

FarmLens Ltd

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



Crop details

Groundnut / Peanut

Arachis hypogaea

Family: Fabaceae

Categories

Legumes & Pulses

Oil & Industrial

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Quick stats

Family	Fabaceae
Typical harvest	2.1 t/ha
Varieties	48
Pests and diseases	80
Seasons	48

Crop profile

Growth habit	annual
Days to harvest	110
Main uses	Roasted and boiled nuts, peanut butter, cooking oil and cake for animal feed. Dry haulms are also used as fodder.
Pollination	self
Origin and where it grows	Groundnut/peanut (karanga) is grown in warm, medium to low rainfall areas of East Africa, often on light soils.

Weather, soil and spacing

Best temperature	24 - 30 °C
Rainfall	600 - 1000 mm/yr
Altitude	0 - 1500 m
Best pH	5.5 - 6.5
Soil type	Light, well-drained sandy loam to loam. Groundnut/peanut (karanga) needs loose soils so pegs and pods can form easily.
Row spacing	45 cm
Plant spacing	10 cm
Planting depth	4 cm
Seed rate	80 kg/ha

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 roasted and boiled nuts, peanut butter, cooking oil and cake for animal feed. dry haulms are also used as fodder..

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

Where it grows: Groundnut/peanut (karanga) is grown in warm, medium to low rainfall areas of East Africa, often on light soils..
Grouped under: Legumes & Pulses, Oil & Industrial.

Best climate: 24 - 30 °C; 600 - 1000 mm/yr; up to about 1500 m a.s.l.

Soil: Best at pH 5.5 - 6.5; light, well-drained sandy loam to loam. groundnut/peanut (karanga) needs loose soils so pegs and pods can form easily..

Farmer guide (Mwongozo wa Mkulima)

<u>Planting</u>	Plant Groundnut/peanut (karanga) at the start of the rains using well-filled seed. Place 2–3 seeds per hole, cover with loose soil and thin to one or two strong plants.
<u>Transplanting</u>	Karanga is direct seeded; do not transplant.
<u>Irrigation</u>	Keep soil moist during germination, pegging (when flowers bend into the soil) and pod filling. Avoid long dry spells at flowering and pegging.
<u>Fertigation</u>	Give a small starter dose of phosphorus and calcium. Because it is a legume, karanga fixes nitrogen and usually does not need extra N fertilizer.
<u>Pest scouting</u>	Inspect fields weekly for leaf spots, rosette, aphids and pod pests. Check lower leaves and stems, and look for plants that yellow or dry too early.
<u>Pruning and training</u>	No pruning needed. Keep the field weed-free especially in the first 4–6 weeks so the crop can cover the ground.
<u>Harvest</u>	Harvest Groundnut/peanut (karanga) when most leaves turn yellow and inside of pods show a network pattern with firm, filled kernels.
<u>Postharvest</u>	Lift plants, shake off soil and dry them in small stacks or on racks with pods up. After drying, strip pods, dry again until kernels are crunchy, then store in dry, airy, rodent-proof bags.

Nutrient schedule (Mbolea kwa Hatua)

#	Stage	DAP	Product	Rate	Targets (kg/ha)	Notes
1	Basal at planting	0	NPK with P (e.g., 0-23-19) or TSP + K source + gypsum if available	80 kg/ha	N: 0, P?O?: 25, K?O: 20	Band fertilizer slightly away from the row; apply gypsum around flowering for extra calcium if needed.
1	Basal at planting	0	NPK with P (e.g., 0-23-19) or TSP + K source + gypsum if available	80 kg/ha	N: 0, P?O?: 25, K?O: 20	Band fertilizer slightly away from the row; apply gypsum around flowering for extra calcium if needed.
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2	Optional K / Ca topdress (early pegging)	35	Gypsum or K-rich fertilizer	80 kg/ha	N: 0, P?O?: 0, K?O: 15	Broadcast lightly over karanga rows when pegs are entering the soil.
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Nutrient requirements

