

Bulletin

HOW TO GROW WINTER WHEAT

Winter wheat is shallow seeded in the fall into a selected non-wheat stubble covered field in sufficient time to establish 2 to 4 leaves at the crown and possibly one tiller prior to fall freeze up temperatures arriving. The crop rests quietly over the winter in an undisturbed state until warm spring temperatures cause the crop to "wake up" and begin to grow towards maturity in the late summer or early fall. A number of well established guidelines should be followed to achieve success in growing winter wheat across the Prairie region.

Selecting a Field

Winter wheat performs best if seeded into fields of previously grown Canola, mustard, or barley. It can be grown in oat stubble, but should not be sown into fields that grew previous wheat type crops. Other cereal crops may be infected with a disease such as wheat streak mosaic, a virus usually carried by a pest called a leaf curl mite. This condition is not like a fungal threat that can be controlled by crop protection products, but can be totally devastating, and therefore measures should be taken to avoid the potential problem. Try to have a 10-15 inch tall stubble cover for best results, and employ minimal disturbance seeding methods to prevent stubble

knock-down, taking care to save as much standing stubble as possible, especially around the perimeter of the field where winds tend to remove any winter snow trapped, placing the crop at risk of survival.

Stubble from previous crops of field peas, lentils etc are considered unsuitable because they have very low densities or volumes, are short, and provide for minimal snow trap potential, although can offer advantages of early field readiness, nitrogen residuals, and desirable crop rotation. If you do happen to select a low residue field, try to regain the advantage in favor of snow trap by increasing your seeding rate, seeding 7-10 days earlier than normal for your area, and taking care to eliminate as much competition from weeds and volunteer crops as possible. Thicker, more advanced crops tend to develop more crown tissue and survive the winters in better condition than shorter, later and less developed crops.

Seeding

The first rule for seeding any winter cereal is to seed shallow, usually less than 1 inch deep, and place the required amount of phosphorous fertilizer right with the seed at seeding time.

Pedigreed seed should be the obvious

choice because of the guaranteed quality it provides.

The variety chosen should reflect the marketing choices and options available to your area. Many advances in quality and performance realized from these newer varieties justify the utilization of the most advanced techniques available in order to produce maximum yields. Yields of winter wheat can be 25-40% greater than spring seeded wheat crop yields. Seeding rates should be sufficient to establish 25-30 plants per foot of seed row, and depending on thousand kernel weight would mean planting 2 bushels per acre as a minimum. Many experienced growers who achieve high yields like to plant at a slightly higher rate.

Fertilizing

Winter wheat requires phosphorous early to establish a strong crown structure, and will benefit from some starter nitrogen at the time of seeding, placing it right with the seed in the row. The majority of the nitrogen requirement has been traditionally applied to the established crop in the early spring after the ground is sufficiently firm to carry field equipment, but as early as practical. Winter wheat uses most of its' requirement of nitrogen in the first 5-6 weeks of growth in the spring, so application should be made prior to any spring seeding operations elsewhere on your farm. Delaying the nitrogen application will result in reduced yield potential and overall health of the crop. Many new advances are being employed in the field of fertility management, and have changed the way of thinking away from the traditional methods of applying fertilizer to winter wheat crops. Loss preventative additives and changes in fertilizer form have aided greatly in more effective fertilizer utilization.

Weed Control

All cereal crops benefit from the removal of competitive weeds, especially perennials like thistles and quack grass, and winter wheat is no exception. The advantage winter wheat has is related to its' growth habit of establishing in the fall with early spring growth tending to out-compete many annual weed pressures, and avoid some disease potential. A well established winter wheat crop that has been grown according to sound agronomic practices can often save the producer from the cost of expensive crop protection products, and aid his profit picture. Most provincial weed control guidebooks list the current registered products for use on winter wheat

Marketing

The traditional grain gathering system through the primary elevator still offers a good solution to the producer in more remote areas where the density of other winter wheat growers is less. Special marketing options may be in existence and should be explored.

Developing markets through such places as feed mills, hog operations, and specialized cattle feed opportunities have increased the profit picture greatly for winter wheat producers of late, and developments in ethanol production plants are opening up even more opportunities, as winter wheat tends more and more to be the chosen feedstock

Information

More information can be obtained through your local Agrolgist or by contacting Winter Cereals Canada at the contact numbers displayed on the top of this bulletin.