



Wheat's Up



Chair's Message

Kevin Auch, Chair | Alberta Wheat Commission Board of Directors

One of Alberta Wheat Commission's (AWC) strategic priorities is to develop strong leaders for a progressive and vibrant wheat industry in Alberta. With this in mind, it only seemed fitting for us to partner with the Nuffield Canada Global Agricultural Scholarship program.

In 2017, AWC will be providing one of four **\$15,000 Nuffield farming scholarships** available to an Alberta resident involved in the Western Canadian grain sector in studies that benefit the wheat industry.

Nuffield Canada's mission is to foster agricultural leadership and personal development through international study. Nuffield scholarship applicants must have a passion for agriculture and a desire to expand their knowledge, pursue new ideas and share their findings with others for the betterment of Canadian agriculture.

The scholarships are to be used for a minimum of 10 weeks of travel for the purpose of agriculture studies as part of the larger international Nuffield Community across the world.



Nuffield Canada
AGRICULTURAL SCHOLARSHIPS

I have personally experienced the benefits this scholarship program provides to its participants. In 2014 I had an International Nuffield scholar from Australia visit my farm. He was eager to learn about my farming operation and the sustainability practices we use. He had a lot of questions and it was great to chat with a grower who was on the leading edge of new farming technology. Nuffield scholars can have a major impact on our country's agriculture industry and the program has produced some of the world's top agricultural experts.

AWC's investment in a scholar will provide an Alberta wheat producer with exposure to new products, services, technologies and marketing approaches through a relationship with our industry's most forward-thinking young entrepreneurs, both in Canada and abroad.



Applications were due on April 30th and AWC will provide more information once our successful scholar is announced. More information about the Nuffield farming scholarships can be found at www.nuffield.ca. If no candidate is selected for the AWC funded scholarship, the funding will roll into the following year.



General Manager's Message

Wheat research is alive and well

Tom Steve, General Manager | Alberta Wheat Commission

There was a bit of a dust-up in the farm press recently over suggestions that wheat research in Canada lacks coordination and an overall focus. The stories followed comments by Dr. Stephen Morgan-Jones, a former Director General with Agriculture and Agri-Food Canada (AAFC) at a Canada Grains Council symposium in Winnipeg.

Like a lot of media reports that try to distill a complex issue down to a 500 word story, several pertinent facts were overlooked in declaring that wheat research in Canada has somehow come off the rails. The superior wheat varieties that Canadian farmers have access to would suggest otherwise. In fact, Canada has a strong track record in wheat research, with producer check-off dollars contributing to a lot of that success.

Over the past two years, Dr. Morgan-Jones has been working with our national organization, Cereals Canada, on a research priority-setting project. Alberta Wheat Commission (AWC), along with our fellow wheat commissions, and all other members of the wheat value chain, are participating in that process. We all agree that pursuing a national strategy with measurable targets is a good thing. What the media stories failed to report are the great collaborations that are already in place for Canadian wheat research.

In less than four years since being established, AWC has been proud to be part of several of these initiatives. We are a major investor in the National Wheat Improvement Project, a five-year, \$25.2 million dollar initiative aimed at improved

yields, disease and pest resistance and end-use quality. We are also working closely with the provincial wheat commissions in Saskatchewan and Manitoba on research priorities. Recently, we co-invested with them in projects through the Canadian Wheat Alliance and the Canadian Triticum Applied Genomics (CTAG2) project involving advances in mapping the wheat genome.



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The commissions have also been active in pursuing innovative partnerships. Last year, AWC partnered with AAFC and Canterra Seeds on the development of new Canada Prairie Spring Red (CPSR) varieties for western Canadian farmers. This public, private, producer (4-P) partnership was the first of its kind for

AAFC. The Saskatchewan Wheat Development Commission followed suit this year by announcing a research collaboration with the University of Saskatchewan's Crop Development Centre (CDC) and SeCan to advance the CDC durum program.

And, there are other encouraging signs. This month, Bayer Crop Science will cut the ribbon on their new wheat breeding centre near Saskatoon

and last summer Limagrain entered the Canadian marketplace through their investment in Canterra Seeds.

In summary, I would say that wheat research in Canada is in a healthy state and on the verge of even bigger things in the future.



