



WE'RE ALL ABOUT AVO'S!

NEWSLETTER - JANUARY-FEBRUARY 2018

www.justavocados.co.nz | 54 Woodland Road, Katikati | 07 549 3027

Welcome to our first newsletter of 2018,

I hope you all had a great Christmas and New Year. To those of you who were picking through the festive season, we appreciate your support.

Exciting news to start our year with - New Zealand has achieved official approval to export avocados to China! Preparation for the audit has been a huge undertaking for the industry and the Just Avocados team is proud to have been involved in this landmark achievement. The Just Avocados Woodland Road pack house in Katikati was the facility selected, after rigorous auditing of our facilities and capability by MPI, for the industry audit process and trial shipment. The Chinese auditing body AQSIQ then undertook their audit last week on selected growers and our facility. I'd like to thank the team in the pack house - Helen, Brett and Mike who worked tirelessly to ensure we were up to the audit specifications. A big thanks also goes to Iain and Liz McGillivray who were among the growers/orchards audited in this process. We look forward to bringing you more news on the China opportunity.

In this issue, Erica provides an interesting article on cukes and possible factors that could contribute to these seedless avocados developing and John updates us on what he has observed in the North while catching big fish. You will see from Jacob's market update on page 5 that demand in Australia has been extremely strong and is backed by incredible values. The Shepard crop in Australia was early so in order to maximise our season, we brought our export harvest plans forward. We will be finished by the end of this week. Thank you to all who worked with us to help us achieve this.

This Sunday (4 February) the team will be at the Katikati A&P show at the Uretara Domain. If you are attending, ensure that you drop in for a chat and some avocado ice cream. Profits of the ice cream sales will go to Uretara Estuary Managers Inc. We will also be at the Te Puke A&P show next Saturday (10 February) supporting the BOP Young Fruit Grower of the Year competition as a silver sponsor and will have the team on hand to talk avocados.

With the logistics of harvesting and exporting close to an end for the season, we will start to catch up with growers and review the season. We have another exciting season ahead with a new market to explore. I look forward to chatting with you about this over the coming months.

Regards,

Jarrold

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ON THE ORCHARD

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

HARVEST

The last of the fruit for export is being harvested in Whangarei and the Far North. Thankfully, the trees have come through the storm in early January without too much damage. We have one or two growers in Whangarei with a small amount to harvest for the New Zealand market in late February.

It is always tricky in a low volume year to get the fruit flow to match the needs of the market and then throw in a couple of storms and things get even more difficult! Thanks for your patience and support this season.

FRUIT SET

Early estimates for the Far North would indicate that fruit set is very encouraging and may be similar to the 2017-18 season. There is of course a long way to go yet and mother nature can be a great leveller.

The initial shedding of fruitlets by the trees is underway. This is a natural process as the tree looks to balance the load it is carrying.

The set in Whangarei might be a bit patchy as is the case in Managwhai; however, I will do some further assessments in the coming weeks.

The young orchards in Taporā have fruit set on two- and three-year-old trees. Some were so heavy that they required a bit of thinning. The main comment I get from growers in Taporā is about the constant and strong winds that come in directly off the Tasman Sea.

PRUNING

Trees that were "Erica" pruned, i.e. had one side cut back to about a meter off the ground, have really been shooting away strongly over the last two months.

It is a quick job to thin out the least desirable regrowth, and tip the shoots that have been selected to stay - select growth that is coming from the sides of the stump, not the top or bottom, and select shoots with as wide an angle from the stump as possible. It is important to do this when the growths are about 300-600mm in



A wall of fruit on a Far North orchard.

length so the tree is not putting energy into shoots that will be thinned. It also makes the job very quick when you are working with small soft shoots rather than ones that have started to harden off.



A tree that has been thinned and painted.



A tree that has been thinned and painted.



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YOUNG TREES

At this time of year, to get the best out of young trees make sure they are watered (not over watered) and fed.

