard.

Soil solarization

Prior to replanting where a diseased tree has been removed, soil solarization can be effective for treating infested soil. Leave the new planting hole open to the sun or cover it with plastic polythene sheeting.

Root health

Because roots are out of sight, they are often out of mind and are widely overlooked for their significance in plant health. It has been estimated that 80% of all plant problems start with soil/root problems. Maximizing yields therefore starts and ends with a healthy root system.

Roots are important plant organs. They absorb water and nutrients from the soil and translocate them to the rest of the plant. Roots also give mechanical support to plants and synthesize growth substances and hormones that affect many processes associated with growth and production.

A successful strategy to protect plants from yield-reducing diseases is to enable development of healthier, stronger root systems through management and treatments, thereby helping plants grow to their maximum potential.

When there is an overlap of roots from different plants (including grasses and weeds) the roots with the most surface area wins. It is therefore important to ensure that there is no competition from grasses and weeds.

There is an interdependence of shoots and roots for growth and development. The shoots rely on the roots for water and nutrients, while the roots depend on the shoots for carbohydrates and photosynthates. Therefore, anything that interferes with photosynthesis, or transport of photosynthates, will reduce root growth. Such factors may include cold damage, sunburn damage, inadequate nutrition, leaf pathogens and mechanical or insect-related damage to the canopy.

Mycorrhizal fungi excrete powerful chemicals that dissolve mineral nutrients, absorb water, retard soil pathogens, and glue soil particles together into porous structure. In return, the mycorrhizal fungi receive sugars and other compounds from the roots to fuel mycorrhizal activities. Both plant and fungus benefit from this "symbiotic relationship". Applications of Mycorrhizal fungi are therefore beneficial in maintaining a strong and healthy root system.

Root health and soil fertility remains a

relatively low priority for growers yet in order to maximise plant performance and yields we need to look beyond just soil pathogens!

Organic matter

Increase organic matter e.g. mulches and composts, to enhance biological suppression of Pc. This will create an active and diverse microflora.

Composted bark increases the air-filled porosity of soil, releases inhibitors as it decomposes, and allows antagonistic soil fungi such as Trichoderma sp. to build up.

Mulching also stimulates plant root growth, increases nutrient uptake, decreases evaporation from the soil, increases soil-water holding capacity, reduces surface water run-off, facilitates drainage, regulates soil temperature, and provides a high level of nutrients for soil microbes.

Soils with high organic matter generally support higher numbers of bacteria, fungi and actinomycetes and contain higher percentages of micro-organisms antagonistic to Pc.

Soil micro-organisms use soil organic matter as food, so in order to maximise their benefits that improve root growth and function we need to ensure that we maintain their food source by supplying a continued source of organic matter. It is as important as fertiliser!

Biological Fungicides

Use of biological fungicides such as certain Trichodermas is a key constituent of integrated pest management. Trichoderma actively grow on roots and "protects" them from Pc. They compete with plant pathogens for nutrients and space, by producing antibiotics, by parasitizing pathogens, or by inducing resistance in the host plants. The ability of these fungi to sense, invade, and destroy other fungi has been the major driving force behind their commercial success as biopesticides.

Trichoderma defend the plants by their direct and indirect effect on plant-pathogen-soil interaction. These fungi not only protect plants by killing pathogens but also induce resistance against plant pathogens, impart abiotic stress tolerance, improve plant growth and vigour as well as improve nutrient uptake.

Water Management

If irrigating, controlled, regulated use thereof is one of the most critical practises for managing Pc. This includes both the amount, frequency, and duration of irrigation as well as control of the runoff.

Phytophthora species generally require free water for a certain duration in order to infect plants. They are not active until the soil is at or above field capacity - in other words,

when water does not move down through the soil with the force of gravity.

Over irrigation or not adequately allowing

the soils to dry out between irrigation will favour conditions in which Pc will thrive.

Soil moisture meters are an important management tool to monitor tree water withdrawal and field capacity and allow you to schedule irrigation only when necessary.

Remember to modify irrigation on trees with a poor health rating or trees defoliated by frost, Pc or mites. When interplanting in established orchards, reduce irrigation to the smaller trees by using a micro sprinkler reducer or changing to an emitter with lower water output.

Regularly check for leaks in the irrigation system that will result in saturated areas prone to Pc infection.

Phytophthora can also contaminate irrigation water. Ensure that either your water source is tested and is free from Phytophthora and Pythium or install a dosatron to treat the water chemically or by ozone.

Nutrition

One of the fundamental strategies for maintaining plant health and suppressing plant diseases is managing nutrition.

Proper nutrition can often influence the fine line between host susceptibility and resistance. Plant pathologists refer to the "disease triangle" to illustrate the components needed for disease to occur.

Equal importance is given to all three components of this triangle. Altering the balance will affect whether the disease occurs or the severity of the disease.

Disease Triangle

For any plant disease to happen, three factors must be present and conducive for disease.

