- Handle the tubers with care to minimize bruising

Postharvest care

- Sorting and Grading
  - Remove rotting or damaged tubers
  - Some selected outlets require that tubers are graded into pre-agreed upon sizes
- Tuber curing is a vital process that involves the self-healing of wounds, cuts, and bruises on tubers. This process is crucial as it helps to minimize water loss, which can lead to shriveling and ultimately impact the successful marketing of tubers.

Conditions required for curing

Temperature °C	Relative humidity (%)	Number of days required
15-20	85-90	10 - 14

Potato tubers can then be sold off or put into storage.

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REPUBLIC OF KENYA

KALRO Kenya Agricultural & Livestock Research Organization

NAVCDP National Agricultural Value Chain Development Project

Post-harvest Management of Potatoes

Introduction

Postharvest management of potatoes is essential for enhancing productivity and nutritional quality of tubers while reducing losses caused by pests, diseases, and environmental factors. Potato is the second most important food crop after maize but poor postharvest handling results in losses that are estimated at 30%, as well as low quality tubers with a limited shelf-life. Effective postharvest management ensures that tubers harvested are of good quality and that they retain this quality as much as possible. Proper crop management practices, harvesting, transportation, and storage are crucial components of this process.

Crop management practices:

- The correct amount and type of fertilizer should be applied, and proper irrigation should be carried out. This ensures that tubers grow evenly maintaining their proper shape and they do not develop a hollow heart or hole inside.
- Proper hilling up of potato plants is essential to prevent tubers from being exposed to sunlight. This exposure leads to the accumulation of chlorophyll in the tubers, causing them to turn green.
- Correct disease management ensures that tubers are not infected with diseases that spread from the foliage to the tubers, like tuber blight from excessive late blight.
- Remove the above ground greenery through dehaulming or let the foliage dry out on its own. Leave tubers in the ground for a fortnight so that their skins will mature and become firm. The intact skin ensures minimal damage from pests and diseases, resulting in an attractive potato with a longer shelf life and an enhanced market appeal.

Harvesting process

- Harvesting should be dome when the soil is neither too wet or too dry
- When the soil is too wet, infections from rots are more likely to occur, and muddy tubers do not attract buyers.
- When the soil is too dry it tends to be compact or hard and this increase incidences of tuber damage and bruising

Hand harvesting tools

- Farmers have the option to use hoes, jembes, or special sticks for harvesting. While hoes are commonly used due to their efficiency in speeding up the harvesting process, they also cause higher levels of damage to the tubers compared to using a stick with a hook or bend in it.

a jembe

a hoe

a stick with hook or bend

Mechanized harvesting

- Simple mechanized equipment can be used or the farmer can hire a tractor with the harvestor from the Agriculture Mechanization Services (AMS) in some counties (Eldoret, Nyandarua, Nandi) or from mechanization service providers
- Mechanized harvesting requires farmer to have planted using a planter (not people) due to spacing specifications.

A mechanized harvester

A tractor with the harvester

Handling of harvested tubers

- Tubers should be covered or collected and transported to the store as soon as possible to avoid exposure to the sun which can cause heat injuries or scalding