Marketing Matters

Long term rail solutions key in capturing the full value of the Trans-Pacific Partnership

Caalen Covey, Business Development and Markets Manager | Alberta Wheat Commission

If you have been following any news commentary over the past year, you have most likely heard three letters being tossed around - TPP - also known as the Trans-Pacific Partnership agreement.

The TPP is an agreement between 12 countries including a number of Canada's key wheat export markets namely, Japan, the United States (U.S.), Mexico, Peru, Chile and Vietnam. The TPP agreement also encompasses two of Canada's key wheat export competitors, the U.S. and Australia. If the agreement is ratified, wheat exports will see additional access into Japan and five per cent tariffs eliminated into Vietnam. The real win for wheat exports will be around the rules of trade where Canada will enjoy science-based terms of trade that will aid in reducing non-tariff trade barriers.

The TPP agreement is comprised of about 40 per cent of the world's Gross Domestic Product (GDP) and currently represents about 30 per cent of Canada's export wheat market. If we look to our major competitors, the U.S. and Australia, the TPP zone represents approximately 30 per cent and 20 per cent of their total wheat trade. For the wheat industry, it is a big deal for Canada to be involved and why we are actively supporting the trade agreement.



The TPP agreement is comprised of about 40 per cent of the world's GDP and currently represents about 30 per cent of Canada's export wheat market.

The TPP zone also represents an important emerging market of middle class customers who will demand higher quality and sustainable food supplies. Alberta is in a good position to supply this market, as we have close access to west coast port terminals. However, one major concern still remains. TPP will put Canada on a level playing field with the U.S. and Australia, but as Canada's economy improves and more pressure is put on rail capacity, it is important that Canada maintains its focus on improving railway service to meet these increased demands.

The first step in maintaining focus on Canadian rail movement was to ensure Bill C-30 the *Fair Rail for Farmers Act* was extended. This legislation focused on a number of key components including extended interswitching and the government's ability to prescribe minimum grain volume movement by rail. These provisions were extended in late April thanks in part to the efforts of the Alberta crop commissions outreach trip to Ottawa. Inter-switching has allowed shippers to leverage for improved service and negotiate better freight rates as inter-switching provisions enhance competition between railways.

Long-term rail solutions are still needed to improve rail service for grain handlers. Shippers must be able to hold railways accountable for non-performance through penalties equal to what railways charge shippers today. Right now, if a shipper is unable to load railcars within a certain time period the shipper must pay a penalty to the railway. However, if a railway does not deliver cars as committed, the railway does not pay a penalty. The balance

of commercial accountability between shippers and railways is lacking and farmers and buyers ultimately pay for railway failures in risk premiums that are accounted for in the price.

In order to ensure Canada maintains healthy relationships with its trading partners, long term and effective transportation solutions like railway commercial accountability through reciprocal penalties are a must and is something AWC will continue to advocate for.



Shippers must be able to hold railways accountable for non-performance through penalties equal to what railways charge shippers today.



TPP is an agreement between 12 countries including a number of Canada's key wheat export markets, namely Japan, the United States (U.S.), Mexico, Peru, Chile and Vietnam.

Canada has a reputation for producing high quality, safe agricultural products.

Choosing not to follow recommended practices for crop protection products puts all farmers and the industry at risk of losing access to key markets. Denied shipments will cause millions of dollars in losses to farmers.

Three important steps to avoid unacceptable residues:

- Use only registered products.
- Talk to your grain buyer to ensure the products you are using are acceptable for your customers.

- Follow the label for the proper rate, timing and pre-harvest interval.

Chlormequat is a product of concern for the 2016 growing season. Ask your local grain buyer whether or not they will be accepting wheat treated with this product, prior to application. If you have used it, you may be asked to declare it and your shipment could be refused.



Visit www.keepingitclean.ca to learn more.



The Research Plot

Lauren Comin, Research Manager | Alberta Wheat Commission

© Government of Saskatchewan.

There is no arguing that wheat genetics is a complicated topic. Bread wheat is hexaploid (six sets of chromosomes) with three subgenomes - A, B and D. As odd as it may sound, the hexaploid wheat genome is about five times as large as our own human genome.

Despite its large size approximately 80 per cent of wheat's DNA sequence is redundant or repetitive with its genes distributed amongst this sequence, a result of genome expansion during its evolution.

Domestication of wheat has also limited the diversity of modern elite germplasm. This lack of diversity restricts the potential for further increases to yield and resistance to pests via breeding. This is where "synthetic" wheat comes into play.

