

GREEN MANURE CROPS

SUNHEMP

KING OF GREEN MANURE

Sunhemp is very hardy, grows rapidly and can produce up to 10 tons of above ground dry-matter bio-mass per Hectare. Sunhemp is a tall herbaceous annual plant with bright yellow flowers with roots that form numerous lobed nodules. It is preferable to then mow the crop and leave the residue on the soil surface to decompose. This protects the soil and cuts down on unnecessary tillage.

COVER CROPS

Sunhemp has been used extensively as a soil improvement or green manure crop in the tropics because of its ability to produce large amounts of biomass in as little as 60 - 90 days. Because of this, it has the potential to build organic matter levels and sequester carbon.

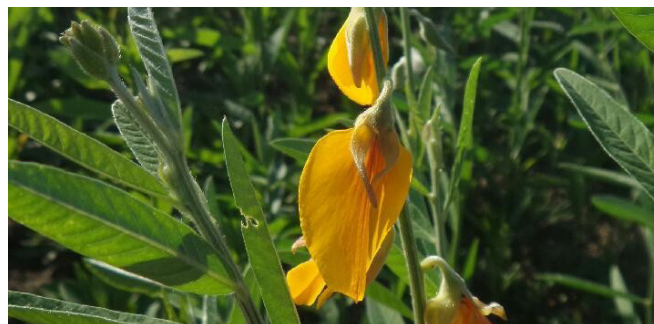
It can also fix large amounts of nitrogen. Used as a cover crop, Sunhemp can improve soil properties, reduce soil erosion, conserve soil water, and recycle plant nutrients and is also resistant to root-knot nematodes.

Green manuring crops can be used in rotation with sugarcane and other crops to promote soil sustainability. Due to the shades of its dense canopy, it is also used as a cover crop to suppress weed populations.

USE

Sunhemp is extensively cultivated for fibre or green manure and leaves are fed as high protein supplement to other poorer feeds. With restrictions, seed has been used as fodder in the former Soviet Union and Southern Africa. Leaves and stems are dried since animals do not eat Sunhemp when it is green. Sunhemp should be cut for hay or ploughed in for green manure in the early flowering stage when it is 1.5 - 2.5 months old.

- Short day, Shrubby annual, 1 - 4m in height
- Stems up to 2cm in diameter, cylindrical & ribbed
- Leaves simple, strong taproot with well developed lateral roots
- Branched and lobed nodules, up to 2.5cm in length
- Flowering indeterminate
- Seed weight +/- 18 000 - 35 000 seeds per kg



DISEASE

Sunhemp is attacked by many diseases and pests, including viruses, fungi, insects and nematodes, but they usually cause little economic damage.

PERFORMANCE

Total green matter yields average 18-27 t/ha with forage yields ranging from 5-19 t/ha. When sown as green manure crop, Sunhemp yielded 2 t/ha of high quality DM in 6 - 8 weeks. When grown for forage it can be harvested 4 times, starting 6 - 8 weeks after sowing and subsequently every 4 weeks.