

Scientific Name:

Gliricidia sepium

Family:

Leguminosae

Common Names:

Gliricia, Quick-stick,
Tree of iron [English]

**Plant Description**

Gliricidia is one of the major tropical forage trees due to its high nutritive value, fast growing capacity and its ability to adapt to a variety of conditions. It is a perennial, medium-sized (1 to 15 m high) legume tree. Imparipinnate; leaflets are ovate, 2-7 cm long x 1-3 cm broad.

Bark: Whitish grey to deep red-brown and smooth.

Flowers: Bright pink to lilac, tinged with white, with a diffused pale yellow spot at the base of the petal.

Pods & Seeds: The pods are 10-18 cm long and 2 cm broad, that contain 8 to 10 seeds.

Propagation and Cultivation

Cultivation of *Gliricidia* can be done by using seeds or cuttings.

Sowing: Select seeds from mature dried pods, seeds can be sown directly or in containers.

Cuttings: Should be 30-60 cm long with brownish-green bark and cut at a 45-degree angle at both ends. This is the preferred and recommended method as germination rate is very high given one of its common names – quick stick

Transplanting: Seeds and cuttings can be transplanted 50-100 cm apart; row width will vary depending on the height plants are to be maintained at applied pre-planting and biannually.

Livestock Feeding Value:

Gliricidia can yield normally between 9 to 16 tonnes per hectare on a Dry Matter (DM) basis in well managed cut and carry systems, it is not susceptible to many pests and grow well in poor soils. Branches can be harvested around 7 months after establishment of plants grown from cuttings and 14 months after seedling establishment. Harvesting can occur every 2 to 3 months during the rainy season and

Nutrient content *Gliricidia* leaves, fresh

Analysis	Unit	Avg	Min	Max
Dry matter	% as fed	25.3	19.6	37.0
Crude protein	% DM	22.3	15.4	28.8
Crude fibre	% DM	19.7	14.4	28.4
Ether extract	% DM	4.2	3.0	5.5
Ash	% DM	10.0	6.7	13.7
Gross energy	MJ/kg DM	19.7	17.5	21.8

Table taken from <http://www.feedipedia.org/node/11617>

Feeding *Gliricidia* to Small Ruminants

Gliricidia is an excellent source of protein, but due to its high tannin content it is recommended that it should comprise no more than 20% of the animal's daily feed intake. Wilting of the leaves is recommended to improve storage, increase dry matter intake and reduce potential toxicity. (Heuzé et al. 2015)

- A normal standard for feeding small ruminants is to feed at 4% of the body weight of the animal on a dry matter basis example:
- According to the table above the average dry matter of *Gliricidia* is 25.3% that is, 100 lb fresh *Gliricidia* contains approximately 25.3 lb dry matter and 74.7 lb of water.
- A 100 lb animal would therefore require 4 lb DM and as previously recommended *Gliricidia* should comprise 20% of the daily intake therefore 20% of 4 lbs is 0.8 lb DM.
- To provide 0.8 lb DM of *Gliricidia* one would be required to feed $100/25.3*0.8= 3.16$ lb fresh weight *Gliricidia*.

Mature animals should be fed 2.5% body weight on a dry matter basis

References

1. Edwards, A., V., Mlambo, C. H. O., Lallo, G. W. Garcia, and M. D. Diptee, 2012. In vitro ruminal fermentation parameters of tanner grass (*Brachiaria arrecta*) supplemented with leaves from three forage trees. Livestock Research for Rural Development. Volume 24, Article #102. Retrieved October 30, 2013, from <http://www.lrrd.org/lrrd24/6/edwa24102.htm>
2. Heuzé V., G. Tran, A. Boudon, and D. Bastianelli. 2016. Nacadero (*Trichanthera gigantea*). Feedipedia, a programme by INRA, CIRAD, AFZ and FAO. <http://www.feedipedia.org/node/552> Last updated on May 11, 2015, 14:34.
3. Wiersum, K. F., and I. M. Nitis. 1992. *Gliricidia sepium* (Jacq.) Kunth ex Walp. Record from Proseabase. Mannetje, L.'t and Jones, R.M. (Editors). PROSEA (Plant Resources of South-East Asia) Foundation, Bogor, Indonesia