

# DRY BULB ONION STORAGE IN STERILIZED PLASTIC CRATES COMPARED TO STORAGE IN OLD WOODEN BOXES

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## **Abstract**

As part of the Food Safety Modernization Act (FSMA), the U.S. Food and Drug Administration (FDA) has proposed that plastic totes will be substituted for wooden bins for the storage of produce, including dry bulb onions. A replicated study was conducted to compare the roles of wooden and plastic storage containers on contamination of onion bulbs with *Escherichia coli*. Onions from five replicated furrow-irrigated plots using water containing 55.4 to greater than 2,420 MPN (most probable number) *E. coli* /100 ml were harvested and placed in 10 old wooden boxes and 10 sterilized plastic crates. Onions from five replicated drip-irrigated plots using water with 0 MPN *E. coli* /100 ml were harvested and placed in 10 old wooden boxes and 10 sterilized plastic crates. Onions prepared for shipment through removal of loose skin, roots and soil tended to not have *E. coli* on the bulb exteriors or interiors, regardless of storage container. Traces of *E. coli* on a few of the onion skins did not appear to be related to the storage containers or irrigation water source, as these traces in exterior samples were found in association with onions grown with both types of irrigation and stored in both types of containers.

**The remainder of this report will be posted soon.**