In a project funded by the Alberta Wheat Commission, the Government of Saskatchewan, Manitoba Wheat and Barley Grower's Association, Saskatchewan Wheat Development Commission and Western Grains Research Foundation, Dr. Andrew Sharpe of the Canadian Wheat Alliance will use synthetic wheat lines to reintroduce diversity into the wheat genome.

Wheat has **16,000 mega base pairs** compared to **3000 mega base pairs in humans**



(1 mega base pair = 1 million base pairs).

Canadian Wheat-NAM (Can-NAM) is focused on capturing genetic variation for Canadian wheat improvement. The research will utilize multiple synthetic hexaploid wheat developed by crossing tetraploid (4 sets of chromosomes) durum wheat with diploid (2 sets of chromosomes) *Aegilops tauschii*, otherwise known as goat grass. Genes from *A. tauschii* could potentially introduce traits such as abiotic and biotic stress resistance and novel grain quality traits.



The entirety of the wheat genome fits on 1/2 of one of wheat's 21 chromosomes.

Sharpe and the project team will use a technique called nested association mapping (NAM) where genetically structured populations are developed to enable genetic diversity increases, while maintaining very critical local adaptabilities of current Canadian wheat lines.

"The NAM technique essentially provides pre-breeding material where the regions of genetic diversity from the exotic synthetic lines have been robustly associated with positive impacts on important traits. This material can then be incorporated into the UoF CDC, AAFC breeding programs and other Canadian collaborators for the development of elite varieties," explains Sharpe.

The Canadian Wheat Alliance is an 11-year commitment among Agriculture and Agri-Food Canada, the University of Saskatchewan, the province of Saskatchewan and the National Research Council Canada, to support and advance research that will improve the profitability of Canadian wheat producers.



Agriculture and Agri-Food Canada

Agriculture et Agroalimentaire Canada



The project will use the popular, high yielding Canada Western Red Spring (CWRS) variety Stettler as a common parental line and will target improvements in rust and Fusarium head blight resistance.

"It is expected that the development of the Can-NAM and its consequent detailed genetic and phenotypic characterization will take place over the next five years with the subsequent incorporation of material into elite breeding programs towards the end of these five years," adds Sharpe.



There are **164,000 - 334,000** wheat genes compared to **20,000 - 25,000** human genes.



Wheat Market Outlook

Greg Kostal, Owner | Kostal Ag Consulting

As the Northern Hemisphere winter wheat crop breaks dormancy and matures in May, it is hard to find any meaningful adverse production issues. Former Soviet Union growing weather is so far conducive of solid crop potential, with only Ukraine poised for year over year declines due to dryness last autumn. Recent and timely bouts of rain in the United States (U.S.) Hard Red Winter (HRW) growing regions have put respective crop status in a superior position over last year. The European situation appears to be in cruise-control and siding towards a replication of an above average outcome.

It is too early to deviate from a normal yield outcome in Canada, Australia and Argentina, although we can assume that 2016 Argentine wheat production should be about three million metric tonnes (MMT) above last year, as farmers planted more wheat on account of the December 2015 export tax reform. Bottom line, perception of aggregate 2016 global wheat yield and crop size has yet to stray away from supply adequacy.

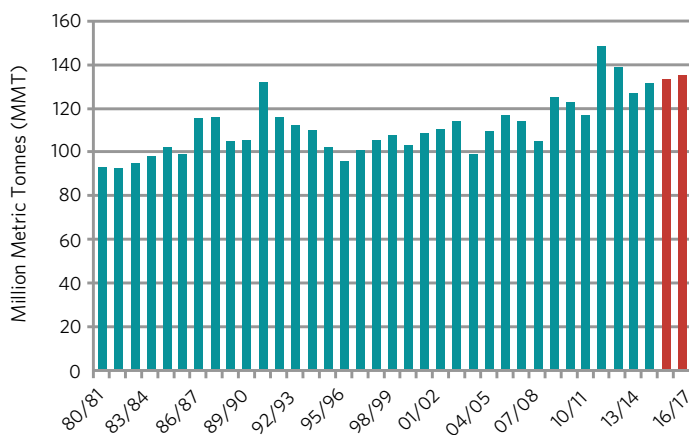
Food demand is relatively stagnant. Wheat flour use does not follow the growth patterns associated with population and income growth like

commodity peers. Therefore, elevated annual discretionary demand is reliant on either more wheat being fed, or government policy where some importers choose to repopulate inventory as a hedge against higher price or as food security cushion. With currency volatility, challenges associated with securing credit and comfort that supply amongst exporters runs deep, the urgency to buy extra food wheat has been limited.

