

Establishment, management and use of *Calliandra calothyrsus* (Calliandra)



a fodder bank at 0.5-1.0m apart. It does not establish well from cuttings

Management and utilization

Weed control shortens the establishment period. Use of fertiliser on infertile soils improves early growth. Calliandra is better cut and fed to animals rather than grazed because grazing can result in excessive intake by animals which leads to bloat and could subsequently lead to death.

Plants are cut to a height of 0.5-1.0m every 2-3 months. Cutting is done at less than 30cm above ground level.

Nutritive value

Freshly harvested leaves of calliandra have high protein content of more than 20% and are highly palatable to ruminants, especially where animals have fed on the forage before.

Reasonable animal production is achieved where calliandra has been adopted as a supplement (20-30% of the overall daily feed) to poor quality basal diets or as a partial replacement of concentrate feeds.

About 500-700 plants, managed in a hedgerow provide enough leaf hay to supplement the diet of one dairy cow throughout the year. A dairy goat needs 100-200 plants. Calliandra leaves are

not suitable as a feed for monogastric animals such as chicken and pigs.

Threat of pests and diseases

Pests and diseases are starting to appear on calliandra in Uganda, including heavy infestation by insects, severe and sudden dieback (of uncertain cause) on unpruned trees at about two years old. Harvest wounds make Calliandra susceptible to fungi which may infect and kill stems.

Calliandra leaf hay production, conservation and utilization

- Dry the harvested material (stems and leaves) on a papyrus mat or tarpaulin in a shed
- Store the dry leaves in bags in a well ventilated store
- Mix calliandra leaf hay with dairy meal or maize bran in a ratio of 100 kg dairy meal to 10 kg of calliandra leaf hay.

This information is partly drawn from experiences from the project on "Crop-livestock integration for sustainable management of natural resources and building livelihoods resilience in Eastern and Central Africa" of the Livestock and Fisheries Programme of ASARECA



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Calliandra calothyrsus planted in the compound of a small scale dairy farmer

Calliandra is a multipurpose tree species grown primarily for forage as a supplement to low quality roughages for ruminant livestock. It is a source of green manure;

provides shade for coffee and tea, stakes for climbing beans, is a source of wood fuel for cooking; controls soil erosion, and is a source of pollen for honey production.

Calliandra leaf hay is a potential source of income as the demand for hay is now very high.

Leaf hay is used to make nutrient feed blocks in addition to other locally available materials such as molasses, maize bran, cotton seed cake, farm waste and crop residues.

Establishment

Calliandra grows well on a wide range of soil types but does not tolerate waterlogged conditions.

Calliandra seed requires scarification because of the hard seed coat. Good results are achieved by soaking seed in cold water for 48 hours.

Mechanical scarification is also used. Scarified seed can be planted at 1-3cm depth in nurseries for raising seedlings. Seedlings are transplanted when 20-50cm tall.

They are planted as hedgerows at a spacing of 3-4m apart, or as



A woman in Masaka, Uganda feeds her cow on calliandra