FarmLens Ltd

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Crop details

Avocado (parachichi)

Persea americana

Family: Lauraceae

Categories

Fruits & Nuts

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Quick stats

| Family | Lauraceae |
|--------------------|-----------|
| Typical harvest | 12.3 t/ha |
| <u>Varieties</u> | 3 |
| Pests and diseases | 7 |
| Seasons | 0 |

Crop profile

| Growth habit | tree |
|---------------------------|---|
| Days to harvest | 365 |
| Main uses | Fruits eaten fresh with meals, in salads, sandwiches, juice and guacamole; also used for oil and animal feed from rejects. |
| Pollination | insect |
| Origin and where it grows | Avocado (parachichi) is widely grown in cool to warm midaltitude areas of East Africa, especially around homesteads and in commercial orchards. |

Weather, soil and spacing

| Best temperature | 16 - 26 °C |
|------------------|---|
| Rainfall | 900 - 1400 mm/yr |
| Altitude | 1000 - 2400 m |
| Best pH | 6 - 6.8 |
| Soil type | Deep, well-drained loam or sandy loam rich in organic matter. Avocado (parachichi) roots need plenty of air and do best where water moves through the profile. |
| Row spacing | 700 cm |
| Plant spacing | 700 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 fruits eaten fresh with meals, in salads, sandwiches, juice and guacamole; also used for oil and animal feed from rejects..

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

Where it grows: Avocado (parachichi) is widely grown in cool to warm mid-altitude areas of East Africa, especially around homesteads and in commercial orchards.. Grouped under: Fruits & Nuts.

Best climate: 16 - 26 °C; 900 - 1400 mm/yr; up to about 2400 m a.s.l.

Soil: Best at pH 6 - 6.8; deep, well-drained loam or sandy loam rich in organic matter. avocado (parachichi) roots need plenty of air and do best where water moves through the profile..

Farmer guide (Mwongozo wa Mkulima)

| Planting | Plant Avocado (parachichi) at the start of rains. Dig wide holes, mix topsoil with manure and refill partly. Plant the grafted seedling at the same depth as in the nursery bag and keep the graft union above the soil. |
|----------------------|--|
| Transplanting | Use healthy, grafted seedlings. Remove the polythene carefully, avoid twisting roots and water immediately after planting. |
| Irrigation | Young trees need regular watering, especially during dry spells. For bearing trees, avoid long drought at flowering and early fruit growth, but do not overwater heavy soils. |
| <u>Fertigation</u> | With drip, split fertilizer into many small applications. Apply more nitrogen when trees are flushing and more potassium during fruit development. Avoid heavy N just before flowering. |
| Pest scouting | Inspect trees every 2–3 weeks for fruit flies, thrips, mites and diseases on flowers, young leaves and fruits. Look for scars, spots and rotting areas. |
| Pruning and training | Train Avocado (parachichi) to a strong central framework with 3–4 main branches. Remove very low, crossing or broken branches and thin the canopy lightly to let in light and air. |
| <u>Harvest</u> | Harvest fruits when they reach full size and skin colour typical of the variety. Fruits ripen off the tree after picking. Do not pull roughly; clip or twist gently. |
| Postharvest | Handle carefully to avoid bruising. Keep fruits in shade, not direct sun. Store on clean crates and avoid piling fruits too high. Cool storage extends shelf life where available. |

Nutrient schedule (Mbolea kwa Hatua)

| # | Stage | DAP | Product | Rate | Targets (kg/ha) | Notes |
|---|--------------------------------|-----|---|-------------------------------|--------------------------|--|
| 1 | Basal at planting | 0 | Well-rotted manure + small 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 main roots. |
| 2 | Young tree topdress | 180 | CAN 26% N | 150 g/tree | N: 0, P?O?: 0, K?O: 0 | Apply in a ring under the canopy edge and lightly fork into the soil. |
| 3 | Pre-flowering feed | 365 | NPK 17-17-17 or 10-20-20 | 250 g/tree | N: 0, P?O?: 0, K?O: 0 | Apply at the start of rains before main flowering; do not overdo nitrogen. |
| 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 | Improves fruit size, oil content and shelf life of Avocado (parachichi). |

