

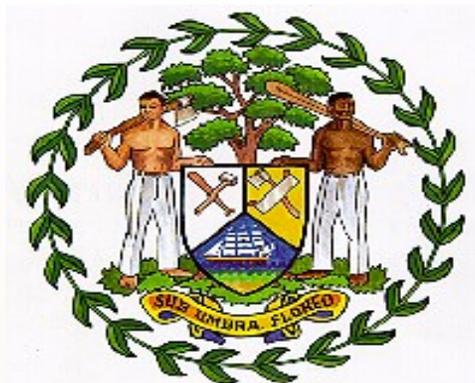
Harvesting:

Harvesting can be done every 3 to 4 months and more frequently at higher densities. Graze 2 to 3 hours per day for 8 to 10 days and then rest for 60 to 80 days to allow adequate re-growth before next rotational cycle, if grazing is necessary and practiced on the farm. However, the most recommendable practice is to conduct the cut-and-carry system for shredded forages.

The last pruning is recommended to be conducted in November or December to ensure adequate fodder (shoot re-growth and development) in the dry season. Leave 2 to 3 branches at each pruning as this stimulates greater growing points and rapid re-growth.

It is recommendable that the harvesting of the plant is done when leaves are NOT over mature or too fibrous. Fibrous leaves and branches contain less nutritional value contents in which it will have poor and low digestibility in the animal.

In addition, if plants are to be used for silage formulations it must be preferable not to harvest over mature plants since the fermentation process will be poor and very low in nutritional value.



This brochure was done in collaboration with the Republic of China, Taiwan and the Government of Belize under the “Genetic Improvement in Sheep and Goat Project.”

Ministry of Agriculture
Livestock Unit
Central Farm, Cayo District

Mulberry

(Morus Alba)



Tel: 832-8187

Plant Description:

The Mulberry (*Morus Alba*) plant has been found to increase milk production and growth rate substantially. The leaves contain on an average approximately 12 to 18 % of crude protein, depending on the stage of maturity, and are very palatable.

The leaves have a digestibility of 70 to 85 % having very good feed conversion in the animal. Its protein is also very soluble (71%), which indicates that the animals can utilize most of the protein in the leaves. In humid tropical areas it can produce 5 to 8 tons of dry matter per year and 3.5 to 4.5 tons in dry areas.

Fertilization and Weed Control:

It is recommended that at time of transplanting cuttings complete fertilizer (14:36:12) can be used. As plants grow and develop it is important to fertilize with nitrogen (Urea). In many cases these plants are not necessarily fertilized but after several years fertilization program becomes very important for continuous vigorous growth.

Weed control is very important especially at the establishment of the protein bank, this will ensure proper growth and development of the plants.

Uses:

1. **Protein Bank** – animals are put to forage on the leaves in pasture. In this system from 7 to 10,000 plants/acre can be planted
2. **Chop and carry** – Leaves are chopped and fed to the animals in feed troughs.
3. **Silage** – The leaves are mixed with other material to make silage. This is one way of conserving forage of high quality for extended periods.
4. **Mixed in feeds** – the leaves are chopped and mixed with other feed ingredients or forage materials like sugarcane or other grasses.
5. **Jam/jellies** – the fruits can be eaten fresh or made into jam or jellies.

Feeding Systems:

When fed as silage supplemental feed, it can be mixed with concentrate and molasses. This mixing improve the digestibility and palatability of the silage. It is recommended to feed using feed ration ratio of 60:40, meaning 60 parts silage or forage to 40 parts concentrate to obtain proper feed conversion ratio and digestibility.

Planting:

The best method is through the use of stalks/cuttings as seeds have poor germination. Planting materials should be mature enough, of the previous season, and be at least 8 inches in length.

The cuttings can be planted directly in nursery bags then transplanted in the field; planted in beds, then in bags and then to the field; or planted directly to the field, the last option should be done with the onset of the rainy season for maximum shoot growth and root development. It has been known to have excellent re-shoot growth when transplanted directly in the field but assuring enough soil moisture content.

It is preferable to establish new protein and forage banks in good soil drainage system and areas with as much as 5-10% soil slope. Areas with low low-lying conditions may normally need proper drainage system constructed.

