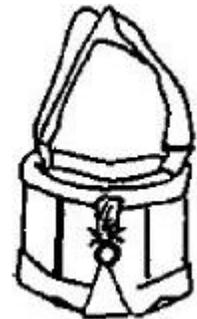


HARVESTING BAGS

Introduction: Often when crops are picked during the being harvest, workers will drop or throw the fruits or vegetables into piles on the ground or into large containers left at the ends of the rows. Many times produce is bruised or punctured by rough handling after harvest. Gentle harvesting and handling after harvest will help reduce mechanical damage and injuries to fresh produce, which will help maintain quality and extend shelf life.

The use of picking sacks or harvesting bags that can be comfortably worn by the harvesters can help to reduce the dropping and throwing of produce. Typically the bags are worn on shoulder straps, and after being filled, can be let open at the bottom to allow produce to flow gently from the bag into a waiting container. Bags can be small (for delicate crops like okra or peas), medium size (for harvesting crops such as peppers, tomatoes or cucumbers) or large (for citrus crops).

Several companies sell readymade harvesting bags, but it is simple to make your own bag, using sturdy canvas, a plastic tarp or heavy nylon fabric and a few straps, hooks, buckles or large buttons.



Design Options & Materials Needed:

About 2 meters (2 yards) of heavy canvas, vinyl or nylon fabric, sewn into a strong bag left open on both ends.

Stiff piece of tubing to hold bag open at waist level (sewn into a band around the outside top of the bag)

Strapping to make shoulder harnesses or a belt style strap for attachment at waist level (see the illustrations above for a variety of designs and styles)

One or two large rings or buttons attached to the bottom of the bag at center point or on two sides

Two loops or hooks attached at each side of the top outside edge of the bag

If you have a tool that sets large grommets in cloth, you can substitute laces for any buttons, rings or hooks.

Costs & Benefits

Costs: Harvesting bags cost about \$25 to \$60 each when purchased readymade, but they can be constructed using heavy fabric, thick strapping and a few rings and hooks for \$10 to \$15 each.

Postharvest Innovations Plan Series

Number 3

Low cost, small-scale practices for reducing postharvest food losses

Nov 2017

Benefits: Reducing damage and postharvest losses from a typical 15% when roughly handling crops at harvest to less than 5% can provide a boost in potential income. The following examples provide a range of benefits depending upon market value of the crop, for a 1000 kg load.

Crop	Market value per kg	Value when 15% is damaged during a typical rough harvest and is discarded in the packinghouse during sorting/packing	Value when packing bags are used and only 5% is damaged during harvest and is discarded in the packinghouse during sorting/packing	Potential increase in income per load
Okra	\$0.50	\$425	\$475	\$50
Chili peppers	\$1.00	\$850	\$950	\$100
Mangoes	\$2.00	\$1700	\$1900	\$200

If the cost of a harvesting bag is \$25, the investment in 2 bags will be repaid immediately after use with one load of 1000 kg of produce, even when the price is low, and with each subsequent use an extra profit of \$50 is generated. When the market price of the produce being harvested is higher, an immediate profit is obtained from the first day of use.

HARVESTING BAGS

Sources of readymade harvesting bags

Frostproof.com <http://www.frostproof.com/catalog/ha03.html>

Harris Seeds Company <http://www.harriseseeds.com/storefront/p-13623-harvest-bag-1-bushel.aspx>

DuroKon <http://www.durokon.com/fruit-picking-bags-buckets-pails-totes>

For further information

Small-scale postharvest handling practices: A manual for horticultural crops (Chapter 1; 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>

Citation: PI LLC (2017). PI Plan Series 3: Harvesting bags. Postharvest Innovations LLC. 2 pp.