As such, elevated wheat feeding is called upon for the job. The challenge for 2016/2017 is that wheat feeding has been elevated for the past five years either to help fix a corn imbalance or due to feed grain displacement (cheaper relative wheat price). Since this has been a regular occurrence of late, 2016/2017 wheat demand has limited room for incremental expansion (see *World Wheat Feed Consumption* chart).

It is hard to bank on a corn supply problem in May, especially when the U.S. corn planting and soil moisture situation is adequate. Further, China corn policy reform is likely to lead to a reduced feed grain import agenda during transition, which starts in 2016/2017.

World Wheat Feed Consumption



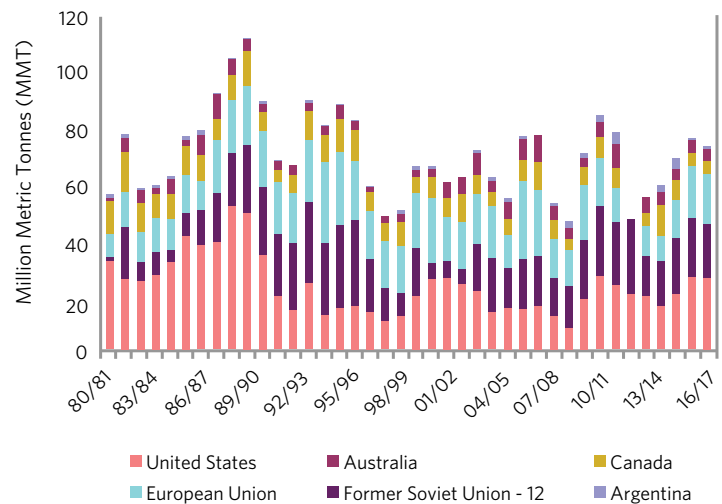
Source: United States Department of Agriculture (USDA) and Kostal Ag Consulting.

Wheat is a crop that is planted and harvested somewhere in the world at all times. As such, exporters that are in a position to sell wheat tend to be multiple year round, which usually creates a buyer's market. The U.S. typically contains some of the highest priced wheat, and therefore tends to be the residual supplier to the global wheat trade matrix. This, combined with inferior relative price signals largely explains why U.S. wheat acreage has been progressively eroding in the past few decades.

The *World Exporter Wheat Carryout* chart is a good proxy to help understand likelihood of wheat export competitiveness. In instances where major exporter inventory is large, a longer period of multiple sellers looking for business occurs. When domestic supply depletes, switching to U.S. origin wheat often accelerates. This is one of the best situations for a price uptrend.

"It speaks to the point that for wheat uptrend to engage in a meaningful way, it must rely on weather adversity somewhere."

World Exporter Wheat Carryout



Source: USDA and Kostal Ag Consulting

Given cumulative growing conditions to date, a global wheat yield outcome that is no worse than normal has elevated odds of occurring. Using normal yields, a big picture analysis of supply and demand would then portray that 2016/2017 represents another year of ample supply and modest competition.

It speaks to the point that for wheat uptrend to engage in a meaningful way, it must rely on weather adversity somewhere. Unlike most other commodity peers, wheat does not have a fancy demand story. Money flow (investors seeking commodities as an alternative investment) can upwardly skew price behavior over a two to three month period. If this happens during a relative abundant supply period, U.S. futures would be at risk to diverge from world cash prices. Russia and Europe typically house some of the most competitive wheat offers. Following the U.S. dollar cash wheat price offers there is a good litmus test to help one understand depth of a futures rally.

With timely rains in the U.S. HRW growing regions of late, odds are elevated for an above average yield outcome there. If this verifies, there is an elevated chance for a lower than normal protein outcome. A larger yielding lower protein HRW crop supports a case that spreads/premiums for higher protein spring wheat will widen. Stated another way, discounts for mid quality lower protein wheat is at risk of expanding, a more common trait for utility or Canada Northern Hard Red (CNHR) wheat classes compared to Canada Western Red Spring (CWRS).

