

## Wood-apple keeps tribals healthy and wealthy

**Wood-apple (*Feronia limonia*) is an indigenous underutilized fruit crop and found growing in dry areas of India. It is also known as elephant apple, monkey fruit, curd fruit, kaith, bel and in other vernacular names across India. It is widely distributed from tropical to subtropical countries like India, Pakistan, Sri Lanka and Southeast Asia and found growing along with road sides, community land, forest areas and edges of field.**

**I**N India, wood apple found abundantly in forest land of semi arid areas of Maharashtra, Andhra Pradesh, Tamil Nadu, Kerala, Karnataka, Madhya Pradesh and western Himalayas. Being a hardy tree, it may be seen growing in almost all part of the country except cold region. Seedling trees can be seen growing having wide variability with respect to growth behavior and quality attributes in Gujarat. The plant life varies from 13 to 70 years with yield potentiality varying from 650 to

1085 kg of fruit/plant having the fruit weight between 130.25 and 625.50 g.

### Its Tree

The wood apple tree is erect to semi-spreading in growth habit with a few upward-growing branches. The tree bark is dark brown with ridged and scaly and having sharp spines about 1.5-5.60 cm long on shoots and twigs. The leaves are botanically simple and deciduous and leathery in nature with 5-9 leaflets. The length and breadth of leaves are varied from 5.6 to 18.5 cm and 2.8 to 6.8 cm respectively with dark-green. They are blunt or notched at the apex having oil glands. The plant has dull-red and greenish flowers with 1.25 -2.10 cm diameter and borne in terminal or lateral panicles.

The flowers are usually bisexual. Flowers have small 5-6 lobed calyx, lobes triangular. The petals are 5-6 in number which is free, elliptic-oblong, 5 mm long, spreading or deflexed. The stamens are 10-12 and l-seriate in shape and equal size; filaments equal subulate, densely hairy at the base within; anthers large, and linear-oblong. The anthers basi-fixed dehiscent through slit between two pollen sacs of each lobe. The fresh pollen grains size range from 28.0-35.80 micron. Pollen are yellow in color when fresh, turn to steel grey when dry. Pollens are also sticky and heavy. The ovary is generally glabrous sessile. The tree flowers in month of April-May during dry hot condition.

### The Fruit

The fruit is usually round, oval, triangular and flattened with 5.8-11.5 cm in diameter. The fruits have a hard, woody, grayish-dull white rind of about 3.10-6.20mm thickness. The fruit pulp is creamy or white colour during unripe and become brownish at ripen fruits with pleasant aroma. The fruit contains total soluble solids (11.07-19.36 °Brix), acidity (3.23-6.86%), ascorbic acid (7.08-19.60mg/per100 g), potassium (1.29-1.86%), phosphorus (0.037- 0.078%), calcium (0.11-0.39%), magnesium (3.18-5.92 %), sodium (3.07-7.54%) and pectin content (1.39-1.65%). The edible seeds of



Wood apple tree

