



## Agroforestry Facts Mahagany



<b>Botanical Name</b>	<b><i>Swietenia macrophylla</i> King</b>
Name in English	Mahagany
Name in Kannada	Mahagani
Family	Meliaceae
Seeds Collection	Fruits are collected before the valves open. fruits are gathered January through March. When the fruits are ripe, the pericarp changes to a light coffee color just before the valves open and release the seeds. The collected fruits begin to open on the second or third day, releasing the seeds. The wing is broken 1 cm above its base, and the seeds without wings are placed in a container.
Seeds Processing & Treatment	100ppm benzyl adenine (BA) for 12 hrs. could give about 82.33% germination
Nursery	Capsules are dehisced and seeds are transported in closed containers maintain cool above 2 °C. Quality planting stock production is of paramount importance in any tree planting programmes because tropical seeds have generally a low viability if they are not collected at the right stage. Seed is orthodox in nature and possess intermediate seed storage behaviour and the seeds viability could be maintained up to 24 months in polyethylene bags at 10 °C. Generally, under



	<p>good growing conditions mahogany starts producing seed at 12 years oilseeds been medicinal and pharmacological activity such as anti-inflammatory activity and also reported that it contains triterpenoids possessing anti-platelet activity and limonoids possessing anti-microbial activity.</p>
<p>Plantation Management</p>	<p>Mahogany can easily grow in a wide range of soil types Most mahogany trees are easily survive in any type of soil, Since mahogany trees have deep root systems, you should make sure that the soil you plant it in runs deep.</p> <p>During digging of the pit make sure that Dig pit of size 1.5 x 1.5 x 1.5ft., and should be thoroughly cleaned of weeds. Mix organic material into the hole. Add composted cow manure and topsoil to the hole, mixing it into the soil at the bottom and sides of the hole with a garden fork.</p> <p>The pits must be filled, as much as possible with the prepared organic pit-mixture. If the topsoil is insufficient, little river sand can be used as an inert substitute, which also increases absorb water and ventilation. The pits must be filled at least 1.5 weeks before planting, to settle for the pit-mixture. The recommended space for the plant in between with dimension of 6.0 X 6.5 ft. if you want to prevent weeds you can Apply an herbicide Spray which help to keep the growing area free from weeds for two years of growth but it's not mandatory</p> <p>Don't disturb the roots system after removing the sapling. Stand the sapling top upright in the centre of the planting dig/hole. The roots should be completely under the soil.</p> <p><b>Irrigation:</b> After plantation done immediately provide water. For the best results fill half of hole with soil, then water this soil before proceeding after the water disappears, fill the remaining of the hole with additional soil and water again. First month watering should be done alternate day. Hence, water system should be possible once in 3 to 4 days relying on the dirt and climate conditions.</p> <p>Do not spread along the surface of the ground because Surface fertilization can result in weed growth. Potato Farming easily in 1 acre can gives you 2.5 -3 Lac per acre</p>



	<p><b>Fertilizer for mahogany tree plantation</b></p> <p>Fertilizer should be applied in sequential manner During the First plantation year applying a balanced fertilizer containing equal parts nitrogen, phosphorus, and potassium: P: K (17:17:17) and Micro Mini Nutrients 175 gms. per Plant per month, except at the end of year (Dec – Jan) period.</p> <p>This has to be continue every month split and applied through manuring. Make hole 1 ft. away from the base plants and the depth of the pit should not more than 1 ft. have some fertilizer in the dig/hole and fill with the soil.</p> <p>Micro mini nutrient application 1 gm per litter Of water, foliar application once in 20 days for first year.Caring for Mahogany Tree plantation: Surrounding area must be cleaned of weeds and keep the soil loose around the plants for well ventilated As said above Mahogany can be grow on all of soils. but the quality of its growth, its depends on the moisture-holding capacity of the soil, depth, structure, drainage. Mahogany required mostly moist, warm tropical climate. but maximum &amp; minimum shade temperatures of 28- 45. and well in rainfall zone of 1300-2400 mm. soil quality must be check as calcium deficiency in the soil results in slow growth of Mahogany Planting since calcium content of the soil is the important factor.</p> <p>Utilize a nursery hose to water the soil around the tree once every week. During rainy seasons, stop giving more water. Treat multiple times every year but not more than 3 time in year. Feed the tree with a portion of manure in the spring, summer, and fall season, Utilize an equal granular compost for best outcomes. Pruning is required to prune very young mahogany branches. During the first two to six years of the tree’s life, yearly pruning is must which can help control the height and spread of the tree. Remove any branches that become bigger than 66% of the measurement of the focal trunk. Watch out for pests. At the point when you spot such bugs, apply a pesticide to the area</p>
Model/Spacing	Ideal spacing 5 x 5 m
Pests, diseases and Management	Low infestation by an unidentified caterpillar in fallen fruits. The shoot and fruit borer, <i>Hypsiphyla robusta</i> (West and East Africa, Indonesia, Australia, South East Asia (Entwistle, 1967) and India



	and <i>H. grandella</i> (Zeller) (Florida, Central and Southern America except Chile) are the major pests. The fungus is a promising pathogen for the biocontrol of this serious pest infesting <i>Toona ciliata</i> and <i>S. macrophylla</i> in India. Species of <i>Helminthosporium</i> , <i>Allernaria</i> , <i>Drechslera</i> and <i>Curvularia</i> are important field fungi recorded on seeds. Orthene, a systematic insecticide, has proved an effective chemical control of this pest
Plant Rotation	3 – 35 years
Yield	18 – 20 cft per tree
Uses	Mahogany is a commercially important lumber prized for its durability, beauty, and colour, and used for panelling and mahogany tree uses to make furniture, musical instruments, boats, wooden flooring, and other items
Buyers /Industries	-
Harvesting	At the age of 10 years of Mahogany average diameter is 0.95 Ft and height is 75 ft.
Economic Returns	Net income of Rs. 89,00,000 per acre Above calculation we have taken minimum as expected production from a 10-year-old Mahogany.
Current Market Rate	Rs. 500 per cft.