

#### Welcome to the April edition of our newsletter!

Before I provide an insight to the what's on offer this month, let's look briefly at how the season ahead is shaping up.

While industry volumes won't be back to the heights of the 2016 -17 season, where the industry exported 4.7 million trays, they are up on last year - current estimates range between 3.7 to 4 million export trays.

Harvest planning for the coming season has commenced, and we thank all of you who have already provided me with your preferred harvest period and timing. Over the next few months I will have the 2019-20 harvest planned for all supplying regions. Please get in contact if you haven't already and let us know about your orchard plans - the more we know, the better we can be prepared to accommodate your requirements.

Working with you and understandingyour drivers for harvest timing (returns, tree health, return crop) underpins the structure that allows Just Avocados to deliver values that align with your orchard and business goals. Further to this season, we are adding exciting new initiatives to the pool rules that I look forward to communicating to you in more detail at the season review presentations – note the dates on page 2.

In the following pages, Jacob provides a high-level overview of the 2019-20 marketing strategy, Erica updates you on what to focus on during Autumn and provides a timely approach to fungal rot management. Kyra shares the fundamentals of soil biology - a subject she is very passionate about. Helen sheds some light on understanding library tray reports, and explains some of the features of the new NZ Avocado spray diary which will be released before the season ahead. Ashley reminds us of the pests of concern for China – if you have any questions around China compliance, please speak to our team.

I hope that you have found some time for some R&R over the last month or two – the new season is just around the corner! I look forward to seeing you all at the season review presentations.

Regards, Jarrod Redwood



Jarrod Redwood GM Supply and Logistics jarrod@justavocados.co.nz 027 200 0295

# **EVENTS**

#### 2018-19 SEASON REVIEW AND 2019-20 SEASON PREVIEW PRESENTATIONS

#### We are excited to announce the presentation dates for Just Avocados' 2018-19 season review and 2019-20 season preview.

Our team will present an overview of the 2018-19 season activities and our

#### WORLD AVOCADO CONGRESS TRAVEL PACKAGE

#### World Avocado Congress in Medellin, Colombia.

This is a fantastic opportunity to visit an amazing destination and immerse yourself in knowledge from the world's leaders in growing, exporting and marketing our favourite fruit.

Please visit the Articles section of our website (www.justavocados.co.nz) for details of the travel package. We

# **IN THE MARKETS**

## JUST AVOCADOS MARKET UPDATE

With the 2018-19 season behind us, Just Avocados continues to focus on its marketing plan for the 2019-20 season. While the industry faced some challenges during the 2018-19 season, we are pleased with our business model's ability to mitigate many of the external issues that challenged grower returns.

Our focus on international channel development continues for the season ahead. The key markets we plan to target in Asia are China, Thailand, Taiwan and Korea.

Our overarching strategy is to work towards a significant volume of fruit being picked, packed and sold in the early part of the season in Asia. To handle our growers' harvest expectations around early volume, we are ensuring market development is being done throughout Asia to support this volume at strong values. Our goal is to resonate with people through a business to consumer strategy that gives the consumer a good reason to pay a premium for strategies for the 2019-20 season.

We invite you to join us for refreshments after the presentation. All welcome!

# Whangarei

Date: Tuesday 7 May Venue: Dickinns Inn, 71 Cameron Street, Whangarei Time: 5pm

have selected the lowest airfares and an affordable, comfortable accommodation option close to the congress venue.

#### If you would like to join our group, please fill out the booking form on our website, and return to Shereen Booysen at YOU Travel, Katikati, as soon as possible.

If you have any questions regarding this travel package or other available options, please contact Shereen. Visit the Congress website (www.worldavocadocongress.co) **Bay of Plenty** 

Date: Thursday 9 May Venue: Fairview Golf and Country Club, 34 Sharp Rd, Aongatete Time: 4pm

for more information on this event.

Shereen Booysen, travel consultant, YOU Travel Katikati 58 Main Road, PO Box 64, Katikati Phone: 07 549 1711 Email:shereen@youtravelbop.co.nz Hours of work: Monday, Wednesday, Friday 8.30am – 5pm Tuesday 8.30am – 1.30pm Thursday 8.30am – 2.30pm

Our team will take care of your Congress registration, as we can access a group discount. Congress registration fees are not included in the travel package offered.

our products.

We're also aware of the changing supply dynamic in Australia, including the Chile threat - another factor adding to the importance of our strategy in Asia.

