FarmLens Ltd

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Crop details

Soursop (Annona muricata)

Annona muricata

Family: Annonaceae

Categories

Fruits & Nuts

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Quick stats

Family	Annonaceae
Typical harvest	13.3 t/ha
Varieties	2
Pests and diseases	7
Seasons	3

Crop profile

Growth habit	perennial
Days to harvest	365+
Main uses	Fruit; processing
Pollination	insect
Origin and where it grows	Tropics Americas; Africa/Asia

Weather, soil and spacing

Best temperature	22 - 30 °C
Rainfall	1200 - 2000 mm/yr
Altitude	0 - 1200 m
Best pH	5.5 - 6.5
Soil type	Deep, well-drained loam
Row spacing	700 cm
Plant spacing	700 cm
Planting depth	60 cm
Seed rate	kg/ha (check local recommendation)

Simple notes for farmers

About the crop: This crop is perennial; once planted it can keep producing for many years. Harvest typically starts about 365+ days after planting.

Main use: Farmers mostly grow this crop for fruit; processing.

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

Where it grows: Tropics Americas; Africa/Asia. Grouped under: Fruits & Nuts.

Best climate: 22 - 30 °C; 1200 - 2000 mm/yr; up to about 1200 m a.s.l.

Soil: Best at pH 5.5 - 6.5; deep, well-drained loam.

Farmer guide (Mwongozo wa Mkulima)

Planting	Plant at onset of rains or irrigate; use healthy seedlings/grafts; incorporate compost and starter P.
Transplanting	Stake young trees; mulch; protect from wind; maintain weed-free basins.
Irrigation	Keep evenly moist, especially from flowering to fruit fill; avoid drought to limit fruit drop.
Fertigation	Split N into light feeds; supply K and Ca during fruiting; adjust via soil/leaf tests.
Pest scouting	Scout for fruit flies, mealybugs/scales, anthracnose; prune to open canopy; sanitize fallen fruit.
Pruning and training	Form an open center or modified leader; remove crossing and shaded interior wood.
Harvest	Harvest when spines flatten and fruit turns dull green; handle carefully; climacteric—ripens off tree.
Postharvest	Cool promptly; short shelf life (3–5 days at ambient); store 10–15 °C at high RH; minimize bruising.

Nutrient schedule (Mbolea kwa Hatua)

#	Stage	DAP	Product	Rate	Targets (kg/ha)	Notes
1	Basal	0	NPK 15-15-15	150 kg/ha	N: N/A, P?O?: 10, K?O: N/A	Mix in backfill; keep away from stem
2	Vegetative split N	90	CAN 26% N	150 g/tree	N: 10, P?O?: N/A, K?O: N/A	Apply in ring under canopy; water in
3	Pre-bloom balanced feed	300	NPK 17-17-17	200 g/tree	N: 10, P?O?: 10, K?O: 10	Light dose before flowering
4	Fruit fill K boost	360	Sulfate of potash (SOP)	250 g/tree	N: N/A, P?O?: N/A, K?O: 15	Prefer SOP for fruit quality
5	Micronutrient foliar (opt.)	320	Ca/B/Zn foliar (as label)	0 —	N: N/A, P?O?: N/A, K?O: N/A	Apply cool hours; supports set/skin

Nutrient requirements

Nutrient	Stage	Amount	Unit
N	Basal	50	kg/ha
P?O?	Basal	30	kg/ha
K?O	Basal	70	kg/ha
N	Establishment	20	kg/ha
P?O?	Establishment	20	kg/ha
K?O	Establishment	20	kg/ha
N	Vegetative	40	kg/ha
K?O	Vegetative	30	kg/ha

Nutrient	Stage	Amount	Unit
N	Flower_set	15	kg/ha
P?O?	Flower_set	20	kg/ha
K?O	Flower_set	30	kg/ha
N	Fruit_fill	10	kg/ha
K?O	Fruit_fill	40	kg/ha
N	Maintenance	30	kg/ha
P?O?	Maintenance	10	kg/ha
K?O	Maintenance	30	kg/ha

Field images

Varieties

Name	Country	Maturity (days)	Traits
Local Soursop	KE	900	Aromatic pulp
Local soursop selection	TZ	900	Coastal adaptation; good pulp yield

Fertilizer recommendations

Stage	Product	Rate	Notes
Basal	Compost (well-decomposed)	5000	Mulch rings/basins
Vegetative	CAN 26% N	80	Split 2–3× per year on young trees
Fruit fill	Sulfate of potash (SOP)	60	Boost K for fruit quality

Pests and diseases

Name	Type	Symptoms	Management
Fruit fly	pest	Maggots in fruit	Baiting; bagging; sanitation
Fruit flies (Tephritidae)	pest	Stings; larval tunnels; fruit drop	Protein baiting, field sanitation, fruit bagging, timely harvest

Name	Type	Symptoms	Management
Mealybugs & scales	pest	Honeydew; sooty mold; twig decline	Prune for airflow; control ants; oils/soft insecticides; conserve predators
Anthracnose (Colletotrichum)	disease	Leaf/fruit lesions; postharvest decay	Open canopy; protectants in wet periods; careful handling
Phytophthora root/collar rot	disease	Cankers; wilting; tree decline	Excellent drainage; avoid trunk wetting; phosphonates if needed
Fruit borers (Lepidoptera)	pest	Bored fruit; frass	Field sanitation; bagging; targeted control
Root-knot nematodes	pest	Galled roots; stunting	Organic matter; rotations/cover crops; tolerant rootstocks where available

Yields

System	Typical	Min	Max	Notes
orchard	12	6	20	
smallholder rainfed	10	6	15	Mature orchards; 40–60 kg/tree typical where well managed
irrigated/intensive	18	12	25	Improved cultivars, nutrition, and pruning

Season calendars

Country	Region	Planting	Harvest
KE	Coastal lowlands	Mar–Apr	Aug–Dec
KE	Coastal lowlands (alt)	Oct–Nov	Mar–Jun
TZ	Coastal belt	Mar–Apr	Aug–Dec

Region suitability

Country	Region	Suitability
KE	Coastal lowlands	High
KE	Cool highlands (>1500 m)	Low
KE	Frost-prone uplands	Low
TZ	Coastal belt & islands	High
UG	Warm lowlands (lake shore)	Medium

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