The Wheat Field

THE NEWSLETTER OF THE SASKATCHEWAN WHEAT DEVELOPMENT COMMISSION

MARCH 2016 EDITION

CHAIR'S MESSAGE:

Use several resources when **making decisions for your farm**

Spring seeding is around the corner and farmers across the province are in the process of deciding which wheat varieties to grow. Several factors go into these decisions, like the amount of soil moisture and forecasts for diseases and pests. There are now several new wrinkles to consider, notably the plans by the Canadian Grain Commission (CGC) to reclassify several wheat varieties over the next two years.

This year, the CGC will be eliminating three existing wheat classes and will create two new classes, Canadian Northern Hard Red and Canadian Western Special Purpose. These changes come into effect on August 1, 2016. The bigger changes will come on August 1, 2018, when several varieties that are currently classified under CWRS and CPSR are moved to new classes. For more information on this, please go to our website at saskwheatcommission.com.

Luckily, there are plenty of resources out there that can help guide producers when it is time to buy seed. The 2016 Sask Seed Guide, published by the Saskatchewan Seed Growers Association, is an excellent resource to start with. The registration information and the seed growers directory make the Seed Guide an important book for producers to keep handy in the spring.

However, it's important that the Seed Guide is used as guide and is not your sole resource when deciding what varieties to buy. Your best bet to find a good variety is by talking to your neighbours and your local seed growers. They will know what yields better in local soil conditions, what pests and diseases have been recent issues in the area, and what varieties local elevators are looking to buy. The seed dealers, in particular, will have the latest information on new varieties with improved traits that have been developed by Western Canada's top wheat researchers and breeders.

Pests like wheat midge, diseases like fusarium head blight and drought conditions like we had last year are among the challenges being met by researchers and breeders. The new varieties they are developing are improving yields and bringing down input costs. I'm encouraging you to make the investment and try one or more of these new varieties this year. There are several dozen wheat and durum varieties listed in the Seed Guide, along with their traits, origin and the names of the breeders who developed them.

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in this issue

CTA report recommendations would be **devastating for Saskatchewan grain producers**

Sask Wheat joined SaskBarley and the Agricultural Producers Association of Saskatchewan (APAS) in expressing disappointment in the recommendations of the Canadian Transportation Act (CTA) Review Report, which was tabled in the House of Commons on February 25.

The Review, commissioned by the previous government, recommends the elimination of the Maximum Revenue Entitlement (MRE) Program within seven years. This would leave Saskatchewan's grain growers without shipping price protection to counter the monopoly pricing powers of the major railway companies and would have disastrous effects on Saskatchewan's economy.

"This report shows a complete disregard and lack of understanding of the financial implications for farmers and the harm these recommendations would cause to provincial economies," says Bill Gehl, Sask Wheat Chair. "However, we are happy to hear the initial reaction of Minister Garneau to the

(continued on next page)

Chair's message *from front page*

The development of new wheat and durum varieties would not be possible without the investment of producer dollars in research and development. Sask Wheat has been investing in several research and development opportunities that will benefit both producers and end users. The investment of up to $3.5 million into the Crop Development Centre's durum program, made possible by Sask Wheat's collaboration with SeCan, is an excellent example. These investments will enable the development of varieties with traits that end-use customers desire, opening up new markets and opportunities for Saskatchewan wheat growers.

Finally, I would like to encourage you to contact Sask Wheat with your thoughts on the Western Canadian Deduction (WCD). Saskatchewan currently has two wheat deductions, the $0.52 per tonne Sask Wheat deduction and the transitional WCD, which is $0.48 per tonne. The WCD will be sunsetting on July 31, 2017 and the wheat and barley commissions in Saskatchewan, Manitoba and Alberta are now preparing for the transition to a unified check-off in each province.

The wheat and barley commissions are established and ready to assume the WCD, supporting the research and market development efforts currently undertaken by Western Grains Research Foundation (WGRF) and the Canadian International Grains Institute (Cigi). Specifically, when it comes to research, we want to ensure that farmers' voices remain at the forefront of research funding, as they are under the WGRF, and that any transition of the WCD does not interrupt this funding stream.

