Greenleaf Desmodium (Desmodium intortum)

1. Ecology

Agro-ecological zones
Mainly highlands, zones II & III.

Soil requirement / types
Best suited to soils which have good moisture-holding ability with pH 4.5 to 5.5.

Moisture
Requires at least 1200mm rainfall per annum.

Temperature
Best suited in sub-tropical zones and grows well into the cool season if moisture is adequate. Optimum temperature of 25-30 degrees.

2. Agronomy

Land preparation
Plough with disc and hurrow to fine tilt for minimum tillage use a chisel/subsoiler.

Sowing
Sowing rate of 1-2kg/ha in a mixture but it is not sown as pure single species.

Can also be established using cuttings, Drill the seed into shallow furrows 2.5 cm deep and cover with little soil. For cuttings, use mature freshly cut desmodium vines, burry 2 nodes leaving 1 or 2 nodes above the ground.

Spacing of 30cm between rows.

Fertilizer
Requires moderate levels of fertility through application of 100kg TSF or DAP/ha during heavy rains.

Weeding
Manually or use of selective herbicides against the narrow leaved (grasses)

Pest control
None of economic value.

Major diseases
Legume little leaf disease that affects it occasionally with minimal effects.

Harvesting & storage
Cutting stage at 40-50% flowering. Dried, baled and stored as hay / silage in a sheltered, well aerated feed store.

3. Feeding value

Nutritive value

Crude protein: 16-22%

Crude fibre: 30.6%

Neutral detergent fibre (NDF): 51.4%

Acid detergent fibre (ADF): 37.1%

Organic matter digestibility: 58.1%

Metabolizable energy (ME): 8.4 MJ/kg DM

Palatability

Moderate palatability.

Formulation with other forages

Combine at a ratio of 1 legume:3 grass parts

4. Yield

Dry matter

12-19 t/ha per annum.

5. Advantages

- Good early and late season vigour.
- Combines with creeping grasses.
- Shade tolerant.

6. Disdvantages

- Low seeding vigour.
- Poor tolerance of drought and salinity.
- Poor persistence under heavy grazing.
- Susceptible to pests.

About the implementing project

The Integrated & Climate Smart Innovations for Agro-Pastoralist Economies and Landscapes in Kenya's Arid and Semi-arid Lands (ICSIAPL) is a three-year (2021 – 2023) project funded by the European Union (EU) and the Ministry of Foreign Affairs of the Kingdom of the Netherlands (DGIS).

The project is implemented by SNV Netherlands Development Organisation, SNV, (lead partner) and the Kenya Agricultural and Livestock Research Organization, KALRO (research partner).

The objective of the project is to enhance the livelihoods of agro-pastoralist communities through improved forage production and sustainable landscape management. It wil also upscale commercialisation of climate smart innovations while creating an enabling policy environment for the livestock sector.

SNV is a not-for-profit international development organisation that makes a lasting difference in the lives of people living in poverty by helping them raise incomes and access basic services.

KALRO is the National agricultural and livestock research organization in Kenya mandated to coordinate agricultural research in technology.

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This project is co-funded by the European Union through delegated cooperation with

Ministry of Foreign Affairs of the Netherlands

Implemented by:

KALRO Kenya Agricultural & Livestock Research Organization

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