

Sorghum-sudangrass
(*Sorghum bicolor* x *S. bicolor*)

Sorghum-sudangrass has been widely used as a cover crop in the South. It produces the most biomass of the summer grasses and grains. It is heat and drought tolerant and an excellent scavenger of nutrients. It is very susceptible to white sugarcane aphid, which reduces the amount of biomass produced. Farmer experience indicates it may work better in a cover crop mixture to reduce sugarcane aphid pressure.

Recommended Varieties

Variety	Reasons Why	Source
Honey Graze	Brown Midrib (BMR) variety that produces good biomass.	Jimmy Carter and Jamie Whitten Plant Materials Centers data
Super Sugar, Xtra Graze	Varieties rated as good yields with good resistance to sugarcane aphid	Georgia Forages

Planting Information

Information	Comments	Source
Drilled Seed Depth (inches)	½ - 1 ½	Georgia Forages
Drilled Seeding Rate (lbs/acre)	15 - 20	Georgia Forages
Broadcast Seeding Rate (lbs/acre)	25 - 30	Georgia Forages

Termination Information

Information	Source
Sorghum-sudangrass can be terminated by heavy grazing. Sorghum-sudangrass can also be terminated by mowing, herbicides, and tillage. It will also winter kill. It can become very woody as it matures and heavy equipment may be needed to manage the residue. Termination timing depends on the following cash crop. It is usually terminated with herbicides if wheat is the following cash crop.	Managing Cover Crops Profitably
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)	8,000 - 10,000	Much higher dry matter range with irrigation.	Jimmy Carter Plant Materials Center data, Managing Cover Crops Profitably
Typical Total N Range (lbs/acre)	0		
Life Cycle	Summer annual grass	Late summer plantings can make considerable biomass before frost.	
Growth Habit	Upright		
Preferred Soil pH	6.0 - 7.0	Not as acid tolerant as millets	Managing Cover Crops Profitably
Relative Seed Cost (\$/acre)	\$\$\$		Based on survey of seed costs using maximum price and max seeding rate
Min. Germination Temp (F)	65°		
Cautions	Severe infestations of sugarcane aphids can occur. Has exudates that can inhibit the growth of many other plant species. If it is winterkilled or under drought stress, prussic acid can accumulate and create problems for grazing. Can reseed if not terminated early enough and reseeding can become a weed issue. Mature biomass has a very high C:N ratio; mixing with a legume (such as cowpea) can mitigate possible nitrogen immobilization.		

Forage Traits

Information	Source
Sorghum-sudangrass have the highest yield potential of any of the summer annuals. It can be grazed or harvested as baleage or silage. Although it can be used for hay production, it can be more difficult to dry than other summer annuals. Grazing should begin when plants are 24 inches height. Performs best under rotational grazing.	Georgia Forages
Sorghum-sudangrass might contain toxic levels of nitrates and prussic acid under stress conditions (drought, frost/freeze, etc.). Horses should not be fed forage from the sorghum family. Brown midrib varieties are preferred as forage source due to the lower lignin and higher digestibility than other varieties.	
If crops are grazed instead of harvested as grain, check that all pesticides applied to the crop are labeled for grazing livestock.	

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Sources:

Georgia Forages: <https://georgiaforages.caes.uga.edu/species-and-varieties/warm-season/sorghums.html>

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>