

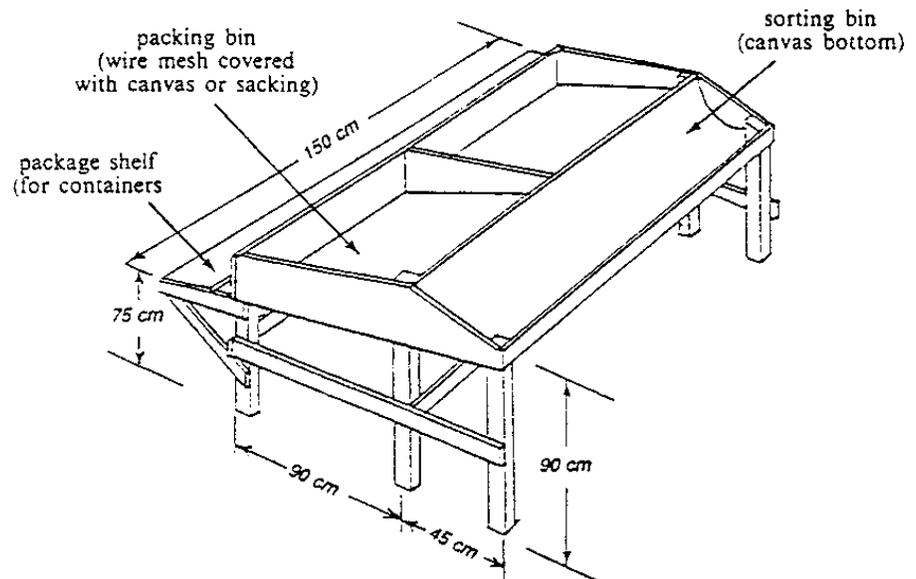
SORTING/GRADING/PACKING TABLE

Introduction: Many postharvest operations for fruits and vegetable crops in developing countries take place right on the ground in the field or on the floor of a packing shed. Whenever the crop is piled on the ground, it can become contaminated by soil or animal feces, and exposed to insect attack, fungal and bacterial plant pathogens. These contaminants can lead to higher postharvest losses, quality declines and food safety problems.

To reduce these problems, a simple raised sorting/grading table should be used for packing produce near the place of harvest in a shaded packing shed or inside a packinghouse.

Design Options & Materials Needed

Stationary sorting/grading/packing table: This large wooden table has a sorting bin and two packing areas.



Incoming produce is placed into a soft bottomed sorting bin, where it can be sorted or graded by one worker into the two sloped packing bins. The bins are lined with soft canvas or vinyl cloth to protect the produce from abrasions and bruises. A shelf for empty packages is attached to the edge of the other side of the table, within easy reach for the second worker, who can then pack the sorted produce into two separate packages. This table could be made with three packing bins if three categories are needed for preparing a specific crop for market. Source of illustration: FAO. 1986.

Costs and benefits

The cost of a 2 meter long table as illustrated is approximately US\$100 for materials (strong wood for legs and framing, medium weight plywood cut to shape to construct the bins, 2 long boards for the shelf, wood screws and a 4m length of heavy vinyl cloth).

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If the typical 20% damage caused by field and packing operations that take place on the ground is reduced to 5% damage when using the raised table, a 100% return of investment can be expected with the first use.

Example: Improved Handling and Packing of 1000kg of Guava fruits

	With use of a sorting/grading/packing table	Traditional handling on the ground in the orchard
Costs	\$100	\$0
Benefits	5% of the fruits are damaged	20% of the fruits are damaged
Value per kg	95% High quality \$1.00 per kg 5% Poor quality \$0.30 per kg	80% High quality \$1.00 per kg 20% Poor quality \$0.30 per kg
Total market value	\$965	\$860

Each subsequent use of the table will result in a further \$105 profit compared to traditional handling and packing of guava in the orchard.

References cited

Source: FAO. 1986. Improvement of Post-Harvest Fresh Fruits and Vegetables Handling- A Manual. Bangkok: UNFAO Regional Office for Asia and the Pacific.

For further information

Small-scale postharvest handling practices: A manual for horticultural crops (Chapters 1 and 3; 5th edition 2015) http://ucanr.edu/sites/Postharvest_Technology_Center_/files/231952.pdf

Postharvest Technology Center (UC Davis) <http://postharvest.ucdavis.edu>

The Postharvest Education Foundation <http://www.postharvest.org>

Postharvest Innovations LLC <http://www.postharvestinnovations.com>

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