



# Winter Cereals

*Sustainability in Action*



## WEED CONTROL

### WINTER WHEAT AND WEED CONTROL

Weed Control in winter wheat is aided by the crop's fall growth habit, vigorous spring growth and early maturity. In many instances wild oat control is not required and broadleaf weed control can be achieved with relatively inexpensive products. This benefit not only is of value in the year winter wheat is grown, but is also an important tool for maximizing the effectiveness of other crop protection products in other crop years. For example, avoiding a graminicide during the winter wheat year can help avoid or manage the development of herbicide resistance.

Like any other crop grown in the Prairies, winter wheat does have particular weed management considerations that should not be overlooked. Here are some weed management guidelines to follow throughout the winter wheat production season.

#### ► Weed control in previous crop:

Proper weed management in the crop prior to winter wheat is an important first step for crop establishment in the fall. This is particularly true of biennial and perennial weeds, which can be very competitive in late fall.

#### ► Pre-seeding weed control:

Winter wheat is no different than other crops in its need to have a competition-free establishment period. Controlling weeds prior to seeding is a particularly effective time for that second step in control of biennial, perennial and winter annual weeds, especially downy

brome. Glyphosate products provide the most effective control in this window for weed control.

Pre-seeding herbicide applications also control early emerging volunteer plants. Control of volunteer seedling is particularly important when seeding into wheat stubble. Pre-seed glyphosate one to two weeks prior to seeding will break the 'green bridge', preventing wheat streak mosaic virus from carrying over to the winter wheat crop. Some growers tank mix residual broadleaf chemistry with their glyphosate to extend the weed control into winter wheat emergence and establishment. Early emerging weeds are generally some of the most competitive weeds a crop has to face. Removing early weed competition helps develop a well established winter wheat crop, which will have a better ability to survive the winter.

#### ► Fall in-crop weed control:

Controlling winter annual weeds is the next important step in successful winter wheat production. Common winter annual weeds include stinkweed, shepherd's purse, and flixweed. Due to their habit of emerging in the fall and resuming growth early in the spring, winter annuals can be very competitive and difficult to control in the spring. This makes fall control a very practical and cost effective approach to controlling winter annuals if sufficient densities are present. The common practice to control these weeds involves a phenoxy herbicide such as 2,4-D or MCPA applied in the first half of October for central areas and mid to end of October in the southern Prairies. Research agronomists report that 2,4-D amine applied at a rate of 560g a.i. when plant stage is at least three leaf and weather conditions are warm provides good results. Phenoxy injury can occur when other products are used, when the application takes place at the wrong growth stage or when frost preceded or followed the

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application. Herbicide applications should target actively growing plants that are able to metabolize the product quickly. "Fall 2,4-D when used in the form and rate specified above is very effective in the control of winter annuals and I prefer it to any spring phenoxy applications as it's very hard to apply in spring before the plant stage is too advanced." (Brian Beres – Agriculture and Agri-Food Canada).

### ► Spring in-crop weed control:

Considerations for spring in-crop weed control in winter wheat are generally very similar to any other cereal crop. There are a couple of points growers should be aware of when making spring weed control decisions.

**Herbicide selection:** Currently, there are only about 20 herbicide chemistries registered for in-crop application on winter wheat. Check your provincial pest control guide for new herbicides, spectrums, controls and rates.

**Herbicide timing:** In-crop applications in spring generally occur at times that coincide with pre-seeding glyphosate applications and seeding operations. Waiting until spring seeding is complete to spray winter wheat often results in poor weed control due to weeds becoming too large. The early growth habit of winter wheat also leads to increased crop canopy cover and potential crop injury due to the herbicide being applied beyond the safe application stage.

## Competitive Advantage of Winter Wheat

Few crops grown on the Prairies are as competitive as winter wheat, thus allowing for more efficient use of crop inputs.

This is one of the main advantages of growing winter wheat. However, it is important to remain on top of your weed situation throughout the winter wheat growing season. This means starting your weed management in the crop prior to winter wheat right through to harvest of your winter wheat crop.

By incorporating winter wheat and these weed management practices into your rotation, you can be certain that not only your winter wheat, but also all subsequent crops in your rotation will reap the rewards of having lower weed pressure.



For more information please contact one of our winter wheat specialists at Ducks Unlimited Canada.

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Ducks Unlimited Canada and Bayer CropScience for the future of agriculture includes a stewardship model that recognizes the agricultural productivity of farmland while retaining and improving the habitat available to North America's waterfowl and other wildlife.

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