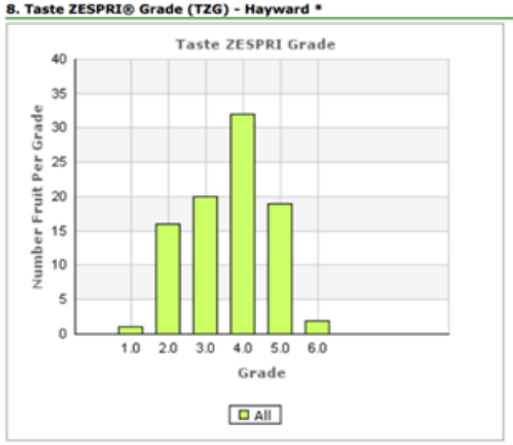
2016 HAYWARD TAST REVIEW—DRAFT RECOMMENDATIONS CONTINUED…

8. Taste ZESPRI® Grade (TZG) - Hayward *



Grade	DM %
1	< 15.5
2	15.5 - 16.5
3	16.5 - 17.5
4	17.5 - 18.5
5	18.5 - 19.5
6	> 19.5

Grade	1	2	3	4	5	6	Fruit Count	TZG
Grade Value	0.00	0.25	0.60	0.70	0.90	1.00		
Fruit Per Grade	1	16	20	32	19	2	90	
Fruit Per Grade (%)	1.11	17.78	22.22	35.56	21.11	2.22		
%Fruit x Grade Value	0.00	4.44	13.33	24.89	19.00	2.22		0.64

TZG = 0.64 which is equal to 64% of the Maximum Taste Payment (MTP)

* If the average dry matter is below the Lower Taste Limit, (15.5 Hayward) then you will receive no taste payment. If you are a Hayward grower and your average dry matter is below 15.50% (MTS), your fruit will not be accepted into ZESPRI inventory.

Figure 2: High TZG example

Figure 2 illustrates how having more fruit in higher value buckets changes the final TZG.

Under the proposed system there will be more buckets of a lower range with an even distribution of grade value to help smooth out any potential variability in dry matter results.

Table 1: Proposed changes to TZG 'buckets'

Current TZG Grade		
Grade	% Dry Matter	Grade Value
1	<15.5	0%
2	15.5-16.5	25%
3	16.5-17.5	60%
4	17.5-18.5	70%
5	18.5-19.5	90%
6	>19.5	100%

Proposed TZG Grades		
Grade	% Dry Matter	Grade Value
1	<15.5	0%
2	15.5-16.0	10%
3	16.0-16.5	25%
4	16.5-17.0	45%
5	17.0-17.5	65%
6	17.5-18.0	85%
7	18.0-18.5	90%
8	18.5-19.0	95%
9	19.0-19.5	97%
10	>19.5	100%

Table 1 shows what we can expect to see in the future with regards the bucket system used for TZG calculation.

Assuming that sampling and testing methodology is accurate – this new system should see less drastic changes in TZG when fruit pieces move between buckets as a result of variability between multiple clearance samples.

Psa MONITORING

With the first round of Psa monitoring starting in the last week of August and nearly complete we have been seeing symptoms show up across the Bay of Plenty. We are seeing symptoms in Green males and both male and females of Gold. Growers must remember to be vigilant with their Psa spray program as well as keeping up correct tool hygiene practices.

Our team has seen a decrease in Psa symptoms compared to last season, this is due to a well-balanced crop protection program, great knowledge of PSA cut outs and Mother Nature being kind to us giving more accommodating weather that is less favourable by the Psa.

A reminder that one round of mandatory Psa monitoring is required on KPINs with a 'Not detected' status between the dates of **September 15th - October 15th**. Reporting due to KVH by October 31st.

Once again, don't hesitate to get in touch with our Hort Technical Team if you require any assistance with Psa monitoring and/or removal.

Picture: Red exudate seen by our Psa team in a Hayward male. A common symptom of Psa.

MANAGING Psa

Our experienced Psa monitoring and cut out team are available upon request to assist with any monitoring or cut outs required by our growers. If you intend on monitoring and cutting out yourself here are a few tips to follow:

Monitoring:

- Monitor your orchard weekly during spring
- HW – males will generally show symptoms first
- GA – males and females show symptoms at similar times
- Mark any infected vines and infected plant material with spray paint
- Check on marked vines weekly to see how symptoms are progressing and remove any infected plant material by cutting it out

Cut-out:

- Cut out all infected plant material 20cm back from the area showing symptoms
- Disinfect ALL tools before and after making cuts to infected vines
- Seal all wounds made with a wound sealant product
- Dispose of any infected plant material on your orchard by burning (Burning is the most effective disposal method. Psa infected material is not to be taken off your orchard)
- Apply a copper spray to your orchard post cut out or before the next weather event

Picture: Successful cut-out. A vine managed by our Psa team showing healthy new growth. This vine was expressing Psa symptoms at this same time last year.

Aongatete Hort Technical Team—07 552 0916

POLLINATION TIPS

Hive placement:

Place hives in a sheltered area that receives plenty of sunlight, particularly morning sun, to help maximise bee activity. Proximity to kiwifruit blocks & distribution is not as critical as the shelter and light – remember bees will forage within a 5km radius of their hive!

Competition:

Prepare your orchard by weed spraying (or ideally mowing) to reduce the competition between kiwifruit flowers and other flowering plant species. If your orchard is surrounded by pasture, consider increasing the number of hives or using supplementary pollen to help keep bees on orchard.

