Late Harvest Delays Winter Wheat Planting, Reduces Yield

SPRINGFIELD, MO.

Wet weather delayed planting and harvesting during the 2009 growing season in many corn and soybean fields in southwest Missouri.

But once these crops are out of the field, many farmers need to decide when and if winter wheat should be planted.

Delayed planting may affect yield and low wheat prices add to the pressure to optimize growth and yield according to Jay Chism, agronomy specialist with University of Missouri Extension.

"Good fall growth is important to reach the yield potential of a winter wheat crop. If fall growth is not achieved, yield potential is reduced," said Chism.

To maximize yield, three things must happen in the fall according to Bill Wiebold, a state agronomy specialist at University of Missouri.

First, winter wheat must develop a root system that will resist heaving.

Second, sugars must be stored in the wheat crown. These sugars are needed to feed early growth in the spring, but also help protect the growing point from freezing during the winter.

Third, tillers producing grain heads in the spring must be produced in the fall."

"Wheat yield is severely decreased by inadequate fall tillering," said Wiebold.

The optimal planting date for winter wheat in southwest Missouri is actually around Oct. 15.

"If you plant significantly later than this date there is an increased risk of poor crop establishment and decreased tillering, which will affect crop yield," said Chism.

Unlike corn and soybean, very little data exists that can be used to predict yield and how it relates to planting date in winter wheat. Research from Ohio and Kentucky suggest that a 28 day delay in planting reduced the yield potential by 20 percent.

"It is important to remember that wheat growth rate is determined by temperature after planting. Warmer than normal conditions temperature (more likely here in southern Missouri) will allow additional wheat plant growth, which means less yield loss," said Chism.

Increasing the seeding rate under poor planting condition may also be beneficial.

"Uniform seed placement and seeding depth are also important in promoting crop growth and health in the fall." Δ