

# TREE LUCERNE

*Chamaecytisus proliferus*

Leguminosae

## ECHO® PLANT INFORMATION SHEET

### ဖေါပခြက်

Tree lucerne is a fast-growing, perennial, nitrogen-fixing shrub or small tree that originates in the Canary Islands. It reaches a height of 5-7 m, producing pea-like white flowers. Each pod contains about 10 dark-colored, oval seeds about 3 mm wide and 1 mm thick. Its downward drooping branches are covered in soft, hairy, blue-green leaves.

### အသုံးပြုခြင်း

Tree lucerne produces high yields of palatable, nutritious fodder as well as shade for livestock (sheep, cattle, goats, or chickens). It can provide forage/fodder during dry periods when other sources of feed might be lacking. It helps to control soil erosion and increases fertility. It produces nectar for bees and if allowed to develop, thick branches which produce intense heat when used as fuelwood.

### အများသုံးအမည်များ

- English
  - Tree lucerne
  - Tagasaste
- French
  - cytise des canaries
- Spanish
  - Tagasaste

### ပျိုးထောင်ခြင်း

- **Elevation** – 1000-3000 m
- **Rainfall** – 350-1600 mm/year (600 mm optimum)
- **Soil Types** – Prefers light-textured (sandy), acidic (pH 4.0-6.5) but tolerant of a range of soil types and conditions
- **Temperature Range** – 16-24 C; established trees have mild frost tolerance
- **Day Length Sensitivity** – n/a
- **Light** – partial to full sun

Tree lucerne is a good option for dry tropical highland areas. It is propagated by seeds. As they have a hard coat, germination is improved by soaking seeds in hot water for two days before planting. Seeds can be sown directly in the field (at a depth of 1 to 2.5 cm in well-weeded) or in nursery beds. If sown in nursery beds, transplant seedlings to their final location when they reach a height of 10-45 cm. Aim for a final field spacing of 2.5 m (in row) X 5 m (between rows). Fertilize as needed to encourage root growth (up to 10 m in deep, sandy soils) and leaf production. Prune at the end of the first year to promote branching and leaf production. Protect young trees, for the first 2-3 years, from grazing animals as they may strip the outer bark. Thereafter, if grown for grazing livestock, maintain a tree height of 1 m. Fencing may be needed if animals are stripping the bark.

### ရိတ်သိမ်းခြင်းနှင့်မျိုးစေ့ထုတ်လုပ်ခြင်း

Livestock can be allowed to graze on well-established trees, or leaves (15-25% crude protein) can be cut and carried to farm animals. In the Ethiopian highlands, 6-month old trees reportedly produced 5 metric tons/ha (t/ha) of green forage; established trees are capable of producing 5-10 t/ha of dry matter on an annual basis. Harvest seeds when mature (when pods are dry and seeds turn black). It can become weedy, usually where it is already naturalized.

### သီးနှံဖျက်ပိုးများနှင့်ရောဂါများ

Slugs, cutworms, and grasshoppers eat emerging seedlings. Mature shrubs are attacked by grasshoppers but recover quickly. Rabbits may also eat young plantings.

Root rot (caused by Phytophthora sp.) and damping-off (caused by Fusarium) can affect plantings in high-moisture climates or seasons.

### ချက်ပြုတ်ခြင်းနှင့်အဟာရ

The leaves contain 15-25% crude protein. Nutritional value of the forage is best when cut before flowering. There have not been reports of toxicity, but it can take time for livestock to begin eating it. It is typically mixed with other feeds.

### References

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[Heuzé, V. H. Thiollet, G. Tran, P. Hassoun, D. Bastianelli, and F. Lebas.](#) 2017. [Tagasaste \(Cytisus proliferus\)](#). Feedipedia, a programme by INRA, CIRAD, AFZ and FAO.

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