In Australia in the coming season, we will focus on retail and continuing to ensure our customers at this level are looked after with a premium product. Our third-party logistics model through our Australian business JH Leavy & Co remains critical to this, as we want to continue to deliver fresher fruit into the market over other suppliers. We still recognise the importance of stock age and the effect this has on quality.

Just Avocados continues to believe a profitable orchard is affected by many factors, including pack-outs, quality issues, consistent production and domestic and export returns. We are moving towards a strategy that minimises growers' exposure to these factors. High volumes into Asia early, ensuring relevance with



Jacob Darling GM Group Sales and Marketing Darling Group jacob@justavocados.co.nz 027 582 9101

our 12-month supply strategy and targeted Australian volumes will stand our team in great stead for the 2019-20 season. ●

# **ON THE ORCHARD**

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

FAR AND MID NORTH Fruit is sizing well in the irrigated Far North orchards. The crop in the area is similar to or slightly ahead of this past season's volumes. To date, thrip pressure has been considerably lower than this time last season something I can only attribute to drier conditions than the previous summer.

The first warm moist rains are falling, so watch thrip numbers and keep your monitoring frequency short. There have been outbreaks in Whangarei and Mangawhai, and growers are applying insecticides accordingly.

The oldest of the newly planted trees in the big high density development I have been covering in my articles have had a fantastic growing season and have doubled their canopy size since September. The trees are large enough to handle their first decent crop this spring. I am lead to believe there has been some tweaking of the fertigation programme, which will have helped with this. It is an outstanding achievement and in contrast to the former industry norm of 7m x 7m planting, and looking to a reasonable crop in year four or five.

## IN THE FIELD

I have seen some interesting things in



orchards lately, such as a gall hanging from a branch. A gall is an abnormal plant tissue growth caused by insects, bacteria, virus or fungi that have led to irritation during cell division.

I also found a piece of pruned-off limb that had managed to sprout after pruning. The offcut was embedded in a thick pile of mulch, but I don't know whether that was a contributing factor.



A grower in Whangarei showed me what they have done recently to stimulate newly planted trees that have become top-heavy, with few or no shoots developing lower down. You can lightly score the bark with a knife in November to stimulate growth below the cut. The grower saw a good result. Trees with better health responded better than weaker ones.





John Emett Orchard Management and Grower Services (Northland and South Auckland) john@justavocados.co.nz 027 476 9087

Lastly, I was asked to identify these odd-looking fruit in an orchard recently. I recognise most of the more common varieties but this one had me stumped.



#### LIBRARY TRAYS AND FRUIT QUALITY

This topic has always been hotly debated and the debate will probably carry on for some time. Please look at your library tray results, and talk to us if you have any concerns. I was looking at a set of results this week with a Whangarei grower who had minimal losses on her library trays. She doesn't spray copper but does have open airy trees, is particular about how pickers handle the fruit into the bin and observes the protocols around rainfall and picking.

## THE SOIL FOOD WEB

Fruit quality in market has been a concern this season. There are many factors that affect fruit quality and fruit rots which Erica talks about on page 6 of this newsletter. I'd like to focus in on the importance and impact of good soil health, diversity and structure on pest and disease suppression.

In the Bay of Plenty, we generally have good soil organic matter levels - however, do we know how active our soil organic matter is? Are there live and active bacteria, fungi, worms and other beneficial organisms, that make up the soil food web, living in our soil? What is their population and how do they relate to each other? Are they functioning to their optimum to support tree and crop health? How hard is our soil working to decompose organic matter including woody materials and spores that might otherwise lie around and have the potential to re-infect plant material?

We can test for these organisms, analyse them and work to build healthier stronger soil food web systems that can combat diseases. Testing for organisms in soil is as important as testing for nutrients, because if one type of organism like bacteria for example, is out of balance in the soil it can have a negative impact on other soil organisms and in turn on your tree health and crop production.

In order to improve soil structure, we need to have living, breathing active soil biology, we must ensure they have sufficient moisture, air and food continually throughout the year.

When soil aeration is improved, the beneficial organisms outnumber the pathogenic species providing pest and disease suppression.

More benefits of improving soil health and humus levels are nutrient cycling, nutrient and water retention.

