

# WINTER CEREALS

CANADA 

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# GROWER

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OFFICIAL NEWSLETTER OF WINTER CEREALS

## WESTERN WINTER WHEAT INITIATIVE SUPPORT AND EDUCATION FOR WINTER WHEAT PRODUCERS

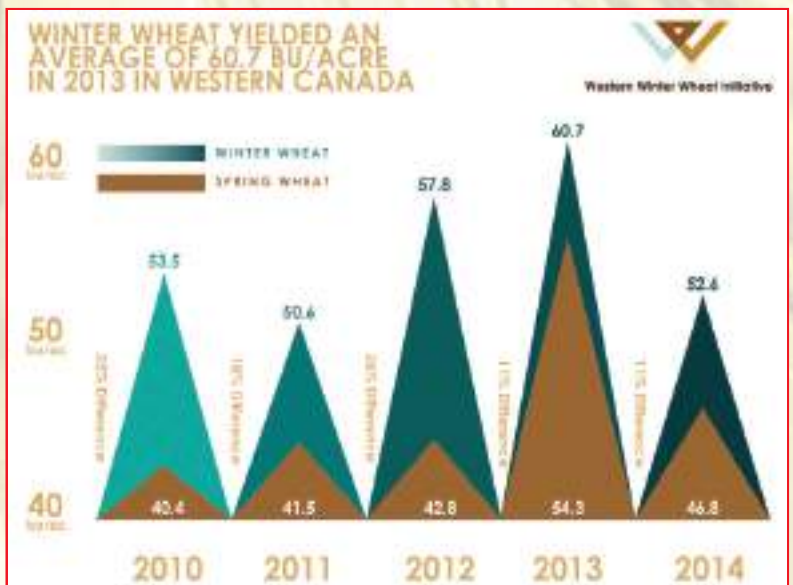


The Western Winter Wheat Initiative is a collaboration between industry members who support a sustainability model for Canada's agricultural landscapes. The purpose of this initiative is to build awareness and credibility of winter wheat as a highly productive crop option for western Canadian farmers.

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- Visit the Western Winter Wheat Initiative at <http://www.growwinterwheat.ca/>
- Western Winter Wheat Initiative employs a staff of 5 Agrologists in western Canada who provide extension services to producers in the three Prairie Provinces. Western Winter Wheat Initiative is working on setting up trials all over Western Canada to showcase how well winter wheat performs in different growing conditions.
- Western Winter Wheat Initiative Agrologists like to point out the many advantages to growing winter wheat and why it should be your number one crop rotation choice.
- 1: Provides soil cover during the fall and winter, reducing the potential for soil loss due to water and wind.
  - 2: Spring moisture is not lost from seeding operation
  - 3: Uses early spring moisture in dry areas more efficiently than spring cereals.
  - 4: When spring weather conditions make seeding difficult, winter wheat is already established in the field.
  - 5: Yields 15 to 40 per cent higher than Canadian Western Red Spring wheat.
  - 6: Matures earlier than spring cereals, spreading out harvest operations and reducing the potential for grade losses due to early frost.
  - 7: Provides another tool for weed management since the crop seeded and growing when weeds in a spring-cropping situation have had little crop competition (fall and early spring).

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## Who is Cereals Canada (and why should you care)?

Cam Dahl, President of Cereals Canada

Farmers today, no matter what they are producing, belong to or support a number of agriculture associations and organizations. These industry groups are working on your behalf and as a farmer, you are better off because of their work. However, I am likely biased on this assessment. When does it become too much? Does Canadian agriculture really need all these organizations?

These are valid questions for farmers to ask. Let me answer these questions from the perspective of one of the new kids on the block, Cereals Canada

Cereals Canada is a national organization that invests both producer and company funds. So how do these investments directly benefit your farm?

The cereals sector in Canada is currently undergoing a time of transition. In Western Canada the Canadian Wheat Board (CWB) traditionally filled the role of industry coordinator for market development and research initiatives. The end of the CWB's marketing monopoly has resulted in gaps in industry coordination, and Cereals Canada was created to fill these gaps and to coordinate efforts across the entire country.

Cereals Canada provides an opportunity for the industry as a whole to guide the growth and development of Canadian cereals research, market outreach and customer support. Our goal is to ensure a profitable and vibrant future for all links in the cereal value chain.

Words like "value chain" are often used as catch phrases that don't really have a lot of meaning. So what do we mean by value chain? You are a critical part of the cereals value chain. Farmers make up 1/3 of the membership of Cereals Canada's Board of Directors that has representation from producer organizations, grain handling, export and processing firms, and crop development and seed companies.

