

Agronomic Tip: How to Reduce Winter Kill in Winter Wheat

September 2008

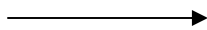
Winter wheat acres have doubled in Western Canada over the past three years. As with any crop type, winter wheat is not without production risk. The main risk relates to the establishment of the crop in terms of its over-wintering success. To increase winter wheat’s survival chances, the following practices are recommended:

1. Plant Early in the fall.
Winter wheat needs time for the plants to emerge, establish, and slowly vernalize so the crop can withstand cold winter temperatures. Recommendations from Government of Saskatchewan are planting between August 20th – September 15th, allowing time to develop 2 – 4 true leaves and a healthy crown before the soil freezes.

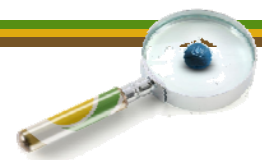
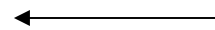
2. Plant into stubble.
Research in different heights of stubble has been completed and has shown that the taller the stubble, the better the snow catch and resulting winter survival. Winter Cereals Canada recommends planting into 10 – 15 inch tall stubble. Canola stubble is preferred, but barley, mustard or oat stubble will work well too. It is not recommended to plant into spring wheat stubble. If stubble is cut lower, calculating the Snow Trapping Potential (STP) of the remaining stubble can be used to assess the snow catch potential. Target is an STP of 40 or higher. To calculate:

$$STP = \frac{\text{Stubble height [cm]} \times \text{Stubble stems per meter}^2}{100}$$

10 inch tall stubble



2 inch tall stubble



3. Add some starter fertilizer with the seed.
Nitrogen is important in the early healthy establishment of the seedlings. The majority of nitrogen is traditionally applied in the spring as early as practical. Phosphorus is also important to help develop a strong crown, and can be placed right with the seed.
4. Use certified seed!
Certified seed is tested for germination and purity. As well, it provides you with the tags for variety declaration at the elevator, which is important if targeting the Canadian Wheat Board Select Winter Wheat Class.

Compiled by CANTERRA SEEDS