There are many orchard activities and natural occurrences that happen constantly throughout the year that can have a negative impact on soil biology including temperature, compaction, too much or too little moisture, herbicides, fungicides and pesticides - just to name a few. The most effective tool is to minimise these effects and what we can't minimise we can boost or buffer against them to support the soil biological population and activity.

Erica and I are working on providing an orchard programme to growers with a more biological growing focus. If you are interested in learning more about this approach or would like to be part of this programme please contact me.



**Kyra Fielden** Grower Services Bay of Plenty kyra@justavocados.co.nz 027 257 5028



It is time to take soil and leaf sampling for nutrient levels, please get in contact with your consultant if you have one, or contact me if you would like me to take the samples and send them away for you.

# ORCHARD MANAGEMENT WITH ERICA

## AUTUMN ACTION PLAN

The first quarter of the year is over, and this marks the official end of the 2018-2019 season. Ahead for the next quarter is flower induction and initiation and bud development. Starch accumulation is also occurring, preparing the tree for the upcoming demands of flowering and fruit set.

The main orchard priorities for the next quarter are:

- Soil, leaf and microbial sampling
- Land prep and soil corrections for spring planting
- Phytophthora root rot control
- Pruning
- Fungal rot management

# SOIL, LEAF AND MICROBIAL SAMPLING

Soil and leaf samples are taken so your fertiliser programmes can be tailored to ensure optimum nutrient levels and tree health going into winter. Tree deficiencies and poor reserves will lead to declining tree health in winter and poor fruit set in spring/summer.

Ensure soil and leaf samples are taken from the same trees or sites, otherwise you will not have clarity regarding the efficacy of your fertiliser programme, due to the variability from tree to tree (health, crop load etc) - you would not take a blood sample from someone else to see whether your treatment was working. Understanding the microbiological workforce in your soil also helps you understand and improve your nitrogen use efficiency, nutrient availability, Phytophthora suppression and organic matter breakdown. It is worth including this in your testing arsenal, as you can't manage or improve what you don't measure. Please contact John, Kyra or myself for further information on microbial testing.

## PREPARING FOR SPRING PLANTINGS

If you're doing new plantings, make sure you have taken soil samples, done your soil corrections and prepared your land well before the planting date approaches. Your new orchard is an investment that will deliver returns for more than 40 years. Getting it off to the best possible start ensures good and early returns and an orchard that will continue to perform well.



Do soil corrections and land preparation prior to any planting.

#### PHYTOPHTHORA ROOT ROT (PRR) CONTROL

Crop load, nutrient deficiencies, environmental stresses and the massive demand on reserves for flower development and fruit maturing can make trees more susceptible to diseases and could trigger noticeable decline in winter as the roots fight the high pressure of Phytophthora during these wet months. Control should not only be chemical, which provides transitory protection, but also cultural, which will create healthier roots that are more resistant to PRR and a soil environment where PRR is suppressed.

Increasing organic matter, with the addition of mulches and composts, will support higher numbers of fungi, bacteria and actinomycetes, as these micro-organisms use soil organic matter as a food source. You can also drench the soil with products such as Agzyme and Super Hume or Mycorrcin, which will activate and stimulate beneficial soil microbe populations. Soils containing higher percentages of micro-organisms will enhance the biological suppression of Pc. Composting bark also releases inhibitors as it decomposes, and allows antagonistic soil fungi such as Trichoderma spp. to build up. These fungi protect plants by killing pathogens, such as Phytophthora, and induce resistance against plant pathogens, impart abiotic stress tolerance and improve plant growth, vigour and nutrient uptake.



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

The ability of these fungi to sense, invade and destroy other fungi has been the major driving force behind their commercial success as biological fungicides and is a key constituent of integrated pest management. Unite and Trichopel are examples of products containing these 'bioagents'.

If you're using chemical control, remember to time your application. Best results are achieved when applied after the summer flush has hardened off and autumn root flush is active. Don't apply phosphonate during dry weather or when trees are water-stressed. Wait for good soil moisture levels or irrigate well before application to get better uptake. Treatments are always more effective when applied during periods of active sap flow. During warm or hot weather, treatments should be applied before 10am. If any trees earmarked for phosphonate application are going to be pruned, wait three weeks after application before you start pruning to allow the leaves to draw up the chemical and translocate it down to the roots.

