



Papaya

(*Carica papaya*)

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Classification

- Genus: *Carica*
- Species: *C. papaya*
- Belongs to the family : Caricaceae
- It is the sole species in the genus *Carica*
- Also known as:
 - Papaw
 - Pawpaw

Geography

- Native to the tropics of the Americas, most likely from Mexico and Central America.
- Cultivated first in Mexico (particularly in Chiapas and Veracruz) many centuries before the emergence in Mesoamerican civilizations.
- Top producers of papaya is India followed by Brazil and Indonesia.



Morphological Description

- Papaya is a large, tree-like plant
- Has a single stem that grows anywhere from 5-10 meters
- Spirally arranged leaves confined at the top of the trunk
- Unusually for such a large plant, these trees are dioecious.



Morphological Description

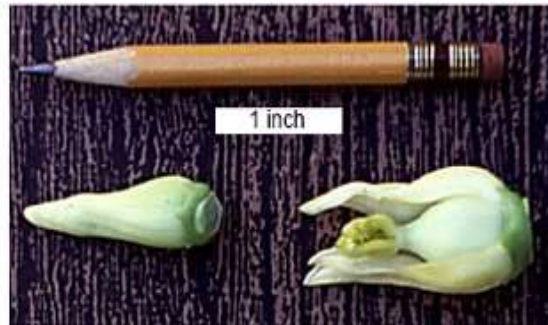
- Leaves are large about 50-70cm in diameter.
- Palmately lobed with seven lobes.
- Flowers appear on axils of the leaves, maturing into a large fruit.



Cultivation

- Papaya plants come in three sexes: male, female, and hermaphrodite.
- Males only produces pollen, never fruit.
- Females will produce small, inedible fruits unless they're pollinated
- Hermaphrodites can self-pollinate since its flowers contain both male stamens and female ovaries.
- Almost all commercial papaya orchards are hermaphrodites.

The three types of papaya flower



Female

conical bud; petals free; large ovary with prominent stigma; no stamens; does not form fruit unless pollinated



Hermaphrodite

cylindrical bud; petals fused at base; contains both ovary and stamens; self-fertile



Male

slender, spoon-shaped bud; petals fused at base; contains anthers but no ovary; cannot develop into fruit

Cultivation

- Grows rapidly, fruiting within three years.
- Highly frost-sensitive
- Temperatures below -2 degree Celsius is harmful if not fatal.
- Prefers sandy, well-drained soil
- Standing water will kill the plant within 24 hours.



Plant uses

- They are used for:
 - Tenderizing meat
 - Nutrients, phytochemicals, and culinary practices
 - Traditional medicine
 - Preliminary research
 - Stem and bark can be used as rope production



Plant Uses

- Green papaya fruit is rich in papain, a protease used for tenderizing meat.
- Black seeds of papaya are edible and have a sharp, spicy taste. They can be grounded and used as a substitute for black pepper.
- Papaya leaves are made into tea as treatment for malaria.
- Phytochemicals in papaya may suppress the effects of progesterone.

10 Health Benefits of...

Papayas



- Soothes Intestinal Inflammation .1
- Reduces Sugar Spikes .2
- Helps Weight Loss .3
- Improves Eyesight .4
- Boosts Immunity .5
- Detoxifies Body .6
- Aids Digestion .7
- Healthy Heart .8
- Anti-Parasitic .9
- Anti-Cancer .10

Historical Facts

- Papaya was probably widely cultivated by Indians in Mexico and Central America before 1492.
- In the 16th and 17th centuries, it quickly became favored by Spanish and Portuguese explorers.
- The Spanish brought the plant from the tropics of America to the Caribbean, the Pacific Islands, and South east Asia in the 16th century.
- Papaya is now ranked 3rd among tropical fruit production behind mango and pineapple.

Use in North America and Native Americans

- Green papaya was used by indigenous Americans for thousands of years to break down tough meat fibers.

Additional Information

- Papaya releases a latex fluid when not quite ripe, which can cause irritation and allergic reaction in some people.
- Latex concentration in unripe papaya may cause uterine contractions, which may lead to a miscarriage.
- Papaya seeds in large doses have a contraceptive effect on rats and monkeys.

References

- <http://food--fruit.blogspot.com/2012/06/history-of-papaya.html>
- https://www.hort.purdue.edu/newcrop/morton/papaya_ars.html#Origin%20and%20Distribution
- <http://en.wikipedia.org/wiki/Papaya>