Legume
**Sunn Hemp**
Crotalaria juncea

PLANT HARDINESS ZONE 4 DATASET

## COVER CROP DESCRIPTION

Tall tropical legume. Plant in early summer; does not tolerate cool soils. Good forage potential in areas with sufficient heat. Will tolerate high mowing (> 18"). Large N fixation potential. Effectively suppresses root-knot nematodes. Low weed risk, but with enough time can set viable seed. Becomes stemmy as it matures. Inoculate seed; cross-inoculates with cowpea. Certain cultivars contain alkaloids which are poisonous to livestock; check before feeding to animals. Spindly growth habit with narrow leaves seems to make it a better choice for mixes than in monoculture. Mix with sorghum-sudangrass, pearl millet, and sunflower for a diverse warm season mixture.


Sunn Hemp - Larson [2020]


Sunn Hemp - Ackroyd [2020]


Sunn Hemp - Ackroyd [2020]

## GOALS

| | |
|---|---|
| Growing Window | Short |
| Nitrogen Scavenging | ● |
| Lasting Residue | ●●● |
| Prevent Fall Soil Erosion | ●● |
| Prevent Spring Soil Erosion | ●● |
| Forage Harvest Value | ●● |
| Nitrogen Fixation | ●●● |
| Penetrates Plow Pan | ●● |
| Reduces Surface Compaction | ●●● |
| Improve Soil Organic Matter | ●●● |
| Increase Soil Aggregation | ●●● |
| Good Grazing | ●●● |
| Pollinator Food | ●●● |

## WEEDS

| | |
|---|---|
| Residue Suppresses Summer Annual Weeds | |
| Outcompetes Summer Annual Weeds | ●● |
| Suppresses Winter Annual Weeds | |
| Persistence | ●●●● |
| Volunteer Establishment | ● |

## ENVIRONMENTAL TOLERANCES

| | |
|---|---|
| Low Fertility | ●●●● |
| Drought | ●●●● |
| Heat | ●●●●● |
| Shade | ●● |
| Flood | ●● |
| Salinity | ●● |

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## Growth Traits

| | |
|---|---|
| Duration | Annual |
| Zone Use | Emerging |
| Shape And Orientation | Erect |
| Dry Matter (Lbs/A/Yr) | 1000 - 8000 |
| Soil Texture | Coarse<br>Fine<br>Medium |
| Soil pH | 5 - 7.5 |
| Soil Moisture Use | |
| Hessian Fly Free Date? | No |
| Nitrogen Accumulation (Lbs/A/Yr) | 60 - 120 |
| Ease Of Establishment | |
| Establishes Quickly | |
| Early Spring Growth | |
| Flowering Trigger | |
| Root Depth | Medium |
| Inoculant Type | Peanut<br>Lima Bean |

## Soil Drainage

- Very Poorly Drained
- Poorly Drained
- **Somewhat Poorly Drained**
- **Moderately Well Drained**
- **Well Drained**
- **Excessively Drained**
- Saturated Muck
- **Well Drained Muck**

## Planting

| | |
|---|---|
| Seeds Per Lb | |
| Seed Price Per Lb | $$$ |
| Base Seeding Rate (Lbs/A) | 30 - 50 |
| Drilled Depth | 0.5" - 1" |
| Can Aerial Seed? | No |
| Can Frost Seed? | No |
| Min Germination Temp (°F) | 68 |

## Termination

| | |
|---|---|
| Tillage At Vegetative | |
| Tillage At Flowering | |
| Freezing At Vegetative | |
| Freezing At Flowering | |
| Chemical At Vegetative | |
| Chemical At Flowering | |
| Mow At Flowering | |
| Roller-Crimp At Flowering | |

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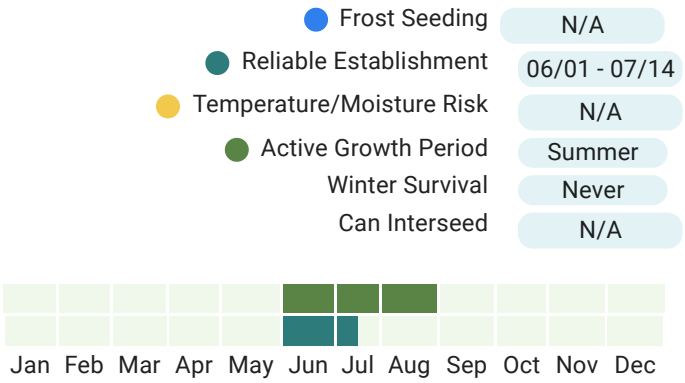
## Planting and Growth Windows




## Extended Comments

**Basic Agronomics:** Dry matter highly dependent on planting and termination date and precipitation. Seeds are toxic to livestock. Bloat potential that is easily managed. For grazing purposes, restrict to 30% of total ration or mixing with a grass is recommended.

**Weeds:** Sunn hemp does not set seed in cold regions. Mature sunn hemp residue can be a problem. Innoculation advised.

**Insects:** Interplanted with zucchini can reduce stripped and spotted cucumber numbers and result in greater spider numbers. However, if not kept at the right height can be too competitive with the crop

**Nematodes:** Supports reproduction of some root-knot nematode species/races.

## References & Resources

**2015 Cover Crop Mix in Corn Silage Trial**, University of Vermont Extension