Regular foliar fertiliser applications are key along with solid fertilisers. Make sure the ratio of elements is suited to young trees and is low in potassium. Potassium is more suited to trees of a fruit bearing age.

You should be looking to grow as big a canopy as possible in the first two years.

Sunscreen can be added to help protect the leaves and stems from harsh mid-summer sun. >>

PASSION VINE HOPPER (PVH) PRESSURE

I have been on a couple of orchards in the Bay of Plenty recently with very high numbers of passion vine hoppers.

Both orchards have gullies on their boundaries with weeds such as blackberry and bracken that are hosts for PVH.

Some of the new fruitlets in these orchards have a small amount of black staining starting to appear that is similar to the staining I talked about in a previous newsletter on some Northland orchards.



After seeing this I am convinced that the staining comes from PVH rather than spent flower panicles as has been suggested.

90 MILE BEACH

I was lucky enough to be taken out surfcasting on 90 Mile Beach (after work of course), recently with Milton and Jo, arguably the best fisherman and fisherwoman in the North. While I have done a bit of fishing over the years it was my first real go at surfcasting. A picture is worth a thousand words - two ten pounders! ●

ORCHARD MANAGEMENT WITH ERICA

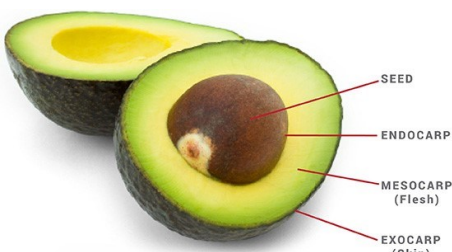
TO CUKE OR NOT TO CUKE? THAT IS THE QUESTION.

Avocados belong to a very small group of plants called basal angiosperms which are of the most primitive flowering plants, traced back in evolution to the earliest seed plants. It is no wonder that they waste immense energy and resources on up to millions of flowers adding almost 9% biomass to the tree for most of them to fall off resulting in a very poor flower to fruit ratio. Just when we think we have the worries of fruit set behind us, we are faced with another hurdle as we watch some of the developing fruit turn into seedless avocados aka cukes!

WHAT IS A CUKE?

Botanically, there are two main reasons for the formation of seedless fruit:

1. Parthenocarpy, where fruit develops without fertilisation eg. bananas and some citrus cultivars; and;
2. Stenospermocarpy, where pollination and fertilisation have occurred but the embryo either does not form or aborts before the



Cuke - the seedless result of a failure in the embryo development.

completion of seed formation as in avocado cukes.

In both cases the plant must be able to continue to sustain the development of the fruit in the absence of seed formation.

Fruit development is controlled by carbohydrates, sugars and phytohormones (auxins, gibberellins & cytokinins). In the instance of cukes, instead of these resources being supplied by the developing seed, or the tree itself, it is the mesocarp of the young fruitlet that is supplying sufficient hormones for the fruitlet to "hold on" and develop into a seedless fruit.

That explains what a cuke is and how it forms, but what causes it, is a lot more ambiguous! Surprisingly there is little research and none very



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conclusive into the phenomenon of the seedless avocado. After copious research, on orchard observations and past experience, I have come to my own conclusions. >>

WHAT CAUSES A CUKE?

With fluctuating periods of minimum temperatures during the long flowering period, we get waves of fruit set resulting in a range of avocado fruitlet sizes. The more erratic the temperature, the more inconsistent the fruit sizing.

Whether a fruit aborts or matures depends on its ability to chemically inhibit neighbouring fruit or on its sink strength.

An antagonistic coevolution can occur between the embryos when their seed sizes differ, to take control over resource allocation. High metabolic activity of the developing embryo and endosperm in the first wave of fruit set and the consequent production of phytohormones in these tissues create strong sinks for resources.

Research also suggests that starch reserves in the ovary play a significant role in the reproductive process in avocados. The relationship between starch content in the ovary and the fate of the ovary support the hypothesis that different levels of carbohydrate reserves in different flowers are related to the success of subsequent fruitlet development.

