

Nectarine

Crystal

2022



AIM OF THE STUDY:

WHAT IS THE IMPACT OF HDCOLD® TECHNOLOGY ON THE STORAGE QUALITY OF NECTARINES COMPARED TO A STANDARD COLD ROOM?

Current practice^{1,2}:

- Recommended storage:
 - 0-2°C
 - 90-95 % RH
 - Up to 2 weeks
- Maturity at harvest:
 - 4-6 kg / 0,5 cm² (flesh firmness)

HDCold® technology:

- Cold system which maintain natural relative humidity at high levels (>98 %)
 - No addition of liquid water
 - Decrease of water loss, and therefore weight loss of the products
- Low temperature difference between the set point and the refrigerant:
 - Less hydric stress on the products
 - Less to no frost formation



RESULTS

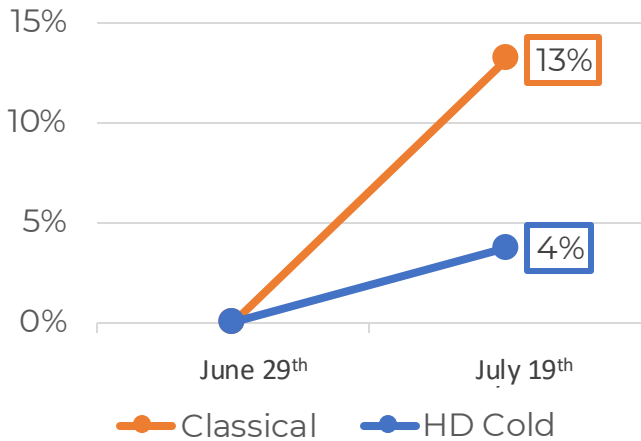
Harvest: 28 June 2022 (6,2 kg/0,5 cm²)

Packaging: wooden crate

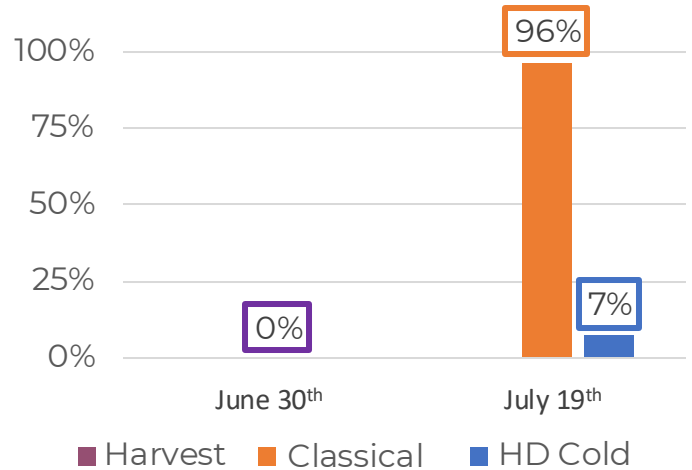
Classical cold room (2°C / unregulated RH)

HDCold® cold room (2°C / 98% RH)

Weight loss (%)



Wilting (% fruits affected)



Different degree of wilting between **Classical** vs. **HDCold®**



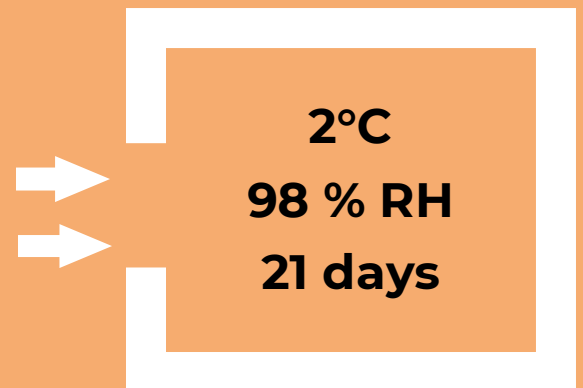
CONCLUSIONS

After 21 days of storage, the impact of the **HDCold® technology** was to:

- ✓ **Reduce weight loss by 3**
- ✓ **Delay wilting occurrence**
(2 out of 28 fruits wilted, compared to 27 out of 28 in classical cold room)

In **both storages**, there were **no significant difference** in **sugar content**, **titrable acidity** or **fungal development** (no occurrence).

RECOMMENDATIONS



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