



## Assessing Winter Wheat Survival

Climate conditions and management practices are the two factors that determine the degree of winter survival in your wheat field. However, determining when to abandon a field is not always easy and varietal differences play an important role when deciding what percentage of winter survival constitutes the threshold for replant.

Growers need to understand the characteristics of the product they planted last fall in order to make the correct assessment in the spring. All wheat varieties tiller to compensate for thin stands; however, some varieties are better at tillering and have a greater capacity to fill in the row.

Varieties also differ greatly in appearance in the spring. Some varieties appear robust and green up quickly while other varieties take a little longer to get rolling. Your understanding of the variety's spring appearance will help you determine your course of action. Growers should not be too quick to condemn a variety that has a natural tendency to start slowly. Leave the replant decision as long as possible to give the variety the time it needs to establish itself.

Begin your wheat stand assessment during April and continue into early May. Use a W or S pattern to walk your field and calculate your wheat stand by counting plants in the row as you move over the field. When observing the plant count per row the grower must determine the overall health of the individual plants. This is where a good understanding of the variety becomes critical in the assessment process.

Hyland's cereal research group at Nairn, Ontario has determined an in row plant count of between 18 and 22 plants per foot represents a yield potential of 100%. Growers must also consider the soil type and drainage when assessing the yield potential of individual fields. On well drained soils an in row count of 18 plants per foot may produce 100% yield potential. On heavy soils the same plant count may reduce the yield potential by 10 to 12 percentage points.

In conclusion, the decision to replant should be based on an accurate stand count, knowledge of the field drainage and soil type, and a clear understanding of the characteristics of the wheat variety.