Nutrient	Stage	Amount	Unit
N	Basal	10	kg/ha
P ₂ O ₅	Basal	25	kg/ha
K ₂ O	Basal	20	kg/ha
N	Topdress_early	0	kg/ha
P ₂ O ₅	Topdress_early	0	kg/ha
K ₂ O	Topdress_early	20	kg/ha
N	Basal	10	kg/ha
P ₂ O ₅	Basal	25	kg/ha
K ₂ O	Basal	20	kg/ha
N	Topdress_early	0	kg/ha
P ₂ O ₅	Topdress_early	0	kg/ha
K ₂ O	Topdress_early	20	kg/ha
N	Basal	10	kg/ha
P ₂ O ₅	Basal	25	kg/ha
K ₂ O	Basal	20	kg/ha
N	Topdress_early	0	kg/ha
P ₂ O ₅	Topdress_early	0	kg/ha
K ₂ O	Topdress_early	20	kg/ha
N	Basal	10	kg/ha
P ₂ O ₅	Basal	25	kg/ha
K ₂ O	Basal	20	kg/ha
N	Topdress_early	0	kg/ha
P ₂ O ₅	Topdress_early	0	kg/ha
K ₂ O	Topdress_early	20	kg/ha
N	Basal	10	kg/ha

<u>Nutrient</u>	<u>Stage</u>	<u>Amount</u>	<u>Unit</u>
P?O?	Basal	25	kg/ha
K?O	Basal	20	kg/ha
N	Topdress_early	0	kg/ha
P?O?	Topdress_early	0	kg/ha
K?O	Topdress_early	20	kg/ha
N	Basal	10	kg/ha
P?O?	Basal	25	kg/ha
K?O	Basal	20	kg/ha
N	Topdress_early	0	kg/ha
P?O?	Topdress_early	0	kg/ha
K?O	Topdress_early	20	kg/ha
N	Basal	10	kg/ha
P?O?	Basal	25	kg/ha
K?O	Basal	20	kg/ha
N	Topdress_early	0	kg/ha
P?O?	Topdress_early	0	kg/ha
K?O	Topdress_early	20	kg/ha
N	Basal	10	kg/ha
P?O?	Basal	25	kg/ha
K?O	Basal	20	kg/ha
N	Topdress_early	0	kg/ha
P?O?	Topdress_early	0	kg/ha
K?O	Topdress_early	20	kg/ha
N	Basal	10	kg/ha
P?O?	Basal	25	kg/ha
K?O	Basal	20	kg/ha
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P?O?	Topdress_early	0	kg/ha
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N	Basal	10	kg/ha

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K?O	Basal	20	kg/ha
N	Topdress_early	0	kg/ha
P?O?	Topdress_early	0	kg/ha
K?O	Topdress_early	20	kg/ha
N	Basal	10	kg/ha
P?O?	Basal	25	kg/ha
K?O	Basal	20	kg/ha
N	Topdress_early	0	kg/ha
P?O?	Topdress_early	0	kg/ha
K?O	Topdress_early	20	kg/ha
N	Basal	10	kg/ha
P?O?	Basal	25	kg/ha
K?O	Basal	20	kg/ha
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P?O?	Topdress_early	0	kg/ha
K?O	Topdress_early	20	kg/ha
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K?O	Basal	20	kg/ha
N	Topdress_early	0	kg/ha
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K?O	Topdress_early	20	kg/ha
N	Basal	10	kg/ha
P?O?	Basal	25	kg/ha
K?O	Basal	20	kg/ha
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P?O?	Topdress_early	0	kg/ha
K?O	Topdress_early	20	kg/ha
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K?O	Topdress_early	20	kg/ha
N	Basal	10	kg/ha
P?O?	Basal	25	kg/ha
K?O	Basal	20	kg/ha
N	Topdress_early	0	kg/ha
P?O?	Topdress_early	0	kg/ha
K?O	Topdress_early	20	kg/ha