Expect wheat to underperform amongst its commodity peers in 2016/2017. So what needs to change in order to change the main trend? Likely a weather problem or a "hope-can" that keeps getting kicked down the commodity calendar. Until that happens, spring wheat pricing is going to face headwinds. Relative wheat supply abundance should be a drag on corn, as wheat appears hungry to displace significant global feeding demand in 2016/2017 one more time.

Take a Moment – Plant Your Safety Program First

Dan Trottier, Health and Safety Professional | *Tatonga Consulting*

I know that many producers wake up each day, slap the cap on as they walk out the door to the great day ahead and think, “this is the life.” However, not many think about the impact that one decision could have on the family they just left at the breakfast table.

Our producers make decisions every day about the bottom line for farm operations.

- How will I fix that equipment that needs repair?
- How will I move that bull to the new pasture?
- How will I dispose those chemical containers properly?
- How good is Joe operator on the drill?
- Where are my kids?

We rarely start the day thinking that the worst could happen. Well you know, I have had some close experiences that tell me we should be looking for those worst case scenarios before they happen so that we can prevent them.

It was a fresh spring day and the frost was nicely out of the ground for a few weeks. Classes had resumed at the local school and school buses were busy gathering their flock for class time. This day, the bus stalled and could not start after picking the kids up. A local farmer stopped by to help and decided to give the bus a pull with the grain truck. He had some rope on the floor that he had previously used for pulling the drill out the day before. Surely it would be strong enough. After pulling the bus to kick start it successfully, the driver parked the truck and climbed out to unhook the tow rope. Now it seemed like a relatively flat piece of road, so putting the truck in neutral was good enough he thought. As the worker proceeded to unhook the tow rope, the truck rolled back.

I can still remember the days of recovery for my uncle. We were not sure of the extent of the damage for many days, but he recovered nicely over time. No problem right? He was thankfully still alive.

It was a warm fall day and harvest operations were just nicely underway. We had spent the last month getting ready to harvest the crop, carefully waxed and polished the equipment, installed new radios in the cab for the operators and cleaned the glass and cab to make things shiny. We headed down the road to get the harvest started but we needed a sample to confirm the crop was ready. In those days, we used to climb the combine as it moved down the windrow to capture a sample from the hopper on top and then take that back to the bin yard for testing. On this day, the operator of the combine noticed my uncle taking a sample and stopped the

combine to make the process simple. Unfortunately, my uncle was not ready for the stop and ended up in the combine hopper and got caught up on the drag augers. We struggled to get my uncle down from the back of the combine. He had been severely injured under the arm that rested on top of the drag auger as it continued to perform its job of moving grain from one side of tank to the other. We quickly jumped in the truck and drove to town (20 minutes away) and got medical attention. After 172 stitches and a day in bed to recuperate my uncle was back helping out with the harvest. No problem right? He was thankfully still alive.

Both of these events could have been much worse but they also could have been prevented from happening at all. If we had taken the few moments to recognize the hazards that were present, modified our procedures and implemented hazard controls, these incidents could have been avoided.

During this year’s growing season, take a moment and grow your farm safety program first. Here are a couple of tips to get you started:

- Assess the work hazards on your farm for risk. Determine which tasks present the most risk and if you have the right worker doing those higher risk jobs. If not, adjust the crew and/or training accordingly.
- Hold formal start up meetings each day to get everyone on the same page. Encourage everyone to participate and bring up ideas to do things better. Engage workers to start thinking safely at the beginning of their work day.
- As the farm manager, take time to check your operations. Is everything working properly? Are workers well rested and focused on the job at hand? Are you leading by example?

Take time at the start of the busy season and together decide how you can protect your family and workers who help to get the crop in. You know how to successfully grow things, why not plant the seed of safety and let it grow to help protect your workers and family members from experiencing hardship in the future? It only makes sense... doesn't it?

➔ Additional Farm Safety Tips and information is available from FarmSafe Alberta. Farmers interested in FarmSafe Alberta can contact a farm safety coordinator to discuss setting up a workshop for their team or in their community.

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PDQINFO.CA MAKING MARKETS WORK BETTER

Timely, Accurate, Transparent Cash Grain Price Information

- ✓ Daily spot and forward bid price averages across nine zones in Western Canada for CWRS, CPSR, CWAD, canola and yellow peas.
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- ✓ Basis widget that converts U.S. futures prices into Canadian dollars.