This representation from all of our member groups is both deliberate and important. Everyone involved in growing and marketing cereal grains are better off when the industry works together on common goals.

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In the past, issues in the Canadian cereals sector have become politicized with strong irrevocable positions taken by the various

"sides" during the debate of the day. This has not always served the best interest of the value chain as a whole. It is Cereals Canada's goal to help lead the industry away from the politicization of industry direction and focus on solutions that will maximize the sector's competitive advantages in both the domestic and international markets. Getting everyone involved in the industry and sitting around one table is a critical step to ensure we remain focused on markets and not on politics.

Cereals Canada has also been established to coordinate market development and innovation efforts. One of the first steps is to develop a clearer understanding of the quality characteristics that will draw a premium from the market and what customers are willing to pay that premium. It is these quality characteristics that are demanded by our customers that should be the primary focus for both market development and research. It is the goal of Cereals Canada to help build that bridge between market development and innovation.

Canada has a strong reputation for high-quality products in the international marketplace. This time of transition in the cereals sector presents an opportunity to build on the Canadian brand in both international and domestic markets.

Taking advantage of these marketing opportunities will increase the value of Canadian cereals for farmers, grain marketers and crop development companies, while delivering strong value to our customers.

That is the ultimate goal for Cereals Canada – ensure that cereal grains are profitable for all involved. I want to see farmers choose to grow cereals because of strong profit margins. I want to see investment in innovation flow into Canada and our cereals industry because of a strong return on this investment. I want to see our customers coming back year after year because Canada consistently delivers what they want. This is how success for Cereals Canada will be measured.

**EDITORS NOTE:** Winter Cereals Manitoba Inc. and the Saskatchewan Winter Cereals Development Commission are not currently members of Cereals Canada. WCMI and SWCDC have been focused primarily on the agronomy and plant breeding aspects of winter cereals. Cereals Canada is not a research orientated body. WCMI and SWCDC are actively reviewing our participation in Cereals Canada and potential member benefits.

### Advertise in the Winter Cereals Grower

Winter Cereals Canada invites interested individuals and companies to advertise in the Winter Cereals Grower.

8 1/2 x 11 .....	\$550.00
6 1/4 x 8 1/4 .....	\$385.00
4 1/4 x 5 1/2 .....	\$300.00
2 1/2 x 2 1/4 .....	\$150.00

Multiple insertion (3) discount 10% if booked together. Copy can change.

GST will not be added to these prices. All advertising must be camera ready or suitable for scanning. Advertorial content is accepted at the standard rates.

Advertising and copy deadlines are March 15th, June 1st and October 1st.

Material should be submitted to:  
**Winter Cereals Canada Inc.**  
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jake@wintercerealscanada.org

### A MESSAGE FROM DOUG MARTIN, CHAIR – WINTER CEREALS MANITOBA INC.

Winter wheat for the 2015 season is looking promising so far - barring any harvest delays due to weather. Last year with the wet conditions, fusarium took a toll making the crop difficult to market and at a reduced price. Let's all hope for an improvement in 2015.

This year producers have an option to grow the newer variety Emerson, which has a higher resistance to fusarium, improved winter hardiness and higher protein. Growing Emerson is a good option because as it reduces some of the risks associated with growing winter wheat. Last year in my area (East Selkirk, Mb.) Emerson was 0.5 ppm don, where other varieties were 3-5 ppm. Another factor to consider is if a plant is infected with fusarium and there are harvest delays, the fungus continues to grow, so timely harvesting is important.

Straight cutting of canola is becoming more common and new varieties are coming to market designed for straight cutting. Producers that are straight cutting may have the opportunity to cut their canola higher. Stubble height can greatly influence winter survival of winter wheat. When swathing canola producers have to take more straw to make a good swath, whereas straight cutting may allow producers more opportunities to control this better. In the future as a producer organization canola stubble height would be a good research project to look at.

A successfully winter wheat crop takes a lot of management steps, these are some steps that could improve your success with the crop.

If you no longer wish to receive the Winter Cereal Grower newsletter, please send us either an e-mail with your name and address or send us a note with your mailing label requesting that your name be removed from the mailing list.

# TOPPING UP YOUR WINTER CEREALS.: AN INDEPENDENT OPINION

D. Scott Walker. DSW Enterprises and Consulting

Our first opportunity for topping up winter cereals actually comes in the early spring when we apply spring nitrogen. From the stand point of risk management this can be one of the biggest advantages since the nitrogen is not at risk of being lost over the winter nor through heavy spring rains. Another advantage is that as the cereal crop is moving through the first stages of reproductive development (initial head development) in early spring the high nitrogen levels, that would have been placed in the fall, is not pushing heavy vegetative development as opposed to reproduction development.

