

## Innovations in Malaivembu Cultivation by Smt Indira Ramanathan



Smt. Indra Ramanathan (63) studied up to SSLC and involved in farming in Kallipatti village, Erode District of Tamil Nadu. She is owning 120 acres of land. She has developed innovation in nursery raising of *Mala ivembu* trees which is difficult to raise in nursery through seeds as germination is very poor.

### **1. Innovative Nursery raising for *Malaivembu* *Melia dubia* :**

*Melia dubia* is a tree found grown in forest area. It is a fast growing tree crop producing greater bio-mass in relatively shorter period. It will grow well in fertile soil with ample moisture supply. The tree will grow erect with single trunk up to 10 feet height without branching. It is suited as short term as well as long term the crop. So farmers prefer to cultivate this in Agro-forestry system of cropping in forest land. As the seed has tough seed-coat, not allowing water to penetrate easily, the germination becomes rather difficult

First she tried to break the seed coat by putting them in compost pit, treatment with cow dung solution but this didn't work out. Then she wanted to loosen the seed coat by allowing to rot / decompose partly in the cow dung slurry for about 2 months, so that the hardness of seed coat is softened and lessened. When the seed coat becomes soft, the seed kernel is removed carefully without any damage and dibbled in seed bed specially made

## Seed bed preparation:



The seed bed is prepared by mixing red soil and fine sand. The seed kernels are dibbled evenly and water is sprinkled twice a day in the morning and evening uniformly. The seed bed is covered with poly-spread shed so as to maintain optimum temperature and moisture. The seeds will start germinate in about 3 months time. Only 30% of seeds alone will germinate. When the seedlings have grown to two leaf stage, they are uprooted carefully without damage to root-system and planted in 1 foot high polythene bags filled with soil and organic manure. Whenever there is rain, the excess water to be drained off. Otherwise the young seedlings in the polythene bags are likely to rot. To avoid this, polythene sheet is spread over the young seedlings. Sprinkler system has been designed by her so that the sprinkler tubes will pass on just above the seedlings bed and the bed is covered with polythene sheet above in order to prevent rain water which will fall on the seedlings to prevent damping off. The seedlings will grow to 2 feet high in another 30 days, when they can be ready for supply to farmers to plant in the main field.

By seeing the profitable cultivation of *Malaivembu* trees she started raising 60,000 trees in her field. The neighbouring farmers were also interested in planting the trees in their field. She initially raised 1000 seedlings and supplied to the neighbouring farmers. Once a TV channel has covered her innovation and many people came forward for supply order of 50,000 seedlings. She has so far supplied 12,000 seedlings and also busy in raising and supplying seedlings to other farmers as per their demand and her convenience.

## Planting in main field



Pits of 2 feet cube are dug out at 10x10 or 15x15 or 20x20 feet space, then filled with red soil, sand, well decomposed manure. The seedlings are planted at the centre upright and the soil is pressed around the seedling base well. This is followed by light irrigation and life irrigation on the 3<sup>rd</sup> day. Thereafter light irrigation is given once in 7 to 10 days. The seedlings will grow to 4 to 6 feet height in another 4 months time. During rainy season, the rain water should not be allowed to stagnate around seedlings and drain excess water. When the seedlings attain 10 feet height, prune the branches so that one trunk upto a 30 feet height is achieved. After 10-12 years the trees can be cut sold profitably. It is also advocated to allow coppicing just like neem tree. After 6 to 8 years of plant those trees which are not attaining sufficient growth are to be removed for fuel wood as and when they are required.

**Uses:**

It is a soft – wood tree used for making ply-wood of the size 15’x1’ which can be sold to Rs.3000 each piece. This plywood is used in building ship, lorry truck, reaper, for making furniture, sofa set, doors, windows etc., This wood is also used for paper pulp industry, foliage fed to cattle.

**Plant Protection:**

Usually these trees are free from pest and disease. However during the early growth of the tree sucking pest like aphids will attack the trees and the growth will be stunted. For control of aphids she is preparing a decoction by bringing those weed plants (which are usually not browsed by cattle / goat) and immersed in cow urine and boiled and filtered. This filtrate is diluted 10 times with water and sprayed.

Sometimes the growing seedlings are affected by bark disease and if the disease is severe then we can remove the seedling and other new seedling planted fresh. After 6 months if the planted seedling is damaged due to this disease then the seedling has to be cut 4 inches from ground level and allowed to emerge new shoot from the collar region. This will give fast growing shoot.

**Using this tree leaves as feed for animals :**

Mrs. Indra Ramanathan has been maintaining 50 cattle which are locally called as Bargur cattle breed. She is feeding the cattle after pruning the foliage of the trees. If the cows are not conceiving or infertility problem or uterus problems then she is feeding the animals with the foliage of the tree and get good results.

**Innovator address:**

Mrs. Indra Ramanathan,  
Ramu gounder garden,  
Kallipatti  
Kanakkanpalayam(Post)  
Erode District.  
Ph: 93666 99999