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Management Tips for Winter Wheat Planting

By Murray Van Zeggelaar, CCA

In the past number of years, winter wheat has become an important crop for Ontario farmers. Where it was once grown as a rotational crop that provided a source of bedding for livestock farmers, it is now an economically important crop in the rotation for many cash crop growers as well. This has occurred for a number of reasons. First, farm gate prices for wheat have improved significantly over the past few years. Second, new and improved varieties have given growers yields consistently over 80 70 (71 bu/ac is the provincial five 5 year average) bushels per acre and IP programs have provided price premiums. Winter wheat allows grower to control weeds that have become prevalent since the shift to minimum-till and no-till tillage systems in Ontario. Last, winter wheat production provides another window of opportunity to spread manure for livestock farmers. This article seeks to deal with strategies for getting your winter wheat crop off to a good start at planting time.

Crop Rotation

Winter wheat is best planted after a broadleaf crop such as soybeans, dry beans, peas, etc. Corn is thought to be a source of fusarium inoculum for a following wheat crop.

Variety Selection

Variety selection should be based on soil type, straw height, disease resistance, standability, and of course yield potential. Be especially careful of tall varieties on high fertility soils that can result in poor standability. Variety selection can also be influenced by marketing factors such as IP programs and other premiums offered. In all cases, it is recommended that certified seed be used to ensure variety purity and maximum vigor and germination.

Starter Fertilizer

The use of a high phosphorus starter fertilizer has shown to be of great benefit in winter wheat production. Liquid starters as well as granular fertilizers have both been proven to increase grain yields by as much as 9-10 bushels per acre. These starter fertilizers should be seed-placed or band applied for maximum benefit. Also ensure that potassium levels in your soil are of adequate levels based on yield goals before you plant.

Planting Date

Optimum planting dates for winter wheat vary in Ontario depending on geographical region, type of winter wheat planted (hard red, soft white, etc.) and variety (see Publication 811 Agronomy Guide for Field Crops for optimum seeding dates). Generally speaking, planting earlier results in plants with

better root systems that tend to over-winter better, although planting wheat more than 10 days before the optimum date can increase the risk of Hessian Fly and Barley Yellow Dwarf Virus (BYDV) injury. Check with your Certified Crop Adviser for the optimum planting date in your area.

Seed Treatment

Always ensure seed is treated with a good quality seed treatment that controls the major diseases in your growing area on your farm. Crop notes from previous years are the best source for this information. Seed treatments not only have the potential to increase germination rates but also help your crop get off to a healthier start and better winter survival.

Seeding Population

Most seed companies now provide seed counts on the seed packaging to aid in calculating planting rates. The majority of varieties should be seeded at 1.4 – 1.8 million seeds per acre. This will vary depending on variety, soil type and planting date. Again, consult your Certified Crop Adviser for optimum seeding rates.

Seeding Depth

Winter wheat should be uniformly planted at approximately 1" in depth. More importantly always plant into moisture. This will allow for optimum germination and establishment in the fall. Plant too deep and you run the risk of uneven germination and lower than optimum population. Plant too shallow and you end up with a shallow rooted crop, which is very vulnerable to winter kill and frost heaving.

Tillage

Although winter wheat is well suited for no-till planting, there may be situations where some tillage is warranted, especially in cases where fields have been harvested in wet conditions. Generally speaking, when planting is done towards the latter part of the optimum planting window, the benefits of getting the wheat planted and established far outweigh the benefits of tillage.

Wheat has become a very important cash crop in the last few years, providing excellent returns when managed properly. There are many factors that can affect the performance of winter wheat such as winter-kill, fusarium, sprouting and others beyond the control of the grower. However, by following the guidelines above, at least you can get your crop off to a healthy start. A little planning with a Certified Crop Adviser can go a long way in making the right decisions for your winter wheat crop.

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There are over 500 Certified Crop Advisers (CCA) in Ontario. Each CCA has demonstrated their knowledge about Ontario crop production by passing the required exams. In addition, they have the crop advisory experience, the education, the commitment to continuing education and have signed a comprehensive code of ethics, which places the grower's interests first.



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