If you choose the injecting method, spread injection sites evenly around the tree, as the chemical only moves to the leaves directly above the injection site, then down to the roots below. Foliar spray application can be used instead of injecting if the trees have sufficient canopy to take up the spray application. Consider monitoring your root phosphonate concentrations by taking samples before and after phosphonate applications. While 25-40ppm is considered the threshold of effectiveness, aim for 40ppm for better persistence. Monitor the health of your trees by using the Ciba Geigy chart and be proactive in managing Phytophthora root rot.

#### PRUNING

Autumn signals the start of pruning, which is vital. Pruning controls tree height, improves light penetration into the canopy for improved production and ensures more consistent return crops by balancing the productive and vegetative canopy. Open canopies also ensure better spray penetration and coverage, easier access for quicker harvesting, warmer and dryer canopies for better pollination and less-favourable conditions for fungal pathogens to germinate, grow, sporulate, and infect fruit. That brings me to the next hot topic...

## FUNGAL ROT MANAGEMENT

Fruit quality in the market continues to be an issue for the industry and control starts on your orchards.

Growing competition in our export market space means that, to maintain our market share, we need to ensure we grow and supply the best-quality fruit we can. Due to fungal diseases mainly manifesting post-harvest, growers often don't realise how severe the problem is. As with Phytophthora root rot, control is most effective by using an integrated approach of cultural, chemical/biological and nutritional management tools. Why all three you may ask? There is a valuable tool for anticipating disease emergence called the disease triangle.



Disease results from interactions between a pathogen, a susceptible host and suitable environmental conditions. Changes to any of the



three components can accelerate or suppress the disease emergence. Disease management techniques therefore rely on cultural, biological and chemical methods to manage all three aspects of the triangle.

## Examples of a **conducive**

environment would be shady and moist orchard conditions resulting from canopied-out interrows, overgrown, closed-in canopies, shaded blocks etc. Here, pruning plays a vital role by ensuring good air flow and sunlight throughout the orchard and enabling canopies and the orchard floor to dry out faster. Keeping shelterbelts pruned also limits unnecessary shading in the orchard. Climatic conditions beyond our control can accelerate the disease prevalence, but ensuring good air movement and drier canopies and orchards is a step we can take.

The severity and abundance of the disease also depends on sources of inoculum of the pathogen in the orchard. To keep this to a minimum you will need to manage orchard sanitation by removing dead or damaged wood in the canopy, mulching or removing all prunings, treating rots or cankers resulting from sunburn, removing windfall fruit from the orchard floor and ensuring good sanitation practices - regularly disinfecting tools and equipment. Chemical and biological control methods such as copper sprays and bio-fungicides are also used to suppress disease severity. The timing and coverage of these sprays are particularly important to ensure effective control.

A **susceptible host** is the third part of the disease triangle we need to control. This means ensuring your tree is at **optimum health and**  and nutrition. A host stressed by disease (Phytophthora), high insect pressure, abiotic conditions (too hot, too wet, too cold, too dry) or nutrient deficiencies is more susceptible to fungal infection. We also know optimum calcium levels play an important part in disease resistance by strengthening cell walls and making them more resilient to the penetration and infection of

# **HELEN'S HELPFUL HINTS**

Library tray information has been sent to all growers from NZ Avocado throughout the season. Do you read these reports? Do you understand them?

The NZ Avocado grower manual contains a section relating to library trays and I have copied the following from it to help you read and understand your report. If you have queries after reading this, please contact me and we can work through this interpretation. This is just part of the information - to fully understand I suggest you refer to your reports and the section in the manual.

# **5.1 AN INTERPRETATION GUIDE**

Your packhouse has collected a sample of your fruit to include in the library tray database. Your library trays give you useful information and indicate how successful your orchard management programme has been from a quality perspective. This database also gives the industry information about any issues with fruit quality and, along with the out-turn database, is a valuable industry resource.

The fruit in your library tray has been cool-stored for 28 days at 5°C and ripened at 20°C. Fruit is assessed for 'green' disorders immediately after being removed from cool storage. At this stage the fruit should still be hard and green. This makes it easy to see any external disorders such as peel-handling damage, fuzzy patches or external rots. The fruit is then ripened until it reaches eating firmness. Each fruit is checked every day over this period by hand feel until it reaches eating ripe. It is then cut open so the internal quality can be identified and assessed.

