Crop details

Mango (embe)

Mangifera indica

Family: Anacardiaceae

Categories

Fruits & Nuts

Generated: 2025-12-14 11:30

Quick stats

Family	Anacardiaceae
Typical harvest	14.3 t/ha
Varieties	3
Pests and diseases	6
Seasons	3

Weather, soil and spacing

Best temperature	20 - 34 °C
Rainfall	700 - 1200 mm/yr
Altitude	0 - 1500 m
Best pH	6 - 7
Soil type	Deep, well-drained loam or sandy loam with good organic matter. Mango (embe) does well on slightly sloping land where water does not stand.
Row spacing	800 cm
Plant spacing	800 cm
Seed rate	kg/ha (check local recommendation)
Nursery days	270

Crop profile

Growth habit	tree
Days to harvest	365
Main uses	Fresh ripe fruits, green fruits for pickles, juice and dried mango slices. Fallen and surplus fruits also used for animal feed.
Pollination	insect
Origin and where it grows	Mango (embe) is widely grown in warm lowland and mid-altitude areas of East Africa, especially coastal, lake and dryland zones.

Simple notes for farmers

About the crop: This crop has a growth habit described as "tree". Harvest typically starts about 365 days after planting.

Main use: Farmers mostly grow this crop for fresh ripe fruits, green fruits for pickles, juice and dried mango slices. fallen and surplus fruits also used for animal feed..

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

Where it grows: Mango (embe) is widely grown in warm lowland and mid-altitude areas of East Africa, especially coastal, lake and dryland zones.. Grouped under: Fruits & Nuts.

Best climate: 20 - 34 °C; 700 - 1200 mm/yr; up to about 1500 m a.s.l.

Soil: Best at pH 6 - 7; deep, well-drained loam or sandy loam with good organic matter. mango (embe) does well on slightly sloping land where water does not stand..

Farmer guide (Mwongozo wa Mkulima)

Planting	Plant Mango (embe) at the start of rains or with irrigation. Dig wide, deep holes, mix topsoil with manure and plant the graft at the same depth as in the nursery bag. Keep the graft union above soil level.
Transplanting	Use healthy grafted seedlings. Remove the polythene bag carefully, avoid breaking roots and water well after planting.
Irrigation	Young trees need regular watering, especially in the first 2–3 years. For bearing trees, avoid severe drought at flowering and fruit filling, but also avoid overwatering during flowering.
Fertigation	With drip, split fertilizer into many small doses through the season. Reduce nitrogen just before and during flowering and give more potassium during fruit growth.
Pest scouting	Check Mango (embe) trees regularly for fruit flies, anthracnose, powdery mildew and mealybugs. Inspect young leaves, panicles and developing fruits.
Pruning and training	Form a strong framework by selecting 3–4 main branches and removing very low or crossing branches. Thin inside shoots to let light and air into the canopy.
Harvest	Harvest fruits when they are full-size, with characteristic colour and a sweet smell at the stalk end. For long transport, pick at firm-mature stage before full softness.
Postharvest	Handle fruits gently, avoid dropping. Keep in shade or cool rooms, not in direct sun. Grade out damaged fruits and store on clean racks or crates.

Nutrient schedule (Mbolea kwa Hatua)

#	Stage	DAP	Product	Rate	Targets (kg/ha)	Notes
1	Basal at planting	0	Well-rotted manure + small amount of P fertilizer (e.g., DAP 18-46-0)	10 kg/tree manure + 100 g DAP	N: 0, P?O?: 0, K?O: 0	Mix manure with topsoil in the planting hole; keep fertilizer away from the stem and roots.
2	Young tree topdress	180	CAN 26% N or similar N source	150 g/tree	N: 0, P?O?: 0, K?O: 0	Apply in a ring under the canopy drip line and cover lightly with soil.
3	Pre-flowering feed	365	NPK 10-20-20 or similar	300 g/tree	N: 0, P?O?: 0, K?O: 0	Apply before main flowering to support panicle formation and early fruit set.
4	Fruit development high K	420	Sulfate of potash (SOP) or high-K NPK	250 g/tree	N: 0, P?O?: 0, K?O: 0	Helps improve Mango fruit size, sweetness and storage quality.

