



Fig.3; *M.volkensii* interplanted with maize

Economics of growing Melia

Melia produces timber in a very short time (10-15 years). The timber is comparable to Mahogany timber and thus fetches very high prices on the market. A board of 6x2 of 14 feet on the market for mahogany is approximately Ushs. 50,000.

One hectare of land at a spacing of 5x5 m holds 400 trees of *Melia*; 1 tree of *Melia* can yield 11 planks of timber about 150 feet of 6x2 in total. At a cost of UgShs. 50,000 for each plank, this is an equivalent of Shs. 550,000 for each tree. At a conservative estimate of 300 trees per hectare, a total of Ug. Shs. 165,000,000 can be realized in ten years.



Introduction

Melia volkensii is an indigenous tree species in the dry land regions of some African countries, Kenya, Tanzania, Ethiopia and Somalia where it has been over exploited for its valuable timber. Its common name in Uganda is giant Lira. Due to its valuable timber, National Forestry Resources Research Institute has been working on its silviculture for the last 5 years with the aim of establishing its suitability for plantation forestry in Uganda. The tree grows best at altitude ranges of 400 to 1,650m with mean annual rainfall of between 300 and 800 mm. *Melia* can grow well in most sandy soils but prefers sandy loam soils with good drainage. The tree does not tolerate black cotton soils or areas prone to water logging.

Uses of *Melia volkensii*

Melia volkensii is mainly planted for its timber which is durable, termite resistant and is classified as a valuable hardwood comparable to mahogany. The timber is used for construction and furniture (Fig.1 and 2 below)



Fig. 1. Appearance of Melia timber board



Fig 2. Stool made out of Melia timber

Twigs, leaves and fruits of *M.volkensii* are fodder for goats, cattle and sheep during the dry season. Leaf extracts are applied on the skin of goats to control ticks and fleas.

Attributes of Meliavolkensii

- Drought-tolerant and can grow well in dry land areas.
- Multipurpose tree with mahogany-type timber,
- Fast growth (matures in 10 – 15 years) and has coppicing ability.
- Termite-resistant; ideal for building & fencing poles as it has botanical pesticides.

Propagation

M.volkensii can be propagated by use of seed, wildings and stem & root cuttings. Use of seed is however the popular and most effective propagation method in use.

Planting *M.volkensii* in the field

After 3-4 months hardening off in the nursery, the *Melia* seedlings can be planted out in the field. Recommended spacing is 5 by 5 meters. Planting holes should be at least 45 cm deep by 45 cm square. The ideal planting season is the long rains to allow good establishment.

Tending and Management

To ensure survival, there should be complete weed control for young *Melia*. Two to three times weeding per season is recommended within the first three years.

During this period the seedlings should be protected from browsing by wild and domestic animals as *Melia* is favorable forage to them. The seedling/tree should be pruned of young buds which can easily develop into branches.

Pruning should start as early as three months to enable formation of long straight boles with minimum knots. Pruning should be done up to two thirds of the tree height.

Crops such as beans and maize can be intercropped with *Melia* as it is fairly less competitive in terms of shading in the first four years fig 3. *Melia* currently has no pests and diseases of economic importance, however, farmers should report any ill health to experts for investigations.