



Guide to Minimize Microbial Food Safety Hazards for Fresh Fruits and Vegetables

Guidance for Industry:

VIII. TRANSPORTATION

The proper transport of fresh produce from farm to market will help reduce the potential for microbial contamination.

Operators and others involved in the transport of fresh produce are encouraged to scrutinize product transportation at each level in the system, which includes transportation from the field to the cooler, packing facility, and on to distribution and wholesale terminal markets or retail centers. The proper transport of fresh produce helps reduce the potential for microbial contamination. An active and ongoing discussion with personnel responsible for transportation is essential for ensuring the success of any management program designed to deliver safe foods to the consumer.

A. Microbial Hazard

Microbial cross-contamination from other foods and nonfood sources and contaminated surfaces may occur during loading, unloading, storage, and transportation operations.

B. Control of Potential Hazards

Wherever produce is transported and handled, the sanitation conditions should be evaluated. Transporters should separate fresh produce from other food and nonfood sources of pathogens in order to prevent contamination of the produce during transport operations.

1.0 General Considerations

- **Workers involved in the loading and unloading of fresh produce during transport should practice good hygiene and sanitation practices.**

See Section IV for more information about good hygienic practices.

- **Product inspectors, buyers, and other visitors should comply with established hygienic practices, such as thoroughly washing their hands before inspecting produce.**

2.0 General Transport Considerations

Growers, packers, shippers, brokers, exporters, importers, retailers, wholesalers and others involved in the transport of fresh produce should help ensure that sanitation requirements for trucks or other carriers are met at the different steps within the transportation chain. Some specifics to consider are:

- **Inspect trucks or transport cartons for cleanliness, odors, obvious dirt or debris before beginning the loading process.**
- **Keep transportation vehicles clean to help reduce the risk of microbial contamination of fresh produce.**

Operators should be aware of prior loads carried in a transport vehicle and take this information into consideration when determining use of a vehicle. Trucks that were recently used to transport animals or animal products, for example, would increase the risk of contaminating fresh produce if the trucks were not cleaned before loading produce. Consult local or state agencies or universities to determine the most appropriate cleaning and sanitization methods for individual operations.

- **Maintain proper temperatures to help ensure both the quality and safety of fresh produce.**

Operators should work with transporters to ensure adequate control of transport temperatures from the loading dock to the receiving dock. Transporters should be aware of temperature requirements for produce being hauled and avoid delivery of mixed loads with incompatible refrigeration requirements.

- **Load produce in trucks or transport cartons in a manner that will minimize damage.**

All fresh produce should be carefully loaded in trucks or transport cartons in a manner designed to minimize physical damage to the produce and to reduce the potential for contamination during transport. Produce should also be loaded so as to allow proper refrigerated air circulation.