

Wheat Planting and Fall Management

It's seems just like yesterday farmers were worrying about whether the wheat crop would survive following an unprecedented snap of cold weather in early April. It definitely was not that long ago when farmers were waiting for the rain to stop and soil to dry out long enough to harvest the wheat crop they had left. Right now, many farmers are busy harvesting their corn and anxiously waiting for their fields of soybeans to drop their leaves so that they can begin to harvest these as well. With all of this going on, there hardly seems time to think about planting wheat. Yet, here we are again.

The Easter Freeze of 2007, as the early April cold snap is commonly known, caught many producers, extension personnel, and industry professionals off guard. Hopefully we have all learned something from this extraordinary event. The most common trend that stuck out this past season was that wheat that had been planted early or had received a heavy nitrogen application in the fall was more mature come early April and therefore more greatly affected by the spring freeze. Logic would tell us that it may be a good idea to delay planting wheat a week or two longer than what we did last year. That, however, may not necessarily be the best idea. Wheat that is planted too late has an increased risk of poor crop establishment and decreased tiller number, both of which may affect crop yield. The best course of action is to stick to the optimal planting date which is based on the Hessian fly-free date. For this area, that date ranges from October 6th to October 10th. Planting before this date increases the risk of aphid feeding and transmission of barley yellow dwarf virus.

The targeted fall stand for wheat seedlings is between 30 and 35 plants per square foot. To achieve this goal, the planting rate for soft red winter wheat is between 1.3 and 1.5 million seeds per acre. If planting conditions are ideal farmers may choose to use the lower rate. Increasing the seeding rate may be necessary if conditions are poor or when the planting date is significantly delayed. Using seed from last year's wheat crop may be risky this year. All seed to be used should have been cleaned and tested for germination. University of Missouri Extension Agronomy Specialist Pat Miller indicates that if germination is below 85%, it is important to increase seeding rate to compensate. She also warns against seeding any wheat with a germination test below 80%.

Nutrient availability is a critical aspect of wheat production however only minimal fertility management is needed to promote good fall growth. Research across Missouri has indicated that only one in eight fields needed fall nitrogen fertilizer to achieve maximum yields. However a small application of nitrogen in the fall, somewhere around 20 lbs/acre, is recommended to ensure that all fields have enough nitrogen for good fall growth. Phosphorus availability is limited in cold weather, much as potassium is limited in hot weather, therefore it crucial that soil phosphorus levels are high enough to support the maximum possible growth rate for wheat in the fall. The University of Missouri has set the target level at 45 lbs of soil test phosphorus/acre.

While many farmers last year did an excellent job of planting and maintaining their wheat crop, most did not see the results of their hard work that they would like to have seen. It is easy to second guess oneself the following year. However, most people (including many meteorologists) cannot accurately predict the weather throughout the long growing season. It is important at this time for farmers to stick to tried and true university research and their own personal experience for making management decisions

regarding wheat. Every farmer should own a copy of *Management of Soft Red Winter Wheat* published by MU Extension. To obtain a copy of this handbook or for more information regarding wheat production, contact your local extension office or Travis Harper at the Henry County Extension Office by phone (660)885-5556 or e-mail harpertw@missouri.edu.