Figure 6:
Leaves from plants infected with virus often show bumps, are lighter than normal or stunted.

Production and marketing of undamaged roots

- Cut the vines (1-2 weeks before harvesting) to about 15 cm; this allows the skin of the root to harden in the ground before harvesting for longer storage.
- Avoid cutting the roots during harvesting as damaged roots are likely to rot and can be stored for only a few days.
- Sort out the roots based on shape, colour and size.
- Cover the roots with planting materials to protect them against direct sunshine which can cause the roots to shrink.
- Remove soil from the roots carefully after harvesting.
- Avoid using extended bags and handle with care during transportation to reduce root damage.
- Store the roots in a dark, cool place.
- It is best to sell when fewer sweetpotatoes are in the market to maximize profits, surplus can therefore be stored as fresh roots.

Fresh root storage

- Construct a 1 m x 1 m x 1 m pit in a site which will stay dry.
- Select clean medium sized undamaged roots.
- Line the pit with dry grass to keep it free from dampness.
- Lay roots alternately with dry grass in the pit.
- Insert bamboo or hollow sticks to allow ventilation as shown.
- Cover the pit with a sloping thatched roof as shown to keep it cool and to prevent rain from getting into the pit.
- Storage duration 4-16 weeks.
- Inspect the pit every two weeks to check root quality and remove any damaged roots.

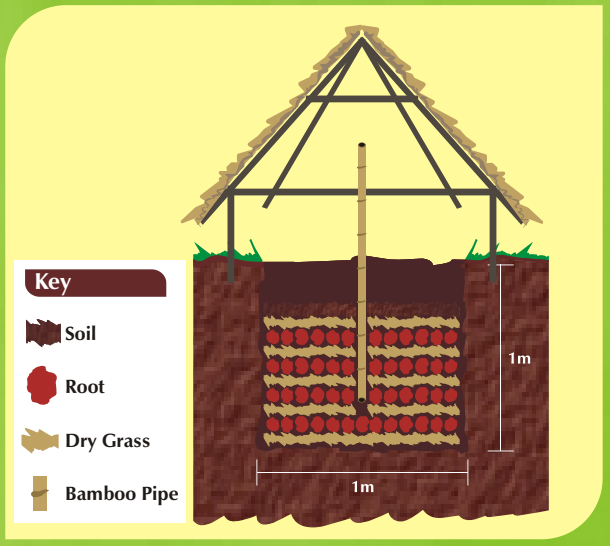

Figure 7:
Pit storage for fresh roots.

For more information:
Please contact your nearest
Kenya Agricultural Research Institute (KARI) Centro,
or Ministry of Agriculture Extension Staff in your area.

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Orange Fleshed SWEETPOTATO

Rich in Energy & Natural Vitamin A!

PRODUCTION of Quality Sweetpotato Roots for Sale

Features most desired by buyers

- Good taste and appearance.
- Medium size roots.
- Free from pest damage.
- Free from cuts and disease.
- Long storage period after harvest.

Selection of variety

Varieties differ in dry matter content which influences texture. Adults like varieties that have a high dry matter content that gives a floury texture while children prefer varieties with lower dry matter content. Low dry matter varieties are also good for making processed products. Many Kenyans prefer red skinned to white-skinned varieties.

Orange fleshed sweet potatoes are rich in beta-carotene which is converted by the body to Vitamin A. Vitamin A is essential for good health and good vision. A deeper orange colour means that there is more beta-carotene (Figures 1and 2)

Production of medium-sized roots

- Plant when there will be sufficient moisture in the soil for the first two months of growth to ensure good establishment and good initial root formation.
- Cuttings from the tip of the plant that are 25-30 cm long are the most suitable for planting.
- Up to two-thirds of total length of cuttings should be buried in the ground.
- When planting in pure stands the mounds, ridges or rows should be 70-100 cm apart.
- Plant 1 vine per hole and 30 cm apart along the ridges.

Figure 1:
Vitaa (SPK004/6)

Figure 2:
Kabode (SPK004/4/6)

Figure 3:
The sweetpotato weevil.

Vine lifting

This is recommended for varieties that spread, not for those that are erect. When the vine creeps and the soil is moist, very small roots grow from the nodes. These roots are not marketable. Water and nutrients supplied to these roots are wasted and result into marketable yield loss. This waste should be prevented by lifting vines so that roots growing on the stem nodes are cut off and will not continue to grow. The vines should not be turned over as this may cause the leaves to rot.

Production of roots free from pest damage and diseases

a) Major Pest: Weevil

Weevils (Figure 3) cause the holes that appear in harvested sweetpotatoes (Figure 4). Weevils cannot dig, so cracks in the soil are prevented by hilling up soil around the base of the plant.

Weevils lay eggs in older woody parts of the vine. It is therefore recommended that the top half of the vine is used as planting material to avoid weevils.

Figure 4:
Roots affected by sweetpotato weevil

Crop rotation is encouraged to prevent infection by weevils from a previous crop. New plants that sprout in an old field should be uprooted since they could be infected with weevils.

b) Major Disease: Viruses

Viruses can cause a very high yield loss and often result in the production of small roots that cannot be sold. Viruses are passed between plants by small flying insects known as whiteflies and aphids.

Figure 5:
Plants infected with virus (left), normal plants (right).

Plants infected with viruses are often smaller than normal (Figure 5) and have leaves that lack the normal green colour or have distorted shapes. Ensure that vines cut for a new planting are from young (2-3 months) healthy plants and that only the top part of the vine is used. Remove any diseased plants (Figure 6) as soon as they appear in young crops.

Plant a new crop away from the last season's sweetpotato crop to make it more difficult for the insects to transfer the virus from the old field to the new field.

If old vines have to be used to plant a new field, it is good to disinfect them with ash or chemicals, e.g. Carbofuran.