

BOTANICAL DESCRIPTION



Kenaf (*Hibiscus cannabifolius* L.) is an annual herbaceous plant belonging to the Malvaceae family which is cultivated for the soft bast fiber in the stem. The stem is erect, cylindrical and branched or

unbranched with height ranging from 1 to 4 m, with green/pinkish or reddish pigmentation. Leaves are cordate with shallow bed and serrated margins. The flowers are 8 to 10 cm in diameter when open and are yellow to red at the center or completely yellow with five petals. Seeds are triangular and color ash gray with pointed yellowish white spots.

VARIETIES

- **Variety Simplex** - stems are purple, leaves entirely with purple petioles
- **Variety Viridis** - stems are green, leaves entirely with green petioles
- **Variety Rubber** - stems are red below and greenish above, leaves divided with green petioles
- **Variety Purpureus** - stems are purple, leaves divided with purple petioles
- **Variety Vulgaris** - stems are green, leaves divided with green petioles

CULTURAL MANAGEMENT

Soil Requirements

Kenaf is adaptable to various soil types. Sandy loam, silty loam, sandy clay loam, clay loam, and organic soils with pH level ranging from 4.4 to 6.5 are suitable for its production. Well-drained soil and those with considerable humus content are also desirable.

METHOD OF PROPAGATION

Seed Planting Months

Laguna - March, April, and May
Zamboanga - February and March
Davao - January and April

Distance of Planting

- 18-20cm x 5cm with an estimated 8kg of seeds per hectare
- **Plot Planting System** - 20cm x 20cm and 30cm between plots
- **Row Planting System** - 30cm x 20cm

RATE OF FERTILIZATION

Basal fertilizer application of 60-30-30 in the soil is recommended. A maximum of 100kg Nitrogen could increase fiber recovery by 0.55%. The fertilizer is drilled along the furrows and covered with soil.

PEST AND DISEASE CONTROL

Major Pests

- **BLACK FLEA BEETLE** attacks the stem and leaves of Kenaf in the later stage. Spray with suitable insecticides.
- **CORN BORER** (*Ostrinia furnacalis*) attacks the seed capsules of Kenaf. Spray Deildrin at a weekly interval using 0.5K of 100% per hectare.
- **COTTON APHID** (*Aphis gossypii*) causes heavy infestation on young Kenaf plants. To control, spray with Melathion.
- **BLACK CUTWORM** (*Agrotis ipsilon* Rott) damages Kenaf by cutting the stem near the soil level. Control with 1.2 kg per hectare of Toxaphene or other suitable insecticides.



Philippine Fiber Industry Development Authority

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MAJOR DISEASES

- **ANTRACNOSE** (*Collectotrichum hibisci Polacci*) causes apical stem swelling and leaf lesion. To control, spray with copper oxychloride at 0.75% concentration on the foliage at an interval of one week.
- **COLLAR ROT** (*Sclerotium rofsil Sacc.*) is caused by soil-borne fungi attacking the root and basal stem of Kenaf. Use any available fungicides.
- **LEAF SPOT** (*Ascochyta hibisci cannabi*) is a seed-borne fungus attacking leaves and stem. Use any available fungicides.
- **POWDER MILDEW** (*Leveillula taurica (Lev.) G. Arnaud*) is characterized by defoliation of Kenaf leaves due to fungi attack.
- **ROOT KNOT NEMATODE** (*Meloidogyne spp.*) causes yellow foliage and root galls. Crop rotation is the best control measure.

METHODS OF EXTRACTION

- **RETTING** is done by soaking the plant in water with an average temperature of 32°C from 8 to 25 days.
- **DECORTICATION** is done by field ribboner (not available in the Philippines). It produces 180-300kgs of fiber per hour.

YIELD PER HECTARE



Average yield ranges from 1,700 to 2,000 kgs of dry rotten fiber per hectare. However, potential yield may reach 3,000 to 4,000 kgs of dry fiber. The percentage of dry fiber recovery is 3.26% to 5%.

CLASSIFICATION AND GRADING

- KR-1-Kenaf Excellent
- KR-2-Kenaf Good
- KR-3-Kenaf Fair
- KR-4-Kenaf Mixed

PRINCIPAL USES

- Gunny sacks or bags
- Fabric
- Burlap
- Floor Carpet
- Tarpaulin
- Upholstery cloth
- Towels
- Rope
- Pulp and paper

KENAF TECHNOGUIDE



Hibiscus cannabinus L

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