

Crop details

Categories

Sweet potato (viazi vitamu)

Roots & Tubers

Ipomoea batatas

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Family: Convolvulaceae

Quick stats

Family	Convolvulaceae
Typical harvest	17.0 t/ha
Varieties	3
Pests and diseases	6
Seasons	3

Crop profile

Growth habit	climber
Days to harvest	150
Main uses	Boiled, baked, fried roots, crisps, flour, animal feed and leafy vegetables from young tops.
Pollination	insect
Origin and where it grows	Sweet potato (viazi vitamu) is widely grown in warm lowland and mid-altitude areas, especially in regions with unreliable rainfall where it helps bridge hunger gaps.

Weather, soil and spacing

Best temperature	21 - 28 °C
Rainfall	700 - 1200 mm/yr
Altitude	0 - 2000 m
Best pH	5.5 - 6.5
Soil type	Loose, well-drained sandy loam or loam; Sweet potato (viazi vitamu) forms better, smoother roots in friable soils.
Row spacing	90 cm
Plant spacing	30 cm
Planting depth	5 cm
Seed rate	1500 kg/ha

Simple notes for farmers

**About the crop:** This crop has a growth habit described as "climber". Harvest typically starts about 150 days after planting.

**Main use:** Farmers mostly grow this crop for boiled, baked, fried roots, crisps, flour, animal feed and leafy vegetables from young tops..

**Pollination:** Mainly insect; healthy flowers and pollinators improve fruit set.

**Where it grows:** Sweet potato (viazi vitamu) is widely grown in warm lowland and mid-altitude areas, especially in regions with unreliable rainfall where it helps bridge hunger gaps.. Grouped under: Roots & Tubers.

**Best climate:** 21 - 28 °C; 700 - 1200 mm/yr; up to about 2000 m a.s.l.

**Soil:** Best at pH 5.5 - 6.5; loose, well-drained sandy loam or loam; sweet potato (viazi vitamu) forms better, smoother roots in friable soils..

### Farmer guide (Mwongozo wa Mkulima)

<b><u>Planting</u></b>	Use healthy, disease-free vines (30–40 cm). Plant Sweet potato (viazi vitamu) on ridges or mounds at the start of the rains, burying half to two-thirds of the vine and firming the soil.
<b><u>Transplanting</u></b>	Planted directly using vine cuttings, not from seed or seedlings.
<b><u>Irrigation</u></b>	Keep soil moist during establishment and early root formation (first 6–8 weeks). Later the crop can tolerate short dry spells but still benefits from good moisture.
<b><u>Fertigation</u></b>	Where drip or sprinkler is available, apply small amounts of NPK and organic fertilizers early. Avoid very high nitrogen, which gives too much vine and few roots.
<b><u>Pest scouting</u></b>	Check weekly for Sweet potato weevil, caterpillars, aphids and viral symptoms (yellowing, mosaic, leaf distortion). Remove very sick vines and keep fields clean.
<b><u>Pruning and training</u></b>	No special pruning; avoid cutting too many vines for planting or feed from the same field as this reduces yield.
<b><u>Harvest</u></b>	Harvest Sweet potato (viazi vitamu) when roots are well filled and skins are firm. Early-maturing types are ready in about 3–4 months, others in 5–6 months.
<b><u>Postharvest</u></b>	Lift roots carefully to avoid wounds. Keep in shade, dry and well-ventilated. For longer storage, cure by keeping in a warm, shaded place for about a week, then store in cool, dry conditions.

### Nutrient schedule (Mbolea kwa Hatua)

#	Stage	DAP	Product	Rate	Targets (kg/ha)	Notes
1	Basal at planting	0	NPK 17-17-17 or 15-15-15	150 kg/ha	N: 25, P <sub>2</sub> O <sub>5</sub> : 25, K <sub>2</sub> O: 25	Apply in bands along the ridge and cover with soil before planting vines.
2	Early topdress	30	NPK with extra K or separate urea + MOP	100 kg/ha	N: 20, P <sub>2</sub> O <sub>5</sub> : 0, K <sub>2</sub> O: 20	Apply around the base of Sweet potato (viazi vitamu) vines when soil is moist.