We would like to hear from you what your priorities are for research, development and marketing so we can prepare a resolution for our 2017 AGM which will reflect the wishes of Saskatchewan producers and provide for a seamless transition when the WCD ends on July 31, 2017. Please see the last page of this newsletter to learn more about the WCD and how you can add your voice.

Go to our website or give us a call if you have feedback for us on the WCD or any other issue. We are always happy to hear from our fellow wheat producers.

CTA report recommendations *from front page*

report. We are hearing that the consultations with farmers and others within the industry will continue and that the Government will take the report as advice only. We will also continue to push for a full railway costing review before any changes are made to the MRE."

The producer coalition presented recommendations to the CTA review panel in December 2014. The coalition framed their recommendations around four objectives that include fostering competition, increasing market transparency, being positioned for future growth, and ensuring producers have a voice in the transportation system.

The coalition recommended a full railway costing review be conducted before any adjustments are made to the MRE program, a higher priority placed on producer cars, and that the CTA create a rail oversight group, that includes agricultural producer representation, to assess ongoing operations of the railways. During the CTA review process, the producer coalition provided analysis to the review panel that demonstrated that railway revenues from grain shipments are more than fully compensatory.

The review suggests that a "competitive market" will benefit the entire industry but fails to acknowledge the market power that railways currently hold within the system. "Producers have no effective alternatives for moving their grain to port," says Gehl. "We need a reliable transportation and handling system to be competitive in export markets and sustain our farm gate returns."

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CONTACT US:
Saskatchewan Wheat Development Commission
310 - 111 Research Drive
Saskatoon SK S7N 3R2
Phone: 306-653-7932
Fax: 306-653-7935
saskwheatcommission.com
info@saskwheatcommission.com

Want to receive this newsletter by email? Send your request to: info@saskwheatcommission.com

Sask Wheat invests millions in **research and breeding**

CropSphere 2016 was the venue for two major Sask Wheat funding announcements.

On January 12, Sask Wheat announced the commitment of $1.5 million to support ten wheat research projects. The funding was allocated through the Saskatchewan Agriculture Development Fund (ADF) process in 2015. This research falls into the areas of variety development, production and post-production.

The following day, Sask Wheat and SeCan announced a commitment to invest up to $3.5 million over 10 years in the Crop Development Centre's (CDC) Canada Western Amber Durum breeding program. This commitment to the CDC's durum program will help develop varieties that are resistant to fusarium head blight, produce higher yields and contain traits desirable by mills and pasta processors.

Kofi Agblor, CDC Managing Director

As of January 1, 2016, Sask Wheat had invested $5,539,771 of farmer money in 28 projects. With the research program ramping up and Sask Wheat fully participating in the funding processes such as the ADF, the farmer funding going to research and development will continue to rise, bringing improved varieties, higher yields and new marketing opportunities.

Think Wheat 2016 brings **information to producers**

The recent Think Wheat extension meetings in Prince Albert and Regina gave Sask Wheat the opportunity to bring the latest information in agronomy and marketing to producers.

The farmers and agrologists in attendance heard from speakers on disease management, plant growth regulators, new wheat varieties, spray timing and application and the basics of marketing grain, among other topics. The meetings also gave producers an opportunity to learn more about the direction and activities of Sask Wheat from the Sask Wheat Directors who were in attendance.


Richard Gray

Tom Wolfe

The slides from the presentations are available on our website (***saskwheatcommission.com***).

Thank you to all who attended and provided us with feedback. We look forward to brining you more Think Wheat sessions in 2017.

Sask Wheat **News**

Attend the Sask Wheat Semi-Annual Meeting at Farm Progress Show

All registered wheat growers are encouraged to attend the third Sask Wheat Semi-Annual Meeting, June 2016, during Farm Progress Show in Regina. This meeting is a chance for wheat growers to meet with Sask Wheat staff and Board members, to share their input on the industry and their check-off investments, and to learn more about the work we're doing for. Two speakers are also planned during the meeting.

Registration is free and includes a complimentary breakfast.

