FarmLens Ltd
Website: farmlens.africa | App: app.farmlens.africa | Headquarters: Nairobi, Kenya

Crop details

Coconut (mnazi)

Cocos nucifera

Family: Arecaceae

Categories

Fruits & Nuts

Generated: 2025-12-15 08:54

Quick stats

Family	Arecaceae
Typical harvest	4.7 t/ha
Varieties	3
Pests and diseases	4
Seasons	3

Crop profile

Growth habit	tree
Days to harvest	365
Main uses	Fresh nuts for drinking and cooking, grated coconut for food, copra for oil, husks for fibre and shells for fuel or crafts.
Pollination	wind
Origin and where it grows	Coconut (mnazi) is widely grown along the East African coast and nearby lowlands where temperatures are high and air is moist.

Weather, soil and spacing

Best temperature	24 - 30 °C
Rainfall	1200 - 2500 mm/yr
Altitude	0 - 600 m
Best pH	5.5 - 7.5
Soil type	Deep, well-drained sandy or loamy soils with good moisture-holding. Coconut (mnazi) tolerates coastal sands and some salinity if roots reach fresh water.
Row spacing	800 cm
Plant spacing	800 cm
Planting depth	15 cm
Seed rate	kg/ha (check local recommendation)
Nursery days	270

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 nuts for drinking and cooking, grated coconut for food, copra for oil, husks for fibre and shells for fuel or crafts..

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

Where it grows: Coconut (mnazi) is widely grown along the East African coast and nearby lowlands where temperatures are high and air is moist.. Grouped under: Fruits & Nuts.

Best climate: 24 - 30 °C; 1200 - 2500 mm/yr; up to about 600 m a.s.l.

Soil: Best at pH 5.5 - 7.5; deep, well-drained sandy or loamy soils with good moisture-holding. coconut (mnazi) tolerates coastal sands and some salinity if roots reach fresh water..

Farmer guide (Mwongozo wa Mkulima)

Planting	Select big, healthy nuts from high-yielding Coconut (mnazi) palms. Raise seedlings in a nursery, then transplant to the field when they have strong roots and 6–8 leaves. Plant at the start of the rains or provide irrigation. Set the nut in a large hole with manure and soil, leaving part of the nut above ground.
Transplanting	Avoid damaging the growing point at the top. Firm soil around the nut, water immediately and mulch to keep moisture.
Irrigation	In coastal areas with good rainfall, Coconut (mnazi) may not need irrigation. Where rainfall is low or irregular, water young palms regularly and give moisture during flowering and nut filling.
Fertigation	Under drip or basin irrigation, apply nitrogen and especially potassium in small, regular doses. Coconut responds well to organic matter and balanced NPK, with extra K for nut size and oil.
Pest scouting	Check crowns and young leaves for feeding damage by beetles and caterpillars. Look at nuts for scars, rots and premature drop. Inspect trunks and leaf bases for borers where present.
Pruning and training	Remove only completely dry fronds and dry flower stalks from Coconut (mnazi). Do not over-prune green leaves, as they feed the palm.
Harvest	For drinking nuts, harvest when the nut water is sweet and plenty (about 7–8 months after fruit set). For copra and oil, harvest when nuts are mature, husk is brown and you hear a dull sound when tapped.
Postharvest	Keep harvested nuts in shade. For copra, split mature nuts and dry the kernel on clean, raised racks or dryers until hard and brittle, then store in dry, well-aerated bags.

Nutrient schedule (Mbolea kwa Hatua)

#	Stage	DAP	Product	Rate	Targets (kg/ha)	Notes
1	Basal at planting	0	Well-rotted manure + P fertilizer (e.g., TSP or DAP)	15 kg/hole manure + 150 g P fertilizer	N: 0, P?O?: 0, K?O: 0	Mix with topsoil in deep planting holes for Coconut (mnazi).
2	Early growth topdress	180	CAN 26% N	150 g/palm	N: 0, P?O?: 0, K?O: 0	Apply in a ring away from the nut and cover lightly with soil.
3	Annual NPK dressing (bearing palms)	365	NPK 15-15-15 or similar + extra K (e.g., MOP)	0.8 kg/palm/year split in 2–3 doses	N: 0, P?O?: 0, K?O: 0	Broadcast in a wide ring under the canopy and incorporate lightly.