Nutrient requirements

Nutrient	Stage	Amount	Unit
N	Establishment	20	kg/ha

Nutrient	Stage	Amount	Unit
P?O?	Establishment	25	kg/ha
K?O	Establishment	20	kg/ha
N	Vegetative	40	kg/ha
P?O?	Vegetative	20	kg/ha
K?O	Vegetative	40	kg/ha
N	Bearing_maintenance	50	kg/ha
P?O?	Bearing_maintenance	20	kg/ha
K?O	Bearing_maintenance	60	kg/ha

Varieties

Name	Country	Maturity (days)	Traits
Apple mango	KE	300	Common local favourite with good flavour and fibre; used for fresh eating and juice.
Ngowe	KE	280	Long, yellow fruits with rich flavour; common along the coast.
Tommy Atkins / similar export type	KE	300	Red-blushed fruits with firm flesh and good transportability.

Fertilizer recommendations

Stage	Product	Rate	Notes
Basal (planting)	Well-rotted farmyard manure	10000	Applied in planting holes to improve soil structure and moisture storage.
Young trees	CAN 26% N	50	Split into 2–3 small doses per year to encourage early growth.
Bearing trees (maintenance)	NPK 17-17-17 or similar	150	Applied annually or split around the tree in the root zone.
Fruit quality	Sulfate of potash (SOP) or high-K blend	80	Given around fruit set to improve Mango (embe) fruit size, colour and storage.

Pests and diseases

Name	Type	Symptoms	Management
Fruit flies (Tephritidae)	pest	Stings on Mango (embe) fruits, soft rotting patches and early fruit drop. Larvae feed inside the fruit.	Collect and destroy fallen fruits, use protein baits and traps, harvest on time and use recommended control products when needed.
Mango seed weevil	pest	External fruit looks normal but seed inside is damaged and tunnels may be seen near the stone.	Collect and destroy infested fruits, prune and keep trees clean, and use tolerant varieties where possible.

Name	Type	Symptoms	Management
Mealybugs and scales	pest	White cottony or hard scale insects on twigs and fruit stalks, honeydew and sooty mould on leaves and fruits.	Prune crowded branches, control ants and use oils or soft insecticides when infestations are high.
Anthracnose	disease	Dark, sunken spots on young leaves, flowers and fruits; blossom blight and fruit rots, especially in humid weather.	Prune to open canopy, avoid overhead irrigation, remove infected parts and spray with recommended fungicides when conditions favour disease.
Powdery mildew	disease	White powdery growth on flower panicles and young leaves of Mango (embe), causing poor fruit set.	Monitor at flushing and flowering, prune crowded shoots and use suitable fungicides early when disease appears.
Stem and root rots (Phytophthora and others)	disease	Gum oozing from trunk, collar rot at the base and gradual decline of the tree.	Plant in well-drained spots, keep mulch away from the trunk and avoid waterlogging around stems.

Yields

System	Typical	Min	Max	Notes
Smallholder Mango (embe), rainfed	8	5	12	Scattered trees with minimal pruning and fertilizer; 50–150 kg per mature tree common.
Managed orchard, rainfed	15	10	20	Improved varieties, some pruning and manure/fertilizer.
Intensive / irrigated Mango orchard	20	15	30	High-density plantings, irrigation, regular pruning and nutrition management.

Season calendars

Country	Region	Planting	Harvest
KE	Coastal Mango (embe) belt	Start of main rains (Mar–Apr) or short rains (Oct–Nov).	Main harvest typically Dec–Mar depending on variety and location.
KE	Lower Eastern and dryland Mango zones	Early in the rainy season where deep soils are available.	Harvest mainly in the dry months following rains.
TZ	Coastal and lake basin Mango areas	At onset of rains or with irrigation where available.	Dry season after main rains; timing varies with zone.

Region suitability

Country	Region		Suitability

KE	Coastal Mango (embe) belt	High
KE	Lower Eastern and semi-arid Mango zones	High
TZ	Coastal Mango and cashew areas	High
UG	Warm lake shore and lowland Mango zones	High