Module 29  
Packing  
Contributor: John Perold

Reference
For more information on packing practices consult the CRI Production Guidelines, volume IV.

Introduction

By the time the fruit reaches the packer, it has been washed, treated, waxed, sorted and sized. This means that money has been spent on preparing the fruit for export, and a lot of value has been added to it.

It is important for packers to understand the processes and treatments that fruit go through before it reaches you, and to have a good understanding of export market specifications, so that you are able to understand why you have to do things in a certain way.

We strongly recommend that you watch the module 15 on Packhouse Process Flow, and module 28 on Packing Market Specifications.

Protective Clothing and Personal Hygiene

In the module on Packhouse Process Flow, we look at the protective clothing and personal hygiene rules that everyone in the packhouse must stick to.

These rules are especially important for packers, because they handle the fruit after a lot of value has been added to it.
Packing Specifications

In the module on Packing Market Specifications, you would have learnt about the different sizes, counts and grades of citrus fruit. Take the time to find out about the types of citrus that is packed in your packhouse, the markets that the fruit is packed for, and the market specifications for those fruit.

It is also important that you must be well aware every day of what you will be packing that day, for which market, and according to what specifications.

Fruit Quality

In your packing tray you should have fruit that is all of the same size and grade, and that meets those specifications in terms of external and internal quality.

It is the job of the graders and sizers to make sure that you get the right fruit to pack, but it is still important that you keep an eye out for fruit that is not the same as the rest.

Remember that you are the last line of quality control when it comes to the fruit itself – nobody in the packhouse will see the fruit again after you pack it.

Wrapping and Labelling

The packing market specifications also indicate if the fruit that you are packing should be wrapped or labelled.

Your supervisor will tell you at the beginning of every shift what the wrapping specifications and patterns are, and will see to it that you have the right wrappers in hand.

In most packhouses, fruit is labelled by machines, but it may happen that you need to label the fruit by hand. The supervisor will again make sure that you are aware of this if it is the case, and see to it that you have the right labels.
Marking

When you finish packing a carton of fruit the carton will be labelled. On this carton label it states, amongst other things, the grade and size of the fruit.

You need to make very sure that every fruit in that carton is of that size and grade. You also must make sure that every carton you pack according to a set of specifications, are uniform – every carton must look the same, inside and out.

Packing Patterns

A very important market specification that has to do particularly with packing is the packing pattern. To fit the right number of fruit into a specific carton, you need to pack it in a certain way.

Using a packing pattern also makes the carton look neat. Packing fruit in such a pattern is called place packing.

Here are a few examples of packing diagrams. The first one is the placing pattern for lemons in an A15C telescopic carton when you are packing count 88. The number in brackets after the count – in this case 5 – is the number of layers that you pack in the carton.

The next diagram is for count 113 lemons in an A15C carton. Even though you will still pack 5 layers you will place more fruit in each layer and in the carton, because they are smaller.

Can you now, with these diagrams on hand, tell how the second layer will be placed?

Here is an example of a packing diagram for oranges, for count 64, in an A15C telescopic carton.

Take the time to study the packing patterns for the citrus types that are packed in your packhouse so that you have a clear picture of what a packed carton should look like.

Smaller fruit of some citrus types are sometimes not packed in a pattern, depending on what the market wants. When fruit is just placed loosely into a carton without any pattern, it is called jumble packing.
Packing Cartons

There are many types of cartons that are used for export citrus from South Africa, but the two that are used most often are A15C telescopic and open-top display cartons.

The A15C carton is called ‘telescopic’ because it has a lid, or outer, that fits completely over the inner carton. The outer carton is usually specially designed and printed with the logo and other information of the brand, grower, packhouse or market agent.

The other commonly used type is an open-top display carton. This carton does not have a lid and is also usually printed with the brand information of the product.

The methods used for packing the different types of cartons are basically the same, but the number of fruit that can fit into each type of carton varies.

It is important that you know the different types of cartons that are used in your packhouse, and the packing diagrams and specifications for each type.

There are also minimum standards that are set for each type of carton, to make sure that the carton is strong enough and well-constructed. For more information on this, please look at the module on Packing Material and Specifications.

Packing

Preparation

Before you start your shift, make sure that you know what and how you are going to be packing. Once the lines start rolling there is little time to get the information and supplies that you need.

Always check before your shift starts that you have enough labels, wrapping paper and other supplies.