Having been a foliar nutrient buff for some 30 plus years, first as a producer then as a sales agronomist, and now as an independent agricultural consultant, I have had the opportunity to personally see many benefits come from topping up nutrients on a multitude of crops, winter cereals being among them.

There are many attributing factors to crop nutrient uptake: weather, fertilizers applied, soil types, general cultural practices, etc. With this in mind I like to track the nutrient levels with tissue sampling. This helps identify any hidden deficiencies before any serious yield losses occur. It also indicates how my fertilizer program is working so I can make changes for next year. As the crop approaches herbicide timing I like to get a number of whole plant tissue samples taken which will provide ample information enabling me to make the proper choices as to which particular nutrients to target. The most common elements I find out of balance or simply low to deficient are B, P, K, Cu, Mn. There are many very effective products available today and most, if not all, are far better than what was available in the 80's when I first started using them. Winter cereals respond well to foliar nutrients partially due to the large canopy that is generally well established by herbicide timing.

Depending on the time available, another one of my favourite application timings is at early elongation. Yes, this does require an extra trip across the field but it holds one the greatest opportunities for a strong yield response. Carlisle Liquids Starters, who I do a lot of consulting for, applies what he likes to call "The Heavy Hitter" at this time. I've seen some very large yield bumps and quality gains by doing this.

Anything you can do during a plants life cycle that enhances photosynthesis will improve the plants ability to drive more photosynthetic materials into the root system and in turn drive better crop development. Herein lies the true secret to achieving better yield and quality responses to foliar applied nutrients.

Alas the final opportunity for foliar nutrient application comes at fungicide timing. This is where I practice extreme caution since the plant is in a high state of reproduction and no one wants to cause any hiccups at this stage. Boron, and some of the new slow release nitrogen, as well as some new plants stimulants I'm researching, are very safe at this time, but generally I avoid most others. That being said if I can establish a separate pass between flag and head emergence without a fungicide partner I will recommend many foliar nutrients. I suspect you are wondering if, in all this, we can influence the protein levels in harvested winter cereal? The answer is yes, but not with any consistency nor with any particular nutrient element to boast any great success. Due to this, I guess I'm not retiring quite yet. What I have seen however is, more often than not, a difference (increase; improvement?) in the quality in the harvested grain.

Best of luck with the remaining 2015 growing season.

*Editors Note: D.Scott Walker OAC 83A CCA, is an independent Agrology consultant. He can be reached at Box 1, Nesbitt, Manitoba R0K 1P0 204-724-5706*

*The views expressed in this article are those of D. Scott Walker. Winter Cereals Canada Inc. Winter Cereals Manitoba Inc. and Saskatchewan Winter Cereals Development Commission do not endorse or recommend any practices or products mentioned herein.*

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## Research in Motion and Notes from Milano- The Brian Beres Report Summer 2015



Winter wheat research related to our current Growing Forward 2 project, "Greater Economic Returns and Enhanced Ecosystem Services through the Expansion of Winter Wheat Production in the Canadian Prairies", announced on March 17 at the Lethbridge Research Centre by MP Jim Hillyer, is well underway. This current project is supported by \$2,175,882 of federal funding and contributions from industry. Industry partners provided \$1,170,328 to leverage \$1,005,554 from Agriculture and Agri-Food Canada (AAFC). This work includes 11 agronomic research studies to be conducted across the winter wheat growing regions of western Canada. Industry stakeholders include Ducks Unlimited Canada, Saskatchewan Winter Cereals Development Commission, Winter Cereals Manitoba Inc., Western Grains Research Foundation, Alberta Wheat Commission, Koch Fertilizer, Agrium, and Dow AgroSciences. A snap shot of the research focus includes the implications of planting dates, weed control, crop canopy management with plant growth regulators, opportunities for nitrogen stabilizers, and seed and in-crop fungicide treatments to control soil borne pathogens as well as stripe rust, a common production factor for winter wheat growers.

