FarmLens Ltd

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Crop details

Categories

Irish potato (viazi mviringo)

Roots & Tubers

Solanum tuberosum

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Family: Solanaceae

| Quick | stats |
|-------|-------|
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| Family | Solanaceae |
|--------------------|------------|
| Typical harvest | 18.7 t/ha |
| <u>Varieties</u> | 3 |
| Pests and diseases | 6 |
| Seasons | 3 |

Crop profile

| Growth habit | annual |
|---------------------------|---|
| Days to harvest | 110 |
| Main uses | Boiled, fried, mashed and roasted potatoes, crisps, chips and animal feed from rejected tubers. |
| Pollination | self |
| Origin and where it grows | Irish potato (viazi mviringo) is mainly grown in cool highland and upper mid-altitude areas with good rainfall or irrigation. |

Weather, soil and spacing

| Best temperature | 15 - 20 °C |
|------------------|---|
| Rainfall | 600 - 900 mm/yr |
| Altitude | 1500 - 3000 m |
| Best pH | 5.5 - 6.5 |
| Soil type | Deep, loose, well-drained loam or sandy loam with plenty of organic matter. Irish potato (viazi mviringo) forms better tubers in friable soils. |
| Row spacing | 75 cm |
| Plant spacing | 30 cm |
| Planting depth | 10 cm |
| Seed rate | 2000 kg/ha |

Simple notes for farmers

About the crop: This crop is annual; it grows and is harvested in one season. Harvest typically starts about 110 days after planting.

Main use: Farmers mostly grow this crop for boiled, fried, mashed and roasted potatoes, crisps, chips and animal feed from rejected tubers..

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

Where it grows: Irish potato (viazi mviringo) is mainly grown in cool highland and upper mid-altitude areas with good rainfall or irrigation.. Grouped under: Roots & Tubers.

Best climate: 15 - 20 °C; 600 - 900 mm/yr; up to about 3000 m a.s.l.

Soil: Best at pH 5.5 - 6.5; deep, loose, well-drained loam or sandy loam with plenty of organic matter. irish potato (viazi mviringo) forms better tubers in friable soils..

Farmer guide (Mwongozo wa Mkulima)

| <u>Planting</u> | Use clean, certified or healthy seed tubers about the size of an egg. Plant Irish potato (viazi mviringo) on ridges when the soil is moist, placing tubers with the eyes up and covering with 5–10 cm of soil. |
|----------------------|--|
| Transplanting | Planted directly as seed tubers; not transplanted from a nursery. |
| <u>Irrigation</u> | Keep soil evenly moist from emergence to flowering and early tuber bulking. Avoid long dry spells or heavy waterlogging, which reduces yield and quality. |
| <u>Fertigation</u> | Where drip or sprinkler is available, split N and K into several small applications. Potatoes respond well to balanced NPK but too much nitrogen delays maturity and lowers dry matter |
| Pest scouting | Inspect fields weekly for late blight, early blight, aphids, potato tuber moth and leaf miners. Focus on lower leaves, stems and the soil around the base of plants. |
| Pruning and training | No pruning needed; earthing up (heaping soil around stems) helps protect tubers from light and pests. |
| <u>Harvest</u> | For ware potatoes, harvest when most leaves have yellowed and dried and skins are firm (do not peel off easily when rubbed). For seed, harvest a bit earlier and handle gently. |
| <u>Postharvest</u> | Lift Irish potato (viazi mviringo) gently to avoid bruises. Cure in a dark, well-ventilated place for about 10–14 days, then store in cool, dark conditions away from light to avoid greening. |

Nutrient schedule (Mbolea kwa Hatua)

| # | Stage | <u>DAP</u> | Product | Rate | Targets (kg/ha) | Notes |
|---|--------------------------|------------|--|--------------------|-----------------------------|---|
| 1 | Basal at planting | 0 | NPK 17-17-17 or 15- 15-15 | 300 kg/ha | N: 51, P?O?: 51, K?O: 51 | Apply in the furrow and lightly mix with soil before placing seed tubers. |
| 2 | Topdress and earthing up | 30 | CAN 26% N + MOP (muriate of potash) | 200 kg/ha combined | N: 40, P?O?: 0, K?O: 40 | Apply along rows before earthing up Irish potato (viazi mviringo) plants. |

