



IMPROVED PACKAGING for VEGETABLES

CHALLENGES

Poor quality containers such as wood crates with rough interiors will bruise and damage vegetables. Up to 40% of the tomatoes packed in wood crates can be damaged and will have to be discarded or sold at a lower price. This damage can be reduced by using:

- plastic crates
- small-size crates
- lining in wooden crates

Handle and pack vegetables carefully -- they are perishable and easily damaged. To supply good quality vegetables, pack in good quality containers to protect from damage and deterioration during storage and transportation. Good quality packaging reduces postharvest losses and improves income.

REQUIREMENTS FOR PACKAGING

Packages should immobilize the contents, provide protection from impact damage, and provide cushioning. The packaging should contain the vegetables to make them easier to handle and transport.

Packaging should be attractive and easy to clean.

PACKAGING RECOMMENDATIONS

Plastic crates

Plastic crates are lighter and easier to keep clean. Using nesting plastic crates that fit into each other when they are empty can reduce transport costs for empty containers being delivered to the farm. Plastic crates reduce the level of damage to produce compared to standard wood crates.



Type of Container	Damage to tomato fruit (%)
Standard Wood Crate	52.4
Plastic Crate	22.7

Smaller size crates

It is preferable to use smaller size crates that are not too deep so that fruit at the bottom of the container is not squashed. It is preferable to use crates that have a depth of 20 cm up to a maximum of 30 cm.



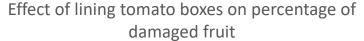
Smaller, shallow wood crates reduce damage of fruit at the bottom. Raised edges prevent the contents from being squashed by crates on top.



Wood crate with paper lining can reduce damage to produce stored in it. (below)

Lining wooden crates

Use a suitable lining material such as paper or woven polypropylene material. Perforated lining is preferable to allow ventilation. Lining material can reduce damage to tomatoes packed in wood crates by 7 – 18 percent.





World Vegetable Center

Eastern and Southern Africa P.O. Box 10 Duluti Arusha, Tanzania

Tel: +255 (27) 255-3102/3093 Fax: +255 (27) 255-3125 avrdc.org

ACKNOWLEDGEMENT

Financial support is provided by the Bureau for Food Security, U.S. Agency for International Development (USAID), under the terms of Award No. AID-BFS-IO-12-00004.

All opinions expressed in this technology brochure do not necessarily reflect the views of USAID.