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A LITTLE BIT COUNTRY
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Winter Wheat May Be Alternative

Based on "buzz" I hear from crop producers, agriculture vendors and colleagues, there is much interest in planting winter wheat later this summer and early fall. The reason for this is to avoid another catastrophic spring planting season such as this past spring when millions of acres were not planted in North Dakota because of excessively wet soils.

Winter wheat does have a presence in this part of the state, but only on a small scale. There are two reasons for this. First, in most years it has not been economically competitive. Secondly, our experience in growing the crop back in the early 80's was not highly successful.

Besides being able to plant winter wheat in the fall when soil moisture is expected to be more favorable than a spring like 2011, economics and our ability to grow winter wheat have both improved. Although the bushel price is less than spring wheat, growers expect yields to compensate thus producing comparable revenue per acre. Additionally, changes in farming practices (tillage fallow to continuous crop and no-till) gives the young seedlings a far better chance to survive our cold winter temperatures. Back in the 80's, most of the winter wheat was planted in bare fallow as was most spring wheat and durum. However, the fallow did not catch much snow which is needed to insulate the seedling roots from cold temperatures. Thus, winter injury reduced yields and profitability.

The survival of winter wheat throughout winter is enhanced when it is planted into fields that catch and retain snow that will insulate it during the coldest winter months. Fields that still have standing stubble are ideal for direct seeded winter wheat. For fields

that were previously tilled or that have little or no stubble, establishing an effective residue crop can significantly improve the probability that there will be adequate snow cover. To be effective, a residue crop must remain erect during the fall and winter. The most effective residue crop is probably flax. Flax can be established as a lightly seeded solid stand, in wide rows (i.e. 3-4 feet spacing) or as strips. Strips of flax three to five feet wide and 15 feet apart have been found to effectively trap snow while minimally depleting soil moisture. When seeding flax in strips or in wide row spacings, the drill should be set at a high seeding rate (40 pounds per acre) and drill spouts should be taped shut to obtain the desired spacing. Strips of flax more than 20 feet apart can be risky as they do not catch sufficient snow in most years. Flax should be seeded in mid to late July or early August, depending on the region of the state. Though some additional weed management will be needed prior to planting, flax planted in late July or early August followed by winter wheat could be a viable and profitable option for dealing with land that was too wet to plant this spring.

Volunteer canola may also serve as a relatively good stubble source if the plant populations are adequate and relatively uniform. Be sure to terminate the canola crop before viable seeds are formed, however, to ensure that canola does not reseed and become a problem plant in your winter wheat crop.

Cereal crops that are planted as a cover crop may also establish a reasonable stubble if planted early enough in the summer. Cereals that do not reach the boot stage before being killed by frost or herbicides, will lay flat on the soil and will not capture much snow.

In fields that are not established to a stubble crop, carefully manage weeds and volunteer crop plants prior to planting. Volunteer wheat plants and other grassy weeds can harbor the wheat curl mite that is the vector of wheat streak mosaic virus. These plants must be controlled well in advance of planting winter wheat in order to “break” the green bridge and reduce the risk of wheat streak mosaic virus infections. Terminating

cover crops two weeks prior to planting is recommended to help minimize the risk of an outbreak of wheat streak mosaic virus.

If not planting into a standing residue, make sure that you plant the most winter hardy varieties. Recent data suggests the following winter hardiness ranking (first listed is the most winter hardy) of some of the currently available winter wheat varieties: Peregrine> CDC Buteo> Accipiter> AC Radiant> Jerry> Seward> Roughrider> Ransom> Boomer> CDC Falcon> Lyman> Striker> Yellowstone> Overland> Darrell> Wesley> Hawken> Jagalene> Art. If you are not planting into stubble, Joel Ranson, NDSU Extension Agronomist, suggests planting a variety at least as winter hardy as Jerry.

Plant towards the early end of the recommended planting date. Earlier planted winter wheat plants have greater reserves and generally do better than the smaller plants that develop from late plantings. Nevertheless, don't plant earlier than is recommended, as plants that are too large are less hardy and early plantings are at greater risk of being infested by wheat streak mosaic virus. For this part of the state Ransom recommends planting September 1–15.

Adding some phosphorous with the seed has been shown to enhance winter hardiness, especially in fields that tend to be towards the lower end of P availability.

Increase the seeding rate when planting into sub-optimal conditions. Using the higher end of the current recommendation of 900,000 to 1.2 million seeds per acre or slightly exceeding it may be in order if planting into bare ground.