



DIGITAL GARDEN

Artocarpus heterophyllus

Common Name:

- English: Jackfruit
- Malayalam: ചക്ക (Chakka)
- Tamil: பனை (Panaai), சாக்ஞு (Saakku)

Systematic Position (according to Bentham and Hooker):

- Kingdom: Plantae
- Division: Magnoliophyta (Angiosperms)
- Class: Dicotyledonae



Division	Angiospermae
Class	Dicotyledonae
Order	Rosales
Family	Moraceae
Genus:	<i>Artocarpus</i>
Species:	<i>A. heterophyllus</i>

Botanical Description:

Artocarpus heterophyllus, commonly known as **Jackfruit**, is a large, evergreen tree native to the tropical regions of Southwest India, and it is now widely cultivated across tropical and subtropical parts of the world. The plant is most notable for its large, fleshy fruit, which is the largest fruit to grow on a tree.

- **Tree:**
The tree is large and fast-growing, reaching heights of 10 to 20 meters (33 to

66 feet). The trunk is thick and sturdy, often with a rough bark that is grayish-brown in color. The branches are wide and expansive, forming a broad canopy.

- **Leaves:**

The leaves of *Artocarpus heterophyllus* are leathery, large, and glossy with a dark green color. They are alternate, simple, and variable in shape, often deeply lobed, especially in the young trees. Older leaves are typically oblong with smooth or slightly serrated edges. The leaf size can range from 10 to 30 cm in length and 5 to 15 cm in width.

- **Flowers:**

The flowers of jackfruit are unisexual, and they grow in clusters on thick, spiny inflorescences. Male and female flowers are found on separate inflorescences, which are located in the axils of the leaves. The flowers are small, yellowish-green, and not particularly showy. Male flowers produce small, delicate blooms, while female flowers develop into the jackfruit.

- **Fruit:**

The fruit is the most distinguishing feature of *Artocarpus heterophyllus*. It is a large, oblong, and spiny fruit that can weigh up to 50 kg or more. The fruit is composed of a thick, fibrous rind with a yellow, sweet, fleshy interior that contains numerous edible seeds. The fruit's interior pulp (or bulbs) is sweet, starchy, and has a distinct flavor, which is commonly eaten fresh or used in cooking. The seeds inside the fruit are also edible and nutritious, often boiled or roasted.

- **Roots:**

The jackfruit tree has a deep, extensive root system, which allows it to access water and nutrients from deeper soil layers. This makes it drought-tolerant once established.

Uses of *Artocarpus heterophyllus*:

1. **Food Uses:**

- **Fruits:** The edible part of the jackfruit is the fleshy, sweet pulp, which is consumed in a variety of forms. It can be eaten raw when ripe, or cooked when unripe (the immature green fruit has a neutral flavor and is often used as a meat substitute in savory dishes). It is used in curries, soups, desserts, jams, and chips.

- **Seeds:** The seeds inside the fruit are also edible and are rich in protein, starch, and minerals. They are commonly boiled, roasted, or ground into flour for use in various dishes.
- **Juice:** Jackfruit juice is often consumed fresh or as a beverage.

2. Medicinal Uses:

- **Leaves:** The leaves are used in traditional medicine for treating various conditions, including as an anti-inflammatory and for treating wounds or infections. A decoction of the leaves is sometimes used as a remedy for fever and gastrointestinal issues.
- **Fruit:** The jackfruit is rich in vitamins (especially vitamin C) and antioxidants, which promote good health. It is also considered beneficial for managing blood pressure and improving digestion.

3. Timber:

The wood of the jackfruit tree is heavy and durable, making it suitable for furniture, construction, and carving. The wood has a fine texture and a yellowish-brown color. It is used to make doors, windows, and decorative items.

4. Fodder:

The leaves and unripe fruits are used as fodder for cattle and other livestock in some regions.

5. Cultural and Religious Significance:

In some cultures, especially in South India and Southeast Asia, the jackfruit is considered sacred and is used in festivals and religious offerings. The jackfruit tree is believed to be a symbol of abundance and prosperity.

6. Environmental Uses:

- **Soil Conservation:** The jackfruit tree has a deep root system, which makes it useful for controlling soil erosion, especially in tropical and subtropical areas.
- **Shade Tree:** Due to its large canopy, the jackfruit tree is also planted as a shade tree in gardens and farms.

7. Industrial Uses:

- **Fiber:** The fibers from the inner bark of the jackfruit tree are used to make ropes, twines, and mats.
- **Latex:** The latex produced by the tree has been used traditionally in some regions for various purposes, including as a bonding agent in adhesives.