Field images



Varieties

<u>Name</u>	<u>Country</u>	<u>Maturity (days)</u>	<u>Traits</u>
Early bunch groundnut	KE	95	Short, bunch type, early harvest; good for roasting and boiling.
Virginia-type spreading groundnut	TZ	120	Spreading, higher haulm yield for fodder; good for oil and nuts.
Local karanga landrace	KE	110	Traditional taste and cooking quality; moderate yield and good adaptation.
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Fertilizer recommendations

<u>Stage</u>	<u>Product</u>	<u>Rate</u>	<u>Notes</u>
Topdress (Ca & K)	Gypsum and/or MOP	80	Applied around flowering and pegging to improve pod fill and seed quality.
Basal	NPK with P (e.g., 0-23-19) or TSP + K source	80	Supplies phosphorus and potassium for Groundnut/peanut (karanga) root growth and pegging.
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Pests and diseases

<u>Name</u>	<u>Type</u>	<u>Symptoms</u>	<u>Management</u>
Aphids	pest	Clusters of small insects on young shoots of Groundnut/peanut (karanga), sticky honeydew and sooty mould; can spread rosette virus.	Use clean seed, control volunteer plants and spray with recommended products only when aphid pressure is high.
Groundnut rosette virus	disease	Severely stunted karanga plants with yellow or green mosaic leaves and poor pod fill.	Plant early, use resistant/tolerant varieties and manage aphids which spread the disease.
Leaf spots (early and late)	disease	Brown to black spots on leaves of Groundnut/peanut (karanga) that may join and cause early leaf drop.	Use tolerant varieties, rotate crops and apply fungicides where disease is severe and economic.

<u>Name</u>	<u>Type</u>	<u>Symptoms</u>	<u>Management</u>
Termites and soil pests	pest	Hollow or damaged pods, eaten shells and weak plants.	Destroy old crop residues, avoid very dry, cracked soils and use seed or soil treatments where needed.
Storage insects (bruchids and beetles)	pest	Holes and powder in stored Groundnut/peanut (karanga) kernels.	Dry nuts well, keep shells intact where possible and store in clean, airtight or treated bags.
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Groundnut rosette virus	disease	Severely stunted karanga plants with yellow or green mosaic leaves and poor pod fill.	Plant early, use resistant/tolerant varieties and manage aphids which spread the disease.
Leaf spots (early and late)	disease	Brown to black spots on leaves of Groundnut/peanut (karanga) that may join and cause early leaf drop.	Use tolerant varieties, rotate crops and apply fungicides where disease is severe and economic.
Termites and soil pests	pest	Hollow or damaged pods, eaten shells and weak plants.	Destroy old crop residues, avoid very dry, cracked soils and use seed or soil treatments where needed.
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Yields

<u>System</u>	<u>Typical</u>	<u>Min</u>	<u>Max</u>	<u>Notes</u>
Smallholder rainfed (low input)	1.2	0.7	1.8	Local karanga seed, little fertilizer and basic weeding.
Smallholder rainfed (improved management)	2	1.5	2.8	Improved varieties, good spacing, starter fertilizer and timely weeding and disease control.
High input / irrigated	3	2.5	4	Good varieties, well-prepared loose soil, balanced nutrients and reliable moisture.
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Season calendars

Country	Region	Planting	Harvest
KE	Coastal and eastern karanga belt (long rains)	Mar–Apr	Jul–Aug
KE	Coastal and eastern karanga belt (short rains)	Oct–Nov	Feb–Mar
TZ	Central and southern warm zones	Dec–Jan	Apr–May
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Region suitability

<u>Country</u>	<u>Region</u>	<u>Suitability</u>
KE	Coastal lowlands and eastern sandy soils	High
KE	Lower eastern mixed crop–livestock areas	High
KE	Very wet, heavy clay highlands	Low
TZ	Central plateau and southern sandy zones	High
UG	Eastern and northern sandy loam areas	Medium

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