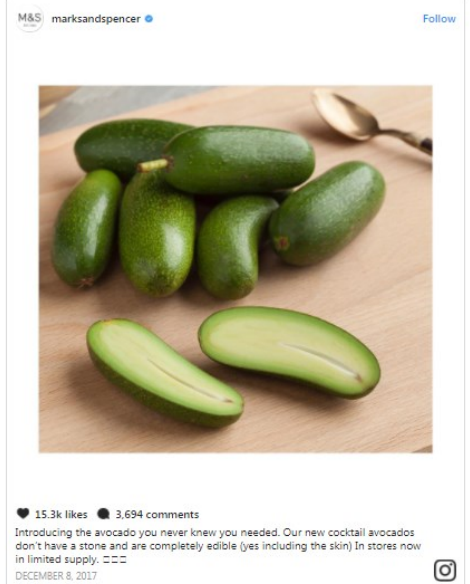
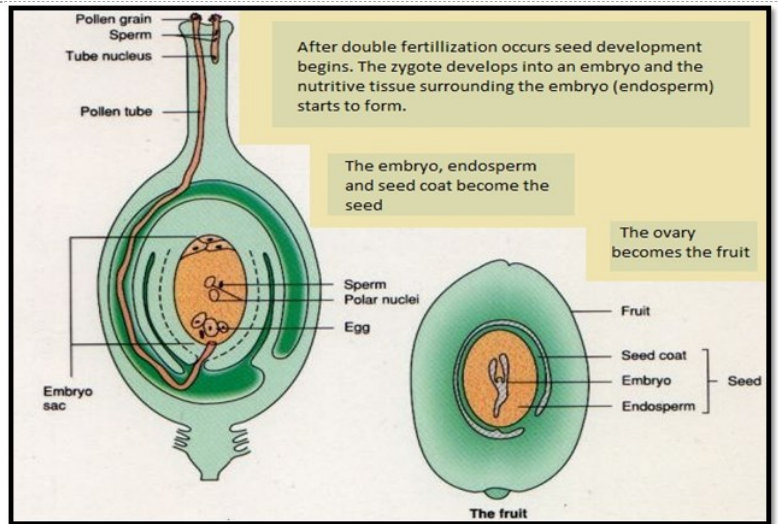
Auxins and gibberellins produced during pollen-tube growth stimulate the initiation of fruit development. In order to maintain fruit development however, the endosperm needs to provide nutrition in the form of starch as well as a source of auxins,

gibberellins and cytokinins. The endosperm is the tissue produced inside the seed, surrounding, nourishing and protecting the embryo.

When the endosperm is starved of resources due to either the sink strength of the first fruit set or the low carbohydrate reserves initially of the ovary; the formation of this tissue is affected at an early stage, and embryo development ceases. These fruitlets with abortive seeds are now no longer nourished by the seed but by small amounts of phytohormones and resources found in the mesocarp and continue to develop into seedless avocados or what we call cukes.

Do I think there is anything we can do to prevent the occurrence of seedless avocados? Perhaps stimulating more uniform and delayed flowering through the use of plant growth regulator sprays is the answer.

What is clear though, is that we need a lot more insight and understanding into the genetic regulation or hormonal signalling of fruit



development in this basal angiosperm called the avocado. We have only begun to scratch the surface!

Just maybe we should be thinking the other way around - what can we do to stimulate and develop the seedless avocado! ●

CLEARING UP THE CONFUSION

Setting the record straight on some commonly misused or confused terms in the avocado industry.

HASS, HAYES, HAAS - SPOT THE ODD ONE OUT.

You will see and hear from time to time variations on the word Hass, you wonder if it's an accent, maybe you have been saying it wrong all along or it's just a variety of avocado you don't know about.

Hass: We all know and love this variety of avocado; it's our most significant commercial avocado variety in New Zealand and is the standard of the industry worldwide. The Hass avocado was discovered by Rudolph Hass in California in the late 1920s and the original "mother tree" stood until sadly it died and had to be removed in 2002.

