



Luffa aegyptiaca

Family name: Cucurbitaceae

Common name: Cucurbitaceae

Local name: (ليف) Leef



Wild and cultivated



Role in Biodiversity

Luffa aegyptiaca tolerates a wide range of climatic and soil conditions and increases the biodiversity in many habitats.



Environment and Growing

Luffa aegyptiaca grows well in warm summer temperatures and a well distributed rainfall.

Growth requirements:

- At least 6 hours of full sun per day.
- Well-drained soil.
- PH range 6.0–6.8.
- Average temperature range 30–35°C.
- Soil moisture range 10–15%.



Reproduction and Communication

Luffa aegyptiaca flowers are unisexual and monoecious. Female flowers are pollinated by insects. Although it is considered a cross-pollinated plant, natural self-pollination may take place within the same plant. 20–40% self-pollination can be expected.

To ensure attracting pollinating insects, the flowers are showy in colour, large in size and staminate flowers are produced in greater abundance than pistillate ones.



Life span

Luffa aegyptiaca is an annual plant living its entire lifespan in one growing season.



Size

Luffa aegyptiaca stems can grow up to 9 metres long.



Parts



Stem is five angled with tendrils on the axils of leaves.

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Roots are taproot system.



Leaves are alternate, large, dark green, broadly ovate, 5–7 deep lobes.



Flowers are bright yellow.



Fruits are cylindrical, smooth, and large dehiscent capsule with fibrous mesocarp.



Seeds are numerous, dull black, elliptic-ovoid.

INTRODUCTION

Herb

Luffa aegyptiaca, the sponge gourd, is a vigorous and fast-growing annual vine of tropical origin and now widely spread as wild and cultivated species in tropical and subtropical areas worldwide. It is primarily grown for its fibre production but young fruits and leaves can be cooked as a vegetable. The plant is characterized by green, large, and up to 61 cm long cylindrical fruits with longitudinal marked lines.

In Sudan, *Luffa aegyptiaca* is widespread, especially within the riverine plants along the River Nile and its tributaries, where it climbs large trees. It is also cultivated for shade and fibre - the fibrous core is the original loofa for scrubbing.

LIVELIHOODS / CULTURE

Cultivation

The Sponge gourd is grown inside homes or on the walls of houses and huts, especially in the Blue Nile State. In the beginning of its growth, people usually tie the stems with ropes directed upwards to help the plant climb. Sponge gourds do not need any special land preparation. Seeds are sown in holes that are watered in the early stages until the plant grows and begins to climb, then the irrigation periods are spaced. It takes between 110 and 180 days for the seedlings to grow and become mature. When the seedlings are young, their growth is slow, but once their roots are established in the soil, their growth rate changes dramatically. About three months after planting, the seedlings flower and the fruits begin to appear. When the fruit turns from green to yellow and become light, it is ripe. The fruits are picked after they are ripe and ready to be peeled. If the fruits are picked a little early, they are placed in a dry, sunny place (it is preferable to hang them in the air) to make the peeling process easier.

Cultural Value

Luffa aegyptiaca plant is often grown in Sudan inside homes for shade, decoration, and to benefit from its fruits. The plant usually grown to climbs huts Gotia, Rakoba, or Arisha. In many parts of Sudan, the dried mature fruit, after being peeled from the outer layer, is used as a sponge for cleansing and exfoliating the body.

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Cultural Expressions

Information not available.

THREATS

Luffa aegyptiaca could easily be affected by the climate change especially fluctuation in rainfall. Growth and yield are substantially reduced under water stress. Excessive rainfall during the flowering and fruiting period can damage yield and lower fruit quality.

Luffa aegyptiaca is affected by several pests at different stages of growth such as root-knot nematodes, beetles, paddle legged bug, and gall fly. It is also subjected to some disease such as downy mildew, powdery mildew, soft rot, and cucumber mosaic virus.

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