

Best Practice Guidelines: Summer pears

1. Cultivars:

- Flamingo, Rosemarie, Cheeky, Bon Rouge, Williams Bon Chretien, Early Bon Chretien and Celina

2. Harvest maturity:

- Firmness is the main maturity indicator when it comes to pears. Use DALRRD's regulation as a guideline.
- Add 0.9 kg (2 pounds) to the minimum firmness to lower the risk of overmature fruit coming into the packhouse.
- Use own discretion to start harvesting – pears close to the maximum of the “firmness window” tend to be very susceptible to developing rub marks through the handling chain.
- Don't forget about your market's TSS requirements.

3. Harvest

- Cover the bins with wet blankets during transport from the orchard to bin off-loading area.
- All fruit should be transported from the orchard to the packhouse (cold store) on the same day.
- Insert thermocouples to measure the core temperature of the bins during the cooldown period.

4. Fruit receiving

- Measure the temperature of incoming fruit.
- If fruit are packed wet – do not drench at fruit receiving.
- If fruit are packed dry – drench at fruit receiving.
 - Chlorine drench @ 100ppm.
 - Test chlorine concentration every 200 bins to ensure effective treatment.

5. Fruit cooling before packing:

- Room set point: -1.0 °C DAT.
- Stick to your room's designed cooling capacity.
 - If its 200 bins per day, don't load it with 300, rather put the last 100 in another room.
 - Keep loadshedding in mind – this will have a negative affect on your cooling capacity.
- Keep fruit in the cold room for 48 hours before packing.
- Measure fruit temperature to determine if the fruit has been cooled to below 0 °C.
- The next day's fruit must be kept in a separate room.

6. Packing:

- Fruit with a temperature above +2.0 °C should not be packed.
- When packing wet, maintain a chlorine concentration of 100ppm.
- Generally, pack in 20-micron bags.
- Temperature after packing, palletizing and inspection should be kept below 12 °C.

- Timeous inspection by PPECB should help to maintain the cold chain.

7. Re-cooling:

- Forced air cooling (FAC) after packing is non-negotiable.
- FAC @ -2.0 °C. After 24 hours rotate pallets in tunnels 180 degrees – the inside wall will now be on the outside wall of the tunnel.
- Final fruit temperature of -0.5 °C should be reached within 48 hours after packing.

8. Load out:

- Load pallets directly into the shipping container – don't let it stand outside.
- Container temperature set point between -0.5 to -1.5 °C.
 - Thicker bag = lower set point
 - Thinner bag = warmer set point
 - 37-micron bag ideally @ -1.0 °C
- DP1: Minus 1.0 °C (summer pears in bags only)
 - Carry at minus 1°C for the full duration of the voyage. Closed Vents.
- DP2: Minus 1.5 °C (summer pears in bags only)
 - Carry at minus 1°C for the full duration of the voyage. Closed Vents.
- D05: Minus 0.5 °C (summer pears without bags)
 - Carry at minus 0.5°C for the full duration of the voyage. Closed Vents.

(PPECB HP22 Carrying Temperature Regime Codes of Perishable Produce)