TREE LUCERNE

Chamaecytisus proliferus Leguminoseae

ECHO® ENFÒMASYON PLANT

Deskripsyon

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.

Itilite

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.

Common Names

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

Kilti

- **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.

Rekot ak pwodiksyon semans

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.

Pès ak Maldi

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.

Kwit ak nitrisyon

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.

Atribisyon

Dann, P. and Trimmer B. 2003. Tagasaste (tree lucerne). In Agfact P2 1.7 NSW Agriculture.

Ecocrop. 1993-2007. *Chamaecytisus palmensis*. Food and Agriculture Organization, Rome, Italy.

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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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