

Crop details

Categories

Tomato (nyanya)

Vegetables

Solanum lycopersicum

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Family: Solanaceae

Quick stats

Family	Solanaceae
Typical harvest	36.7 t/ha
Varieties	3
Pests and diseases	6
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Crop profile

Growth habit	annual
Days to harvest	110
Main uses	Fresh market (sliced, salads, cooking), sauces, paste, juice and dried tomato pieces.
Pollination	self
Origin and where it grows	Tomato (nyanya) is widely grown in warm to moderately cool areas in East Africa under rainfed and irrigation, especially around towns and irrigation schemes.

Weather, soil and spacing

Best temperature	18 - 28 °C
Rainfall	700 - 1000 mm/yr
Altitude	0 - 2200 m
Best pH	6 - 6.8
Soil type	Deep, well-drained loam or sandy loam with plenty of organic matter. Tomato (nyanya) prefers fertile, well-aerated soils.
Row spacing	75 cm
Plant spacing	45 cm
Planting depth	2 cm
Seed rate	0.3 kg/ha
Nursery days	28

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 fresh market (sliced, salads, cooking), sauces, paste, juice and dried tomato pieces..

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

Where it grows: Tomato (nyanya) is widely grown in warm to moderately cool areas in East Africa under rainfed and irrigation, especially around towns and irrigation schemes.. Grouped under: Vegetables.

Best climate: 18 - 28 °C; 700 - 1000 mm/yr; up to about 2200 m a.s.l.

Soil: Best at pH 6 - 6.8; deep, well-drained loam or sandy loam with plenty of organic matter. tomato (nyanya) prefers fertile, well-aerated soils..

Farmer guide (Mwongozo wa Mkulima)

<u>Planting</u>	Sow Tomato (nyanya) seed in a raised nursery bed or trays using fine soil and compost. Keep moist but not waterlogged. Transplant healthy seedlings with 3–4 true leaves into the field on cool, cloudy days or late afternoon.
<u>Transplanting</u>	Water nursery before lifting seedlings. Transplant with a small ball of soil around roots and firm the soil gently around each plant.
<u>Irrigation</u>	Keep soil evenly moist, especially during flowering and fruit filling. Avoid big swings from very dry to very wet, which cause cracking and blossom-end rot.
<u>Fertigation</u>	With drip, feed small amounts of NPK frequently. Increase potassium during fruiting for firm, good quality Tomato (nyanya). Do not overdo nitrogen or the crop will be very leafy with fewer fruits.
<u>Pest scouting</u>	Check at least weekly for Tuta absoluta (leaf miner), bollworm, aphids, whiteflies and diseases. Look at young leaves, behind leaves and around flowers and fruits.
<u>Pruning and training</u>	For indeterminate Tomato (nyanya), stake and tie plants regularly. Remove side shoots (suckers) if using single-stem training and remove lower yellow leaves to improve airflow.
<u>Harvest</u>	For local markets, harvest when fruits are turning red or fully red but still firm. For distant markets, pick at breaker or pink stage. Use clean crates and handle gently.
<u>Postharvest</u>	Keep Tomato (nyanya) in shade, avoid overfilling crates and do not throw them. Store in a cool, aerated room; do not wet fruits before storage to reduce rots.

Nutrient schedule (Mbolea kwa Hatua)

#	<u>Stage</u>	<u>DAP</u>	<u>Product</u>	<u>Rate</u>	<u>Targets (kg/ha)</u>	<u>Notes</u>
1	Basal at transplanting	0	NPK 17-17-17 or 15-15-15	250 kg/ha	N: 42, P?O?: 42, K?O: 42	Band 5–8 cm away from Tomato (nyanya) seedlings and cover with soil.
2	Early topdress	21	CAN 26% N or urea (in cool conditions)	100 kg/ha	N: 26, P?O?: 0, K?O: 0	Apply along the rows of Tomato (nyanya) when soil is moist, then water or lightly cultivate.
3	Fruiting topdress (N+K)	40	NPK high in K (e.g. 15-5-30) or urea + SOP/MOP	150 kg/ha	N: 30, P?O?: 0, K?O: 45	Focus on potassium for strong, firm fruits and better shelf life.

