

FarmLens Ltd

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



Crop details

Plantain

Musa paradisiaca

Family: Musaceae

Categories

Bananas & Plantains

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Quick stats

| | |
|---------------------------|-----------|
| Family | Musaceae |
| Typical harvest | 17.5 t/ha |
| Varieties | 2 |
| Pests and diseases | 3 |
| Seasons | 2 |

Crop profile

| | |
|----------------------------------|----------------------------|
| Growth habit | perennial |
| Days to harvest | 320-480 |
| Main uses | Starchy fruit; cooking |
| Pollination | vegetative |
| Origin and where it grows | Tropical Africa & Americas |

Weather, soil and spacing

| | |
|-------------------------|------------------------------------|
| Best temperature | 22 - 28 °C |
| Rainfall | 1400 - 2200 mm/yr |
| Altitude | 0 - 1400 m |
| Best pH | 6 - 6.8 |
| Soil type | Deep fertile loam |
| Row spacing | 300 cm |
| Plant spacing | 300 cm |
| Planting depth | 30 cm |
| Seed rate | kg/ha (check local recommendation) |
| Nursery days | 180 |

Simple notes for farmers

About the crop: This crop is perennial; once planted it can keep producing for many years. Harvest typically starts about 320-480 days after planting.

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

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

Where it grows: Tropical Africa & Americas. Grouped under: Bananas & Plantains.

Best climate: 22 - 28 °C; 1400 - 2200 mm/yr; up to about 1400 m a.s.l.

Soil: Best at pH 6 - 6.8; deep fertile loam.

Farmer guide (Mwongozo wa Mkulima)

| | |
|------------------------------------|--|
| <u>Planting</u> | Plant healthy Plantain seedlings or grafted plants at onset of rains in prepared pits. |
| <u>Transplanting</u> | Handle Plantain rootballs carefully and water well after planting. |
| <u>Irrigation</u> | Maintain steady moisture during establishment and fruit development of Plantain. |
| <u>Fertigation</u> | Split nutrients through active growth and fruit development in Plantain. |
| <u>Pest scouting</u> | Scout Plantain regularly for fruit flies, scales, borers, and foliar diseases. |
| <u>Pruning and training</u> | Prune Plantain to maintain canopy light, height, and sanitation. |
| <u>Harvest</u> | Harvest Plantain at the right maturity stage for fresh-market quality. |
| <u>Postharvest</u> | Keep Plantain shaded and cool after harvest to preserve market quality. |

Nutrient schedule (Mbolea kwa Hatua)

| <u>#</u> | <u>Stage</u> | <u>DAP</u> | <u>Product</u> | <u>Rate</u> | <u>Targets (kg/ha)</u> | <u>Notes</u> |
|-----------------|---------------------|-------------------|-----------------------|--------------------|--|---|
| 1 | Planting | 0 | NPK 17-17-17 | 180 kg/ha | N: N/A, P ₂ O ₅ : N/A, K ₂ O: N/A | Improve rooting environment for Plantain. |
| 2 | Vegetative | 90 | Urea | 100 kg/ha | N: 34, P ₂ O ₅ : 34, K ₂ O: 34 | Balanced nutrient support for Plantain. |

Nutrient requirements

| <u>Nutrient</u> | <u>Stage</u> | <u>Amount</u> | <u>Unit</u> |
|-------------------------------|---------------------|----------------------|--------------------|
| N | Basal | 60 | kg/ha |
| P ₂ O ₅ | Basal | 40 | kg/ha |
| K ₂ O | Basal | 120 | kg/ha |
| N | Topdress | 60 | kg/ha |
| K ₂ O | Topdress | 80 | kg/ha |
| N | Fruiting | 40 | kg/ha |
| K ₂ O | Fruiting | 50 | kg/ha |

Field images



Varieties

| <u>Name</u> | <u>Country</u> | <u>Maturity (days)</u> | <u>Traits</u> |
|--------------------|-----------------------|-------------------------------|----------------------|
|--------------------|-----------------------|-------------------------------|----------------------|

| | | | |
|----------------|----|-----|--|
| Plantain Local | KE | 400 | Large fingers; cooking |
| French Horn | UG | 390 | Popular cooking type with good bunch weight. |

Fertilizer recommendations

| <u>Stage</u> | <u>Product</u> | <u>Rate</u> | <u>Notes</u> |
|--------------|--------------------|-------------|--|
| Planting | NPK 17-17-17 | 180 | |
| Planting | Well-rotted manure | 8000 | Organic matter for Plantain establishment. |
| Pre-fruiting | NPK 17-17-17 | 200 | Balanced fertilizer ahead of major Plantain crop load. |

Pests and diseases

| <u>Name</u> | <u>Type</u> | <u>Symptoms</u> | <u>Management</u> |
|----------------------------|-------------|---|---|
| Black Sigatoka | disease | Leaf streaks | Sanitation; tolerant cultivars |
| Fruit flies | pest | Stings, larval feeding, and rotting fruits. | Field sanitation, trapping, and timely harvest. |
| Anthraxnose and fruit rots | disease | Lesions on flowers, leaves, or fruits reducing quality. | Prune for airflow, keep orchards clean, and protect during wet periods. |

Yields

| <u>System</u> | <u>Typical</u> | <u>Min</u> | <u>Max</u> | <u>Notes</u> |
|----------------------------|----------------|------------|------------|--|
| rained | 18 | 8 | 30 | |
| Managed orchard production | 17 | 10.2 | 27.2 | Typical orchard yield for Plantain under practical management. |

Season calendars

| <u>Country</u> | <u>Region</u> | <u>Planting</u> | <u>Harvest</u> |
|----------------|-----------------------|--------------------|------------------------------------|
| KE | Humid lowlands | Mar–May / Oct–Nov | All year (from 12–16 mo) |
| KE | Managed Orchard Zones | Mar-Apr or Oct-Nov | Depends on variety and agroecology |

Region suitability

| <u>Country</u> | <u>Region</u> | <u>Suitability</u> |
|----------------|-----------------------|--------------------|
| KE | Humid lowlands | High |
| KE | Managed Orchard Zones | Medium |

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