

Nursery Information Sheet No.2

Mahogany

Raising mahogany striplings

Pre-treatment of seed

No pre treatment is necessary

Germination

This is done in a germination bed. The bed must be well drained. This can be achieved by building a frame with 4" x 2" timber (or logs), which sits on the ground. Fill this frame with good black gardening soil that has been well cultivated (if you have a sieve then it is good to sieve the soil. A sieve can be made using a piece of copra drying mesh.)

The seeds are sown by pushing them in to the cultivated soil with the end that has the broken wing to the bottom. Push them in so that the top is about ½ inch (1 cm) below the surface. Plant seeds about 2" (5cm) apart. Water 2 or 3 times a day.

First germination occurs after about 10 days. It will continue for about a month after which it will begin to slow down. Most seed that are going to germinate will have done so after 2 months.

Pricking out

When the seedlings have 4 true leaves (about 5 days after the first shoot appears) then they can be "pricked out". Pricking out is very carefully lifting the seedling out of the soil. Before pricking out the germination bed must be watered. Use a small stick to lift the seedling taking care not to break off too many of the very fine roots. Hold the seedling by the leaves and place in a container that must be covered to stop the seedlings drying out. Prick out a few at a time and transplant them immediately. Then prick out some more and transplant them. You should try and make the time between pricking out and transplanting as short as possible.

Nursery bed preparation

The nursery bed must also be well drained. A similar frame to the germination bed should be built on the top of ground and filled with good black gardening soil. The soil should be well cultivated, that is worked so that it is fine and with weeds, stones, sticks and other rubbish removed. If the soil is "heavy" (forms solid mass when it dries) then mix with river sand (NOT beach sand).

Transplanting

The freshly pricked out seedlings can now be planted in the nursery bed. Plant in straight lines with 8" (20cm) between lines and 6" (15cm) between seedlings. The soil should be moist at the time of transplanting. Make a hole in the bed using a "dibble stick" (small pointed stick that will make a hole large enough to take the seedling). Carefully place the seedling in the hole making sure that the roots hang down. With mahogany it is especially important that the root is not bent. Throw away any seedlings with bent roots and take care not to bend the roots while transplanting. Hold the seedling by the leaves using one hand and gently squeeze the hole shut with the other hand.

Shade

The bed should be covered by shade until the seedlings are established. Shade can be provided by nursery shade cloth or using coconut or ginger leaves. To begin with you need to block out about 60-70% of the sun. After 10 days the shade can be reduced to about 30-40%. After 4 weeks the shade should be removed altogether.

Watering

The newly planted seedlings can easily be damaged by rain or watering. In heavy rain try to protect the bed by using extra leaves, plastic sheet, roofing iron etc. To begin with use fine spray. Plants should be watered morning and evening for the first 8 weeks. After two months watering can be reduced.

Preparing striplings for planting

When the plants are 30cm high they can be prepared for planting. This must be done at least 14 days before planting.

Remove all the leaves except 2 pairs at the top. This is done by holding the stem at the top, just below the second set of leaves, with one hand and run the other hand quickly down the stem to the ground, stripping off the leaves. Take care not to break off the top of the shoot. Use a sharp spade to cut the tap root. To do this place the spade about 4" (10cm) from the root collar and push downwards towards the plant so as to cut the root at 6" (15cm) below the soil surface. Lift the tree slightly to break the small roots and then lower it back and make sure that there are no air pockets in the soil.

This process can be repeated every 14 days until the trees are planted. It is important to do this at least once before planting.

Planting

It is important to have the planting area ready before the striplings are removed from the nursery bed. The preparation of the planting site and the nursery operation need to be planned to ensure that the planting area is ready when the plants are ready.

To remove the seedlings from the nursery bed first loosen the soil with a gardening fork or spade. Hold the plant by the stem close to the ground and gently pull it out. Shake the plant gently to remove loose soil. Collect a bundle of about 25 plants and dip the roots in a bucket of water and parcel up with leaves, or pack in a plastic bag or wrap in a wet copra sack. It is very important that the roots do not dry out. Store the bundles in a cool shady place. Never place them in the direct sun.

The plants should be planted the same day and as soon after lifting as possible.

Mahogany is a shade tolerant species. That means that it will grow in shade (it also grows well if there is no shade). Therefore it is not necessary to clear an area before planting. Mahogany can be planted into secondary forest, old gardening sites that are overgrown, and old coconut plantations.

If you are planting into forest then it is necessary to cut a line through the forest about 1-2m wide. These lines can be 10m apart. Trees can be planted at 2m intervals along this line.

Plantings in cleared areas can use the same spacing (10m x 2m) and garden crops planted in the gaps between rows. Trees can be planted closer together.

Maintenance

The first few months after planting are very important. The young trees must be kept free of weeds and especially vines. Use a bush knife to clear around the young plants. Check two weeks after planting and clear all weeds around the trees. Check again every month (or more if the weed growth is very vigorous).

After a year the trees should be about 2 metres tall. They will need less weeding but the more they are weeded the better they will grow.

