

STANDARD CULTIVATION PROCEDURE FOR AMLA

INTRODUCTION:→ *Embelica officinalis* commonly known as **Amla or Indian Gooseberry** is an important crop in India with high medicinal value. The fruits have the richest source of vitamin- C (700 mg per 100 g of fruits) and are considered to be a good liver tonic. The various preparations using Amla include chyavanprash, *Triphala churna* , Brahma Rasayana and *Madumegha churna*. The fruit is valued as an antiscorbutic, diuretic, laxative, antibiotic and anti-dysentric. Phyllembin, obtained from fruit pulp has been found to have a mild depressant action on the central nervous system. It has a good demand from the industries for the preparation of various health care products also like hair oil, dye, shampoo, face creams, and tooth powder. In India, some people even make pickles with Amla.

VARIETIES: → The varieties recommended for cultivation is Banarasi, Chakaiya, Francis, NA-4 (Krishna) NA 5 (Kanchan), NA-6, NA-7, NA-10, and BSR-1 (Bhavanisagar)

CULTIVATION: →

The climatic requirement for Amla plantation: - Amla is a tropical plant. Annual rainfall of 630-800 mm is ideal for its growth. The young plant 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 a high temperature up to 46°C.

The soil requirement for Amla plantation: - Light and medium heavy soils except purely sandy soil are ideal for amla cultivation. The tree is well adapted to dry regions and can also be grown in moderate alkaline soils.

Amla Planting material and Inputs: - 15 kg well-decomposed farmyard manure (FYM) and 0.5 kg phosphorus should be applied to each pit before planting. Application of 30 grams of Nitrogen each year during September – October up to 10 years for each tree is recommended. See the below chart for nutrients requirement for Amla cultivation.

<u>Materials of Amla</u>	<u>Per Acre</u>	<u>Per Hectare</u>
Number of seedlings	200	500
Farm Yard Manure (FYM)	5 ton	12 ton
<u>Fertilizers</u>	<u>in kg's</u>	<u>in kg's</u>
N	90	225
P ₂ O ₅	120	300
K ₂ O	48	120

Propagation in Amla Farming: - Amla is generally propagated by shield budding. Budding is done on one-year-old seedlings with buds collected from best varieties yielding big sized fruits. Older trees or poor yielders can be changed into superior types by top working.

Planting Procedure of Amla: - The pits of 1 m³ are to be dug during May-June at a distance of 4.5 meters x 4.5 meters spacing and should be left for 15-20 days exposing to sunlight. Each pit should be filled with surface soil mixed with 15 kg farmyard manure and 0.5 kg of phosphorus before planting the budded seedling.

Water requirement of Amla plants: - Young plants require watering during summer months at 15 days interval till they are fully established. Watering of bearing plants is advised during summer months at the bi-weekly interval. After the monsoon rains, during October – December about 25-30 liters of water per day per tree through drip irrigation should be given. Drip Irrigation is the best way of watering amla plants.

Training and pruning of Amla plants: - Leaving only 4-5 well-shaped branches with a wide angle at about 0.75 m from the ground level, other dead, diseased, weak crisscrossing branches and suckers should be pruned off at the end of December.

Mulching Benefits in Amla production: - During summer, the crop should be mulched with paddy straw or wheat straw at the base of the tree up to 15-20 cm from the trunk.

Intercultivation of Amla orchard: - Intercrops like green gram, black gram, cowpea and horse gram can be grown up to 8 years in amla farming.

Pests and Diseases of Amla: - Major insect in amla farming is: Bark Eating Caterpillar and major disease are Rust.

Control measures: -

- Injection of Endosulphon 0.05% or Monocrotophos 0.03% in holes and plugging with mud is effective in protecting the tree against bark eating a caterpillar.
- Spraying of Indofil M-45 @ 0.3% twice first in early September and second 15 days after first application controls the spread of rust.

Harvesting of Amla: - Amla plants start bearing after about 4-5 years of planting. The fruits are harvested during February when they become dull greenish yellow from light green. The mature fruits are hard and they do not fall at gentle touch and therefore vigorous shaking is required. Fruits can also be harvested using long bamboo poles attached with hooks.

The yield of Amla: - A mature tree of 10 years old will yield 50-70 kg of fruit. The average weight of the fruit is 60-70 grams and 1 kg contains about 15-20 fruits. A well-maintained tree yields up to an age of 65 to 70 years.