

impact of the cold chain



PERISHABLES GROUP®
Keeping Your Business Fresh®

www.perishablesgroup.com



Background

The Mushroom Council asked the Perishables Group (PG) to help them understand the impact of the cold chain on mushroom quality.

Approach

PG collected information about mushroom quality at three retail chains to measure the impact of proper refrigeration on mushroom shelf life. Each chain used a different distribution method: direct store delivery, shipment to stores via retailer-controlled trucking and shipment via independent trucking.

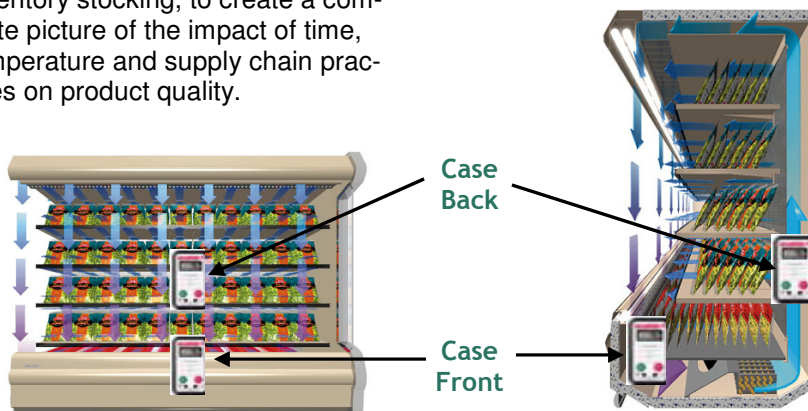
The Perishables Group used devices to measure the time mushrooms were in the supply chain as well the temperature of the product throughout the supply chain, from farm to store-level display cases. That information was integrated with observed store handling/merchandising practices, such as ordering, back-room handling and inventory stocking, to create a complete picture of the impact of time, temperature and supply chain practices on product quality.

Results

There were extreme variations in temperature across the three chains studied that negatively impacted quality.

The temperature recorders documented that most refrigeration display units were set too high to maintain mushroom quality or prevent additional product degeneration. Additionally, retail practices, (store inventory, ordering and re-supply frequency, product rotation) all played a significant role in influencing mushroom quality based on total days in channel and accumulated temperatures.

The Perishables Group used the learnings from the supply chain study, including photos of ideal product as well as product that should be removed from display, and created an in-store handling guide and back-room poster for the trade. The pieces were distributed to mushroom suppliers who then shared them with customers.



Temperature information was integrated with observed store handling/merchandising practices to create a complete picture of the impact of time, temperature and supply chain practices on product quality