

# Green zucchini

2025



## AIM OF THE STUDY:

WHAT IS THE IMPACT OF THE HDCOLD® TECHNOLOGY ON THE STORAGE QUALITY OF GREEN ZUCCHINIS, OR COURGETTES, COMPARED TO STANDARD COLD ROOMS?

### Current practice<sup>1,2</sup>:

- Recommended storage at 7–10°C and 90–95% relative humidity
- Up to 2 weeks
- Frequent and significant problem of zucchini dehydration after harvest

### 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



<sup>1</sup> University of California, « Courgette | Postharvest Research and Extension Center ».

<https://postharvest.ucdavis.edu/fr/produce-facts-sheets/courgette>

<sup>2</sup> CTIFL, « Fiches techniques Agréage - Courgette », 2025.

<https://agreage.ctifl.fr/fiche/legumes/COURGETTE>

# RESULTS

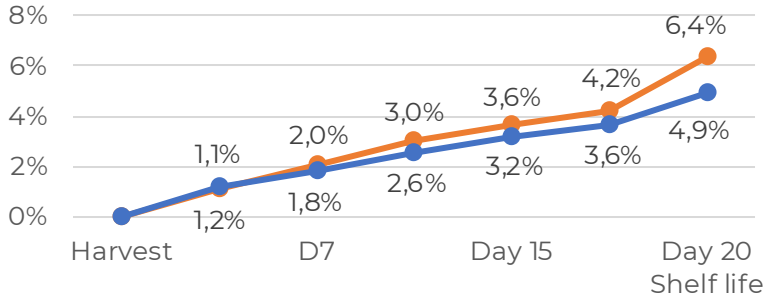
Date of storage: 07/08/2025

Packaging: plastic crate

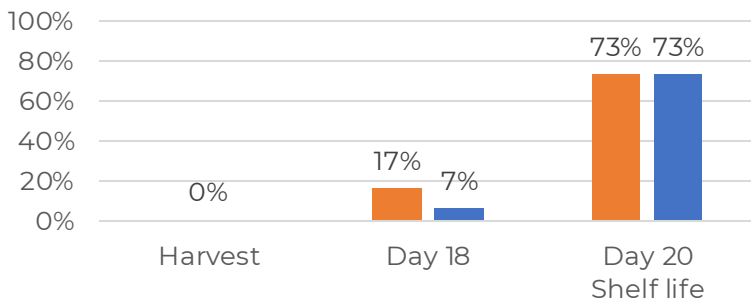
**Classical cold room** (10°C, unregulated RH)

**HDCold® cold room** (10°C, 98% RH)

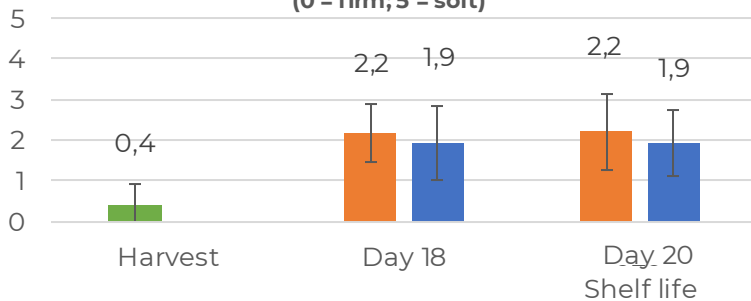
## Weight loss (%)



## Wilting (%)



## Manual firmness (0 = firm; 5 = soft)



## Appearance at harvest



## Appearance after 18 days in standard cold room + 2 days at 20°C



## Appearance after 18 days in HDCold® cold room + 2 days at 20°C



## CONCLUSIONS

According to the results of this trial, the **HDCold® technology** on green zucchinis:

- ✓ **Reduces weight loss** by 15% after cold storage, and by up to 25% after 2 days at room temperature;
- ✓ **Delays wilting** in cold storage;
- ✓ **Maintains higher firmness;**
- Fungal growth on the stem end is similar between both types of cold rooms (to be confirmed in future trials).



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