Also make sure that you comply with the rules about personal hygiene and food safety, so that you can handle fresh fruit without contaminating it.
Cartons

Before packing fruit into a carton, you must make sure that the carton is in a fit state to be used. In most packhouses, cartons are folded and glued by the carton erection machine.

As a packer, check that the carton has been glued and folded properly, that there are no loose flaps, and that the carton is sturdy. Also check the ventilation holes of the carton. These must all be open, with the little piece of carton that closed them punched out.

Packing Practices

Place the carton next to you on a flat surface where you can easily reach it. Take the first fruit from the packing tray and place it in the bottom left-hand corner of the carton. Do not squeeze fruit into a corner too tightly because this can bruise the fruit.

Pack the first row according to the packing pattern for your variety and count. The fruit in the second row should now fit into the gaps between the fruit and the side of the carton.

Complete the bottom layer so that it looks like the packing pattern. Remember not to squeeze or force the fruit into the carton – the carton is big enough and will take the required number of fruit. Now you can pack the second layer. The fruit should nest into the bottom layer.

Continue to pack the fruit until you have packed the number of layers as shown on the packing pattern. If you are packing a telescopic carton, put the lid in place and press it down gently.

Put the carton labels in place, making sure that you put it on the right end of the carton, in the space where it should be, and that it is straight and neat. You can now place the carton where it will be taken for palletisation.

When you jumble pack smaller fruit, remember to still handle the fruit gently and not to drop or force it into the carton.

At the end of your shift or when you change to different packing instructions, make certain that your packing tray is clean and that all the fruit is removed.
**Spoiled Fruit**

If at any time you find a spoiled fruit in your packing tray that has been contaminated by a disease, **immediately stop packing**, and call the supervisor or packline manager.

This fruit will infect all the other fruit that it comes into contact with and the packline and packing equipment itself, which will in turn infect the other fruit that is still coming through the process. If this happens, the packline must be stopped, cleared and sanitised immediately.

**Wrapping**

Some markets require some or all of the fruit to be individually wrapped. Wrappers come in different sizes for different citrus varieties and sizes.

In some packhouses fruit is wrapped by a machine, mostly when the wrapper needs to be slightly shrinked on the fruit with a heat treatment, but it is more common for the packers to wrap fruit by hand.

Before starting, make sure that you know whether all the fruit needs to be wrapped or just some of them, such as alternative layers or diagonal rows.

Wrapping paper is usually has a thin layer of oil or wax on, and feels slightly slippery to the touch. This makes the paper easier to handle while wrapping the fruit, and helps to protect the fruit when it is packed. The wrappers are already cut to size and one wrapper per fruit is used.

To wrap the fruit, take a fruit in your non-dominant hand – for most people this is their left hand – and a piece of wrapping paper in the palm of your other hand.

Place the fruit on top of the paper and wrap the paper around the fruit. Make sure that the whole fruit is covered by folding the paper over the top of the fruit. Do not twist or turn the paper. Place the fruit in the carton.

With practice, this will become easier and by the end of a packing season you will not even notice the difference between packing with or without wrappers.
**Packing Machines**

In some packhouse automatic packing machines are used. These machines are very advanced and can be used to pack a great range of varieties and fruit sizes. Always remember that even machines can make mistakes and must still be monitored.

**Quality Control**

Every now and then a packed carton will be checked by the person doing quality control. They will take a carton out of the line and check the fruit inside.

First they will check to see that the fruit in the carton agrees with what it says on the label in terms of size and grade – this is to make sure that the graders are working according to the specifications. Then they will check to see that the right number of fruit is in the carton, and that the weight of the carton is according to what is required.

They will also check to see that the wrapping is done according to the packing instructions, and that the fruit is being handled with care and not bruised or injured.

If they find any problems they will give feedback to the supervisor who will speak to the graders and packers.

Pay attention to this feedback – it is very important to make sure that the packhouse delivers a product that is always of the best quality.

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**active learning**

Watch the DVD clips, read through the learning material and do workplace research to gather the knowledge and information to complete the assignments below.

**Activity 29.1 – Worksheet**

Explain what these pictures are, and how they are used.
Activity 29.2 – Table

Find the packing instructions for a citrus variety packed in your packhouse, and complete the table below.

<table>
<thead>
<tr>
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Activity 29.3 – Workplace Logbook

You have to complete practical packing tasks as part of your practical learning. Please ask your workplace supervisor or team leader to observe you while completing these duties and to sign off your logbook.
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SOPs:

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