

### 3). How to plant:

- Siratro or Centrosema seeds are planted between rows of either maize or elephant grass at a spacing of one metre apart.
- Multipurpose trees are planted along edges of gardens at a spacing of one metre apart.

### 4). Source of seed:

Legume seeds are a very good source of income. One kilogram of seed ranges from Uganda Shs. 5,000/= to 30,000/= depending on the type. Farmers can purchase or buy seeds from:

- Uganda Seed Project, Kawanda,
- Forestry Research Institute Nakawa, for multipurpose trees.
- Agricultural Research Development Centres in your area.

### Conclusion:

Incorporating legumes in crop gardens improves the soil structure, texture and fertility. Farmers with good soils will have bumper yields, for example a grass legume yield will provide sufficient animal nutrients for body maintenance and production. A local cow will produce up to five litres of milk daily while the cross can give about eight litres on average.



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# IMPORTANCE OF LEGUMES IN CROP AND LIVESTOCK PRODUCTION



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## Introduction:

The majority of farmers in Uganda are crop as well as livestock farmers, producing the bulk of crops milk and meat.

The major constraint is inadequate feed in quality and quantity as well as lack of knowledge on how to conserve soil. This is because farmers do not use legumes in their crop and livestock enterprises, besides they lack the knowledge on the types of legumes available and their methods of application.

## 1). What are legumes?

Legumes are plants with high protein content and have the ability to fix nitrogen in the soil. In addition, at the peak of the growth stage (flowering stage), they contribute to better forage for livestock and increase crop productivity.



*Some common types of legumes.*

## 2). Importance/ uses of legumes

Research has shown that there are a number of legumes in various areas with a variety of uses. There are legumes like beans Soya beans, Centrosema, stylo, desmodium, Lablab, siratro, Cajanas cajana, Acacia species, and these can be used for the following:

- I. When establishing a paddock, legumes like Siratro, Stylo centrocema are inter- cropped with grasses like chloris gayana, Brachaeria so as to provide cheap and balanced forage for animals as well as conserving soil.
- II. Legumes like Mucuna are planted after weeding crops so that it's incorporated in the soil when ploughing to restore and improve soil fertility.
- III. Legumes have very deep roots which enable them gather water and nutrient in the soil so that remain green throughout the year.
- IV. Maize or elephant grass inter-cropped with legumes like Siratro and Centrocema increase the herbage in quantity and quality. A legume is planted between lines of maize or elephant grass at a spacing of one metre apart.



*Centrosema interplanted with elephant grass.*

- V. Plant protein is the cheapest source of protein. It constitutes 20-30% crude protein. An animal's protein requirement is one third of the total daily feed requirement.
- VI. Hay made from legume is of good quality. It has higher protein content compared to that made from grass. Lablab hay fed to milking cows shows an increase in milk production. 0.5-2 litres per day depending on breed type
- VII. Multipurpose trees like Caliandra, Sesbania, Leuceana, are leguminous plants, which serve the same purpose like other legumes. They can be fed to animals fresh with grass or as hay mixed with dairy meal at a ratio of 1:3 leaf hay: dairy meal.