APPLE RING ACACIA

Winterthorn, White Thorn, Anatree, Gao, White Acacia

Faidherbia albida Leguminoseae

ECHO® PLANT INFORMATION SHEET

Description

Originally found growing in central and eastern Africa, this tree now grows all over arid and semi-arid lands of Africa and West Asia. It is one of the largest deciduous trees of the Acacia family in Africa, reaching up to 30 m (100 ft) in height. *Faidherbia albida* is an ideal multipurpose agroforestry tree that is widely planted in dry areas of West and East Africa where fallow periods have become very short or have disappeared. A deep taproot (reaching aquifers up to 80 m below surface), does not compete with the crop planted on the soil surface.

Uses

Its 'inverted phenology' (leafless during the rainy season with a new flush at the start of the dry season), along with ability to fix nitrogen and draw water and nutrients from deep soil layers, has a beneficial effect on the microclimate, soil fertility and soil moisture for associated crops. . It is therefore commonly intercropped with annual crops, especially pearl millet and groundnuts. Leaves and pods are an excellent fodder in the dry season.

Branches are pruned more or less intensely by herdsmen for use as fodder. Pods are sometimes also used as fodder for domestic animals. The wood can be used for charcoal, timber, live fencing, windbreaks and canoes. The bark is used in medicines for respiratory infections, digestive disorders and fever related illnesses. . For bee-keepers, it has the advantage of producing flowers at the end of the rains while most of the sahelian species flower just before or during the rains. It therefore becomes the main source of pollen and nectar at this time.

F. albida is maintained and protected on farms to shade coffee and to provide shade for livestock in the dry season. The plant's spreading root system offers excellent protection to the banks of watercourses. Soil improver: *F. albida* sheds its leaves in the rainy season; therefore, boosting the nutrient status of the soil for the new season's crops. The fact that the tree is leafless during the rainy season minimizes competition for sunlight with crops and protects them from birds until harvest time.

Cultivation

It grows in a wide range of climatic conditions, but it needs a long and distinct dry season and access to permanent ground water. The seedling first develops a taproot which can grow down very deeply until it reaches an adequate supply of water. Only then does the young stem start to grow. After 90 days, the taproot may attain a depth of 90 cm and the stem a height of 30 cm. Humid zones develop more extensive lateral rooting near the soil surface, whereas trees in dry zones develop a more prominent taproot. In good conditions, annual growth in height of young trees may be 1–1.5 m.

- Elevation: 270–2700 m (880-8,800')
- Rainfall: 300-1800 mm/year (12-70 inches)
- Soil: will survive water logging of the soil and some salinity but not for prolonged periods.
- Temperature: somewhat frost-tolerant

Harvesting and Seed Production

The pods are distinctive looking-severely twisted, orange in color. As pods turn brown, they should be picked daily to save them from animals and insects. The tree is very thorny and shaking the tree will help release the pods. Dry pods in the sun for 3-5 days, then break up and pound to release the seeds. Dry seeds in the sun for a few more days and then store for several years in a cool, dry place. Mixing in some wood ashes will deter insect larvae. Covering with hot water for 24 hours or scarifying will hasten germination. Forage production is about 20-30 kg per tree per year. The fruits mature about 3 months after flowering. They are relished by livestock and game, including elephants, which may disperse the seeds. The seed coat is tough, waterproof and leathery, and maintains seed viability for many years. The total lifespan of the tree is generally 70–90 years.

Pests and Diseases

This tree is susceptible to nematodes in the soil, and leaf-eating insects.

Cooking and Nutrition

During the dry season, the high protein pods, seeds and leaves are cooked and eaten by humans and fed to animals.

ECHO® 17391 Durrance Rd, N. Fort Myers FL 33917 USA
Tel: (239) 543-3246 | Email: echo@echonet.org | Website: ECHOcommunity.org