PDQ aims to be a complete and unbiased resource for cash grain market prices and important crop data. PDQ will improve farmers' ability to make well-informed marketing and planning decisions and maximize the value of their crops.

PDQ is owned and operated by the Alberta Wheat Commission and is provided as a service to all market participants.





Policy Points

Alberta growers meet with key decision makers on Parliament Hill

Hannah Konschuh, Acting Policy and Government Relations Manager | Alberta Wheat Commission

“Government policy is made by those who show up.”

This quote captures both the intent and the success of the recent *Team Alberta* outreach mission to Ottawa this past April.

Team Alberta, made up of director and staff representatives from the Alberta Wheat Commission, Alberta Barley, Alberta Canola Producers, and Alberta Pulse Growers, along with our colleagues at Grain Growers of Canada, met with top decision makers from Canada's political parties to discuss priorities for Alberta grain producers.

This outreach trip was a timely opportunity to develop relationships with key policy makers from our new Liberal government, as the cabinet is now in possession of their mandates and will start to enact priorities. During the two days that *Team Alberta* spent on The Hill we also met with key representatives and decision makers from the Progressive Conservative Party – the official opposition – as well the New Democratic Party, sharing a united Alberta perspective on key pieces of legislation currently under review or being proposed.

On international trade, *Team Alberta* encouraged the expedited ratification of the Trans Pacific Partnership (TPP) and the Comprehensive Economic and Trade Agreement (CETA) between Canada and the European Union. In order for

Canada to remain competitive and to ensure export opportunities for grains and oilseeds, ratification of these agreements is imperative.



We stand to lose improved access to an estimated \$1.5 billion in new Canadian agri-food exports to the European Union if we do not adopt CETA.

As the vast majority of Alberta and Canada's grains and oilseeds are destined for export, we stand to lose improved access to an estimated \$1.5 billion in new Canadian agri-food exports to the European Union if we do not adopt CETA. In the case of TPP, with major export competitors like the United States (U.S.) and Australia in the agreement, Canada would be at a competitive disadvantage if left out of the agreement. It's estimated that Alberta businesses export \$5.4 billion in agricultural products to TPP nations.



It's estimated that Alberta businesses export \$5.4 billion in agricultural products to TPP nations.

Team Alberta also stressed the importance of innovation driven by research, meaning continued funding for federal research clusters and partnerships critical to crop research programs that keep producers profitable. Research cannot be conducted without people, so our conversations also focused on ensuring sustained research capacity.

With talks of carbon pricing occurring at both the provincial and national level, we shared the leadership role Alberta farmers have taken over the last few decades to drastically reduce emissions and sequester carbon in agricultural soils. As price takers, we clearly asked the government to consider the impact on producer's bottom lines in carbon tax policy development.

As one of the most significant challenges facing western Canadian farmers and due to the recent release of the Emerson report on the Canada Transportation Act (CTA) Review, long-term solutions to Canada's transportation system and the extension of Bill C-30, the *Fair Rail for Grain Farmers Act*, were top of mind for *Team Alberta* and the policy makers we met with.

On the heels of the *Team Alberta* outreach mission, the government announced its intent to extend provisions of Bill C-30 that help improve railway accountability and competition, including maintaining current interswitching limits of 160 kilometers, as well as retaining the government's ability to prescribe minimum grain movement by rail.

This welcomed news demonstrates the importance of continuing relationships, working to establish new ones, and 'showing up' when it comes to having an effective, strong voice in the development of farm policy. AWC will continue to do so as the representative voice on issues that matter to Alberta's wheat producers.



Contact Us

The Alberta Wheat Commission newsletter is published four times per year.

Have you checked out AWC's new website? Visit albertawheat.com and let us know what you think!

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Your opinion matters

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Go paperless. Wheat's Up is available on our website at www.albertawheat.com. Sign up for the e-newsletter and get it quicker!



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Upcoming Events

	Event	Time/Venue
July 8-17, 2016	AgTivity in the City (Stampede)	Calgary, Alberta
July 21, 2016	Alberta Wheat Day (Farming Smarter)	Lethbridge, Alberta
July 27, 2016	Field Crop Development Centre Tour	Lacombe, Alberta
August 3, 2016	U of A/Bon Accord Site Tour	Edmonton and Bon Accord, Alberta



Please visit www.albertawheat.com for the most update and complete list of AWC funded field tours and events over the summer.

