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LEUCAENA GLAUCA—A Green Leaf Manure Cum Fodder Tree.

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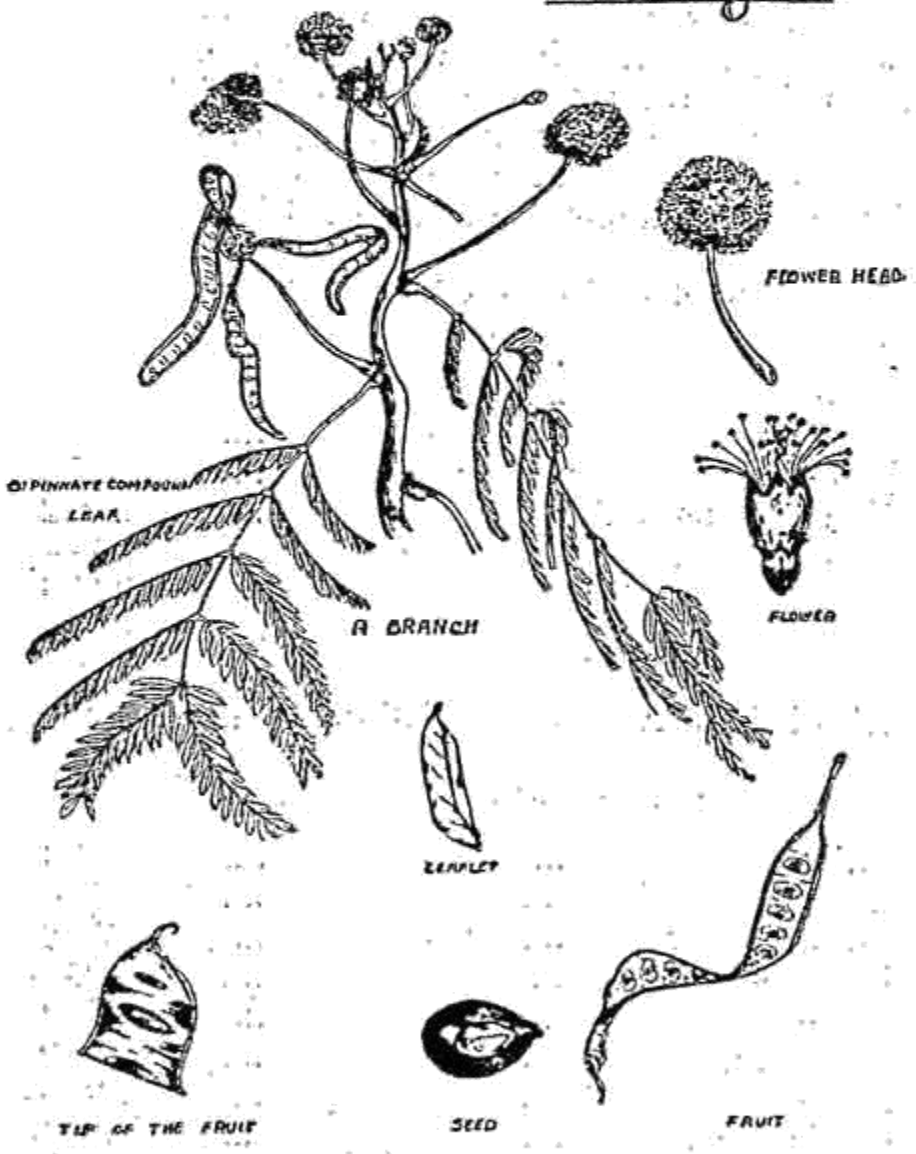
In the past, many useful plants have been introduced into India from other tropical countries of the world. *Leucaena glauca* is one such introduction. This plant is a native of Tropical America. It belongs to the sub-family *Mimoseae* under the Natural Order *Leguminosae*. It is a small tree with large globose heads of white flowers, glaucous foliage with narrow

Leucaena glauca.



acute leaflets and flat strap-shaped pods. It has a wide range of distribution in the tropics. Its chief use is for fuel. In many countries, it is grown as a shade plant in plantation crops. In

Guntur district, it is planted around betel vine gardens for providing shade. It is locally known as "Nagarikesari".

It is very quick growing and capable of producing branches measuring 16 feet in length and 2 inches in thickness, in one year. It stands pruning remarkably well and even upto 4 cuttings of young branches and twigs can be taken in one year. The leaves can be used directly as green leaf manure or made into compost.

The leaves and seed of this plant, make excellent fodder. Both cattle and horses devour the leaves greedily. But they are of no use for horses and mules since it is reported that these animals when fed with *leucaena* loose their hair. The leaves and branches form an almost exclusive food for young goats. They contain a high proportion of nitrogen and salts of potash and the dried leaves make a good compost. The following is the composition of leaf and stem in full growth.

In 100 Parts of Dry Matter.

Ash	6·20
Cellulose	15·44
Fat	1·28
Non-nitrogenous matter	55·76
Nitrogenous matter	21·32
	100·00

The ash of the leaves has the following mineral content:—

In 100 Parts of Pure Ash.

Silica	2·00
Chlorine	5·76
Sulphuric acid	2·18
Phosphoric acid	5·10
Lime	27·60
Magnesia	6·70
Potash	24·68
Oxide of iron	0·64
Carbonic acid	25·34
	100·00

The seeds are very rich in proteins and mixed with other less nitrogenous food, make very good ration for work animals. The following is the analysis of seed:—

Water	....	9·59
Ash	....	3·69
Cellulose	....	14·00
Fat	....	4·84
Non-nitrogenous matter	....	38·24
Nitrogenous matter	....	29·64
		100·00

The seed coat is very thick and is responsible for 50 percent of the weight of the seed. When decorticated, the kernels contain more than 50 percent of nitrogenous matter and 9 percent of fat i. e., 87 percent of the total nitrogenous matter and 90 percent of the total fat.

The plant can be propagated readily from seed. Owing to the thick seed coat, the germination is slow and uneven. But, if the seeds are steeped in hot water at 60° — 80° C for about 15 minutes prior to sowing, as much as 70 percent germination can be obtained in about 4 days.

The growing of this plant may be encouraged in all suitable localities to provide not only green leaf manure but also to serve as a fodder and fuel reserve.

Note:— Figures of analysis are taken from "Green Manures and Manuring", by P. de Sornya.