

TECHNICAL UPDATE

...with Ella Maxwell



BREAKING BUD

More often than not we're seeing some epic bud break and flower numbers, so there's a feeling of excited nervousness around the place. Excited that there's ample to work with and nervous about getting the thinning job done.

Not everyone is seeing brilliant budbreak. There are cases where things are patchy, and this may be due to hydrogen cyanamide applications or any number of factors – if you're seeing this and haven't already spoken to us give your Grower Rep a call. Usually on Gold there's still more than enough flowers to set a large crop and it just means less thinning. On the other hand, it can mean increased canopy growth and summer work so it's good to have a plan for the coming months.



THINNING

If you have high numbers keep things simple for the people doing the job and break it down into achievable tasks:

1. Remove excess cane
2. Count
3. Remove excess shoots (Focus on weak shoots and then spacing)

4. Count
5. Remove excess flowers
6. Count
7. Repeat steps 1-5 if needed

Are you catching the drift? You need to know what's there to make a plan so it's crucial someone is out there with a clicker counting flower bud numbers. The bees don't want to pollinate flowers you don't need.

POLLINATION

Strong in – Strong out

The key message from our field days was make sure hives come in strong. If they arrive at your place weak they'll probably only get worse. If they're strong they'll retain that strength better and do a better job setting your crop.



HIVE AUDITS

Check out the OPC Need To Know "[A Simple Way to Audit your Hives](#)"



Left: A beekeeper records number of frames of brood and bees inside a hive.

TECHNICAL UPDATE

POLLINATION UNDER COVER

Ollie Hoare covering Robbie Mayston's talk at the recent Field Day.

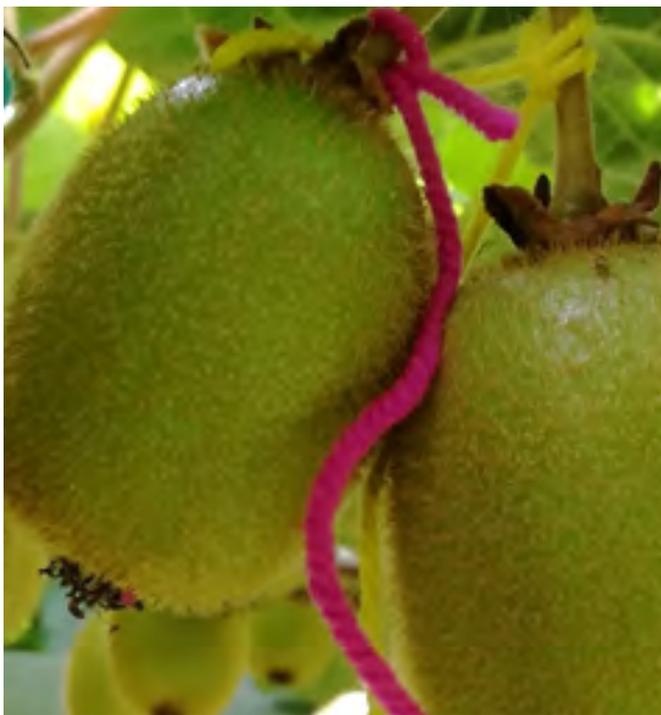
With so much producing and greenfield development under hail netting, we thought it pertinent to cover pollination basics under netting for growers at the field days. We were lucky enough to have Robbie Mayston speak about the Zespri trials they are part of and to educate and inform the group as much as possible.

After the first field day in Te Puke on Tuesday, the second day being held under a new covered block in Te Puna was a great chance to show a real-world example of what the Mayston's have learnt. Primarily, bees communicate through an 'orientation dance' directed at other bees after collecting pollen. This dance says where the flowers are and the pollen available for their colleagues to forage. They are dependent on the sun and other landmarks to orientate themselves, meaning that under the netting they become dazed as the sun is partially blocked.