Timing:

Timing is everything during pollination! Dr Mark Goodwin of Plant and Food suggests a split introduction for Hayward – with some hives introduced at 5-10% flowering with the remainder 2-3 days after.
For G3 consider introducing all hives at 10-15% flowering. If flower development looks as though it will stall for a prolonged period (remain at similar level for 2-3 days) then consider a split introduction.

Water:

Pollination is thirsty work! Place a bucket or fish bin of water with a towel or sack halfway in the water in a few blocks. This gives bees access to water without falling in and drowning. Providing water may help prevent bees foraging outside of the orchard for a water source.
Alternatively they are very good at finding any leaking taps, pipes or the swimming pool!

Feeding:

Hives should be fed a sugar syrup solution regularly - equivalent to 1 litre a day per hive to optimise honeybee activity. Majority of beekeepers use 2 litres of syrup every 2 days - check with your beekeeper what their procedure is.

Hive audits:

A useful quality control tool to help ensure that hives brought on to your orchard meet the industry standards. Aongatete will be running a random audit program for any hives that we organise – AsureQuality are the main auditing body in the Bay of Plenty.

Monitoring activity:

Monitoring bee activity is relatively easy and is encouraged to gauge the quality of the hives.

For effective pollination of Hayward you will need to see approximately 20 bees per 1000 flowers – counting time should be limited to around one minute.

If counts are lower than 20 bees/1000 flowers you may need to consider supplementary pollen.

There is no firm data around Gold3 bee/flower ratio requirements – however we do know that Gold3 takes roughly 1/8th of the bee visits to pollinate effectively and thus the bee requirements per 1000 flowers should be less.

Pollination Agreement:

These are mainly used to make sure that growers and beekeepers are on the same page to avoid any future problems during a crucial period. An easy to follow template can be found on Zespri Canopy.

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BEE AWARE MONTH

September is Bee Aware Month! As growers we rely on honeybees for pollination - take some time to think about what you can do to help protect and promote our favourite pollinators.

- Promote bee friendly plants (not during kiwifruit flowering) around your property.
- Do not spray bee toxic agrichemicals during foraging hours
- Try to minimise the application of adjuvant during foraging hours
- Consider bee-friendly alternatives to agrichemicals, such as Bacillus thuringiensis (BT, Bio-Bit, Delfin) in place of emamectin benzoate (Proclaim/Velocity).

Whilst the idea of Bee Aware Month is nice – bee safety is a year round consideration. With the price per hive being driven up by the more profitable Manuka Honey, kiwifruit growers need to be seen as actively improving bee safety.

Aaron Hokopaura—Grower Services Representative

2016 HAYWARD TASTE REVIEW—DRAFT RECOMMENDATIONS

Below is a general summary of the recommendations for Hayward Taste that has been put forward by the Industry Taste Committee. The full article can be found on Zespri Canopy and we encourage all Hayward growers to read and familiarize themselves with the possible changes.

Recommendation 1: Minimum Taste Standard (MTS) be retained at 15.5% dry matter but enhanced with the requirement that 70% of the tested volume must exceed the MTS.

This basically follows the same principle as the Gold3 MTS – moving away from an average dry matter requirement of 15.5% dry matter and needing 70% of fruit tested in a clearance sample to be above 15.5% dry matter. This means an average dry matter of approximately 15.9% is needed to satisfy the proposed change.
Had this been implemented this season it would have excluded 2,142,222 trays from inventory – 2.3% of industry volume.

Recommendation 2: Change TZG calculation by splitting 'buckets' into 0.5% dry matter increments and alter the weighting of each 'bucket'.

TZG is calculated by measuring how many pieces of fruit fall into each bucket. The higher dry matter buckets have a higher grade value, therefore, the more pieces of fruit in the higher value buckets – the higher the TZG.

As most growers will have noticed this season – there was sometimes significant increases/ decreases in TZG
between clearance samples.

One of the reasons for this was the adjusted MTS and TZG 'bucket' system. As fruit dropped in and out of different buckets; the weighting of each of the buckets (and the wide range) resulted in drastic changes in TZG.

As shown in Figure 1 the combined total of % fruit (in each respective bucket) multiplied by the Grade Value determines your TZG.

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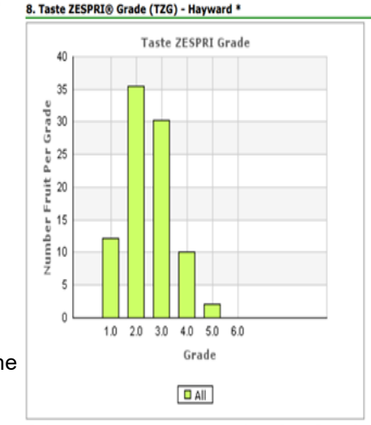

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Grade	1	2	3	4	5	6	Fruit Count	TZG
Grade Value	0.00	0.25	0.60	0.70	0.90	1.00		
Fruit Per Grade	12	35	30	10	2	0	90	
Fruit Per Grade (%)	13.48	39.33	33.71	11.24	2.25	0.00		
%Fruit x Grade Value	0.00	9.83	20.22	7.87	2.02	0.00		0.40

TZG = 0.40 which is equal to 40% of the Maximum Taste Payment (MTP)

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As shown in Figure 1: Mid/low TZG example