

# FRESH NOTES

A TECHNICAL UPDATE PUBLISHED BY HORTGRO SCIENCE



**PACKHOUSE**  
**ACTION GROUP**

## **Fresh Notes feedback of a Packhouse Action Group (PAG) meeting held on 28 February 2019**

*Contact details are listed at the bottom of the Fresh Notes*

### **Load-shedding and load out temperatures**

The PAG load-shedding workgroup met recently to discuss the impact of load-shedding power cuts on apples and winter pears. The workgroup is represented by Henk Griessel, Bernard Henning, Jaco Moelich, and Johan Strydom. The present uncertainty of load-shedding schedules and the levels of power cuts, require urgent proactive measures to address operational disruptions that can impact on fruit quality.

To manage the possible build-up of uncooled or partially cooled apples at cold stores due to load-shedding, a dispensation has been obtained from PPECB for the maximum load out temperature tolerance for apples of +3.0°C to be applied, and for winter pears +2°C. (Presently set point plus 2.0°C which in practice normally equates to a tolerance of +1.5°C). The dispensation applies only in the case of power cuts, and this needs to be verified with the local PPECB inspector.

This arrangement cannot be applied to summer pears due to the risk of quality problems.

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## Recommended Actions for Cold Stores during Periods of Load Shedding

1. Keep cold store doors closed as far as possible.
2. Make sure that door curtains are in a good condition and serve the purpose of restricting cold air escaping/warm air entering the cold room.
3. Get generators to reduce the dependency on ESCOM power.
4. Ensure that computer systems that record cold sterilisation temperatures have UPS support.
5. Consider leaving out plastic bags for those cultivars where it is not considered essential.
6. Use load shed times for actions that are not temperature related. For example, load pallets/bins into cold stores where there are not partially cooled fruit.
7. Pre-cool rooms in preparation for new fruit that will have to be stored. This is to avoid warm room temperature air being circulated over already cold fruit.
8. Make sure that forklift batteries are fully charged when power is available.
9. In the event of power coming back on and the room temperature has increased to above fruit temperature, be careful not to apply forced air cooling until the temperature has decreased sufficiently.
10. Make use of the recently increased load out temperature tolerance dispensations for apples (+3.0°C) and winter pears (2.0°C) if necessary.

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## Best Operating Practices for loading Apples or Pears at higher Temperatures

**VERY IMPORTANT:** Loading out pome fruit at **above -0.5°C is NOT RECOMMENDED!**

*However, at times of load shedding and build-up of partially cooled fruit, the dispensation of higher load out temperatures can be used to alleviate the situation*

1. Load warmest fruit first. The cooling at the refrigeration end of the container is better than at the door-end.
2. If possible the apples should not be packed in plastic bags.
3. Insert temperature recorders (e.g. TempTales) or preferably the new generation 'real time' recorders such as MOST or Sensitech Geo.
4. Use void plugs or other material to cover the open floor area of the container at the door-end. That is to improve airflow at the door-end.
5. If possible use gensets for the trip to the port, especially if the traveling time to the terminal exceeds 2 hours.
6. Avoid hot daytime trips to the port.
7. Make use of all the stack days in the terminal. The sooner the fruit is under cooling the better. Long queues at the terminal gate on the last day of stack can lead so serious delays in containers being plugged-in.
8. Book containers at a lower set point (-1.0°C except for special temperature sensitive apple cultivars)
9. Get quality feedback from overseas discharge.

## Insurance requirements for Packhouses

Contact: Koos Bouwer

The PAG is still receiving enquiries regarding packhouse insurance. Since each packhouse has its own circumstances and levels of fire protection, there is no "one solution fits all" that can be offered as a solution at this stage. Insurers are clamping down to mitigate their risks and that insurance funding is scarce and expensive (globally) due to recent fire

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losses.

The Packhouse Action Group has met with brokers and insurers and some of the uncertainties regarding the latest fire protection standards have been resolved. Unfortunately, each packhouse will have to conform to certain standards to be able to obtain fire insurance in future.

It is advised that a fire assessment be done at the packhouse and that an implementation plan is drafted for the implementation of shortcomings. This plan can then be used to negotiate interim solutions with the insurance broker during the phase-in period.

## **Moratorium on High-Cube Containers**

Contact: Andy Connell

Feedback to date:

- No minutes available from both task team meetings
- Reviewing of the Terms of Reference was done and agreed upon during the previous meeting with a copy provided to the Department of Transport for their rubber stamp – No official document was circulated to task team members.
- No clear indication or transparency on the acquirement of a service provider to conduct the research.
- No clear official timeline set and documented for the task team workgroup activities (as agreed in the meetings).

Industry is not confident that the research will be concluded by the June deadline set by the Minister.

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## Revised steri market protocols for newer cultivars

Contact: Henk Griessel

One trial has been conducted on Cripps' Red at a shipping temperature of 1°C, and will be followed by 2 further trials.

### Nigeria

Shipping permits to Nigeria are being reviewed. Normal permits do not require cold steri requirements. Therefore, exporters should ask their importers to supply normal permits.

## Plastics

Contact: Bryce McIntyre

Retailers each have their own deadlines for the removal of single-use plastic. A work group across fruit kinds will be established to co-ordinate new packaging development and communicate changes to Industry.

- Polypropylene trays can be replaced by pulp or paper board trays.
- Plastic bags can be replaced by corn starch bags (MK 6) or high density polyethylene (HDPE) bags.
- It was important that bag manufacturers identify the components of bags to indicate their recyclability.
- New bag types should be printable to enhance traceability.

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## Packhouse and Quality Benchmarking

Contact: Dawid Malan

### Status - Packhouse Benchmarking:

- Q4 of 2018 done
- 11 Packhouses participating, which includes 20 packing lines

### Status - Packhouse Quality Benchmarking:

- Pilot group of 4 x packhouses participating
- Agree list of defects on variety – Golden Delicious
- 2018 data on Golden Delicious will be tested on model
- ID/agree on apple varieties - Granny Smith, Royal Gala, Pink Lady, Fuji, Braeburn and Red Delicious clones as a group for all red types (Top Red, Starking etc)
- ID/agree on pear varieties- Packham's Triumph, Forelle, Abate Fetel
- Each packhouse will identify the 10 most important defects per variety

Data of the 10 defects will be sent to Productivity SA and from this the final list per variety will be compiled.

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## PAG Disciplines and Coordinators

Please contact the relevant person if you have any queries regarding the PAG.

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