

A Comparative Study on Mini Cucumber Shelf Life in Different Packaging Formats

An independent shelf study was conducted by a third-party research institute to test and compare the shelf life of mini cucumbers in **four distinct packaging formats**. The key objective was to evaluate if the GrowPack Anti Fog Shrink film provided better attributes in terms of appearance, texture, and weight loss over other packing formats for the mini cucumbers.

Packaging Variations

- 5 packages, each containing 6 Mini Cucumbers wrapped in **GrowPack Anti Fog Shrink film with no tray**.
- 5 Packages, each containing 6 Mini Cucumbers wrapped in **PVC film on a foam tray**.
- 5 Packages, each containing 6 Mini Cucumbers wrapped in **PVC film on an rPET tray**.
- 5 Packages, each containing 6 Mini Cucumbers wrapped in **PVC film on a fiber tray**.

Methodology

Mini cucumbers were packaged in the configurations mentioned above and monitored for appearance, texture, and weight loss at eight-time intervals (initial, 1, 1.5, 2, 2.5, 3, 3.5, and 4 weeks). The target shelf life was 3 weeks.

Results

Weight Loss: Mini cucumbers in PVC films on Foam trays, rPET trays, and fiber trays lost approximately 3 times more weight per day than those in GrowPack Anti Fog Shrink film.

Appearance:

- After two and a half weeks, cucumbers in PVC film on rPET and fiber trays showed yellowing at the tips.
- By week four, the cucumbers in these trays were very light green with large yellow patches.
- Cucumbers in GrowPack Anti Fog Shrink film with no trays and PVC film on foam trays started yellowing at the tips at three weeks and were lighter green with some streaks of yellow by week four.
- Cucumbers in the PVC film on foam trays, rPET trays, and fiber trays were less firm and slightly spongy in texture by week four, while those wrapped in GrowPack Anti Fog Shrink film with no tray remained firm.

Conclusion

This independent study suggests that the GrowPack Anti Fog Shrink film with no tray performed better in terms of weight loss and texture compared to the other packaging variations. In terms of appearance, cucumbers in the GrowPack Anti Fog Shrink film with no tray were similar to those in PVC film on foam trays and better than those in PVC film on rPET trays and fiber trays. These findings may favor the use of GrowPack Anti Fog Shrink film for packaging mini cucumbers in similar scenarios.

Week 4 Results



PVC film on a fiber tray



PVC film on an rPET tray



PVC film on a foam tray



GrowPack Anti Fog Shrink film with no tray