

Legumes

Crimson Clover

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/



Trifolium incarnatum

Identification Information

- Light green leaves covered with soft hairs
- Crimson (dark red) flowers
- Fibrous taproot

Cultural Traits

- Winter annual
- Minimum germination temperature: 42°F
- Reliable establishment window (state average): June 10–Sept. 28
- Upright to semi-upright growth habit: 12–20 inches
- Preferred soil pH: 5.5–7.0

Heat tolerance: Good

Drought tolerance: Good

Shade tolerance: Very good

Low fertility tolerance: Good

Winter survival: Expected

- Great variation in varietal winter hardiness

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 ¼–½ inch
 - 10–20 lbs./acre (pure live seed)
- Broadcast with shallow incorporation
 - 11–22 lbs./acre (pure live seed)
- Broadcast without incorporation
 - 12–24 lbs./acre (pure live seed)

Additional planting information:

- 149,700 seeds/lb.
- Inoculation type: crimson, berseem
- Crimson clover does not frost-seed well.
- When planting on slopes or using for forage/grazing, increase seeding rate.
- When interseeding, time seeding to match appropriate crop growth/maturity.
- Broadcasting without incorporation is usually less dependable than drilling or broadcasting with incorporation.

Performance

- Dry matter = 3,500–5,500 lbs./acre per year
 - Biomass quantity is highly dependent on planting/termination dates and precipitation.
- Total nitrogen = 70–150 lbs. N/acre (not fertilizer replacement)



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Termination Information

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

Additional termination information:

- Crimson clover may winter-kill, depending on weather conditions.
- Crimson clover can reseed if maturity is reached.
- Follow NRCS guidelines for cover crop termination dates for crop insurance compliance.

Performance (continued)

Nitrogen source:	Very good
Soil builder:	Very good
Erosion fighter:	Very good
Weed fighter:	Very good
Grazing:	Excellent
Lasting residue:	Good
Mechanical forage harvest:	Excellent
Grain seed harvest:	Good
Cash crop interseed:	Very good

Additional performance information:

- May cause bloat when grazed
- Rates excellent for early interseeding
- Good for underseeding
- Non-host for sugarbeet cyst nematode and a poor host for soybean cyst nematode
- Does not tolerate flooding

Potential Advantages

SOIL IMPACTS

Subsoiler:	Good
<ul style="list-style-type: none"> ▪ Requires entire growing season to see subsoiling effects 	
Frees P and K:	Good
Compaction fighter:	Very good
Disease:	Good
Chokes weeds:	Very good
<ul style="list-style-type: none"> ▪ Small-seeded legume seedlings that are not very competitive with weeds 	

OTHER

Attracts beneficials:	Excellent
<ul style="list-style-type: none"> ▪ Excellent pollinator if allowed to flower in the spring 	

Short windows:	Good
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Potential Disadvantages

Delayed emergence: Could be a minor problem

Increased weed potential: Occasionally a minor problem

Increased insects/nematodes: Could be a minor problem

Increased crop diseases: Occasionally a minor problem

Establishment challenges: Occasionally a minor 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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