



## Gmelina (*Gmelina arborea* Roxb.)

Gmelina or Yemane (*Gmelina arborea* Roxb.) is a fast growing tree, which grows faster than some exotic species under the same conditions. It is medium-sized, reaching a height of about 30 to 40 m, with a bole averaging 50 cm in diameter but sometimes attaining 40 cm. The leaves are more or less heart-shaped, 10-25 cm x 5-18 cm, and glabrous or velvety beneath; its corolla is bright yellow, and the ovary, glabrous.

It is a highly valuable source of timber, pulp and fodder. The species has been extensively used in reforestation activities and attracted plantation growers due to its high economic importance. One of the best timbers in the tropics, its wood is used for particleboard, plywood core stock, pit props, matches, and saw timber for light construction, furniture, general carpentry, and packing; it is also used to make musical instruments and ornaments. Several tests have also indicated that the untreated timber may last 15 years in contact with the soil. Gmelina has more superior pulping properties than those of most hardwood species.

According to scientific studies, the root decoction is used as a folk remedy for abdominal tumors. It is reported to have anodyne, demulcent, lactagogue, refrigerant, stomachic, and tonic characteristics. Gmelina is also a folk remedy for anasarca, anthrax, bilious disorder, bites, blood disorders, cholera, colic, convulsions, delirium, diarrhea, dropsy, dyspepsia, epilepsy, fever, gout, gravel, headache, haemorrhage, intoxication, madness, phthisis, ratbites, rheumatism, rinderpest, septicaemia, smallpox, snakebite, sores, sore throat, splenitis, stomach ache, swelling, and urticaria. Its fruits have alterative, aphrodisiac, astringent, diuretic, and tonic characteristics that some have prescribed them for alopecia, anemia, leprosy, strangury, thirst, and vaginal discharges. The flowers are used to regulate blood disorders and leprosy.

Trees coppice well, with a 5-year coppice rotation for fuel,



but longer rotation for timber. An excellent vegetative cover, Gmelina can withstand prolonged drought and reshoot even after fire.

Estimated to range from tropical very dry to wet through subtropical very dry to wet forest life zones, Gmelina has been reported to tolerate annual precipitation of 7 to 45 dm. It can tolerate a 6- to 7-month dry season. It grows on many kinds of soil, from acidic laterites to calcareous loams, but poorly on thin or poor soils with hardpan, dry sand, or heavily leached acidic soil, and well-drained basic alluvium.

Native to the tropical moist forest from India, Burma, and Sri Lanka to Southern China, Gmelina has been widely introduced in Brazil, Gambia, Honduras, Ivory Coast, Malaysia, Malawi, Nigeria, Panama, Philippines and Sierra Leone. In the Philippines, hundreds of hectares of Gmelina plantations have already been established.

– The Research Branch, ARCBC

