

Timber Fact Sheet No.4



16 year *Acacia mangium* at Saenaua near Auki, Malaita Province

Acacia (*Acacia spp*s)

Uses

- Firewood
- Construction (where timber can be kept dry and out of ground contact)

Basic density (plantation grown):
500-600 kg/m³

Rotation age: 6-12 years

Propagation: Easy to grow from seed.

i Silviculture: For firewood plant at close spacing , 2m x 2m (2500 trees/ha). Trees can be cut for firewood as soon as the leaves begin to touch. Work through area removing every 4th tree on an annual basis. Will produce at least 20m³ per hectare per annum.

General

There are several species of tropical acacias that are useful for firewood production. The best firewood is from *Acacia auriculiformis* but *A. mangium* and other acacias are also useful. KFPL has a seed orchard that produces seed with a proportion of a hybrid of *auriculiformis* x *mangium* which combine high density with fast growth.

The timber of these species is good for general construction in those situations where the timber can be kept dry and out of ground contact. *A. auriculiformis* is the most durable and can be used for posts for several years.

The problem with these species as far as timber production is concerned is that the trees are often crooked and damaged by stormy weather (rain and wind together).

These trees can grow in poor soils where many other trees will not grow. They can grow on grasslands and are relatively tolerant to fire (particularly *A. auricularformis*).

Nursery

Acacia seeds have a very hard seed coat and need to be treated before they are sown otherwise germination may take years. Seed can be treated by soaking in boiling water. Add seed to pot of water which is boiling, bring back to the boil. Take the pot off the heat and keep the seeds in the water for 24 hours. Throw away any seeds that float. Seeds can then be dried in the sun and sown directly into polybags, root trainers or into beds. Where beds are used then seeds can be sown in rows 50 cm apart and 10cm between seeds. If polybags or other containers are used then a mixture of 50% clean river sand and 50% good black soil should be used. The soil in beds or pots should be kept moist and under 50% shade until the seedlings are about 15 cm tall after which time the shade can be removed. If seedlings are grown in beds then when they are 25cm tall they should have the roots cut using a sharp spade to make a deep vertical cut 10 cm from the root collar on one side of the row. After two weeks the same procedure should be followed on the other side of the row. After a further two weeks the plants are ready to be planted in the field. The seedlings must be planted the same day as they are taken from the nursery. They must be kept wet and out of the sun until they are planted. It is best to plant them during the wet season.

Silviculture

Acacias are light demanding species so they should not be grown in the shade of other trees. They can be grown on grassland even if there is no black soil. They will grow faster on better soils.

Acacias can be planted in any convenient place for firewood. They can be planted in any spare gap or in blocks or rows in places which are convenient for firewood collection. If planted in blocks or groups they can be planted quite close together and even trees only 4 or 5 cm in diameter can be used for firewood. The highest productivity is obtained by planting them at close spacing. 1 m by 1m (10,000 trees/ha) is a good spacing. As soon as the trees reach 4 or 5 cm in diameter, they can be cut for firewood. Remove the trees to keep the spacing even. They can be grown at other spacings and 2m x2m (2500 trees/ha) and 3m x 3m (1111 trees/ha) are also popular.

For further information

Please contact your local Forestry Division Forest Extension Officer, the Community Relations Forester at EPPL Arara, or the Community Relations Forester at KFPL.

Your local Forest Extension Officer is _____