FarmLens Ltd

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Crop details

Kenaf

Hibiscus cannabinus

Family: Malvaceae

Categories

Oil & Industrial

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Quick stats

| Family | Malvaceae |
|--------------------|-----------|
| Typical harvest | 9.0 t/ha |
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Crop profile

| Crop prome | |
|---------------------------|---------------------|
| Growth habit | annual |
| Days to harvest | 120-180 |
| Main uses | Fiber; biomass |
| Pollination | insect |
| Origin and where it grows | Africa/Asia tropics |

Weather, soil and spacing

| Best temperature | 24 - 32 °C |
|------------------|------------------|
| Rainfall | 700 - 1200 mm/yr |
| Altitude | 0 - 1600 m |
| Best pH | 6 - 7 |
| Soil type | Fertile loam |
| Row spacing | 60 cm |
| Plant spacing | 20 cm |
| Planting depth | 2 cm |
| Seed rate | 15 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 120-180 days after planting.

Main use: Farmers mostly grow this crop for fiber; biomass.

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

Where it grows: Africa/Asia tropics. Grouped under: Oil & Industrial.

Best climate: 24 - 32 °C; 700 - 1200 mm/yr; up to about 1600 m a.s.l.

Soil: Best at pH 6 - 7; fertile loam.

Farmer guide (Mwongozo wa Mkulima)

| Planting | Direct-seed on a fine, firm seedbed at onset of rains. Thin to spacing at 2–3 weeks. Keep weed-free during early growth. |
|----------------------|--------------------------------------------------------------------------------------------------------------------------|
| Transplanting | Not commonly transplanted; direct seeding preferred. |
| Irrigation | Maintain adequate moisture during first 6–8 weeks and at rapid stem elongation. |
| Fertigation | If irrigated, split N and K into small doses; avoid excess late N to reduce lodging. |
| Pest scouting | Scout for defoliators, whiteflies/aphids (virus risk), and stem rots; remove diseased plants. |
| Pruning and training | Not required; avoid lodging via balanced nutrition and density. |
| <u>Harvest</u> | Harvest for fiber at early pod set when stems are mature but not woody; rett stems and strip bast fiber. |
| Postharvest | Ret evenly (water or dew); wash and dry fiber under shade; store dry and aerated. |

Nutrient schedule (Mbolea kwa Hatua)

| # | <u>Stage</u> | <u>DAP</u> | Product | Rate | Targets (kg/ha) | Notes |
|---|-----------------------|------------|------------------|----------|--------------------------------|-----------------------------------------|
| 1 | Basal | 0 | NPK 15-15- 15 | 80 kg/ha | N: N/A, P?O?: N/A, K?O: N/A | Band or broadcast and incorporate |
| 2 | Topdress | 35 | Urea | 60 kg/ha | N: N/A, P?O?: N/A, K?O: N/A | Apply on moist soil; avoid leaf contact |
| 3 | Topdress 2 (optional) | 50 | Urea (light) | 30 kg/ha | N: N/A, P?O?: N/A, K?O: N/A | Only if crop vigor is low |

Nutrient requirements

| Nutrient | Stage | Amount | <u>Unit</u> |
|----------|----------|--------|-------------|
| N | Basal | 40 | kg/ha |
| P?O? | Basal | 20 | kg/ha |
| K?O | Basal | 30 | kg/ha |
| N | Topdress | 30 | kg/ha |
| K?O | Topdress | 20 | kg/ha |
| N | Late | 20 | kg/ha |

Field images



Varieties

| Name | Country | Maturity (days) | Traits |
|------------------------------|---------|-----------------|-------------------------------|
| Local Kenaf | KE | 150 | Fiber yield |
| Local fiber type | KE | 120 | Tall; good bast yield |
| Dual-purpose (fiber/biomass) | TZ | 110 | Moderate height; good biomass |

Fertilizer recommendations

| <u>Stage</u> | Product | Rate | Notes |
|--------------|-------------------------|------|-------------------|
| Basal | NPK 15-15-15 | 80 | |
| Basal | NPK 17-17-17 | 100 | At sowing |
| Topdress | Urea 46% N or CAN 26% N | 60 | ~30 DAP |
| Topdress | Urea (optional) | 30 | ~50 DAP if needed |

Pests and diseases

| Name | Type | Symptoms | Management |
|---------------------------------------|-------------|--------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Stem borers | pest | Bored stems | Rotation; timely harvest |
| Hairy caterpillar/defoliators | pest | Leaf stripping; skeletonization Early scouting; hand-pick or targeted sprays; conserve natural enemies | |
| Aphids & whiteflies | pest | Honeydew/sooty mold; virus transmission | Monitor; control ants; selective insecticides if thresholds exceeded |
| Stem/foot rot (Fusarium/Pythium) | disease | Stem base rot; wilting | Rotation; well-drained fields; avoid injury; rogue plants |
| Leaf spots (Cercospora/Alternaria) | disease | Spots; premature defoliation | Spacing; sanitation; protectants if severe |

Yields

| System | Typical | Min | Max | Notes |
|------------------------|----------------|-----|-----|--------------------------|
| rainfed | 10 | 6 | 15 | Stem biomass (fresh) |
| rainfed smallholder | 2 | 1.2 | 3 | Bast fiber |
| biomass (stems, fresh) | 15 | 10 | 25 | Whole stem fresh biomass |

Season calendars

| Country | Region | Planting | <u>Harvest</u> |
|---------|-----------------------------------|----------|----------------|
| KE | Humid lowlands | Mar–Apr | Jul-Oct |
| KE | Low to mid-altitudes (long rains) | Mar–Apr | Jul-Sep |

| Country | Region | Planting | <u>Harvest</u> |
|---------|------------------------------------|----------|----------------|
| KE | Low to mid-altitudes (short rains) | Oct-Nov | Feb-Mar |
| UG | Eastern/Central (1st rains) | Mar–Apr | Jul-Aug |
| UG | Eastern/Central (2nd rains) | Aug-Sep | Dec-Jan |
| TZ | Northern unimodal | Nov-Dec | Mar–May |

Region suitability

| Country | Region | Suitability |
|---------|-------------------------------------------------------------|-------------|
| KE | Coastal; Lower Eastern; Lake Basin; mid-altitude warm zones | High |
| KE | Cool highlands >1800 m | Low |
| KE | Humid lowlands | High |
| KE | Poorly drained wetlands | Low |
| TZ | Coast; Morogoro; warm valleys | High |
| UG | Eastern & Central warm sub-humid | High |

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