POLLINATION ASSESSMENT

We highly suggest doing a pollination assessment if you haven't before, or, even if you have, it's always good to check each season. The KiwiTech Bulletin "[Assessment of Pollination Systems](#)" has the full explanation on how, what, why. If you've more of a hands-on person, give us a call and we'll show you how to do it (don't worry it's literally tying coloured string to flowers and is very simple). Or you can watch Wade Hunkin (before he was a full time Apata grower) explain how to do the assessment [here](#) on the canopy website (scroll to the bottom of the page to see the videos).



Throughout the trials, the Mayston's have experimented with various landmarks under the netting including buckets, drums and posts, all to no avail. Last year however, a decision was made to cut a hole about 80 m² in the net to see if the bees would use this as an exit point to view the sun, and therefore be able to communicate. In combination with this, a landmark pole was erected underneath the hole and painted blue as a point of reference. As conclusive as a first-year trial can be, the results seemed to be encouraging and the pollination job was well executed.

Additionally, Robbie reiterated the point that communication with your beekeeper is essential. Reason being, a lot of beekeepers believe hail netting destroys hives and are therefore reluctant to give it a go. By keeping the communication up Robbie and his beekeeper have determined that under netting, strong hives in mean strong hives out, and orchardists must spread the hives evenly through the block instead of concentrating them in one area.

In summary, although there is still lots to learn about pollination under hail net, the last couple of years have proved vital for educating the industry. Key messages include – hole in the net, landmark pole underneath, strong hives in equals strong hives out and to disperse the hives evenly through the block. Overall, communication with your beekeeper is KEY to a successful pollination.

TECHNICAL UPDATE **Crop Protection**

Spring time means Psa time for some. Even if you don't typically have high levels it's important you protect your orchard from potential infection and reduce the inoculum levels already in the orchard. There may be cold and damp areas in your orchard that need to be more sheltered and have drainage improved. These can be expensive solutions but without fixing the basics it'll always be a struggle and chemical controls won't be enough on their own.

Bactericides – for high risk situations

Kasumin:

One application is allowed up to 21-days before flowers open. That time has passed on many sites so if you're considering this you need to assess what stage your flower buds are at. A second application requires a justified approval (JA).

Key Strepto:

Justified approval is needed to use this bactericide. It can be used up to seven days before flowers open so if you've got reason but have missed the Kasumin use period this may be a helpful option.

Girdle to reduce Budrot

Target 30 days before flowering (up to 20 days before flowering has proved successful) for this effective cultural control. Consider the health and age of vines before applying the girdle. Call us if you're unsure and we can advise the course of action.

Copper

Use at full summer label rates to ensure that lovely new growth is covered before high-risk weather.

Actigard™

Use this systemic spray in conjunction with copper to cover new growth. Applying in the week before flowering can provide protection over the flowering period.

Remember that orchard hygiene sets the good orchards apart from the lower returning ones. In a study of 20 paired orchards it was found that orchard hygiene (sterilising equipment between vines or bays and cleaning down gear between blocks and orchards) was a main factor

contributing to better canopy fill and higher OGR. Who doesn't want that.

SCLEROTINIA

Keeping the canopy open and growing the sward can reduce sclerotinia spores in the canopy. Often that's a process needing a few seasons to master so ensure you're covering your bases with the chemical controls below too if needed.

- For conventional orchards use a Luna Privilege just before flowering starts (can be mixed with Actigard) to reduce disease pressure
- During flowering period options for organic growers are Timorex Gold and Botry-Zen
- Flint, Provita or Triplus can be used on conventional orchards during flowering but not after
- Bee kind to the bees – don't spray while they are foraging, the best way to annoy your beekeeper is by doing this so be very mindful about where bees are in your orchard and when and where a spray is being applied.
- If you have a high risk for sclerotinia and intend to apply a second fungicide you need to get a JA

Sward against sclerotinia

As mentioned above the best way to control Sclerotinia is through cultural control. With Rovral™ removed from the programme it may be a good time to start adjusting your practice.

