Winter Wheat Management
Tips for Higher Yields

**Volume one - Fall Management**

**Field Selection:** Highest potential yields are achieved on fields with good internal drainage, higher CEC’s, moderate pH’s (6.2-7.3) with medium to high background levels of phosphorus and potassium.

**Crop Rotation:** Plant winter wheat following soybeans for optimum yields. Wheat following corn or wheat can increase the risk of several diseases including scab (fusarium head blight). Planting wheat after corn silage has less risk than corn harvested for grain. When planting wheat on wheat make sure all volunteer wheat has been destroyed at least 2 weeks prior to planting the new crop.

**Field Preparation:** Till, firm, level – essentially you want a clean, firm (not compacted) seedbed to plant into.

**Planting Date:** In Wisconsin optimum planting dates are after September 10 for northern Wisconsin, and after September 20th for the southern portion of the state. The key is avoiding seeding early when aphids and Hessian flies are active, both of which are carriers of diseases that will reduce yields the following year.

**Seeding Rate:** An optimum stand is 30-35 plants/ft\(^2\). To achieve this you need to seed 1.2 to 1.5 million seeds/acre. Seed size will affect the pounds of seed you need to plant – adjust accordingly!

**Seed Treatment:** A good seed treatment like AgriSolutions Incentive RTA\(^\circledast\) (typical use rate of 5 fl oz/cwt seed) to control or suppress various seedling diseases. For insect control (wireworm, aphids, Hessian fly) add AgriSolutions NitroShield™ (0.8 to 2.4 fl oz/cwt).

**Planting Depth:** Plant to a depth between 1 to 1.5 inches. Sandy soils go deeper (2”) if it’s dry. The key is to get the seed into the ground, if you see seed above ground behind the drill stop and readjust.

**Fertility**

**Nitrogen:** Wheat requires about 1.3 lbs. of N for each bushel of grain produced. Intensively managed wheat should have 3 (three) application splits. The first is in the fall at planting – apply 20-30 lbs. N/ac. The other two applications will be discussed in later additions!

**Phosphorus and Potassium:** Like corn both of these elements are required to achieve higher yields with fewer standibility and disease issues. Soil test values for both should at a minimum be in the medium range. Ideally P levels should be greater than 30 ppm and K values greater than 150 ppm. At these soil test levels application of
both P & K is at crop removal rates. For 100 bushel wheat nutrient removal (grain) is: P – 60 lbs, K – 34 lbs. If you also remove the straw, total removal for 100 bushel wheat is P – 80 lbs, K – 180 lbs. This should be applied in the fall prior to planting.

**Sulfur:** This is a spring application – more information will come in later issues!

**Weed Control:** Weed management is essential to achieve optimum yields. Many of the spring problem weeds for winter wheat start in the fall (wild mustard, field pennycress, shepherds purse etc). These weeds should be controlled prior to planting using either tillage or herbicides.

What will be in Future Issues of “Wheat Management?”
Future issues of Wheat Management will come as we get closer to spring. They will contain timely information on the following topics:
- Assessing your stand after the long winter
- Nitrogen Management – rates, timing, forms, nitrification inhibitors.
- Sulfur – rates, timing, forms.
- Spring weed control – what options are available
- NutriSolutions Tool & Foliar Micro Nutrients – What’s worked to move to higher yields
- Foliar Fungicides – Timing’s, products, rates, and diseases controlled.

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