- 1. the Host Consider what is its condition resistance, predisposed, or age?
- 2. the Pathogen What is the condition of the pathogen, virulence, domant, population? What environmental conditions does it require?
- 3. the Environment The environmental conditions include:
- For foliar diseases moisture & temperature
 For soil diseases temperature, pH, compaction (plant health, O₂), texture for nematodes



Complete and balanced nutrition is a

Applying foliar nutrients can make up for loss of nutrient uptake due to PRR.

powerful tool against Phytophthora.

Chemical control

Phosphonate fungicides (fosetyl-Al and phosphorous acid) can improve the trees' ability to tolerate, resist, or recover from Phytophthora root rot infection but cannot eradicate the disease. They can only prevent establishment of the organism before it gets into the plant or prevent continued growth if the organism is already inside the plant. The result is that they can delay symptoms that might have developed by the combined effects of direct inhibition of the pathogen and enhanced host defence responses.

However, once chemical activity has subsided over time, Pc once again resumes growth within infected roots. This is why an integrated approach to managing Pc is so important.

It is important to time the application of phosphonate accurately in >>

order for the concentration in the roots to be high enough to be effective in controlling the disease. When any chemical is applied to the tree, it sinks to the part of the tree that is growing most actively at the time (the strongest 'sink'). If the leaves are flushing, the phosphorus acid will sink

Autumn applications can result in high phosphonite root concentrations which should persist, remaining above the 25-40ppm threshold of effectiveness, until the following autumn.

Monitoring root phosphonate concentrations by taking root samples

If any trees earmarked for phosphonate application are going to be pruned, wait three weeks after application to commence pruning to allow the chemical to be drawn up by the leaves and translocated down to the roots.

If choosing the injecting method,

injection sites should be spread evenly around the tree as the chemical does not move laterally around the tree and only moves to the leaves directly above the injection site then down to the roots below them. If injecting is not done properly, some of the root system will not be protected.

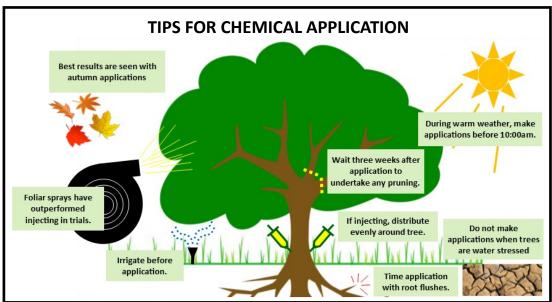
Foliar spray application can be effectively utilised when the trees

have sufficient canopy to

take up the chemical. Foliar sprays of 0.5% ammonium phosphonate or potassium phosphonate (Phosguard) can be sprayed in autumn once the summer flush has hardened off. Depending on the existing root phosphite concentrations and the severity of the disease, one to three foliar sprays may be required. This quick easy, non-invasive method has been outperforming injecting in trials since 2015 with results showing higher root phosphite concentrations.

Focusing on soil health and fertility as well as tree health enabled me as a grower to control Phytophthora without resorting to blanket chemical control that is costly, invasive and time consuming. Be selective when doing chemical treatments and limit it to sick trees or marginal areas that are prone to Pc infection.

To conclude, I cannot emphasise enough the importance of an integrated approach to controlling Phytophthora root rot. Your tree health will improve, production will improve and so will your bank balance!



to the leaves and not the roots.

Good levels of phosphonite in the roots are achieved by following the phenological cycle and timing injections or sprays to coincide with when root growth flushes are occurring.

There are two main root flush periods; one after the spring leaf flush has hardened off and one in autumn after the summer leaf flush has hardened off.

There is only a small window of opportunity in spring as fruit growth occurs soon after the root flush and the phosphonate will mostly sink to the flowers and any sizing fruit.

Research and phosphonate root analysis has shown that the best results are from autumn applications made after the summer flush has hardened off and when competition from other organs are no longer dominant. The autumn application, if timed correctly, also ensures that there will be root protection for a longer period i.e. when healthy roots are required to support the critical flowering period – a time when significant stress is imposed on the tree.

before and following phosphonite applications are as important as monitoring soil and leaf nutrient concentrations. If we are not measuring, we cannot manage effectively or improve on what we are doing!

To get accurate test results, a "bait" method using leaf discs can be used by placing the root material in a container of water and floating the healthy leaf discs (the bait) on top. The Phytophthora-infected material produces the swimming spores (zoospores) which infect the bait. This is then sent to the lab. Chances of obtaining an accurate culture from this freshly colonized material are very high.

Do not do any phosphonate application during dry weather or when the trees are water stressed. Wait for good soil moisture levels or irrigate well before application to get better uptake as treatments are always more effective when applied during periods of active sap flow.

During warm to hot weather, treatments should be applied before 10:00am.