Reduce spore release from the soil:

- Let the grass grow then mulch just before flowering.
- Eliminate herbicide strips

Minimise sclerotinia in canopy and wood:

- Keep an open canopy to let air flow through so the disease can't find nooks to settle and multiply
- Remove prunings from the orchard as old wood is a favourite spot for sclerotinia.

TECHNICAL UPDATE Crop Protection

SCALE

If we had a pest of the year competition the prize would be awarded to this creepy crawler. Keep up the control measures. Hopefully over winter an effort was made to remove crowns in the canopy to reduce numbers of mature scale and minimise them producing crawlers this season. If not think about that for next winter.

Where are they coming from?

Cathy McKenna from Plant and Food Research has shown that most scale is coming from the second generation occurring from mid-January to harvest. To get that population under control you need to figure out where the mother scale are and try reduce them so the second generation doesn't happen. This could be old wood, other host plants such as shelter belts or other crops. We recommend doing some monitoring to figure out where the issue is stemming from.

Movento™

Zespri is currently running a trial looking at whether a postharvest application of Movento™ provides added scale control. Many people are already trying this and the results are due back in March next year. This application will be included in spray diary for the following harvest and a JA will be required.

Movento™ Mode of Action

- Two-way translocation in the plant
- Must be applied at full label rate for toxicity
- Tank mixing with Du-Wett™ gives much better scale control than Movento™ alone
- Is present at toxic levels to scale for 3-4 weeks only
- Movento™ is a lipid biosynthesis inhibitor (Only juvenile scale produce lipids)

Different mode of action on adults and juveniles

Adult scale that ingest Movento™:

- Do not die - no direct knockdown of adults
- Lay less eggs which are often infertile
- Produce crawlers that are often not viable and/or less likely to settle

Movento™ is not 100% effective on adult scale: adults will still produce a low percentage of healthy crawlers, but is toxic to all stages of juvenile scale if ingested within the toxic period.

Movento™ provides no protection against:

- Healthy crawlers that hatch from poisoned adults after the toxic period
- Crawlers that enter the orchard after the toxic period. (e.g. Blown from shelters or other trees)

OIL application timing

There is a narrow window between mid to late February where oil applications don't pose any marking or fruit drop issues. Because it's such a narrow window more work needs to be done to confirm this and to provide a good clear message to growers.

SHELTER SPRAYING

Some shelter spraying of Oil, Movento™ or Talstar™ + Engulf™ is being done (mostly on willows or poplar). This is good proactive behaviour, but most spraying is being done with sprayers set up for the kiwifruit canopy. The other point to note is that it's not a good idea to spray casuarina or cryptomeria as they don't host scale, but do host some other beneficial insects. For example, spraying cryptomeria with Movento™ could disrupt the thrips bio-parasitoid which is a good guy we want to keep healthy.

SPRING FIELD DAYS A HIT WITH GROWERS

We recently held 3 field days focusing on crop protection, setting the crop load before flowering and pollination.

Thanks to our hosts Nathan Flowerday & Tim Webb at Full Circle Orchard in Te Puke, Sharen Ashley at Falcon Orchard in Te Puna and Dave & Lois Robertson at Te Kapowai Orchard in Whakamarama. We appreciate you welcoming us onto your orchards and sharing your orchard story with us. Also a big thanks to Robbie Mayston for talking to the groups about his experience with pollinating crops under hail netting.

We had fantastic discussion between growers, Apata and beekeepers, and it's always a great opportunity to catch up with everyone. Thanks to all for coming along.



A great turn out at Full Circle Orchard in Te Puke enjoying the fine weather and discussion under a healthy canopy.



Sharen Ashley's father, Errol, (AKA - Super Dad) took us for a tour around the pond and native plantings after the Field Day. He showed us the beautiful seat he's crafted in honour of Sharen's late husband, Kevin. Such a tranquil spot.



