

Grasses

Wheat

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/



Photo credit: Eric Richter, OSU Extension

Triticum aestivum

Identification Information

- Flat, narrow leaves
- Often has tillers

Cultural Traits

- Winter annual
 - Winter wheat requires vernalization to produce grain.
- Minimum germination temperature: 38°F
- Reliable establishment window (state average): Sept. 28–Nov. 1
 - Average Ohio fly-free date: Sept. 28
- Upright growth habit: 3–4 feet
- Preferred soil pH: 6.0–7.5

Heat tolerance: Good

Drought tolerance: Good

Shade tolerance: Good

Low fertility tolerance: Very good

Winter survival: Expected for winter wheat

- Spring wheat has cold tolerance but is not winter hardy.

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: <https://efotg.sc.gov.usda.gov/#/state/OH/documents/section=4&folder=-6>

Planting Information

- Drilled at $\frac{3}{4}$ –1½ inches
 - 50–90 lbs./acre (pure live seed)
- Broadcast with shallow incorporation
 - 55–90 lbs./acre (pure live seed)
- Broadcast without incorporation
 - 60–90 lbs./acre (pure live seed)

Additional planting information:

- 11,400 seeds/lb.
- Plant after fly-free date (Sept. 28).
- When planting on slopes or using for forage/grazing, increase seeding rate.
- Broadcasting without incorporation is usually less dependable than drilling or broadcasting with incorporation.

Performance

- Dry matter = 2,000–5,000 lbs./acre per year
 - Biomass quantity is highly dependent on planting/termination dates and precipitation.

Nitrogen scavenger: Very good

Soil builder: Very good

Erosion fighter: Excellent

Weed fighter: Very good

Grazing: Excellent

Quick growth: Very good

Lasting residue: Very good

Mechanical forage harvest: Very good

Grain seed harvest: Excellent



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Termination Information

- Tillage
 - If terminating with only tillage, multiple passes are often required.
- Roller crimper
 - Roller crimping is the most difficult/variable termination method.
 - Crimp during reproductive stage (full bloom).
- Chemical

Additional termination information:

- Wheat can become a weed if not completely terminated.
- It is best to terminate when plants are small *except* when rolling/crimping.
- Mowing after heading may terminate.
- Terminate at least 14 days before planting corn or at 6–8 inches to reduce potential for negative rotation effects, including nitrogen immobilization and allelopathy.
- Adjust termination dates based on soil moisture.
- Follow NRCS guidelines for cover crop termination dates for crop insurance compliance.

Additional performance information:

- Wheat is effective for weed suppression, but it is less effective than other cool-season cereals because it doesn't produce as much biomass.
- Wheat may reduce sclerotinia and is a non-host for sugarbeet cyst nematode, soybean cyst nematode, and root knot nematode.
- Wheat is not recommended as a cover crop around corn due to similar diseases and pests.
- Plant after Hessian fly-free date as a cover crop.

Potential Advantages

SOIL IMPACTS

Subsoiler:	Good
Frees P and K:	Very good
Compaction fighter:	Good
Chokes weeds:	Good

OTHER

Bears traffic:	Good when drilled
Short windows:	Very good

Potential Disadvantages

Delayed emergence: Occasionally a minor problem

Increased weed potential: Could be a minor problem

Increased insects/nematodes: Could be a moderate problem

- Wheat curl mite can spread wheat streak mosaic virus.
- Wheat could increase risk of spring cutworm and potato stem borer.
- Wheat is a host for penetrans root lesion nematode.

Increased crop diseases: Could be a moderate problem

- If planted too early in the fall, there can be disease problems (e.g., tan spot).

Hinders crops: Could be a minor problem

Mature incorporation challenges: Could be a moderate problem

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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.

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OHIO COVER CROP FACT SHEET

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