

Low cost ware store holds upto 6 tons (120bags 50 kg bags) of 50kg).

Rules Guiding Ware Potato Storage:

- Clean and disinfect store each season before bringing in new ware potato stock.
- Pour and spread the harvested tubers in a holding area at normal room temperature to allow the openings on the skin to heal (natural ventilation) for 14 days
- Sort to remove plant materials, soil, stones and leave tubers in holding area under shade.
- Grade into different sizes according to market requirements.
- Pack the tubers into wooden crates and place them in the store.

Refrigerated Cold Storage for Storing Ware Potatoes



Potatoes can also be stored in a modern refrigerated store for up to 10 months.



Ware potato in crates stored in refrigerated store



SIMPLE WARE POTATO STORAGE STRUCTURE

Compiled by: Oyoo J.O., Ng'ang'a N.M., Nyongesa M.W., Otieno S., Pwaiswai P, Mbiyu M Esilaba, A.O. Nyongesa, D. Muriuki J.P. Nasirembe W and Sila M.

Editors: Nyabundi K.W., Mukundi K., Maina P., Wanyama H.N., Kibugi N.K.,

Design: Odipo S.N.

For further information, contact:

The Centre Director
 KALRO Horticulture Research Centre, Tigoni
 P O Box 338 -00217, Limuru
 Phone: 020 20 76915, 0727031783
 Email: kalro.tigoni@kalro.org

KALRO/NAVCDP/Brochure No. 166/2024



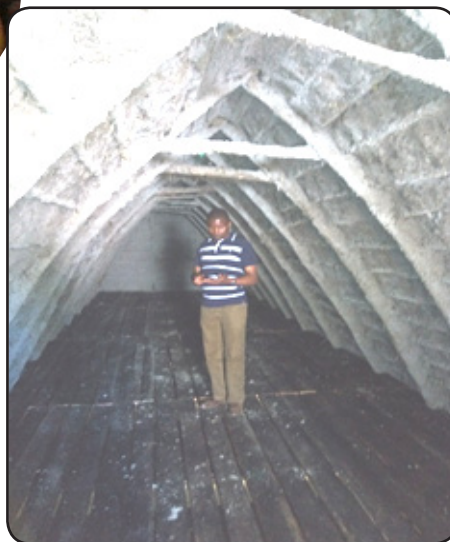


Ware potato refers to potatoes meant for consumption. The potatoes are in demand throughout the year and must be kept fresh. To avoid spoilage, they should be stored in a cool, dark and well-ventilated store. Standard potato ware stores are expensive to construct for small holder farmers, necessitating the need for alternative ways of constructing simple low-cost storage structures. These stores should preferably be grass-thatched with walls made of bricks or wood and covered with iron sheets to protect from rainfall and direct sunshine.

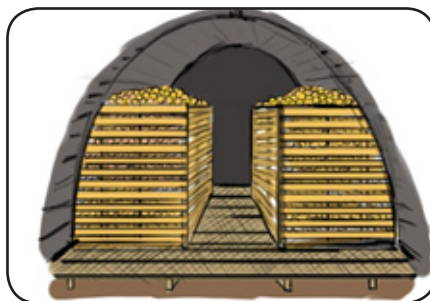
The low-cost structure is made from locally available material such as grass, charcoal, wood or mud. This Low-cost potato ware store works by natural ventilation. During construction, openings are made on the roof and on the lower sides of the walls. Cooler and denser air from outside enters the store through the openings at the bottom of the store floor and flows through the stored potatoes resulting in a cooling effect. As the cooler and denser air flows over the potatoes, it gets heated by the warm air generated from respiration of potatoes and moves upwards, escaping through the openings in the roof. More cooler air enters the store and continues to keep the potato store cool.

It is advisable that during harvesting, potatoes should not be spread on the floor but on raised surface preferably wooden one. It is also recommended not to store potatoes in bags but in wooden crates or raised wooden surface.

The low-cost ware store has the potential to keep potatoes in good condition for up to four months, depending on the variety and region.



Inside of the low-cost ware potato Store



Ware potato crate

Why Store Ware Potatoes

- Ensure a steady supply of potatoes to the market.
- Maintain potato quality for longer periods and benefit from steady market prices that accompany periods of oversupply.
- Enhance food security for the farming community.
- The store should be dark and temperatures should be maintained at 14° C or below.
- The store should have ventilators and a door that are opened every night to allow the accumulated carbon dioxide and heat generated by the potatoes to escape while letting in cool night air from outside.

How to Construct a Low-Cost Ware Potato Store

- Construct a store measuring 5 by 4 by 3.5 m using local materials or concrete walls.
- The floor can be cemented or compacted to make it even and easy to maintain.
- Paint a concrete-walled store with whitewash to reflect light and keep the inside of the store cool.
- A mud or charcoal-walled store does not require painting.
- Install a window or air extractor for ventilation is installed high on the wall or on the roof.
- Provide a bottom flap to allow cool night air to flow in.