Your library tray report comprises three pages, with each successive page giving you a more in-depth analysis of your fruit quality. If you just the pathogen. Poor **harvest conditions and procedures** will also result in higher disease infection, due to damaged lenticels or damaged fruit providing an easy pathway for infection. Ensure fruit is handled carefully during harvest and that it's not harvested wet or too soon after heavy rain. After continued heavy rains, even though the fruit may be dry, the

want a quick overview of your fruit quality you will want to look at the first page - example below.

#### Library Tray Grower Report Packhouse Pick Date: 18/09/03 Grower Season: 2003 Rating Medium High Enews patches (Body rol) Stem and rots External rots Fuzzy patches Vascular browning Discrete Rish Diffuse Rish Peel handling damage

# THE NEW SPRAY DIARY (AVO DIARY)

Wimpy Kid

This is the latest information I have received from NZ Avocado to add to the newsletter. There will be more information supplied by NZ Avocado in the next week. I am including this as a "heads up" and will follow it up with training dates for growers once we have been trained and can offer assistance with this whole new concept.

Over the coming months the industry will move from the current spray diary to the new Avo diary. Training will be provided on how to use the new diary before this move.

The diary will be accessed via the Avo hub, where you already log in and complete your export registration.

The new online Avo diary is different in various ways. In addition to recording spray activity, it allows you to:

1) Enter your AvoGreen monitoring results and have these as your official AvoGreen monitoring results record, which the packhouse can access for audit purposes. lenticels may still be turgid and under cellular pressure, resulting in cells that are more prone to rupturing.

Prevention is the most effective way to control fungal diseases. Managing what we can control and being proactive ensures we're all doing our bit to improve fruit quality in the industry.



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

 2) Match a spray record to a monitoring result for any market access requirements.
3) Have visibility and individually select the products you most regularly use from a list of spray products available to the industry.
4) View and manage the majority of entities linked to your orchard.
5) Complete China and Thailand registrations online.

## Key spray entry changes

While all the key historic functions, such as entering spray activities and declaring your diary at harvest, remain - the new Avo diary captures spray activity in a different way to the old spray diary. This is a key change and each

individual spray activity record will require recording:

- The **total size of the area** (blocks or whole orchard) you have sprayed for each spray activity date
- The volume of water required to wet one hectare of your canopy to run-off
- The **total water** used in each spray for each application
- The total amount of product used in each application Information on training dates will be provided once they're confirmed.

## **ASHLEY'S AVOGREEN APPRISE**

A friendly reminder for all growers to please update your spray diaries in a timely manner after spraying your orchards. This has become crucial in remaining compliant for China in the Avogreen pest management programme.

For those growers who don't have their orchard monitored by Just Avocados, please send your reports to ashley@justavocados.co.nz regularly.

Keep an eye out for the following pests of concern for China:

- Leafroller
- Flower thrips
- Long-tailed mealybug
- Fullers rose weevil
- Soft scale
- White wax scale



# FOR SALE

# WALCO 1.75 FERTILISER SPREADER WITH SIDE CHUTE

Peter Myson is selling this great time-saving implement as he has just installed a fertigation system, making the spreader redundant.

It's three years old and has done about 30 hours of spreading. Tow it behind a quad bike or tractor. It holds up to 200kg of fertiliser and takes approximately 25 minutes to load and spread - 200kg on a hectare. The side chute throws fertiliser well under the tree.

This is a New Zealand-made product with a quality galvanised frame, good gearbox and bearings. Remove the side chute to broadcast lime/gypsum etc. It cost \$3700 plus GST new. For sale \$2400 plus GST. Contact Peter Myson on 0273 848 770 for more info.

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# Actions for china growers are:

There is only a requirement to act when a threshold is exceeded. Re-monitor the orchard within the time frame for the pest concerned or spray within 28 days.

#### Example: Leafroller

If the monitoring result = two % Threshold not exceeded. No action required under the China OAP.

If the monitoring result = three % Threshold is exceeded. You now have two options: Re-monitor within 14 days or spray within 28 days.



Ashley Fraser Quality and Compliance Support ashley@justavocados.co.nz Phone: 07 549 3027

#### On all occasions (not China):

A threshold that is met allows the grower to spray (the justification). The grower then chooses what action to take. An action is not mandatory at this point. ●



#### WINDBREAK BOXES

They are 1x1m. The legs/stakes are 1.5 and 1.8 to accommodate for the slope. \$30 incl GST per unit. There are 20 boxes available this year,

with another 60 available next year. Phone Jan de Jong 027364 9429



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