



FRESH HUB 16 APRIL 2019 - SURVEY

Welcome to Fresh Hub: our Fresh Produce Newsletter. This Survey issue is focused on updates in the Quality Control space.

Quality Control in Support of Optical Sorting Machines

Packhouses worldwide are investing heavily in the latest optical sorting machine technology. Optical sorters can provide greater consistency of product, reduced labour requirements, increased efficiency and less risk of bruising and spoilage due to handling. This sounds like a dream!

However, in our experience we hear from both packhouse personnel and exporters complaining about the machine's performance. In our experience, two key factors come into play when optimising optical sorting machines:

Rubbish in - Rubbish out. You cannot expect the sorting machine to turn bad quality into good. Most machines do a good sorting job at high speed. However, the presence of a high level of defects creates opportunities for poor quality to slip through, especially if the fruit does not fully rotate for enough photos to be taken.

In our experience, basic harvest decisions made by the picker are critical to the performance of the optical sorter as well as the final packed product. Basic pre-sorting should be done in the field. This then comes down to training pickers properly.

Final packing feedback. Gaining an understanding of the product quality and level of defects in the sorted and packed product. Using this information to adjust the optical sorter helps fine tune the machine.

Training both your harvest and packhouse crews in basic quality management practices and defects detection is critical to make the right decisions and increases the effectiveness of the sorting machine. This will impact on the final product out turn and the consistency of the line in the eyes of the customer.

We can help your business with staff training in quality management practices from the field, with packed product and throughout the supply chain. Talk to Max for more information (mciccioni@agrichain-centre.com).





Am I Checking Enough Product?

Carrying out inspections is the best way to get a thorough understanding of fresh produce quality. An inspection can provide you with an indication of potential eating quality, saleability and shelf life of the product.

However, quality inspection can be severely affected by how the sample is selected. Poor sample selection can cause you to see either unusual levels of defects or even miss defects all together. The basics of sample selection is that it must be **both random and representative** of the line. The question you are probably asking is what does that mean?

Random Samples. During transport and distribution, the temperature can vary depending on the pallet location. Taking a random sample to capture any quality and shelf life defects is therefore important. Once the lot is determined, the sample must be selected randomly. This can be done practically by taking cartons from different pallets and different locations within the pallets (top, middle and bottom).

Representative Samples. A sample is representative when it captures all the different variables such as growers, pack dates, sizes, counts and varieties. Quality varies significantly between growers; and within the same grower. In addition, differences can be noted between varieties, pack dates and sizes.

So, there is not a single answer to the number of units to check. Ideally the more product that is inspected, the more realistic the decision will be - although time and financial needs will be factored in. As a rule of thumb, 1% of a line can provide you with a good overall picture of the product.

The AgriChain Centre can provide you with an independent view of your management system. Talk to Max for more information (mciccioni@agrchain-centre.com).





How to Supply Good Quality Table Grapes

Grapes are one of the top three fruits consumed in New Zealand. Most table grapes are imported from either the USA, Chile or Australia with a very small quantity produced in New Zealand.

In the case of Chilean and USA grapes, the journey to New Zealand can take up to a month and once here the product undergoes Biosecurity border clearance before it can be taken out of the container.

Table grapes have a low respiration rate and can be stored for a relatively long time, if the temperature is kept at an optimal level. Because they do not contain starch, the sugar content does not increase after harvest. Therefore grapes have to be picked at the right maturity.

Temperature management is critical during this time to keep problems at bay. In addition, the availability of multiple varieties, adds complexity to the system because each variety has specific needs and susceptibility to quality issues.

Good quality grapes should have green stems, be firm and crunchy, have juicy pulp, and be sweet (brix >16). The berries also need to be attached to the stem well, clean, free of dust and major defects.

Typical quality problems of imported table grapes are:

- Grey mould or *Botrytis* caused by wet conditions or small wounds on the fruit and high temperature
- Brown berries caused by too low temperature, sunburn, growing conditions or damage to the stem end
- Brown stem is a sign of water loss due to high temperature and low humidity level
- Berry shatter is a sign of rough handling
- Fruit softening is a sign of water loss due to high temperature and low humidity level

Before the product hits the market, **IDENTIFY** the problems, **QUANTIFY** the problem and if necessary, **RE-SORT** the cartons by removing bunches showing defects that could develop further.

You can learn more about managing grape quality at one of our Quality Management training courses. Talk to Max for more information (mciccioni@agrchain-centre.com).





MPI Updates

Update on Spotted Wing Drosophila (*Drosophila suzukii*) Import Health Standards

Drosophila suzukii - Grapes and Plums from Chile.

Due to an increase in distribution of Spotted Wing Drosophila in Chile, MPI has amended the measures to manage its risk. Full details about the new Additional Declaration can be found [here](#).

Deal or No Deal – Brexit

MPI has recently released a FYI document which explains what exporters of plant products, wine and organic products should do during this time of uncertainty in the case of a no deal Brexit. To download the document [click here](#).