Iowa NRCS
Cover Crop Quick Reference Guide
Southeast Area

<table>
<thead>
<tr>
<th>Cover Crop</th>
<th>Latest Seeding Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central</td>
<td>East Central</td>
</tr>
<tr>
<td>Drilled or Broadcast - Incoropared (lbs./acre)</td>
<td>Broadcast - No Incorporation (lbs./acre)</td>
</tr>
<tr>
<td>Camelina, Winter</td>
<td>3</td>
</tr>
<tr>
<td>Kale</td>
<td>3</td>
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<tr>
<td>Mustard</td>
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<tr>
<td>Radish</td>
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<tr>
<td>Rappseed (C)</td>
<td>3</td>
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<tr>
<td>Turnip</td>
<td>3</td>
</tr>
<tr>
<td>Buckwheat</td>
<td>45</td>
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<tr>
<td>Flax</td>
<td>15</td>
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<tr>
<td>Sunflower</td>
<td>3</td>
</tr>
<tr>
<td>Barley, Spring</td>
<td>60</td>
</tr>
<tr>
<td>Barley, Winter</td>
<td>60</td>
</tr>
<tr>
<td>Millet</td>
<td>10</td>
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<tr>
<td>Oats</td>
<td>60</td>
</tr>
<tr>
<td>Rye, Winter Cereal</td>
<td>45</td>
</tr>
<tr>
<td>Ryegrass, Annual</td>
<td>12</td>
</tr>
<tr>
<td>Sorghum, Forage</td>
<td>15</td>
</tr>
<tr>
<td>Sorghum-sudangrass</td>
<td>15</td>
</tr>
<tr>
<td>Sudangrass</td>
<td>15</td>
</tr>
<tr>
<td>Teff</td>
<td>4</td>
</tr>
<tr>
<td>Triticale, Winter</td>
<td>45</td>
</tr>
<tr>
<td>Wheat, Spring</td>
<td>60</td>
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<tr>
<td>Wheat, Winter</td>
<td>45</td>
</tr>
<tr>
<td>Beans, Mung</td>
<td>15</td>
</tr>
<tr>
<td>Clover, Berseem</td>
<td>8</td>
</tr>
<tr>
<td>Clover, Crimson</td>
<td>10</td>
</tr>
<tr>
<td>Clover, Red</td>
<td>8</td>
</tr>
<tr>
<td>Clover, White</td>
<td>5</td>
</tr>
<tr>
<td>Cowpea</td>
<td>30</td>
</tr>
<tr>
<td>Pea, Field/Winter</td>
<td>45</td>
</tr>
<tr>
<td>Sunn Hemp</td>
<td>15</td>
</tr>
<tr>
<td>Vetich, Common</td>
<td>20</td>
</tr>
<tr>
<td>Vetich, Hairy</td>
<td>12</td>
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</tbody>
</table>

* Use bulk rate for seed with a minimum of 80% PLS.
* Use rate based on PLS lbs. for all other seed.

USDA is an equal opportunity provider, employer and lender.
**Annual Ryegrass**
- **Annual**
- Recommended for advanced cover croppers only
- Recommended to use a variety rather than VNS
- Can overwinter with spring control difficult
- Good at increasing organic matter
- Deep rooted
- Germination Temperature: 40 degrees
- Winter Survival: Seldom
- 190,280 seeds per pound
- Low C:N Ratio (201 – 313)
- Seeding depth: ½ – 1 inch

**Buckwheat**
- **Annual**
- Seedling depth: ¼ - 1½ inches
- 16,320 seeds per pound
- Winter Survival: Expected
- Attracts pollinators
- Common Vetch is different than Hairy or Chickling
- Annual or biennial
- Seeding depth: ¼ - ½ inch

**Cereal Rye**
- **Annual**
- Legume (N-fixation)
- Resemble rye or looks like soybean
- Low water use/shallow rooted
- Germination Temperature: 58 Degrees
- Winter Survival: Never
- 3,600 seeds per pound
- Low C:N Ratio (181 – 221)
- Seeding depth: % - 1 inch

**Berseem Clover**
- **Annual**
- Legume (N-fixation)
- Germination Temperature: 42 Degrees
- Winter Survival: Seldom
- 206,880 seeds per pound
- Low C:N Ratio (181 – 233)
- Seeding depth: ¼ – ½ inch

**Crimson Clover**
- **Annual**
- Legume (N-fixation)
- Easy to establish
- Germination Temperature: 42 Degrees
- Winter Survival: Seldom
- 149,760 seeds per pound
- Low C:N Ratio (161 – 191)
- Seeding depth: % - ½ inch

