Heirloom tomatoes

Beefsteak

2025

AIM OF THE STUDY:

WHAT IMPACT DOES HDCOLD® TECHNOLOGY HAVE ON THE PRESERVATION OF HEIRLOOM TOMATOES QUALITY COMPARED TO STANDARD COLD ROOMS?

Current practice:

- Recommended storage conditions: + 10-12°C / > 90% RH / no ethylene
- Some heterogeneity in storage conditions depending on storage and transport locations (temperature/humidity)[1]

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

[1] Desnoues E. and Duret S., 2024. Le froid dans le circuit logistique, quel impact sur la qualité des tomates ? 22 pp.

[2] Suslow T. V. and Cantwell M., 1997. Produce fact sheets: Tomato. https://postharvest.ucdavis.edu/produce-facts-sheets/tomato (consulté le 19/02/2026)

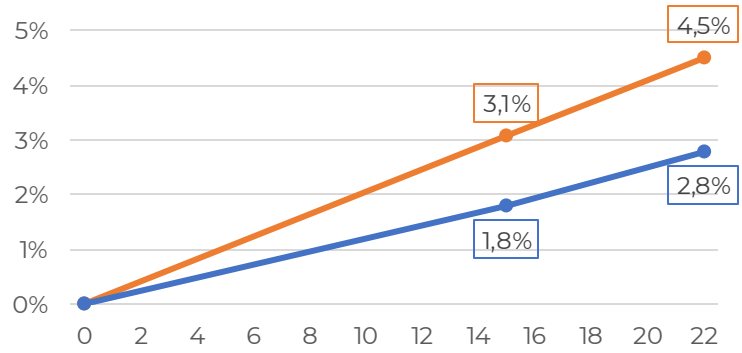
Pour la conservation du vivant.

RESULTS

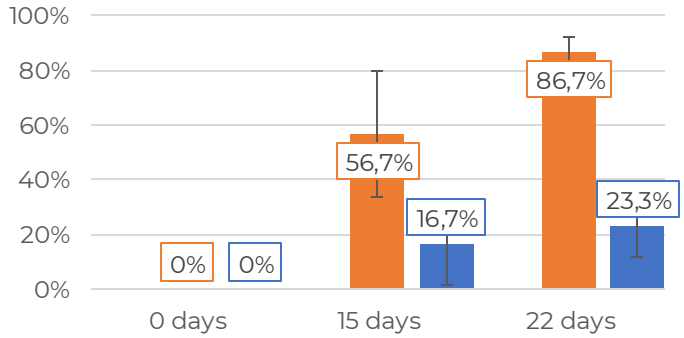
Harvest: August 4, 2025 (Southwest France) **Packaging**: Cardboard box

Classical cold room (11.7°C / 67% RH) **HDCold® cold room** (12.6°C / 90% RH)

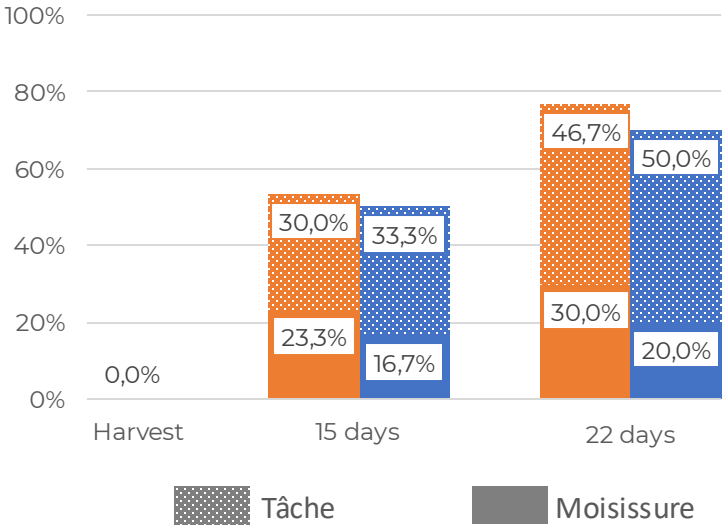
Net weight loss (%)



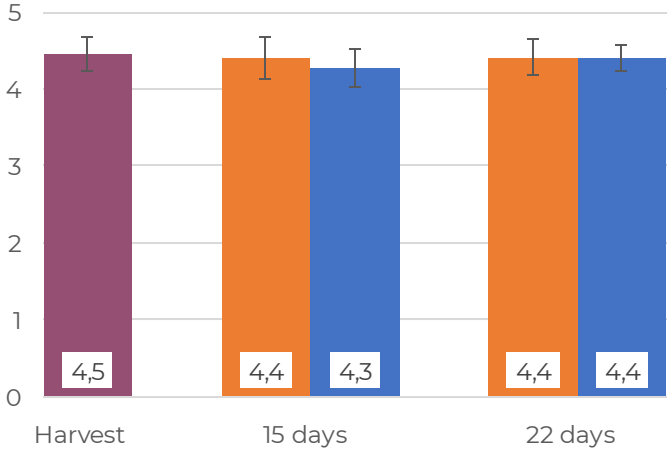
Wilting (% wilted)



Storage disorders (% affected)



Sugar content (°Bx)



CONCLUSIONS

Based on the results of this trial, HDCold technology® :

- ✓ **Reduces net weight loss during storage**
- ✓ **Significantly slows down the onset of wilting**

- **Has no major impact on storage disorders, skin hardness, sugar content, or titratable acidity in tomatoes**

RECOMMENDATIONS

+ 12°C

> 90 % RH

D P K L

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