My activities in wheat research have broadened recently as I was asked to represent Canada on the Research Committee of the International Wheat Initiative ([www.wheatinitiative.org](http://www.wheatinitiative.org)). This initiative was borne from the 2011 G20 summit, and the complete strategic research agenda for it will be announced in July at the G20 meeting in Turkey. Canada is also represented by wheat breeder, Dr. Curtis Pozniak, of the University of Saskatchewan. I attended my second meeting in Milano, Italy in July and found the meeting to be highly productive as activities were, in part, held at the World Expo - an amazing display of culture and cuisine as the theme for this year was Feeding the Planet. Meetings wrapped up at CNR

headquarters near the City Centre. I have been asked to put together an Expert Working Group for Agronomy that will be charged with developing a global assessment of agronomy research to identify knowledge gaps and to consolidate activities into a more cohesive effort. Dr. John Kirkegaard with the CSIRO in Canberra, AU has agreed to co-lead this endeavour - stay tuned!

Dinner at the Hungarian Exhibit at World Expo in Milano while attending the International Wheat Initiative in Italy in July. Canada has a leadership role in assessing the state of wheat agronomy through the world.

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Do you have an idea for an article or a question you would like answered by one of our regular contributors in a future edition of the Winter Cereals Grower?

Send your idea on to our office and we will do our best to include it in a future issue.

## High yielding winter wheat needs phosphate

Achieving high winter wheat yields depends on two critical factors: winter hardiness and rapid spring growth. Both factors are directly influenced by the phosphate status in the plant. Adequate phosphate nutrition helps promote rapid emergence and establishment in the fall, allowing the crop to achieve optimal root and shoot growth prior to dormancy. This promotes winter hardiness and a greater probability of the crop withstanding adverse environmental conditions.

For the best winter survival, fall-seeded cereals must germinate uniformly quickly after seeding and develop three to four leaves and a few tillers before freeze up. Upon resuming growth in the spring, the winter cereal plant develops from the crown tissue.

Plants with adequate nutrition exhibit improved vigour resulting in strong crop growth. Phosphate also plays an essential role in promoting tiller initiation, which is an important component of achieving high yields.

### Phosphate in the soil

Understanding the nature of phosphate (P) in the soil is key to understanding where and how to enhance P fertilizer use efficiency in winter cereals.

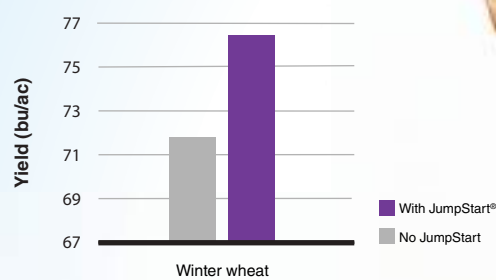
1. Fertilizer P is easily and quickly tied up (or bound) in the soil by calcium, magnesium, iron, and aluminum. Once the fertilizer P is bound, it is unavailable to the crop.
2. As a result, the crop uses only 10-30% of the P fertilizer applied in a given year—the poorest of all major nutrients.<sup>1</sup>
3. Phosphate is very immobile in the soil; it moves less than 1 mm from where it is placed. As a result, a crop's root system must grow toward the small amount of P that remains available.

For years, the common practice to ensure that a crop was not deficient in P was to simply apply more phosphate fertilizer. JumpStart®, a seed inoculant, offers winter cereal producers the opportunity to maximize the availability of P fertilizer applied in the current year, as well as P fertilizer that is in the soil from previous years.

JumpStart is a wettable powder that is applied to the seed. The active ingredient in JumpStart is the naturally occurring soil fungus *Penicillium bilaii*. The fungus colonizes the plant's root system, releasing compounds that in turn release the bound mineral forms of soil and fertilizer phosphate, making it more available for the crop to use.

JumpStart promotes greater phosphate availability, which results in increased early season (fall) vigour, earlier and more even maturity, and greater stress tolerance; all critical to improving winter survival. An increase in tillering and an adequate phosphate supply in the spring helps the winter wheat crop get off to a strong start upon resuming growth in the spring, which can ultimately lead to higher yield potential.

Retailer and farmer-conducted independent large-plot research trials with JumpStart on winter wheat were an average 4.7 bushels per acre higher than untreated.<sup>2</sup>



1 Source: *Better Crops* Vol. 86 (2002, No. 4), International Plant Nutrition Institute (formerly Potash & Phosphate Institute).

2 Source: Summary of 19 independent large-plot research trials in Western and Eastern Canada over 10 years. Individual results may vary.



## Survive and Thrive

## JumpStart®

Use JumpStart® for best winter survival. In spring, plants may exhibit enhanced vigour resulting in strong crop growth.

For more information on how to increase your yield potential, visit [useJumpStart.ca](http://useJumpStart.ca).

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Winter Cereals Manitoba Inc. is proud to provide funding for the MCVET trials on behalf of Manitoba winter wheat producers and our members.