

CRIMSON CLOVER

COVER CROP FACT SHEET FOR IOWA

Crimson Clover (*Trifolium incarnatum*) is a quick growing cool-season/winter annual legume cover crop. It is a strong nitrogen fixer and scavenger. Crimson clover has a strong root system that helps reduce compaction and build soil.



Identifying Features

- » Light green oval-shaped leaves covered with soft hairs.
- » Stipules between leaf and stem are easily visible, sometimes fringed with purple.
- » Fibrous, slender taproot.

Cultural Traits

- » Cool-season/winter annual legume
- » Minimum germination soil temperature: 42° F
- » Cold temperature tolerance: 10° F
- » Seeding date: Early August to Late August* (F)***
- » Seeding date: Mid April to Mid May* (S)***

Planting Information*

- » **Drill** at ¼ - ½ inch (10 lbs./acre PLS**)
- » **Broadcast** (11 lbs./acre PLS)
- » **Aerial** (13 lbs./acre PLS)

*Planting information from Midwest Cover Crop Council (midwestcovercrops.org). Refer to local NRCS office recommendations (Iowa Field Office Technical Guide, Section 4, 340 Cover Crop) for seeding dates and rates pertinent to location specific financial assistance program requirements.

**Pure Live Seed

***F= Fall S=Spring

Additional planting information:

- » ~150,000 seeds/lb.
- » Increase seeding rate if using for forage/grazing.
- » Does not frost-seed well.
- » Planting in a mixture can enhance performance as a cover crop.
- » When interseeding, time seeding to match appropriate crop growth/maturity.
- » If growing for nitrogen production, consider using inoculation.



Crimson Clover Seed (Shown with seed treatment)



Crimson clover sprouts.



Small crimson clover leaves.

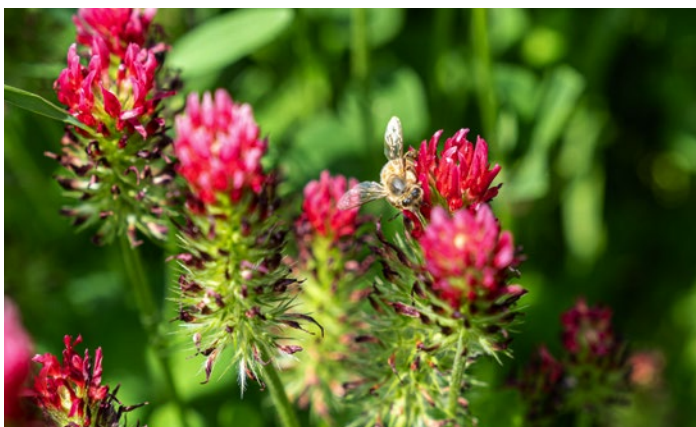


Oats and crimson clover 25 days after seeding.

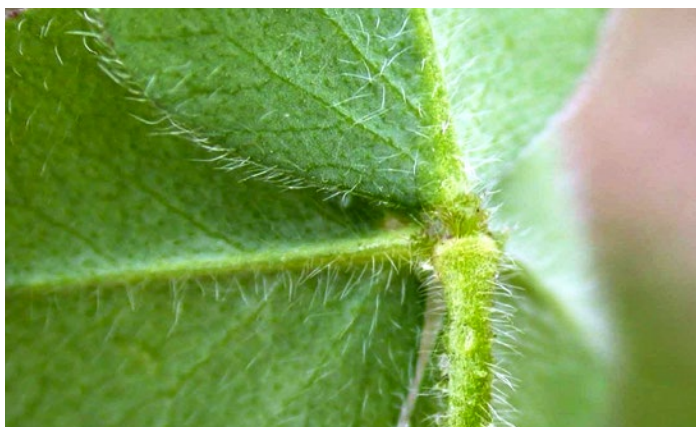
C:N (Carbon:Nitrogen) Ratio

- » Crimson Clover 14:1

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Crimson clover is a good pollinator when allowed to bloom.



Soft hairs of a crimson clover leaf.

Performance

Dry matter = 3,500 - 5,500 lbs./acre per year
(Biomass quantity is dependent on planting and termination dates and precipitation.)

Performance Ratings

- | | |
|---|-----------|
| » Cash crop interseed (<i>early vegetative</i>) | Fair |
| » Cash crop overseed (<i>late seed fill</i>) | Fair |
| » Grazing quality | Good |
| » Mechanical forage harvest | Good |
| » Nitrogen fixer | Very good |
| » Nitrogen scavenger | Fair |
| » Weed suppression | Fair |
| » Compaction fighter | Very good |
| » Erosion control | Fair |
| » Lasting residue | Fair |
| » Quick grower | Good |
| » Drought tolerance | Very good |
| » Low fertility tolerance | Good |
| » Shade tolerance | Fair |

Additional Considerations

- » May cause bloat when grazed.
- » Non-host for sugarbeet cyst nematode and a poor host for soybean cyst nematode.
- » Excellent pollinator if allowed to flower in the spring.
- » Might winter-kill, depending on weather conditions.
- » To produce measurable nitrogen for a cash crop, allow crimson clover to grow until at least mid-May.

Crimson Clover Leaves with Blooms



This fact sheet is a collaborative effort of USDA's Natural Resources Conservation Service (NRCS) and Iowa State University Extension and Outreach to provide cover crop options and information for Iowa landowners.