Nutrient requirements

| Nutrient | Stage | Amount | <u>Unit</u> |
|----------|----------------|--------|-------------|
| N | Basal | 60 | kg/ha |
| P?O? | Basal | 60 | kg/ha |
| K?O | Basal | 80 | kg/ha |
| N | Topdress_early | 40 | kg/ha |
| P?O? | Topdress_early | 0 | kg/ha |
| K?O | Topdress_early | 40 | kg/ha |

Varieties

| <u>Name</u> | Country | Maturity (days) | Traits |
|-------------------------------|---------|-----------------|---|
| Shangi | KE | 90 | Very popular, early bulking, good for chips and boiling but shorter storage life. |
| Tigoni type | KE | 110 | Good yield, suitable for boiling and mashing, moderate dry matter. |
| Local viazi mviringo landrace | KE | 120 | Traditional taste and adaptation; lower yield than improved varieties. |

Fertilizer recommendations

| <u>Stage</u> | Product | Rate | Notes |
|---------------------|-----------------------------|------|---|
| Basal | NPK 17-17-17 or 15-15-15 | 300 | Provides balanced nutrients for early Irish potato (viazi mviringo) growth. |
| Topdress (N source) | CAN 26% N | 150 | Used at first earthing up on moist soil. |
| Topdress (K source) | Muriate of potash (MOP) | 100 | Supports tuber bulking and quality, especially in K-deficient soils. |
| Organic | Well-rotted farmyard manure | 8000 | Improves soil structure and water holding; apply before final land preparation. |

Pests and diseases

| Name | Type | Symptoms | Management |
|----------------------|-------------|---|--|
| Late blight | disease | Dark, water-soaked patches on leaves and stems of Irish potato (viazi mviringo), with white mould at edges in wet weather; tuber rots in store. | Use resistant varieties where available, spray protectant and systemic fungicides as recommended and destroy infected crop residues. |
| Early blight | disease | Brown spots with concentric rings on older leaves, leading to early defoliation. | Maintain good nutrition, especially nitrogen and potassium, and use fungicides where disease pressure is high. |
| Potato tuber moth | pest | Tunnels in stems and tubers, with frass and webbing. Damage worsens in store. | Earth up well to cover tubers, avoid cracked ridges and use fine mesh or covers in stores. |
| Aphids | pest | Clusters of small insects on stems and leaf undersides, sticky honeydew and curled leaves; important virus vectors. | Use healthy seed, monitor often and control high aphid populations early. |
| Bacterial wilt | disease | Sudden wilting of Irish potato (viazi mviringo) plants without yellowing; brown ooze from cut stems and tuber rings. | Use clean seed, avoid planting in infested fields and rotate for several years with non-solanaceous crops. |
| Common scab | disease | Rough, corky spots and scabs on potato tuber skin. | Avoid very dry conditions at tuber initiation and keep soil slightly acidic (pH around 5.5–6.0). |

Yields

|--|

| Smallholder rainfed (low input) | 8 | 5 | 12 | Local seed, limited fertilizer and basic disease control. |
|---|----|----|----|---|
| Smallholder rainfed (improved management) | 18 | 12 | 25 | Clean seed, recommended fertilizer and regular blight control. |
| High input / irrigated | 30 | 20 | 40 | High-yield varieties, fertile soils, irrigation and full spray programme. |

Season calendars

| Country | Region | Planting | <u>Harvest</u> |
|---------|-----------------------------------|----------|----------------|
| KE | Highland main season (long rains) | Mar–Apr | Jul-Sep |
| KE | Highland short-rains season | Oct-Nov | Feb-Mar |
| TZ | Northern and southern highlands | Apr–May | Aug-Oct |

Region suitability

| Country | Region | Suitability |
|---------|---|-------------|
| KE | Central and Rift Valley highlands | High |
| KE | Highland parts of western Kenya | High |
| KE | Hot lowland areas | Low |
| TZ | Northern and southern highland potato zones | High |
| UG | South-western and Mt Elgon highlands | High |

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