Hayes: This is another variety of avocado, though not as commonly known. Similar to Hass as that is one of its parents, but larger in size and with

glossier skin. It was bred in Hawaii in the 1950s and imported to New Zealand around the same time.

So that leaves us with the odd one out, the imposter who's name has been printed in international produce news and has tentatively passed through the lips of people who are not quite sure...

"Haas": "Haas" is not a variety of avocado, it is a common misspelling which pops up now and then and is used very convincingly! ●

PEST PATROL AND COMPLIANCE UPDATES

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CURRENT PEST PRESSURE

As the seasons change, so does the

pest pressure found on orchards.

I was finding leafroller in the young (pink) shoots, so am now on the look-out for these to have moved to fruit sites (either touching fruit or around the top of the fruit).

Greenhouse thrips are now showing through – especially on the older fruit (2017-18 season crop) so be on the look-out for them on the new fruit for

the 2018-19 season.

Please remember that your monitoring results are valid for 28 days only. Ensure you act on these results within the specified time frame.

At this stage all GAP inspections have been completed. Remember to continue to follow Good Agricultural Practices (GAP). ●

IN THE MARKETS

SALES AND MARKETING UPDATE

With 92% of our volume shipped to date, we are on track to be finished exporting by the end of next week (w/c 5 February).

VALUE

Overall, values have been exceptional. Recorded sale prices in the majority of markets have reached heights that the industry has not seen previously.

We are happy with how our market split has played out; however, further improvement in crop estimation by growers, industry members and export companies needs to be made. Crop estimate has a direct effect on the accuracy of market plans and more importantly maintaining our integrity with customers and obtaining exceptional grower returns.

MARKET STRATEGY

Our market split has roughly been 80% into Australia and 20% into Asia.

The primary markets into Asia have consisted of South Korea, Thailand and Taiwan. Japan and Malaysia playing a smaller role in the overall

return to our growers.

PROMOTION

We have had a very successful promotional programme with our Korean customer, whereby we put up some funding in conjunction with the industry to promote our exceptional New Zealand avocado. An increase of sales after the marketing efforts of our customer increased by 64%, an outstanding result - you can read the full story on this project in the articles section of the Just Avocados website www.justavocados.co.nz/articles.

AUSTRALIA

Retail demand has remained the platform on which strong values have been driven this season, with prices exceeding \$60 AUD per tray.

While Western Australian Hass volumes have begun to pick up again it has been quickly soaked up by the Southern markets and kept supply lines very tight.

The Queensland Shepard season has begun, with small volumes starting to arrive at wholesale markets from mid-January. Shepard retail programmes are due to commence in



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Queensland from 6 February and should line up with our forecasted finishing dates, limiting any major exposure to price fluctuations as supply picks up from North Queensland. ●

NEW ZEALAND MARKET UPDATE

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Zeafruit
from field to fruit bowl

All retail markets across New Zealand are strong. We are now anticipating diminishing volume of fruit into the market in spite of heavy volumes over the last three weeks. This is reflected in strong daily orders with small fruit now in strong demand.

Coolstore door returns are as follows:

- Large - \$48.50 t/e

- Medium - \$48.50 t/e
- Small - \$42 - \$44.00 t/e

If you are hanging any fruit that is suitable for the local market please make contact with John, Greg or Jarrod from Just Avocados so that we can fit this into our market plans and realise the highest potential value. ●



See us at the
Katikati and
Te Puke A&P shows

Katikati - 4 February
Te Puke - 10 February

**INTERESTED IN GETTING
INTO AVOCADOS?
HAVE QUERIES ABOUT YOUR ORCHARD
MANAGEMENT PRACTICES?**

**Come chat with our specialist team at the upcoming
Katikati and Te Puke A&P shows or get in touch today!**

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or drop in and see us at 54 Woodland Road, Katikati.

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