Nutrient requirements

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

<u>Nutrient</u>	<u>Stage</u>	<u>Amount</u>	<u>Unit</u>
P?O?	Topdress_early	0	kg/ha
K?O	Topdress_early	40	kg/ha
N	Topdress_fruiting	30	kg/ha
P?O?	Topdress_fruiting	0	kg/ha
K?O	Topdress_fruiting	60	kg/ha

Varieties

<u>Name</u>	<u>Country</u>	<u>Maturity (days)</u>	<u>Traits</u>
Hybrid Tomato (nyanya) for open field	KE	100	High yield, firm fruits and good transport quality.
Roma / processing type	KE	95	Plum-shaped fruits, good for sauces and paste, relatively firm.
Local open-pollinated Tomato (nyanya)	KE	110	Good taste but lower yield and shorter shelf life than hybrids.

Fertilizer recommendations

<u>Stage</u>	<u>Product</u>	<u>Rate</u>	<u>Notes</u>
Basal	NPK 17-17-17 or 15-15-15	250	Applied at transplanting to support early Tomato (nyanya) growth.
Topdress (N source)	CAN 26% N or urea	100	Use CAN where soils are more acidic or where conditions are dry.
Topdress (K source)	Sulfate of potash (SOP) or K-rich NPK	100	Supports fruit size, colour and firmness of Tomato (nyanya).
Organic	Well-rotted farmyard manure or compost	8000	Apply before transplanting to improve soil structure and water-holding capacity.

Pests and diseases

<u>Name</u>	<u>Type</u>	<u>Symptoms</u>	<u>Management</u>
Tomato leaf miner (Tuta absoluta)	pest	White or brown tunnels in Tomato (nyanya) leaves, stems and fruits; dry patches and premature drying of leaves.	Use pheromone traps, remove infested leaves and fruits, and follow an IPM programme with safe insecticides where necessary.
African bollworm / fruit worm	pest	Holes in fruits and flowers of Tomato (nyanya), with caterpillars and droppings inside.	Scout flowers and fruits regularly and control early with recommended products or biocontrol options.
Aphids and whiteflies	pest	Clusters of small insects on shoots and leaf undersides, sticky honeydew and sooty mould; can transmit viruses.	Use yellow sticky traps, remove heavily infested shoots, protect natural enemies and spray only when needed.

<u>Name</u>	<u>Type</u>	<u>Symptoms</u>	<u>Management</u>
Early blight	disease	Brown spots with concentric rings on older leaves of Tomato (nyanya), leading to leaf drop from the bottom upwards.	Use crop rotation, avoid overhead irrigation in the evening and apply protectant fungicides where disease pressure is high.
Late blight	disease	Water-soaked patches on leaves, stems and fruits that turn brown/black rapidly, especially in cool, wet weather.	Plant in well-aerated fields, avoid dense canopies and follow a preventive fungicide spray programme during wet periods.
Bacterial wilt	disease	Sudden wilting of Tomato (nyanya) plants with green leaves, brown staining in stems and milky ooze from cut stems.	Avoid infested fields, rotate for several years with cereals and use tolerant rootstocks or varieties where available.

Yields

<u>System</u>	<u>Typical</u>	<u>Min</u>	<u>Max</u>	<u>Notes</u>
Open field Tomato (nyanya), low input	10	5	15	Local seed or saved seed, little fertilizer and limited pest/disease control.
Open field, improved management	30	20	40	Hybrid seed, staking, recommended fertilizer and regular pest and disease control.
Irrigated / greenhouse Tomato (nyanya)	70	50	90	Protected or high-input systems with drip, fertigation and strong crop protection.

Season calendars

<u>Country</u>	<u>Region</u>	<u>Planting</u>	<u>Harvest</u>
KE	Irrigated river valleys and schemes	All year (with good water)	2–3 months after transplanting, for several pickings
KE	Mid-altitude rainfed Tomato (nyanya) areas (long rains)	Mar–Apr	Jun–Aug
KE	Short-rains Tomato (nyanya) season	Oct–Nov	Jan–Mar
TZ	Irrigated and peri-urban Tomato belts	Most months, depending on water and disease risk	2–3 months after transplanting over several weeks

Region suitability

<u>Country</u>	<u>Region</u>	<u>Suitability</u>
KE	Irrigation schemes and river valleys	High

<u>Country</u>	<u>Region</u>	<u>Suitability</u>
KE	Peri-urban vegetable belts around major towns	High
KE	Very hot, dry lowlands without irrigation	Low
TZ	Northern and central Tomato (nyanya) producing areas	High
UG	Mid-altitude vegetable-growing zones	High

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