Sunn Hemp (Crotalaria Juncea L.)

Indian drought-resistant legume with many benefits in agriculture.

Sunn Hemp (Crotalaria juncea L.) is a multifunctional legume grown in many countries, especially India, mainly because of its high quality fiber.

The crop is grown for green manure, as a soil improver (intermediate cover crop) and for the cessation of diseases in cereals or other crop rotations.
Sunn Hemp is also used for fodder.
The plant is also grown for biofuel.

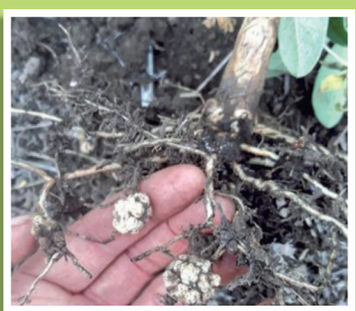
MORPHOLOGY

Crotalaria juncea is an annual, erect shrubby, herbaceous, leguminous plant reaching a height of 1 - 4 m (60-90 days). It has a highly developed beard root system.
Sunn Hemp is a species with many branches.
The stems are up to 2 cm in diameter, cylindrical and ribbed. The leaves are arranged spirally on the stems, hairy, simple, with an elongated lanceolate or elliptical shape, 4-13 cm long x 0.5-3 cm wide. The seeds are heart-shaped, 6 mm long, dark brown to black in color. The number of seeds / kg is variable and is about 25,000.

Crotalaria juncea is the fastest growing and most important species of the genus Crotalaria.

USE

Sunn Hemp can be grown for fodder, for green fertilization at an early stage of flowering, for an intermediate cover crop immediately after harvesting wheat, barley, rapeseed.
Fresh green mass can be used as a source of protein to supplement poor quality roughage. Raw seeds are toxic and cannot be given to cattle without pre-cooking. The plant is useful as an intercultural species in cereals or for other crops.



Crotalaria juncea is a drought-resistant species and can grow where the average annual rainfall is only 200 mm.
Crotalaria juncea does well in a wide range of soils provided they are well drained.
Does not withstand excessive moisture.
A neutral pH range is preferred, but can be grown on soils with a pH in the range of 5 to 8.4, where phosphorus is present. Sunn Hemp's saline tolerance is usually low, but there is evidence of moderate.

GROWTH

Sunn Hemp likes to grow in warm and hot climates. It can grow very easily without care. The seeds should be sown in fields without weeds. The seeds can be sown by scattering or sowing in rows. They germinate within 3 days under favorable conditions.
Sunn Hemp is a fast-growing species that suppresses weeds by shading them after reaching a sufficient height and from allelochemicals released from the roots.
The density of sowing depends on the purpose for which it is intended and the place where it is grown.

NITROGEN FIXING LEGUME AND SOIL IMPROVER

Crotalaria juncea can fix about 60-140 kg N (nitrogen) / ha within 60-90 days of cultivation. It provides 60 kg N / ha to soil when used as green manure. Sunn Hemp has the potential to improve soil properties, build up organic matter and release carbon into the soil. Can be used for soil regeneration. Sunn Hemp is also a recommended crop for No-Till technology.

USDA ORGANIC

VERIFIED

NOXIOUS WEED FREE

* No Morning Glory
* No Sicklepod

NO GMO, pesticides and weed seeds free

high nutritional value, protein and fiber

prevents soil erosion, suppresses weeds and nematodes

soil builder, forms a plant residue and fixes nitrogen

healthy for grazing, for deer, cattle, cows, goats, sheep

Sowing: The best time for sowing is when the soil temperature is: 18 ° C.
Sowing season: Late Spring / Summer (June-July).
In late fall, Sunn Hemp freezes.
Depth of sowing: 2-2.5 cm.
Sowing rate broadcasting: 30-35 kg / ha,
for fodder - 50-70 kg / ha.
Sowing rate with seeder: 17-23 kg / ha,
for fodder - 30-35 kg / ha.
Sowing rate for intermediate in mix - 5-7 kg / ha. It can be best mixed with Sorghum Sudangras, Cow Peas, Turnip Radish, Buckwheat, Oats.

