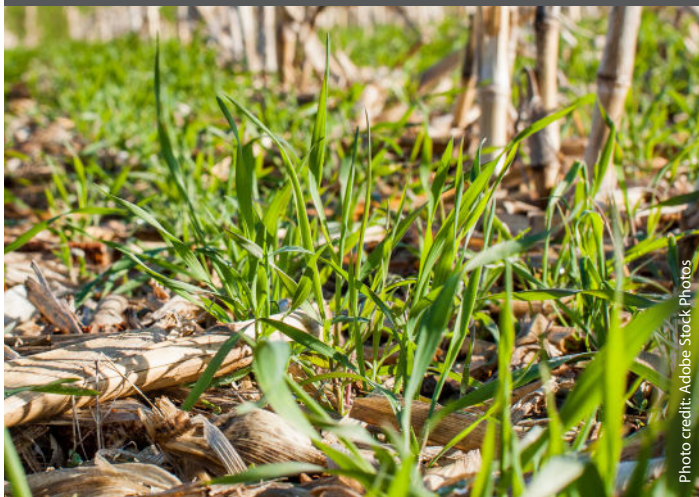


## Grasses

# Cereal Rye

## 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/](https://midwestcovercrops.org/selector-tool/)



### *Secale cereale*

#### Identification Information

- Blue-green leaves
- Hairs on leaf sheath, unlike wheat
- Small- to medium-sized auricles without hairs
- Usually taller than wheat plants

#### Cultural Traits

- Cool-season annual
  - Cereal rye requires vernalization to produce seed.
- Minimum germination temperature: 34° F
- Reliable establishment window: July 2–Nov. 1
- Upright growth habit: 3–6 feet
- Preferred soil pH: 5.0–7.0

<b>Drought tolerance:</b>	Very good
<b>Shade tolerance:</b>	Very good
<b>Flood tolerance:</b>	Good
<b>Low fertility tolerance:</b>	Excellent
<b>Winter survival:</b>	Expected

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.egov.usda.gov/#/state/OH/documents/section=4&folder=-6>

#### Planting Information

- Drilled at  $\frac{3}{4}$ –1½ inches
  - 40–90 lbs./acre (pure live seed)
- Broadcast with shallow incorporation
  - 45–90 lbs./acre (pure live seed)
- Broadcast without incorporation
  - 56–112 lbs./acre (pure live seed)

#### Additional planting information:

- 18,200 seeds/lb.
- If grazing, increase seeding rate.
- Broadcasting without incorporation is usually less dependable than drilling or broadcasting with incorporation.
- Use a low seeding rate for areas with sandy soil or that are prone to dry periods in early spring.

#### Performance

- Dry matter = 2,500–6,000 lbs./acre per year
  - Biomass quantity is highly dependent on planting/termination dates and precipitation.

<b>Nitrogen scavenger:</b>	Excellent
<b>Soil builder:</b>	Excellent
<b>Erosion fighter:</b>	Excellent
<b>Weed fighter:</b>	Excellent
<b>Grazing:</b>	Excellent
<b>Quick growth:</b>	Excellent
<b>Lasting residue:</b>	Excellent
<b>Mechanical forage harvest:</b>	Very good
<b>Grain seed harvest:</b>	Very good
<b>Cash crop interseed:</b>	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).
- Mowing
  - Mow during milk or dough stages.
- Chemical

### Additional termination information:

- Terminate at least two weeks before planting corn.
- Use an N starter fertilizer when planting corn to reduce negative rotation effects.
- Plant green only if experienced.
- Adjust termination dates based on soil moisture.
- Cereal rye 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.
- Follow NRCS guidelines for cover crop termination dates for crop insurance compliance.

### Additional performance information:

- Cool-season cereals are some of the best weed-suppression cover crops.
- Allelopathic ability may be variety dependent.
- Cereal rye rates good for early interseeding.
- Cereal rye is a non-host for root knot nematode, soybean cyst nematode, and sugarbeet cyst nematode.
- Fall-established cereal rye has great spring production.
- Plant growth may dry out wet soils but may over-dry soils in the spring if not terminated in a timely manner.

## Potential Advantages

### SOIL IMPACTS

<b>Frees P and K:</b>	Good
<b>Compaction fighter:</b>	Excellent
<b>Nematodes:</b>	Excellent
<b>Disease:</b>	Good
<b>Allelopathic:</b>	Excellent
<b>Chokes weeds:</b>	Excellent

### OTHER

<b>Bears traffic:</b>	Very good when drilled
<b>Short windows:</b>	Excellent

## Potential Disadvantages

**Increased weed potential:** Could be a minor problem

- Can become a weed if not completely terminated

**Increased insects/nematodes:** Could be a moderate problem

- Could increase risk of spring cutworm and potato stem borer
- Host for penetrans root lesion nematode

**Increased crop diseases:** Occasionally a minor problem

**Hinders crops:** Could be a moderate problem

- Not recommended before corn; use ahead of soybeans

**Mature incorporation challenges:** Could be a major 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/](http://midwestcovercrops.org/selector-tool/).)

The Midwest Cover Crops Council ([www.midwestcovercrops.org](http://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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