# Kumil tree

It is found in dry mixed deciduous forest types in Central India.

## Climate

It thrives well in shade at $30^0$ C – $47^0$ C, with 60-100% humidity.

## Rainfall

Annual rainfall is between 750 mm to 4500 mm.

## Soil

It shows a preference for moist fertile valleys with sandy loam soil. It does not thrive in waterlogged conditions and remains stunted on dry, sandy, or poor soil. It also does not thrive on heavy clay soils.

## Propagation material

The planting material is seed.

## Agro-technique

### Nursery Technique

It is a light-demanding tree. It does not tolerate drought but it withstands in light frost conditions. Seed formation occurs in May or June. Seeds are dried well before germination.

### Seedlings

Dried seeds are soaked in water for 1-2 days to accelerate germination. The average number of seeds/kg is 2000 - 2500. The germination percentage of seed recorded is 13-90%.

### Planting in the Field

**Land Preparation and Manure Application**: The land is prepared before the plantation by removing unwanted herbs, shrubs, and trees. It is better to do deep ploughing to lose the land mass and allow to dry the undesirable weeds. Pits of 45 cm X 45 cm X 45 cm in size are dug during May at a spacing of 4m X 4m. The pits are filled with well-matured Farm Yard Manure (FYM), sand, and soil in the ratio of 1:1:1 and allowed to cure before undertaking plantations in the month of June-July after the onset of the rainy season.

**Transplanting and Optimum Spacing**: About 10-15 cm tall seedlings are transplanted in pits at the beginning of the rainy season. The optimum spacing recommended between plant to plant is 4m X 4m.

**Irrigation Practices:** Weekly irrigation is required in the summer season and irrigation at fortnightly intervals is preferred in winter. Irrigation is required in the initial two years of the establishment of plants.

**Weed Control:** One or two weeding in July and September is enough for establishing the plantation.

**Disease and Pest Control:** The common nursery disease reported is sooty mold which can be controlled by applying a suitable fungicide. The trees are often attacked and completely defoliated by the beetle.

**Harvest Management**

**Crop Maturity and Harvesting:** The tree grows fast and may be ready for harvesting of bark after 7 years. This plant is coppiced and traded. The roots are also harvested for medicinal purposes. The tree may stand up to 25 years. The medicinally important part of this species is stem bark which is extracted from a 7-10-year-old tree.

**Post-harvest Management:** Properly dried bark with less than 10% moisture content can be stored in gunny bags in a well-ventilated room. Bark having moisture is susceptible to fungi infestation which turns it black and becomes useless for medicinal use.

**Therapeutic uses**

- The root of the kumil tree is an ingredient of the “Dasamula”. It promotes digestive power and improves memory.
- Roots are useful in fever, dyspepsia, haemorrhoids, stomachalgia, heart diseases, nervous disorders, piles, and burning sensations.
- Bark is used in fever and dyspepsia.

*(The yield will be varied based on edaphic, climatic factors and management practices)