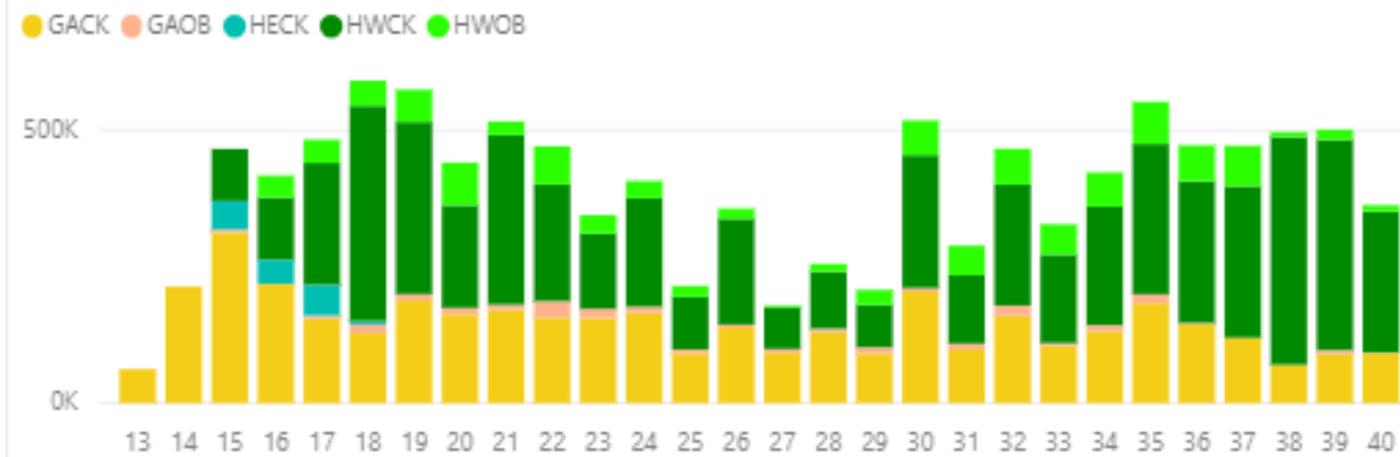
There are not many images sweeter than a little boy running through the countryside with his dog. Brad Hodgson's son, Theo, takes the cute-factor to a whole new level.

OPERATIONS UPDATE *Hans van Leeuwen*



The tail end of the inventory season has certainly lived up to its reputation and has kept the Operations team very busy. We've loaded out close to 3M trays over the last six weeks: a commendable achievement given this spanned the tail end of the Sungold inventory, which brought with it a corresponding increase in repacking activity. In addition to this, Zespri's decision to Crop Manage 1M trays of Hayward (HWCK) created further workload as we looked to carefully allocate Apata's share to the most appropriate lines of inventory in store.

