

FarmLens Ltd

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Crop details

Cardamom

Elettaria cardamomum

Family: Zingiberaceae

Categories

Spices & Condiments

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Quick stats

Family	Zingiberaceae
Typical harvest	0.8 t/ha
Varieties	3
Pests and diseases	5
Seasons	3

Crop profile

Growth habit	perennial
Days to harvest	365
Main uses	Green/ dried capsules for spice, beverages and flavouring.
Pollination	insect
Origin and where it grows	Grows in cool, humid, shaded high rainfall zones; niche pockets exist in East African highlands with forest shade or agroforestry.

Weather, soil and spacing

Best temperature	18 - 28 °C
Rainfall	1800 - 3000 mm/yr
Altitude	600 - 1800 m
Best pH	5.5 - 6.5
Soil type	Deep, well-drained forest loam with very high organic matter; thrives under shade.
Row spacing	200 cm
Plant spacing	200 cm
Planting depth	5 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 green/ dried capsules for spice, beverages and flavouring..

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

Where it grows: Grows in cool, humid, shaded high rainfall zones; niche pockets exist in East African highlands with forest shade or agroforestry.. Grouped under: Spices & Condiments.

Best climate: 18 - 28 °C; 1800 - 3000 mm/yr; up to about 1800 m a.s.l.

Soil: Best at pH 5.5 - 6.5; deep, well-drained forest loam with very high organic matter; thrives under shade..

Farmer guide (Mwongozo wa Mkulima)

<u>Planting</u>	Use healthy suckers/seedlings from disease-free clumps. Plant at onset of rains under filtered shade. Incorporate lots of compost/mulch and keep beds raised on slopes.
<u>Transplanting</u>	Firm soil around clumps; provide temporary shade screens if needed.
<u>Irrigation</u>	Keep soil moist at flowering and capsule filling. Mulch thickly to conserve moisture.
<u>Fertigation</u>	Split small feeds through the season; more N early for tillering, K around flowering for capsule set and quality.
<u>Pest scouting</u>	Scout for capsule/shoot borers, thrips (bronzing), aphids and rhizome rots. Remove heavily infested shoots.
<u>Pruning and training</u>	Maintain shade at ~50–60%; remove dry/old pseudostems and keep clumps open.
<u>Harvest</u>	Pick capsules every 2–3 weeks when well formed but still green. Dry promptly to retain colour and aroma.
<u>Postharvest</u>	Wash lightly, blanching optional, then dry in solar/air dryers at low temperature until brittle; store airtight.

Nutrient schedule (Mbolea kwa Hatua)

#	Stage	DAP	Product	Rate	Targets (kg/ha)	Notes
1	Basal before rains	0	NPK 15-15-15 + compost	150 kg/ha (plus 6–10 t/ha compost)	N: 22, P?O?: 22, K?O: 22	Blend lightly; avoid root injury.
2	Early topdress	60	CAN 26% N	120 kg/ha	N: 31, P?O?: 0, K?O: 0	Apply on moist soil; mulch back.
3	K boost at flowering	120	Sulfate of potash (SOP)	120 kg/ha	N: 0, P?O?: 0, K?O: 60	Improves capsule set and colour.

Nutrient requirements

Nutrient	Stage	Amount	Unit
N	Basal	30	kg/ha
P?O?	Basal	30	kg/ha
K?O	Basal	40	kg/ha
N	Topdress_early	30	kg/ha
P?O?	Topdress_early	10	kg/ha
K?O	Topdress_early	40	kg/ha
N	Flowering_fill	20	kg/ha
P?O?	Flowering_fill	0	kg/ha
K?O	Flowering_fill	40	kg/ha

Field images



Varieties

<u>Name</u>	<u>Country</u>	<u>Maturity (days)</u>	<u>Traits</u>
Malabar-type selection	KE	730	Good aroma; suited to shade gardens.
Njallani/Green Gold type	TZ	730	High tillering, bold capsules where adapted.
Local small cardamom selection	UG	730	Locally adapted under agroforestry shade.

Fertilizer recommendations

<u>Stage</u>	<u>Product</u>	<u>Rate</u>	<u>Notes</u>
Basal	NPK 15-15-15 + compost	150	With heavy organic mulch.
Topdress	CAN 26% N	120	At 2 months after planting/flush.
Flowering/fill	SOP (K?SO?)	120	Supports capsule formation and quality.

Pests and diseases

<u>Name</u>	<u>Type</u>	<u>Symptoms</u>	<u>Management</u>
Shoot and capsule borer	pest	Bored shoots/capsules; webbing and frass; reduced set.	Remove infested shoots; maintain shade and sanitation; use recommended selective controls when needed.
Thrips	pest	Silvery/bronzed capsule surface; scarring and shrivelled pods.	Keep humidity with mulch/shade, encourage natural enemies; targeted sprays if heavy.
Aphids	pest	Sticky honeydew, sooty mould; virus risk.	Control ants, spot treat; remove highly infested shoots.
Rhizome/soft rot (Pythium complex)	disease	Yellowing, lodging; soft, foul-smelling rhizomes.	Well-drained beds, clean planting material, remove affected clumps quickly.
Leaf blotch/anthracnose	disease	Brown lesions on leaves; premature drying.	Improve airflow and shade balance; protectants during wet spells if required.

Yields

<u>System</u>	<u>Typical</u>	<u>Min</u>	<u>Max</u>	<u>Notes</u>
Low-input shade gardens	0.35	0.2	0.5	Basic mulching and weeding; minimal fertilizer.

<u>System</u>	<u>Typical</u>	<u>Min</u>	<u>Max</u>	<u>Notes</u>
Managed plantations (rainfed)	0.7	0.4	1	Shade regulation, manuring and pest control.
Intensive with irrigation	1.2	0.8	1.5	Good clonal material, steady moisture, careful harvest/drying.

Season calendars

<u>Country</u>	<u>Region</u>	<u>Planting</u>	<u>Harvest</u>
KE	Humid forest margins (high rainfall highlands)	Onset of long rains under shade trees.	Multiple pickings over 4–6 months once bearing.
TZ	Southern/Northern highlands with shade	Start of main rains; irrigated pockets can stagger.	Regular pickings during flush seasons.
UG	Moist highlands with agroforestry	At onset of reliable rains under filtered shade.	Green capsule harvests every 2–3 weeks in season.

Region suitability

<u>Country</u>	<u>Region</u>	<u>Suitability</u>
KE	Forest-edge highlands with reliable rainfall	High
TZ	Southern & Northern highlands (shaded valleys)	High
UG	Moist highland agroforestry belts	High

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