Sudangrass and Sorghum-Sudangrass

Sorghum bicolor

Sudangrass and sorghum-sudangrass are midsummer grasses suitable for 8-10 week plantings. They are the most heat and drought-tolerant cover crops typically grown in the Northeast. These crops provide abundant root biomass, which is useful for increasing soil organic matter, especially carbon. They suppress root knot nematodes[2] and inhibit weed germination if densely sown.

Land preparation	Prepare a clod-free seedbed. Avoid hard soil and wet spots. Do not plant just before a heavy rain. Warm, moist soil is best.
Seeding rate	30 lb/ac for biomass and nematode control. 50 lb/ac for weed control.[4] Seed size varies, so if using a variety with larger or smaller seed size than average, adjust the rate to provide a similar plant population.
Seeding date	June through mid-August (sudangrass). July through mid-August (sorghum-sudangrass). These cover crops require warm soil to germinate.
Seed sources	Albert Lea Seedhouse, Seedway, UAP, local farm seed dealers. To suppress nematodes, use a variety that is high in dhurrin (such as Trudan8, Sordan 79, Green Grazer and Special Effort).[5]
Maintenance	Mow when 20-30 inches tall, leaving a 6 inch stubble.[6] Leave residue on the soil surface for weed suppression. Timely mowing is important because tall, fibrous plants are difficult to mow or incorporate.
Control	Big crowns decompose slowly, making it difficult to prepare a seedbed for small-seeded crops. Incorporate sudangrass if planting something else in the fall. Otherwise, mow for winter-killed mulch on the surface and till in early spring. Tall, unmowed sudangrass will winter-kill, but is difficult to manage in the spring.
Tips	Good summer cover if a long mid-summer period is available. Usually followed by a winter grain cover crop. For shorter summer opportunities, use buckwheat. Add nitrogen fertilizer if there is not substantial residual nitrogen after the previous crop. Mowing encourages root growth. This plant can be used in some insectary mixes because sorghum may harbor greenbug (*Schizaphisgraminum)*, which in turn attracts ladybeetles, lacewings, and other beneficial predatory insects.[7]

Choosing the crop

Sudangrass is easier to manage than sorghum-sudangrass for many reasons: (1) the stems are narrower,[1] (2) it can be sown earlier than sorghum-sudangrass, and (3) it suppresses weeds better than sorghum-sudangrass.

More on fertilizer

Vermont extension specialist Vern Grubinger recommends 50 lb/ac nitrogen fertilizer on upland soils. For sandy soil, 25-50 additional lb/ac will improve growth and tillering. Degraded muck soils also benefit from about 30 lb/ac of nitrogen.

Soils low in potassium benefit from additional potassium fertilizer. It is a good investment to add it to low-potassium soil in which you plant sorghum-sudangrass, because it keeps the crop producing biomass in the fall. Since the sorghum-sudangrass returns biomass to the soil, it is economical to use this fertilizer.

Other information

- Sorghum-sudangrass is often referred to generically as Sudex, although that is DeKalb's trademarked name.
- Sudangrass restores carbon to low-quality muck soil, which increases crop vigor and reduces disease on the following crop.
- Sudangrass is often used for forage. If you are growing it as a cover crop, do not use a variety that is high in indigestible fiber.

References:

[1]Undersander, D. Sorghums, sudangrasses and sorghum sudangrass hybrids. Focus on Forage v. 5, no 5. http://www.uwex.edu/ces/crops/uwforage/SorghumsFOF.htm

[2]Cover Crops for Vegetable Production in the Northeast, L.J. Stivers, et al. Information Bulletin 244, P.7.

[3]Pritts, M. Cover crops for blueberry plantings. http://www.fruit.cornell.edu/Berries/bbhtml/bbcovercrop.html

[4]http://www.nysaes.cornell.edu/hort/faculty/bjorkman/covercrops/earlysummer.html

[5]http://www.nysaes.cornell.edu/hort/faculty/bjorkman/covercrops/earlysummer.html

[6]Clark, A. 2007. Managing Cover Crops Profitably, 3rd ed., Sustainable Agriculture Network. p.108.

[7]http://www.sarep.ucdavis.edu/cgi-bin/ccrop.exe

[SxS: 35-50[1]. Recommended in another reference]

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For more information

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