Nutrient requirements

| Nutrient | Stage | Amount | <u>Unit</u> |
|----------|---------------------|--------|-------------|
| N | Establishment | 25 | kg/ha |
| P?O? | Establishment | 25 | kg/ha |
| K?O | Establishment | 25 | kg/ha |
| N | Vegetative | 50 | kg/ha |
| P?O? | Vegetative | 20 | kg/ha |
| K?O | Vegetative | 40 | kg/ha |
| N | Bearing_maintenance | 60 | kg/ha |
| P?O? | Bearing_maintenance | 25 | kg/ha |
| K?O | Bearing_maintenance | 80 | kg/ha |

Field images













Varieties

| Name | Country | Maturity (days) | <u>Traits</u> |
|-------------------------------|---------|--------------------|--|
| Hass | KE | 300 | Small to medium, darkening skin, high oil content and good keeping quality; common export variety. |
| Fuerte | KE | 280 | Pear-shaped green fruit with good flavour; used for fresh local markets. |
| Local Avocado (parachichi) | KE | 280 | Larger fruits, variable seed size and taste, widely grown around homesteads. |

Fertilizer recommendations

| Stage | Product | Rate | Notes |
|-------------------------|-----------------------------|-------|---|
| Basal (planting) | Well-rotted farmyard manure | 10000 | Apply in the planting hole and along the future root zone. |
| Young trees | CAN 26% N | 50 | Split into 2–3 small doses per year to encourage strong early growth. |
| Bearing trees base feed | NPK 17-17-17 or similar | 150 | Applied each year, often at the start of rains. |

| Stage | Product | Rate | Notes |
|---------------|---|------|---|
| Fruit quality | Sulfate of potash (SOP) or high-K blend | 80 | Given around fruit set to support oil content and firmness. |

Pests and diseases

| Name | Type | Symptoms | Management |
|---|-------------|----------|--|
| Fruit flies | pest | | Collect and destroy fallen fruits, use bait traps and harvest promptly when fruits are mature. |
| False codling moth / other fruit borers | pest | | Field sanitation, removal of infested fruits and use of recommended control products where needed. |
| Thrips | pest | | Monitor during flowering and early fruit set and apply selective insecticides or biopesticides if damage is high. |
| Mites | pest | | Avoid dust, keep trees healthy with adequate water and nutrients and use specific miticides or biopesticides when necessary. |
| Root rot (Phytophthora) | disease | | Plant on well-drained soils, avoid waterlogging and heavy compaction, and use tolerant rootstocks where available. |
| Anthracnose and stem-end rots | disease | | Prune for good airflow, avoid wetting fruits late in the day and use recommended fungicides as needed. |
| Scab and leaf spots | disease | | Use tolerant varieties, prune dense canopies and apply fungicides when disease pressure is high. |

Yields

| System | Typical | Min | Max | Notes |
|--|---------|-----|-----|--|
| Scattered homestead Avocado (parachichi) trees | 5 | 3 | 8 | Little pruning or fertilizer; 50–150 kg fruit per mature tree is common. |
| Managed smallholder orchard | 12 | 7 | 18 | Improved varieties, some pruning, manure and fertilizer, basic pest and disease control. |
| Intensive / export Avocado orchard | 20 | 15 | 25 | High-density planting, drip irrigation, fertigation and well-planned canopy and pest management. |

Region suitability

| Country | Region | Suitability |
|---------|--|-------------|
| KE | Central and Rift Valley highlands (Avocado belt) | N/A |
| KE | Upper mid-altitude zones with deep, well-drained soils | N/A |
| TZ | Northern and southern highlands | N/A |
| UG | Highland and mid-altitude smallholder Avocado zones | N/A |

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