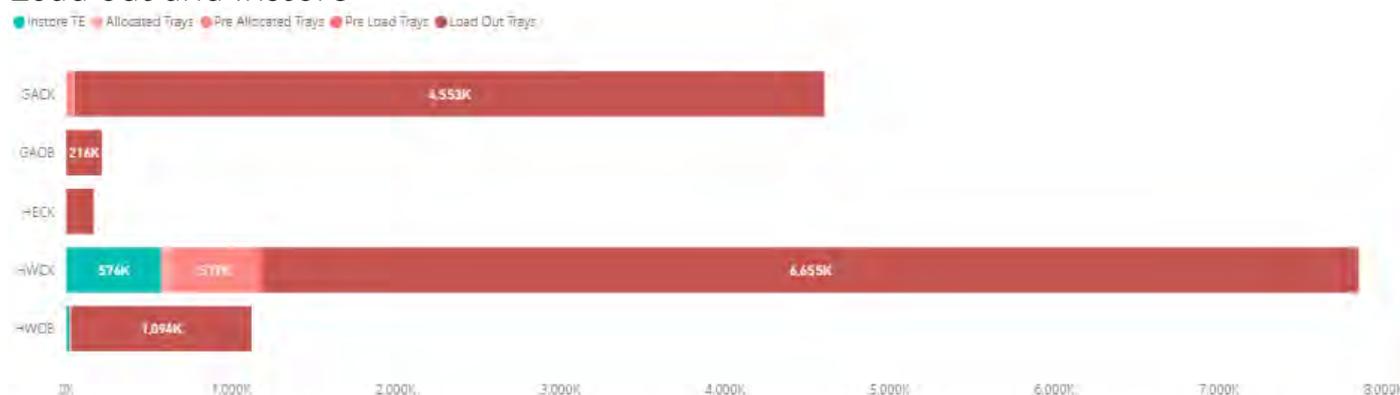
Fruit Loaded Season to Date



With the Sungold inventory essentially loaded out, we can reflect on a positive season for this variety. CA trials have been very successful and we'll look to build on this result next year. Equally, results to date indicate the fruit is reaching the market in good condition. As is typical for the end of the season, our percentage fruit loss has risen. However, at 1.3%, this is still a very good result that many of our competitors would be envious of.

The high tempo over the last six weeks has enabled us to make good inroads into the Hayward inventory. HWOB is 98% loaded out however, we still have approximately 1M trays of HWCK in store. The soft market for this variety is making life challenging with the last load out scheduled for calendar week 48! Fruit loss currently sits at a very healthy 0.57% however, fruit firmness and storage behaviour will undoubtedly begin to change as we approach the end of the season. We will continue to work hard to fill Zespri's orders, present quality fruit to the market, and achieve optimum results for our growers.

Load out and Instore



Current Inventory Status

APATA WEEKLY SUMMARY				
Fruit Group	Cooled Trays	Cooled Inc UFI	Loaded Trays	Loss Charged
GACK	4,186,456	4,186,770	4,076,413	59,468
GAOB	236,606	236,606	233,646	1,672
HECK	159,357	159,357	158,333	0
HWCK	7,003,702	7,006,193	5,963,799	36,964
HWOB	1,103,716	1,103,716	1,074,104	804
Total	12,689,837	12,692,641	11,506,295	98,907

UPCOMING EVENTS

CHRISTMAS IS COMING!

Thursday 6th December

Kiwifruit grower Christmas function. Details to follow...

GROWER TRIP TO GISBORNE

Tuesday 19th February 2019

Trip to Gisborne with growers to view the new Apata developments, other crops, organic conversion and visit local wineries.

Expression of interests to be sent to emily.woods@apata.co.nz

THE APATA GROWERS CLASSIC CAR SHOW

2:30pm Tuesday November 6
Melbourne Cup Day
Tauranga Yacht and
Power Boat Club
Sulphur Point

Please join us as we bring together the beauty of classic cars and the excitement and glamour that is the Melbourne Cup.

- Vehicle Parade around The Mount and Tauranga CBD
- Enjoy our hospitality while viewing the Classic Cars
- Watch the Melbourne Cup live and have fun in the sweep

If you wish to showcase or attend,
please contact emily.woods@apata.co.nz
by October 30.

Apata
TOGETHER WE'RE BETTER



COMPLIANCE CORNER

To assist growers with their on-orchard compliance, we are currently designing boards which will be the focal point for orchards' Emergency Information such as Assembly Points, Site Maps, etc.

Each grower will be responsible for the specific content, but these boards will provide a useful benchmark for minimum standards required.

EYES ON THE PRIZE

This KiwiLINK highlights the importance of Spring activity in all orchards and we know that for some this can sometime feel a little overwhelming.

If you are feeling uncertain, or would just like to toss around some ideas, please make contact with our Grower Reps - they would all be only too pleased to help or support you.