**Description**
- Winter rye is a winter cereal grain.
- Approximately 19,900 seeds per pound
- 56 pounds per bushel
- Winter Rye can yield 30 - 60 bushels/acre

**Management Considerations**
- Winter rye can be grown for grain production, forage, or as a cover crop to help control soil erosion, build soil organic matter, and for weed control.
- It will germinate at temperatures as low as 34°F and grow at temperatures as low as 38°F, which allows it to be planted later in the fall than other winter grains. It is the most winter-hardy of all winter grains.
- It is often planted with hairy vetch to increase soil organic matter and soil N.
- Winter rye contains allelopathic compounds which can inhibit the germination and growth of small seeds, which assists in weed control but may limit some crop rotation choices.
- We have reports of poor corn stands following winter rye.
- Winter rye does best on well-drained loamy soils but can handle heavy clay and sandy soils. Optimum soil pH is 5.0 to 7.0 but can tolerate 4.5 to 8.0.

**Optimum Planting Dates**
- Winter rye can be planted from late summer to late fall depending on the use of the crop.
- When grown for grain optimum dates for seeding winter rye in Minnesota are:

<table>
<thead>
<tr>
<th>Location</th>
<th>Date</th>
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<tbody>
<tr>
<td>Southern MN</td>
<td>September 5 – 30</td>
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<tr>
<td>Northern MN</td>
<td>August 15 – September 10</td>
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</tbody>
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- When grown as a winter cover crop, winter rye can be planted well into October. When planting for fall forage, plant two to eight weeks earlier than if planting for grain to maximize growth or when sowing with hairy vetch to allow vetch time to become established.
- Winter rye can also be planted in the spring as a companion crop or early forage, but will not produce grain due to the lack of vernalization. It will also be less vigorous and not grow as tall.
Seedling Recommendations
- 56 – 112 lbs. (1 to 2 bu.) per acre depending on the use of the crop and if you plan to interseed another crop with it. Use higher rates for grain production and lower rates for cover crop. Plant one bushel of rye with 20 to 30 pounds of hairy vetch per acre.
- Drill about 1 inch deep, depending on soil moisture and soil texture. Avoid seeding deeper than 1½ inches. A grain drill with press wheels is the best because it places the seed at a uniform depth and gives good soil-seed contact. Broadcasting wastes seed and often results in uneven stands. Increase rates to 1.5 to 3 bushels per acre if broadcasting.

Fertilization (Please contact your fertilizer professional for your specific needs):
- Winter rye will respond to modest applications of N but has a good ability to scavenge N from the soil. When planted following crops that were well fertilized with N, it seldom needs additional fertilizer.
- Medium levels of P and K are generally adequate for winter rye.

Weed and Disease Control
- Because of its fast growth and allelopathic effect, winter rye is very competitive against weeds. However, rye can become a volunteer weed if it is tilled before it reaches eight inches in height or after it sets seed.
- Using crop rotation, resistant varieties, and other cultural methods will minimize the impact of rust, stem smut, and anthracnose.