Nutrient requirements

Nutrient	Stage	Amount	Unit

N	Establishment	30	kg/ha
P?O?	Establishment	40	kg/ha
K?O	Establishment	40	kg/ha
N	Vegetative	60	kg/ha
P?O?	Vegetative	20	kg/ha
K?O	Vegetative	80	kg/ha
N	Flowering_fruit_set	30	kg/ha
P?O?	Flowering_fruit_set	20	kg/ha
K?O	Flowering_fruit_set	100	kg/ha
N	Maintenance_bearing	50	kg/ha
P?O?	Maintenance_bearing	10	kg/ha
K?O	Maintenance_bearing	90	kg/ha

Varieties

Name	Country	Maturity (days)	Traits
Tall Coconut (mnazi mrefu)	KE	2555	Tall palms, long life, many nuts, widely used for copra and drink.
Dwarf Coconut (mnazi mfupi)	TZ	1460	Shorter palms, earlier bearing, good for homesteads and tender nuts.
Hybrid tall × dwarf	KE	1825	Combines early bearing of dwarf with vigour and yield of tall types where available.

Fertilizer recommendations

Stage	Product	Rate	Notes
Basal	Well-rotted farmyard manure	8000	Applied in basins or rings under Coconut (mnazi) canopy once a year or every two years.
Vegetative	CAN 26% N or urea	60	Split into 2–3 applications on moist soil to reduce losses.
Bearing and fruiting	NPK + extra potassium (e.g., NPK 15-15-15 + MOP)	100	Higher potassium improves nut size and oil yield.

Pests and diseases

Name	Type	Symptoms	Management
Coconut rhinoceros beetle	pest	V-shaped cuts and holes in young fronds, reduced leaf area and poor growth in Coconut (mnazi).	Destroy breeding sites such as rotting logs and old stumps, use traps where available and remove and kill adult beetles found in the crown.

Name	Type	Symptoms	Management
Caterpillars and leaf feeders	pest	Chewed leaflets, skeletonised leaves and reduced leaf area.	Encourage natural enemies and use targeted biological or chemical sprays only when damage is severe.
Scales and mites on Coconut (mnazi)	pest	Yellowing leaves, small insects or mites on leaf undersides and possibly sooty mould.	Improve tree vigour with good nutrition, wash small trees with water and soap where practical and use selective miticides or oils if needed.
Bud rot and stem rots	disease	Rotting growing point, foul smell, collapse of central spear leaves and eventual death of the palm.	Ensure good drainage, avoid injury to the crown and remove and destroy severely affected palms to protect others.

Yields

System	Typical	Min	Max	Notes
Low-input homestead Coconut (mnazi)	2	1	3	Scattered trees around homes; roughly 30–50 nuts per palm per year.
Managed coconut grove (rainfed)	4	2.5	6	Regular weeding, manuring and some fertilizer use; 60–100 nuts per palm per year.
Intensive irrigated Coconut (mnazi)	8	5	10	Good varieties, irrigation, fertilization and pest control; high nut counts per palm.

Season calendars

Country	Region	Planting	Harvest
KE	Coastal Coconut (mnazi) belt	Start of long or short rains so young palms establish well.	Mature palms bear all year with peaks after rainy seasons.
TZ	Coastal and island Coconut (mnazi) zones	Any time with irrigation; otherwise at onset of main rains.	Continuous harvest with flushes linked to rainfall pattern.
UG	Warm low-lying lakeshore pockets	Start of rainy season on well-drained sites near water.	Year-round harvest once bearing, with peaks after rains.

Region suitability

Country	Region	Suitability
KE	Coastal strip and lower coastal hinterland	High
TZ	Coastal belt and islands (including Zanzibar and Pemba)	High

Country	Region	Suitability
UG	Warm lakeshore and low-lying areas	Medium