CEREAL RYE COVER CROP

*Secale cereale*

Marionswcd.org
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## CEREAL RYE COVER CROP

<table>
<thead>
<tr>
<th>COVER CROP</th>
<th>Seeding Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cover Crop Type</td>
<td>Non-Legume</td>
</tr>
<tr>
<td>Life Cycle</td>
<td>Cool Season Annual</td>
</tr>
<tr>
<td>Growth Habit</td>
<td>Upright</td>
</tr>
<tr>
<td>Winter Survival</td>
<td>Expected</td>
</tr>
<tr>
<td>Inoculation Type</td>
<td>None</td>
</tr>
<tr>
<td>Organic Termination</td>
<td>Tillage, Mow, Cut, Roller Crimper</td>
</tr>
</tbody>
</table>

**Seeding Rate**
- (Broadcast with Incorporation)
- **3.7** Ounces/100 Sq. Ft.
- Mixtures with legumes should contain no more than 1 oz/100 sq. ft. of cereal rye.

**Planting Depth**
- 3/4” – 1 1/2”

<table>
<thead>
<tr>
<th>Location</th>
<th>Season</th>
<th>Seeding Window</th>
<th>Increased Freeze Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Southern Indiana</td>
<td>Fall</td>
<td>August 15 – Nov. 15</td>
<td></td>
</tr>
<tr>
<td>Northern Indiana</td>
<td>Fall</td>
<td>August 1 – October 31</td>
<td>October 31 – Nov. 15</td>
</tr>
</tbody>
</table>

Source: NRCS FOTG, MCCC Indiana Vegetable Crop Tool, Extension.org
Cereal rye, also known as winter rye, is a cool season annual cereal grain. Cereal rye can be planted later in the season than most cover crops, and it provides the benefits of suppressing weeds, increasing organic matter, and scavenging excess nitrogen.
If using a no-till approach, cereal rye can be crimped or cut in the milk or dough stage when pollen is 50% covering the seed head. Roller crimpers break the stem every six inches but do not cut the plant from its base, thus decreasing probability for regrowth.
In Marion County, Indiana, cereal rye is often ready to terminate in mid-May to early June. This no-till approach can be used to prepare for vegetable transplants.
Since roller crimpers might not be viable in some small-scale gardens, cereal rye can be terminated by cutting. Like cutting grass, there is potential for rye regrowth.
If transplanting into cut or crimped rye, adding supplemental mulch is helpful for weed suppression. After cutting or crimping, a temporary tarp is sometimes used to suppress rye regrowth and weeds. This grower removed the tarp and transplanted a squash crop.
Cereal rye is often mixed with a hairy vetch cover crop. The high-carbon rye and high-nitrogen hairy vetch compliment each other and provide a long-lasting weed suppressing mulch.
In this bed, cereal rye and hairy vetch were cut and followed by a transplanting of peppers.
The cover crop residue can also create a nice mulch for vining fruits and vegetables. This picture from August 2017 shows watermelons resting on cereal rye and hairy vetch cuttings.
Mature cereal rye is high in carbon, which lends itself well to be followed by a legume in a crop rotation. In this bed, furrows are made with a trowel and bush beans are seeded into the cut or crimped cereal rye cover crop. If planting a crop that needs more nitrogen, growers can add supplemental fertilizer or compost according to soil tests.
A tillage termination of cereal rye is most easily done when the vegetation is 6” to 8” high. Mature vegetation can be more difficult to incorporate. Note that young cereal rye has a lower carbon to nitrogen ratio, and also contains more allelopathic compounds than mature rye. Allelopathy can chemically affect germination and plant growth of weeds and crops. After incorporation, ‘Cereal Rye for Cover Cropping in Organic Farming’ recommends to wait three to four weeks before planting small-seeded crops. Transplants and larger-seeded species, especially legumes, are less susceptible.
ADDITIONAL RESOURCES

MCCC Indiana Vegetable Crop Tool: Cereal Rye
http://mccc.msu.edu/selector-tool/


http://notillveggies.org/cover-crops-for-no-till/high-residue-for-rolling/
(Includes great references for high residue systems)

Indiana NRCS Homepage:
https://www.nrcs.usda.gov/wps/portal/nrcs/site/in/home/