

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

Sorghum-sudangrass has been widely used as a cover crop in the South. It has the highest production potential of all the summer cover crops. It is heat and drought tolerant and an excellent scavenger of nutrients, and is also used to help control summer weeds such as Palmer amaranth. 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. Sorghum-sudangrass suppresses many nematodes including root-knot nematodes.

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

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
Most vegetable farmers use mowing and incorporation for termination. Flail mowers provide the finest residue and most even distribution, but rotary mowers can be used. Due to high biomass it is difficult to terminate with weed-eaters or small mowers on smaller beds. Residue should be incorporated as soon after mowing as possible. Leave at least 2 weeks for residue to decompose before planting. If there is high biomass, then 3 weeks or more may be needed. Decomposition is greater in moist, warm conditions. If the soil is dry then irrigation may be necessary. Cool soils conditions will lengthen time needed before planting.	Managing Cover Crops Profitably

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Cultural Traits

Traits		Comments	Source
Typical Dry Matter Range (lbs/acre)	8,000 - 12000	Much higher dry matter range with irrigation. Higher biomass can be obtained with mowing and letting the over crop regrow.	Jimmy Carter Plant Materials Center data, Managing Cover Crops Profitably
Typical Total N Range (lbs/acre)	Not available		
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. 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. Sorghum-sudangrass contains allelopathic compounds that can inhibit germination of small-seeded crops. Leave adequate time for thorough decomposition.		

Sources:

Georgia Forages: <http://georgiaforages.caes.uga.edu/>

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>