

Wheat Planting

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Farmers had an excellent wheat crop this past year. Many things contributed to the large yields such as timely planting, a mild winter, and low disease pressure. Timely planting may be more of a challenge this year. Planting date is affected by the farmers' crop rotation.

Farmers generally rotate crops in a field to get larger yields by reducing losses from diseases, insects, and weeds and improving soil health from different root systems. In our area, farmers generally plant wheat after a soybean crop. Thus wheat will not be planted until soybeans are harvested.

Very few soybean fields have been harvested at this time; the opposite of last year when soybean harvest was near completion and farmers were moving into corn harvest. Harvest is later this year because soybeans were planted the end of May or later as a result of wet field conditions (about two to three weeks later than normal).

Farmers like to plant wheat within ten days of what is called the "fly free safe date." This is the date that university research has established that the risk from Hessian fly is minimal, since they have migrated out of the area. The Hessian fly has the potential to devastate wheat stands.

In addition, planting at or after the fly free date also decreases the risk to disease, such as barley yellow-dwarf virus. All the counties in our area have already passed the fly free safe date.

These dates were September 24 for Wood County; September 25 for Hancock and Putnam Counties; and September 26 for Hardin and Wyandot Counties.

How early winter sets in will actually determine the criticalness of planting date. Wheat should be planted before October 20 to have adequate growth for yield and winter hardiness. Larger yields are generally obtained from plantings closer to the fly free safe date.

Farmers have to consider other important fall management practices to produce high yielding and high quality wheat. These practices include variety selection, planting depth, seeding rate, and plant nutrition.

Variety selection. Selected varieties should have yield potential, high test weight, good straw strength, and adequate disease resistance. Diseases of concern include powdery mildew, stagonospora leaf blotch, and head scab.

Farmers have to be especially concerned about Fusarium head scab. This disease can produce a toxin that will prevent a farmer from selling their wheat.

Varieties with resistance to the disease plus fungicides is the only effective method in controlling this disease when spring weather conditions promote its development. Fungicides cannot protect susceptible varieties.

Weather conditions were not favorable for head scab development in the 2016 wheat crop. However, many farmers had problems with this disease in 2015, particularly in Putnam County.

Planting depth. Proper planting depth is critical for tiller development and winter survival. Seeds should be planted 1 ½ inches deep.

Farmers have to insure that soybean residue is uniformly spread over the soil surface especially when planting no-till into soybean stubble. Mats of residue or uneven residue will interfere with planting depth.

Planting depth should not be reduced for late planting or wet conditions. Planting less than 1 ½ inches is the main cause of heaving and freezing injury, which will result in low tiller numbers and poor over-winter survival.

Seeding rate. Low seeding rate has little effect on yield, but high seeding rates may increase lodging and increase the risk of diseases, such as powdery mildew.

Optimal seeding rates are between 1.2 and 1.6 million seeds per acre. For drills with 7.5-inch row spacing this is about 18 to 24 seeds per foot of row with normal sized seed. Seeding rate should be increased when planting later than two weeks after the fly free date.

Plant Nutrition. A soil test should be completed to determine lime, phosphorus and potassium needs. Soil pH should be between 6.3 and 7.0.

Phosphorus soil test levels should be maintained between 25 - 40 ppm for optimal production. Phosphorus should not be added to fields that have soil test levels higher than 50 ppm. Wheat planted no-till into soybean stubble should receive 20 – 30 pounds of nitrogen to promote fall tiller development.

Farmers have to balance their time between planting wheat and harvesting corn and soybeans in the fall. However, farmers know they need to be attentive to planting management practices since 80% of their wheat yield will be the result of doing things right in the fall.

More information may be found on planting wheat at <http://agcrops.osu.edu/newsletter/corn-newsletter/important-wheat-management-decisions>