IN THE MARKETS

SALES AND MARKETING UPDATE

We have concluded our 2017-18
New Zealand avocado
programme with a total volume
of 254,000 trays exported
globally. Of the total volume, Just
Avocados placed 18% of their
volume into Asia, with the
Australian balance being split
70% into retail and 30% into
wholesale.

ASIA

Overall, our Asia result was extremely pleasing, we executed our strategy well which was to take advantage of an early opportunity into the Asian markets while Australia still had significant east coast volumes in the market place.

Our approach was targeted around value and producing the best result for our growers. This was clearly shown in the Japan strategy where we pulled back in volume significantly to take advantage of greater values in Thailand and Korea.

Just Avocados partnered with our Korean customer to put together a fantastic in-market campaign to ensure New Zealand avocados were highlighted during our time in store. The aim was to communicate the high quality of our fruit in terms of premium qualities of nutrition taste and origin. We believe this directly contributed to returning a premium for New Zealand avocados.

AUSTRALIA

The Australian market again was the corner stone of our market returns, something we are again very pleased with. The ability to have in-market representation through JH Leavy and our relationship with our retail partners proving significantly valuable throughout the year.

Quality issues in Australia were minimized by having great stock on hand management, which is a proven point of difference over our competitors.

Our continual partnership growth with Costa has allowed us to go from 15% retail volumes in past seasons to 70% retail penetration volume this season. A fantastic achievement in a short space of time.

The market results are currently being finalised, but a record result will be communicated.

LOOKING AHEAD

As we look into 2018-19 season we have many things to consider and deliver on for this coming year. We are currently looking at a 3.0 – 3.20 million tray crop estimates and will be doing our numbers based off total industry volume.

I intend to again be very focused with our sales and marketing plan we need to ensure we deliver value while taking into consideration long term plans as the international



Jacob Darling
GM Group Sales and Marketing
jacob@darlinggroup.co.nz



market continues to change.

Thailand, Korea and Taiwan will be high on our priority list. We will also be looking to take advantage of the new China access, inclusive of being the only compliant packer and exporter in the New Zealand market place currently.

Darling Group is currently working on a brand strategy which we believe will hold us in great stead for the coming years.

We see a changing New Zealand supply dynamic because of significant large-scale growers joining the industry, understanding this, and adapting to the environment will be the focus point for the coming years ahead.

NEW ZEALAND MARKET UPDATE

A period of very light retail trade (across all fruit products and lines) over the last three to four weeks has the potential to de-rail the latter part of the avocado season. This demand isn't price driven as parcels of fruit at lower OGR values than ideal are also experiencing limited pull-through.

consumers appear to be keeping all retail expenditure tight. There are a number of reasons for this – creditcard debt lag from Christmas, end of financial year tax payments, and concerns over simple things such as

local council rate increases may all be factors as to why retail trade is light.

Unfortunately, this situation is impacting our values as fruit age across the industry is dictating discounted pricing which is likely (potentially) to become the norm.

Zeafruit is endeavouring to maintain its current values as advised to you - however as the market adjusts we advise that growers currently supplying should budget on the below coolstore-door returns (which require packing / packaging to be deducted).

Glen Dunseath

Managing Director - Zeafruit glen@zeafruit.co.co.nz



Large 16's to 24's	\$45.00 to \$50.00
Medium 28's	\$40.00 to \$42.00
Smalls 32's to 36's	\$10.00 to \$14.00



ARE YOU INTERESTED IN ATTENDING THE NEXT WORLD AVOCADO CONGRESS IN COLOMBIA?

Just Avocados has started planning for a group trip to the IX World Avocado Congress which is being held in Medellin, Colombia 23-27 September 2019.

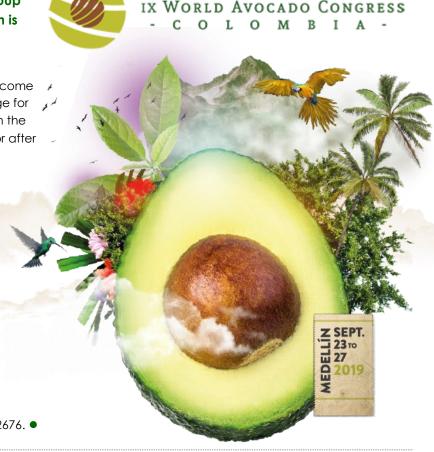
We are gathering details of the event as they become available and envisage offering a group package for congress registration, flights, accommodation, on the ground transport, and leisure options for before or after the congress that you can choose to add on.

This event and trip will be an unforgettable experience and we are excited to begin putting something together for you and the team.

The congress website is live but currently with minimal detail about the registration inclusions and programme, but please take a look and it will give you some insight into what the event will cover:

worldavocadocongress.co

If you are interested in attending this event as part of a Just Avocados tour group, please register your interest with Midge by emailing midge@justavocados.co.nz or by calling 07 549 2676. •





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Erica Faber, Orchard Productivity Manager 027 549 8229

John Emett, Grower Services 027 476 9087



