Grasses

# Sorghum-Sudangrass

AS A COVER CROP IN OHIO

This fact sheet summarizes information specific to Ohio that is available from the Midwest Cover Crops Council. For more information, see the *Midwest Cover Crops Field Guide, Third Edition*, and the Cover Crop Selector Tool found at: midwestcovercrops.org/selector-tool/



Sorghum bicolor x Sorghum bicolor var. sudanese

#### **Identification Information**

- Leaves that resemble corn but have less leaf area and a waxier leaf surface
- Have more secondary roots than a corn plant
- Brown midrib available on some hybrids

#### **Cultural Traits**

- Summer annual
- Minimum germination temperature: 65°F
- Reliable establishment window (state average): May 20–Sept. 6
- Upright growth habit: 8–12 feet
- Preferred soil pH: 6.0-7.0

Heat tolerance:	Excellent
Drought tolerance:	Excellent
Low fertility tolerance:	Good
Winter survival:	Winter-killed

Individuals participating in financial assistance programs are required to follow NRCS Appendix A regarding seeding rates and dates. Failure to do so will jeopardize payments. Appendix A can be found in Ohio's Field Office Technical Guide, Section 4, Ecological Sciences Tools: <a href="https://efotg.sc.egov.usda.gov/#/state/OH/documents/section=4&folder=-6">https://efotg.sc.egov.usda.gov/#/state/OH/documents/section=4&folder=-6</a>

## **Planting Information**

- Drilled at ½-1½ inches
  - 16–30 lbs./acre (pure live seed)
- Broadcast with shallow incorporation
  - 18–30 lbs./acre (pure live seed)
- Broadcast without incorporation is not recommended.

*Additional planting information:* 

- 17,280 seeds/lb.
- When planting on slopes or using for forage/grazing, increase seeding rate.
- If applying manure, tend toward the lower end of the seeding rate.

#### **Performance**

- Dry matter = 4,000-8,000 lbs./acre per year
  - Biomass quantity is highly dependent on planting/termination dates and precipitation.

Excellent
Excellent
Excellent
Excellent
Very good
Excellent
Very good
Excellent





#### **Termination Information**

- Tillage
  - If terminating with only tillage, multiple passes are often required.
- Chemical
- Winterkill

#### Additional termination information:

- Mowing to a height of less than 2 inches after 2 feet or more of growth may terminate.
- Mowing after heading may terminate.
- Follow NRCS guidelines for cover crop termination dates for crop insurance compliance.

#### Additional performance information:

- Sorghum-sudangrass does not tolerate shade, flooding, or ponding.
- Rapid growth is good for short windows.
- Do not mow closer than 6 inches to soil surface to ensure regrowth.
- Brown midrib hybrids are available for higher forage value.
- Vertical structure, very edible forage, and seed production are well suited for grazing and wildlife.
- Sorghum-sudangrass can cause prussic acid poisoning in livestock.
  - Do not graze until at least 18–36 inches.
- Drought-stressed plants can cause nitrate poisoning.
- Mowing or harvesting promotes tillering and increases root growth.
- Specific hybrids may be used to manage penetrans root lesion nematode.
- Mature, frost-killed plants become woody.
- If allowed to go to seed, sorghum-sudangrass has the potential to become a weed.
- Do not plant in fields with a known Johnsongrass population.

# **Potential Advantages**

#### SOIL IMPACTS

Subsoiler:	Very good
Frees P and K:	Good
Compaction fighter:	Excellent
Nematodes:	Very good
Disease:	Very good
Allelopathic:	Excellent
Chokes weeds:	Excellent

#### **OTHER**

Attracts beneficials:	Good
Bears traffic:	Very good
Short windows:	Excellent

# **Potential Disadvantages**

**Increased weed potential:** Could be a minor problem **Increased insects/nematodes:** Occasionally a minor problem

Hinders crops: Could be a moderate problem

 Can cause negative rotation effects for following grass crops

**Mature incorporation challenges:** Could be a moderate problem

## **Contributors**

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(Note: This publication was adapted with consent from MCCC with content from the Midwest Cover Crops Field Guide, Third Edition, and Cover Crop Selector Tool: midwestcovercrops.org/selector-tool/.)

The Midwest Cover Crops Council (www.midwestcovercrops.org) aims to facilitate widespread adoption of cover crops throughout the Midwest by providing educational/outreach resources and programs, conducting new research, and communicating about cover crops to the public.

Funding for this project was provided by McKnight Foundation.

MCKNIGHT FOUNDATION

December 2022