Sample crop rotations:
Wheat - Sunn Hemp - Rapeseed (OSR);
Barley - Sunn Hemp - Rapeseed;
Barley - Sunn Hemp - Wheat;
Rapeseed - Sunn Hemp - Wheat;
Rapeseed - Sunn Hemp - Barley;
Wheat - Sunn Hemp - Wheat (increase in wheat yield 10-15%);
Wheat, Rapeseed, Barley, Triticale, Rye - Sunn Hemp - Corn, Sunflower, Soybean, Spring Barley;

Fodder
Crotalaria juncea, intended for fodder, can be picked 4 times, starting 6-8 weeks after sowing and then every 4 weeks. Sunn Hemp should be cut for hay in the early stages of flowering, 1.5-2.5 months after sowing.
The effective dry matter content is between 30.6 and 32.4%.

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The symbol of quality...

SUNN HEMP FOR YOUR GOAL

Sunn Hemp (Crotalaria Juncea) can be integrated into your system

1 SEQUESTER & CYCLE NUTRIENTS:

Sunn Hemp aggressively scavenges and cycles nutrients from deep within the soil profile making them available inthe root zone of subsequent crops, improving yields and reducing runoff into sensitive watersheds.

2 REDUCE SOIL EROSION:

Extensive root systems of Sunn Hemp cling to the top layer of soil creating an interior shield from erosion while top growth minimizes wind and water erosion.

3 CREATE A NITROGEN SOURCE:

Legumes produce additional nitrogen (N) by converting atmospheric nitrogen into nutrients plants can use. Sunn Hemp can fix 60-140 kg N/ha.

4 BREAK UP SOIL COMPACTION:

Deep burrowing roots of Sunn Hemp break through compacted soil to create pore space improving aeration, water movement and helping soil organisms flourish.

5 PROVIDE WEED CONTROL:

Sunn Hemp creates competition for winter annuals and other weeds by shading them out, and preventing them from robbing valuable moisture and nutrients from subsequent cash crops (with the potential of lowering herbicide requirements per hectare).

6 SUPPORT PEST CONTROL:

Sunn Hemp suppresses weeds during the winter months can consequently reduce nematode populations. Sunn Hemp depletes nematode populations by causing premature egg hatching. Sunn Hemp provides control by eliminating winter annuals that historically provide a refuge for nematode populations. Sunn Hemp contains chemicals that naturally fumigate at-risk soil environments.

7 GENERATE EXTRA FORAGE:

Sunn Hemp has the added benefit of being "dual-purpose", meaning it provides both the benefit of a soil cover while providing a valuable forage source for livestock.

8 ADD HABITAT FOR WILDLIFE & SHELTER POLLINATORS:

Sunn Hemp creates environments crucial for wildlife protection and nesting. Additionally, the biodiversity created by Sunn Hemp has positive effects on native pollinators.

9 BUILD ORGANIC MATERIAL:

As Sunn Hemp grows, dies and breaks-down, it adds carbon to soil, feeding the soil food web, improving soil tilth, soil quality and water holding capacity.

10 INCREASE SOIL STRUCTURE:

Actively growing Sunn Hemp roots increase mycorrhizal hyphae creating soil aggregates that act like a net capturing organic matter and soil particles. Aggregate stability builds soil structure that leads to better movement of nutrients, water and oxygen.

11 CONSERVE SOIL MOISTURE:

By converting the sun's energy into growing biomass and the opportunity for organic matter, soil moisture is increased while reducing runoff, evaporation and overall variability from weather extremes.

12 CREATE FINANCIAL VALUE:

The above benefits create the opportunity for better yield potential in cash crops, lower input costs and ultimately higher land values. Excellent starting for No-Tillage.