



By Mark Mayer, Green County UW-Extension Ag Agent

## **Winter Wheat Establishment Recommendations**

Winter wheat will prove to be the best crop on a net profit per acre basis for 2012 and due to higher wheat prices and the early harvest of corn silage there is a lot of interest in planting winter wheat this fall. When choosing a winter wheat variety, several factors must be considered. These include winter survival, insect and disease resistance, heading date, lodging, test weight, and most importantly, yield. See detailed 2012 winter wheat performance test results at:

<http://soybean.uwex.edu/wheattrials/printable/index.cfm>

Wheat should be planted at a depth of approximately one inch depending upon soil moisture conditions. Wheat planted less than 0.5 inches deep may result in uneven germination due to seed exposure or dry soil conditions. Shallow planted wheat is also more susceptible to soil heaving. Wheat planted more than 1.5 inches deep may result in death due to pre-mature leaf opening or poor tiller development and winter survival. Uniform seed placement and seeding depth are important in promoting crop health in the fall.

The optimum planting dates for southern WI are September 15- October 1. By planting after the 15th we can better avoid Barley Yellow Dwarf disease transmitted by aphids that are killed by frost. The targeted fall stand for wheat planted from September 15th to October 1st is between 30 and 35 plants per square foot. To achieve this goal, the seeding rate for soft red winter wheat is between 1,300,000 and 1,500,000 viable seeds per acre. Depending upon varietal seed size, this equates to a range of between 80 and 120 pounds of seed per acre. The optimal seeding rate for wheat planted after October 1st should be incrementally increased as the planting date is delayed to compensate for reduced fall tillering.

University of WI yield data from 2003-06 showed an average yield reduction of 20% in a two year wheat following wheat rotation as compared to a corn/soybean/ wheat and soybean/corn wheat rotations. If growers choose to plant second year wheat they should plant a different wheat variety in the second year that possesses excellent resistance to residue-borne diseases. Under no circumstances should growers consider planting bin-run seed in second year wheat.

Growers should use a seed treatment in wheat following wheat, but seed treatments are not a cure all for all common diseases in continuous wheat systems (e.g. take-all). Growers should also consider increasing their seeding rate to 1.8 to 2.0 million seeds per acre in wheat following wheat systems. This will aid in stand establishment and increase the likelihood of a uniform stand going into the winter. If using a no-till system, planting into a seedbed that is free of living volunteer wheat is important in reducing the incidence of Barley Yellow Dwarf Virus. Lastly, make sure you check rotation limits on corn herbicides that you applied in the spring as many do not allow planting small grains in the fall, especially in a dry year like 2012.