### Nutrient requirements

Nutrient	Stage	Amount	Unit
N	Basal	30	kg/ha
P <sub>2</sub> O <sub>5</sub>	Basal	30	kg/ha
K <sub>2</sub> O	Basal	60	kg/ha
N	Topdress_early	20	kg/ha
P <sub>2</sub> O <sub>5</sub>	Topdress_early	0	kg/ha
K <sub>2</sub> O	Topdress_early	20	kg/ha

### Varieties

<u>Name</u>	<u>Country</u>	<u>Maturity (days)</u>	<u>Traits</u>
Orange-fleshed Sweet potato	KE	120	High vitamin A, good for children and families; medium yield but important nutrition.
White-fleshed high-yielding type	TZ	150	High root yield, popular for boiling and frying.
Local viazi vitamu landrace	KE	150	Traditional taste and texture; adapted to local conditions.

### **Fertilizer recommendations**

<u>Stage</u>	<u>Product</u>	<u>Rate</u>	<u>Notes</u>
Basal	NPK 17-17-17 or 15-15-15	150	Used on poor soils to boost early Sweet potato (viazi vitamu) growth.
Topdress (N+K)	Urea + MOP or K-rich NPK	100	Apply early in the season and avoid late heavy nitrogen.
Organic	Farmyard manure or compost	5000	Improves soil structure and moisture holding; apply well-rotted manure before ridging.

### **Pests and diseases**

<u>Name</u>	<u>Type</u>	<u>Symptoms</u>	<u>Management</u>
Sweet potato weevil	pest	Small holes and tunnels in Sweet potato (viazi vitamu) roots, bitter taste and corky brown patches inside.	Use clean planting material, practice crop rotation, earth up ridges well to cover cracks and harvest on time.
Viral diseases (SPVD complex)	disease	Stunted plants, yellow or purple mosaic patterns, distorted leaves and poor root formation.	Use virus-free vines, remove and destroy very sick plants and avoid taking cuttings from infected fields.
Caterpillars and leaf feeders	pest	Chewed leaves and defoliation of Sweet potato (viazi vitamu) vines.	Handpick where possible and support natural enemies; spray only when defoliation is severe.
Alternaria and leaf spots	disease	Dark spots on leaves, sometimes with yellow halos, leading to early leaf drop.	Use tolerant varieties, improve air movement and rotate with non-root crops.
Root rots in poorly drained soils	disease	Rotted, soft Sweet potato (viazi vitamu) roots and stunted vines in wet patches.	Use raised ridges, improve drainage and avoid waterlogging.
Storage rots	disease	Soft, mouldy roots in store, bad smell and discolouration.	Avoid injuries at harvest, cure roots, keep storage dry, cool and well ventilated and remove rotten roots quickly.

### **Yields**

<u>System</u>	<u>Typical</u>	<u>Min</u>	<u>Max</u>	<u>Notes</u>
Smallholder rainfed (low input)	8	5	12	Local Sweet potato (viazi vitamu) varieties, little fertilizer and moderate weeding.
Smallholder rainfed (improved management)	18	12	25	Improved varieties, healthy vines, good spacing, timely weeding and some manure or fertilizer.

<u>System</u>	<u>Typical</u>	<u>Min</u>	<u>Max</u>	<u>Notes</u>
High input / good management	25	20	35	Fertile soils, quality planting material, irrigation or reliable rains and strong pest and disease control.

### **Season calendars**

<u>Country</u>	<u>Region</u>	<u>Planting</u>	<u>Harvest</u>
KE	Western and lake Sweet potato (viazi vitamu) belt (long rains)	Mar–Apr	Jul–Oct
KE	Eastern and coastal zones (short rains)	Oct–Nov	Feb–May
TZ	Lake zone and coastal belt	Nov–Dec	Mar–Jun

### **Region suitability**

<u>Country</u>	<u>Region</u>	<u>Suitability</u>
KE	Eastern and coastal lowlands	High
KE	Very cool highland zones with frequent frost	Low
KE	Western and lake region Sweet potato (viazi vitamu) belt	High
TZ	Lake zone and coastal belt	High
UG	Lake Victoria basin and mid-altitude areas	High

Source: **FarmLens Ltd** - farmlens.africa and app.farmlens.africa. Headquarters: Nairobi, Kenya. This guide was generated from the FarmLens database.