A small to medium sized deciduous tree, 8-18m. in height with crooked trunk and spreading branches. Leaves simple, sub sessile; flower greenish-yellow; fruit nearly spherical pale yellow with 6 vertical furrows.

**COMMON NAMES:** Amlaki, Indian gooseberry, Anola, Amlika.

#### **DISTRIBUTION**:

A moderate-sized deciduous tree found wild or planted throughout the deciduous forests of tropical India and on hill slopes up to 2000m.

PART USED: Fruit.

#### **CULTIVATION:**

#### SOIL AND CLIMATE

Amla can be grown in light as well as heavy soils except purely sandy soil. Calcareous soil with rocky substratum can also be good. However, well drained fertile loamy soil is the best for higher yield. The plant have capacity for adaptation to dry regions and can also grow in moderately alkaline soils.

It is grown extensively under tropical condition. Annual rainfall of 630-800 mm have given good yield. The young plants up to the age of 3 years should be protected from hot wind during May-June and from frost during winter months. The mature plants can tolerate freezing temperature as well as temperature up to  $46^{\circ}$ C.

### Nursery Raising and Planting

Amla is generally propagated through seeds, but seed propagated trees bear inferior quality fruits and have a long gestation period. Shield budding is done on one year old seedlings with buds collected from superior strains yielding big size fruits. Older trees of inferior types can be rejuvenated and easily changed into superior type by top working.

The pits of 1m<sup>3</sup> are prepared during May-June at a distance of 4.5 m spacing and should be left for 15-20 days exposed to sunlight. Each pit should be filled with surface soil mixed with 15 kg farm yard manure and one kg of super phosphate before planting the grafted seedling.

### WEEDING AND HOEING

Weeding & Hoeing is required in nursery.

### MANURES, FERTILISERS AND PESTICIDES

The medicinal plants have to be grown without chemical fertilizers and use of pesticides. Organic manures like, Farm Yard Manure (FYM), Vermi-Compost, Green Manure etc. may be used as per requirement of the species. To prevent diseases, bio-pesticides could be prepared (either single or mixture) from Neem (kernel, seeds & leaves), Chitrakmool, Dhatura, Cow's urine etc.

### IRRIGATION

Amla plants hardly require irrigation during monsoon. Young plants require watering during summer months at 15 days interval till they have fully established. Watering of mature fruit bearing plants is advised during summer months at bi-weekly intervals to increase fruit set and to reduce fruit drop. It responds very well to drip irrigation. After the monsoon rains, during October-December about 25-30 litres of water per day per tree through drips should be given.

## HARVESTING/POST HARVESTING OPERATION

Amla seedlings start bearing fruits in 7-8 years after planting, while the budded clones will start bearing fruits from the 5<sup>th</sup> year onwards. The fruits are light green at first, but when they mature become dull greenish yellow. Best harvesting time of Amla fruits is February when the fruits have maximum ascorbic acid content. In South India, fruits are found throughout the year. The mature fruits are hard and they do not fall for gentle touch and therefore vigorous shaking is required. For getting attractive prices fruits after harvest should be made into different grades depending on the size. Fruits can also be harvested using long bamboo poles attached with hooks.

# YIELD

A matured tree of about 10 years will yield 50-70 kg of fruit. The average weight of the fruits is 60-70 g. One kg contains about 1`5-20 number of fruits. A well maintained tree will be yielding up to an age of 70 years. The yield increases year by year up to 50 years.

# ECONOMICS

The 8-year old plantation of one hectare will yield 20-25 tons of fruits with a cost of production of Rs.34,000 per-ha. The rate for a kg of fruit Rs.15-30.

Net income- per hectare: Rs.20,000/-(YEAR-2001)

**NOTE:** MARKET FOR MEDICINAL PLANTS IS VOLATILE AND THE ECONOMICS MAY VARY.