Triticale

(Triticale hexaploide Lart.)

Description

- Triticale (pronounced: trit-ah-kay-lee) is a hybrid cereal grain produced when durum wheat is pollinated with rye pollen.
- Approximately 11,500 to 13,000 seeds per pound
- No official bushel weight exists for triticale. 52 - 56 pounds per bushel is average.
- Triticale can yield 30 - 80 bushels/acre.

Management Considerations

- Triticale yield, stress tolerance, and disease resistance (except ergot) are typically greater than wheat.
- Triticale is generally superior to wheat for pasture, silage, hay, and for grain used for feed.
- In general, triticale has superior drought resistance compared to barley, wheat, and oats.
- Triticale may have some allelopathic effect which can inhibit the germination and growth of small seeds but effect is not as high as winter rye.
- Triticale does not possess the grain traits of wheat so its greatest market potential is as animal feed either forage or grain.
- Winter triticale is as winter hardy as winter wheat but less than winter rye.
- When winter triticale is spring-seeded, vernalization will not occur so plants will remain vegetative (will not produce seed) and can be used for grazing.
- Winter triticale matures about five days later than winter wheat and about two weeks later than fall rye under similar growing conditions.
- Select fields with good drainage, sandy loam to heavy clay soil textures. Avoid fields that had cereal crops and forage grasses in the previous year to reduce risk of disease.

Optimum Planting Dates

- Spring triticale should be planted as early as practical.
- Winter triticale should be planted in the fall on dates similar to winter wheat but even more care should be taken to leave surface residue to catch snow.
- Optimum dates for direct seeding winter triticale in Minnesota:

<table>
<thead>
<tr>
<th>Location</th>
<th>Date</th>
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<tbody>
<tr>
<td>South of I-90</td>
<td>September 20 – October 10</td>
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<tr>
<td>Between I-90 and I-94</td>
<td>September 10 – September 30</td>
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Seeding Recommendations

• Prepare the seedbed similarly to that for oats, barley, or wheat.
• Triticale should be seeded using a standard grain drill about ½ to 1 ½ inch deep.
• Plant about 100 – 120 pounds per acre. Use lower rate for grain production and higher rate for forage. Triticale does not tiller as much as wheat.
• Set grain drill 10 - 20 percent greater than for wheat as the seed is bigger and lighter in weight.

Fertilization (Please contact your fertilizer professional for your specific needs)

• Basic agronomic practices are similar for winter wheat, winter triticale and fall rye.
• Fertilizer applications should be based on soil tests.
• Ensure adequate levels of phosphate (40 lb/acre) and potash (80 lb/acre) are applied in the fall.
• Nitrogen should be applied 1/3 fall and 2/3 spring providing a minimum of 100 pounds/acre of actual N for best forage production and highest protein levels.

Weed and Disease Control (This is not intended as a recommendation or endorsement of any specific product but as a list of possible controls. Please contact your chemical professional for your specific needs and always read and follow label directions)

• Select fields with low weed seed density if possible. Plant early in a well prepared seed bed for rapid germination.
• Seeding early results in a more competitive stand establishment and provides a jump-start on the weeds.
• Triticale is slightly more susceptible to ergot than wheat. Use crop rotation and tillage to reduce incidence.
• Bromoxynil (Buctril) is registered for broadleaf weed control in triticale. No herbicides are registered for grass weed control, so the crop needs to be planted on relatively weed-free fields. Triticale grows slower than wheat in the spring and grassy weeds could be a problem.

Harvest Considerations

• Optimum harvest stage for forage is when the plant is at the flag leaf or boot stage before head emergence. Protein content at this stage will vary between 14 – 19%. Generally, forage yields and palatability will be higher than for either wheat or rye.
• Triticale grain generally matures later than wheat or rye and has a higher protein content which makes it a good home-grown feed option. Attention must be paid to ensure that ergot levels are less than 0.1%. Newer varieties have fewer ergot problems. Combining standing grain rather than swathing first is advisable because triticale is more susceptible to sprouting in the swath than wheat.
• In high fertility situations, lodging can occur. Under such conditions, plan to harvest early.