

**Scientific Name:**

*Pueraria phaseoloides*

**Family:**

*Fabaceae*

**Common Names:**

Tropical kudzu, Kudze

**Plant Description**

Tropical kudzu is a vigorous, dense-growing vine cultivated cover crop, green manure and fodder for livestock. It is a twining and climbing perennial legume. Tropical kudzu forms swards of tangled branches that may reach 60-75 cm in height (Heuzé et al. 2016).

**Roots:** The root system is deeply rooted as much as 2 m in depth.

**Stems and Leaves:** Stems are hairy, slender may be 6-10 m long (up to 15 m) and 0.6 cm in diameter. The stems may root from the nodes and then develop many branches. The apical leaflet is triangular to ovate, cuneate at its base, shallowly lobed, 2-20 cm long x 2-16 cm broad. The lateral leaflets are oblique, rounded-obtuse at their base, 6-7 cm long x 6-7 cm broad (FAO 2015; Cook et al. 2005; Halim 1997).

**Flowers and pods:** The inflorescence is an axillary raceme, 15-30 cm in length, bearing small, scattered, mauve to deep-purple flowers.

**Propagation and Cultivation**

Tropical kudzu is mainly propagated by seeds. The seeds should be scarified before being broadcasted or drilled onto a well-prepared, weed-free seedbed. For pasture purposes, a good seeding rate is 0.5-1 kg seeds/ha.

The first months of establishment require weed control. After kudzu becomes more aggressive with good ground cover and effectively smothers weeds (Halim, 1997).

**Transplanting:** Seeds and cuttings can be transplanted 20-30 cm apart and planted in rows.

**Fertilisation:** Organic fertilisers (Manure) can be applied pre-planting and biannually.

**Forage Management:**

Tropical kudzu can be cultivated pure stand or inter cropped with several erect grasses such as Para grass or Elephant grass. Under irrigation, a valuable stand can be obtained in less than 6 months (Telford et al. 1947). Tropical kudzu grows year round and may be grazed or cut for feeding fresh or to make hay or silage. Dry matter yields are variable, ranging from a 3-6 t/ha/year to over 20 t/ha/year (Telford et al. 1947).

## Nutrient content Kudzu leaves, fresh

Analysis	Unit	Avg	Min	Max
Dry matter	% as fed	19.0	14.0	32.7
Crude protein	% DM	19.3	13.1	25.8
Crude fibre	% DM	33.0	26.7	40.2
Ether extract	% DM	2.2	1.0	3.9
Ash	% DM	8.7	5.3	11.3
Gross energy	MJ/kg DM	18.9		

Table taken from <http://www.feedipedia.org/node/257>

## Feeding Kudzu to Small Ruminants

Tropical kudzu, like most legume forages is rich in protein (about 20% DM, ranging from 13 to 33%). However, its fibre content is also very high (crude fibre 26-40%), which tends to compromise feeding value (Heuzé et al. 2016).

- A normal standard for feeding small ruminants is at 4% of the body weight of the animal on a dry matter basis.
  - According to the table above the average dry matter of Kudzu is 19% which means that 100 lb of fresh Kudzu contains approximately 19 lb of dry matter and 81 lb of water.
  - A 100 lb animal would require 4 lb DM and it is recommended Kudzu should comprise 25% of the daily intake therefore 25% of 4 lb is 1 lb DM.
  - To provide 1 lb DM of Kudzu you would have to feed  $100/19*1= 5.3$  lb of wet Kudzu leaves daily.
- Mature animals should be fed 2.5% body weight on a dry matter basis

## References

1. FAO, 2015. Grassland Index. A searchable catalogue of grass and forage legumes. FAO, Rome, Italy
2. Halim, R. A. 1997. *Pueraria phaseoloides* (Roxb.) Benth. Record from Proseabase. Faridah Hanum, I., and van der Maesen, L.J.G. (Eds). PROSEA (Plant Resources of South-East Asia) Foundation, Bogor, Indonesia.
3. 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/7270>  
Last updated on September 13, 2016, 0:57
4. Shelton, H.M., R.C. Gutteridge, B.F. Mullen, and R.A. Bray.1998 (eds). *Leucaena* - adaptation, quality and farming systems. ACIAR, Canberra, Australia.
5. Telford, E. A., and N. F. Childers, 1947. Tropical kudzu in Puerto Rico. Fed. Exp. Sta. Puerto Rico Circ. No. 27

Please contact the TTGSS at email: [ttgss@gmail.com](mailto:ttgss@gmail.com) or 789-8765 and IICA at email: [iica.tt@iica.int](mailto:iica.tt@iica.int) 645-4555 / 645-5020 / 645-8886 for further details.