**Cowpea**
- **Annual**
- Legume (N-fixation)
- Germination Temperature: 60 Degrees
- Winter Survival: Expected
- 18,320 seeds per pound
- Low C:N Ratio (101 – 191)
- Seeding depth: % - ½ inches

**Crimson Clover**
- **Annual**
- Legume (N-fixation)
- Germination Temperature: 42 Degrees
- Winter Survival: Seldom
- 149,760 seeds per pound
- Low C:N Ratio (161 – 191)
- Seeding depth: % - ½ inch

**Hairy Vetch**
- **Annual or Biennial**
- Legume (N-fixation)
- Germination Temperature: 60 Degrees
- Winter Survival: Expected
- 18,320 seeds per pound
- Low C:N Ratio (101 – 191)
- Seeding depth: % - ½ inches

**Winter Wheat**
- **Annual**
- Good for increasing Organic Matter
- Self-pollinator (wind)
- Rated ‘Very good’ at scavenging nitrogen from the soil
- Germination Temperature: 38 Degrees
- Winter Survival: Never
- 19,600 seeds per pound
- Low C:N Ratio (191 – 201)
- Seeding depth: % - ½ inches

**Winter Pea**
- **Annual**
- Has an extensive taproot
- Germination Temperature: 42 Degrees
- Winter Survival: Never
- 17,280 seeds per pound
- Low to Medium C:N ratio (101 – 301)
- Seeding depth: % - 1½ inch

**Annual**
- Good for soil, grazing or hayed
- Excellent for Increasing Organic Matter
- High tonnage potential
- Rated ‘Excellent’ at nutrient scavenging
- Stress conditions that limit growth (e.g., drought, frost) can contribute to prussic acid accumulation in leaves
- Germination Temperature: 65 Degrees
- Winter Survival: Never
- 156,960 seeds per pound
- Low to High C:N Ratio (121 – 371)
- Seeding depth: % - 1 inch

**Sorghum-Sudangrass**
- **Annual**
- Good at increasing organic matter
- Low to Medium C:N Ratio (14:1 – 30:1)
- 15,000 seeds per pound
- Winter Survival: Never
- 50 to Medium C:N ratio (101 – 301)
- Seeding depth: % - ½ inches

**Sorghum-Sudangrass**
- **Annual**
- Good at increasing organic matter
- Low to Medium C:N Ratio (14:1 – 30:1)
- 15,000 seeds per pound
- Winter Survival: Never
- 50 to Medium C:N ratio (101 – 301)
- Seeding depth: % - ½ inches

**Sunhemp**
- **Annual**
- Has an extensive taproot
- Germination Temperature: 42 Degrees
- Winter Survival: Never
- 15,000 seeds per pound
- Low to Medium C:N ratio (141 – 301)
- Seeding depth: % - 1 inch

**Turnip**
- **Biennial**
- Does not form arbuscular mycorrhizal associations
- Rated ‘Good’ at scavenging nutrients
- Flowers attract pollinators
- Germination Temperature: 45 Degrees
- Winter Survival: Never
- 34,000 seeds per pound
- Low C:N Ratio (91 – 201)
- Seeding depth: % - ½ inches

**Winter Triticale**
- **Annual**
- Less aggressive growth than rye in the spring
- Germination Temperature: 38 Degrees
- Winter Survival: Expected
- 227,000 seeds per pound
- Medium C:N Ratio (201)
- Seeding depth: % - 2 inches

**Winter Camelina**
- **Annual**
- Does not form arbuscular mycorrhizal associations
- Option to diversify winter survival mixes
- Germination Temperature: 32 Degrees
- Winter Survival: Expected
- 400,000 seeds per pound
- High C:N Ratio (401 – 951)
- Seeding depth: % - ½ inch

**Winter Wheat**
- **Annual**
- Less aggressive growth than rye in the spring
- Germination Temperature: 38 Degrees
- Winter Survival: Expected
- 123,800 seeds per pound
- Medium C:N Ratio (201)
- Seeding depth: % - 1½ inches

**Turnips**
- **Annual**
- Does not form arbuscular mycorrhizal associations
- Rated ‘Good’ at scavenging nutrients
- Flowers attract pollinators
- Self-pollinator (wind)
- Germination Temperature: 65 Degrees
- Winter Survival: Never
- 156,960 seeds per pound
- Low to High C:N Ratio (121 – 371)
- Seeding depth: % - 1 inch

**Winter Wheat**
- **Annual**
- Less aggressive growth than rye in the spring
- Germination Temperature: 38 Degrees
- Winter Survival: Expected
- 113,800 seeds per pound
- Medium C:N Ratio (201)
- Seeding depth: % - 1½ inches

Note: This is not an all inclusive list. Refer to the 340 IR for more species information.