

Sunn hemp is a tropical legume that is being widely used in the Southern region. It grows quickly and can fix substantial amounts of nitrogen. Sunn hemp can fit into grazing systems and can be grazed once it is 1.5 to 3 feet tall. There are reports that some varieties are poor hosts for root knot, soybean cyst, reniform, as well as other plant parasitic nematodes.

Recommended Varieties

Variety	Reasons Why	Source
AU Golden	Lower dry matter production, grows to about 5 feet and blooms. Can set fertile seed in Coastal Plain. Reliable seed production in northern MS.	Jimmy Carter Plant Materials Centers data
Tropic Sun	Extremely high dry matter production, can grow to 10 feet. Plants are woody when allowed to get that mature. Low alkaloid levels, suitable for grazing.	Jimmy Carter Plant Materials Center data, Managing Cover Crops Profitably
Common sunn hemp	High biomass production, can grow to 8 feet. Can set fertile seed if allowed to grow long enough. A termination plan is needed.	Jimmy Carter Plant Materials Center data

Planting Information

Information	Comments	Source
Drilled Seed Depth (inches)	½ - 1	Southern SARE Oklahoma Fact Sheet
Drilled Seeding Rate (lbs/acre)	20 - 40 Use <i>Bradyrhizobium</i> spp. inoculant. Higher seeding rate tends to keep stem size smaller and produces less branching.	ARS Fact Sheet
Broadcast Seeding Rate (lbs/acre)	Increase drilled rate by 25 %	Southern SARE Oklahoma Fact Sheet

Termination Information

Information	Source
Sunn hemp can be terminated by mowing, rolling/crimping at bloom, herbicides and tillage. Herbicides are more easily used on shorter stands. Termination of large stands can be difficult. Large stands can be rolled and then sprayed. Controlled grazing or a combination of methods may also be used.	Southern SARE Oklahoma Fact Sheet, USDA Sunn Hemp Plant Guide
Consult your local Extension and state Pest Management Handbook for herbicide recommendations. Always follow the herbicide label.	

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Cultural Traits

Traits	Comments	Source	
Typical Dry Matter Range (lbs/acre)	3,700 – 20,000	High end of range is Tropic Sun.	Jimmy Carter Plant Materials Center data, Unpublished Literature Review in Coastal Plain – Gaskin
Typical Total N Range (lbs/acre)	60 - 150		Unpublished Literature Review in Coastal Plain – Gaskin
Life Cycle	Warm season annual legume		
Growth Habit	Upright		
Preferred Soil pH	6.0 – 7.0		USDA Sunn Hemp Plant Guide
Relative Costs (\$/acre)	\$\$\$\$		Based on survey of seed costs using maximum price and max seeding rate
Min. Germination Temp (F)	50° is min, 68° is ideal for best germination		Southern SARE Oklahoma & Florida Fact Sheets
Cautions	<p>Can get very woody if left to get 7 to 8 foot tall. Nitrogen in the woody, high lignin biomass is very slow to be released after short burst from leaves. Very high biomass can impede planting of next sequential crop. Consider terminating several weeks prior to next crop establishment or mowing to size residue to aid in planting if concerned. Fertile seed with certain cultivar; consequently, cover crop should be terminated before seed set.</p> <p>Can be susceptible to <i>Fusarium</i> wilt and anthracnose as well as pests such as sunn hemp moth, pod borers, and stink bugs. Rotate fields every three years to avoid pest and diseases. Seed is toxic to both game and domestic bird species if consumed in large amounts.</p>		

Forage Traits

Information	Source
<p>Sunn hemp can be grazed by cattle, goats, and sheep. Start grazing when plants are 1.5-3 ft tall, approximately 45 days after planting. Very mature plants (flowering stage) will reduce forage quality due to a lower leaf to stem ratio. Due to the potential high quality, sunn hemp is a good candidate for limit grazing. In addition, it is a good companion for mixtures with sorghum, sudangrass, and millet.</p> <p>Pyrrolizidine alkaloids, toxic compounds for livestock, are not present in leaves or stems. Thus, there is no concern of toxicity when grazing hemp as forage. However, the toxic compounds might be present in the seeds.</p>	Alabama A&M and Auburn Extension

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Sources:

Alabama A&M and Auburn Extension:

<https://ssl.acesag.auburn.edu/anr/forages/documents/GrazingSunnHempACESTimelyInfo.pdf>

ARS Fact Sheet:

<https://iapreview.ars.usda.gov/SP2UserFiles/Place/60100500/FactSheets/FS04h.pdf>

Jimmy Carter Plant Materials Center Annual Reports:

https://www.nrcs.usda.gov/wps/portal/nrcs/detail/ga/plantsanimals/?cid=nrcs144p2_022076

Managing Cover Crops Profitably: <https://www.sare.org/Learning-Center/Books>

Southern SARE Oklahoma Fact Sheet:

<https://www.southernsare.org/Educational-Resources/SARE-Project-Products/Fact-Sheets/Using-Sunn-Hemp-as-a-Cover-Crop-in-Oklahoma>

University of Florida Fact Sheets:

<http://edis.ifas.ufl.edu/tr003>

<http://edis.ifas.ufl.edu/ng043>

USDA Sunn Hemp Plant Guide:

https://www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS/publications/njpmcpg11706.pdf