Meeting details

Wednesday, June 15, 2016
8:00 a.m. to 8:30 a.m. – Breakfast
8:30 a.m. to 10:30 a.m. – Meeting and presentations

Salon A
Evraz Place, Regina (during Farm Progress Show 2016)

To register:

- **Visit:** ***www.saskwheatcommission.com***
- **Phone: 306-653-7932**
- **Email:** ***info@saskwheatcommission.com***

GENERAL MANAGER'S REPORT:

Markets require information **to operate effectively**

As farmers analyze and finalize their planting decisions for 2016, a lot of variables come into play. While crop rotation is a key factor for many farmers, understanding the market conditions and price prospects for 2016/17 are critical considerations. Understanding and assessing available forward prices for wheat in Western Canada is a difficult task and one that could be improved with enhanced price reporting and more transparent market information.

U.S. farmers have the advantage of pricing against a futures market for their class of wheat that is directly tied into an active cash market, ensuring that their local elevator prices will reflect the cash markets at either Chicago, Minneapolis or Kansas City. These are then tied to FOB export prices, principally in the U.S. Gulf and Pacific Northwest ports by rail transportation and elevator handling margins.

The information that is provided by the USDA to allow all market participants a certain basic level of understanding allows for more effective and efficient market operations. Canadian producers are being asked to use U.S. futures markets as a reference for the market value of their crops. This option has issues for Canadians due to exchange rate fluctuations, lack of trading between Canadian and U.S. cash markets, and Canadian basis fluctuations based on delivery availability.

The contents of USDA Weekly Grain Transportation Report can be found at ***http://www.ams.usda.gov/AMSv1.0/getfile?dDocName=STELPRDC5109756***

USDA provides, among other statistics:

- Grain transportation cost indicators – truck, rail, barge, ocean freight
- U.S. origin to export position spreads (basis)
- Grain bid summary by state in grain growing area
- Rail deliveries by port area
- Weekly barge freight rates to the Gulf of Mexico.
- Barge movements on the Mississippi River by week by commodity
- Number of barges up bound and down bound on the Mississippi
- U.S. outstanding sales and cumulative exports by commodity and type of wheat
- Weekly grain inspections for export by port by commodity
    - Weekly port region Grain ocean vessel activity-number of vessels in port, loaded, due
    - Ocean vessel freight rates to Japan
    - Ocean freight rates for selected shipments by grain and destination
    - Top 10 destination markets for containerized grain
    - Monthly shipments of containerized grain to Asia

So, what can be done? The Canadian grain marketing system has gone through a transition to a multiple seller environment without a thorough review of the information flows required for efficient market operations. This review needs to be addressed.

The type of information required for Western Canada is listed below, although this list should not be viewed as complete:

- Weekly car allocation by all corridors and crops
- Weekly port unloads
- Vessel line ups by port
- Producer car allocations and outstanding orders
- Ocean freight rates with demurrage/despatch levels
- Weekly rail car movement by corridor
- Weekly backorders of rail cars by province, railroad and destination
- Weekly future orders for rail cars by province, railroad and destination
- Forward sales by commodity
- Lake freight values and availability
- Performance measures for all industry participants, including dwell times
- Export price quotes by port and grade
- Primary elevator cash prices

The identification of information needs, as well as its collection and dissemination, will be critical to future system performance.

Without a reliable and transparent process to establish forward prices for Western Canadian wheat, referenced to export markets, particularly West Coast markets for spring wheat and eastern ports for durum, producers will be making planting and marketing decisions without the best information available. Hopefully this can be addressed in the coming year.

Fusarium watch **2016**

Fusarium was not as much of an issue in 2015 as it was in 2014 – for most farms at least. But, there were areas of the province where fusarium damage did show up.

The incidence of fusarium damaged kernels (FDK) is the percentage of samples that have at least some FDK, while the severity is based on the percentage FDK by weight.

The Canadian Grain Commission found that the northeast and east central regions still had a high number of samples with FDK. The severity of FDK was highest in the south-east. Looking at either incidence of FDK or severity, almost all areas were noticeably lower than in 2014. Of course, individual fields may have been affected more severely.

Provincial surveys conducted in 2015 found fusarium head blight (FHB) in 34 per cent of common wheat and 44 per cent of durum wheat crops. The severity was 2.2 and 5.2 per cent respectively, which was higher than in 2014 and continues the upward trend observed in durum in past years. This survey measures fusarium damage by average severity (FHB severity (%) = [% of spikes affected x % of kernels infected] / 100) rather than grading, but does not take into account fusarium infection that can occur in the absence of fusarium damage.

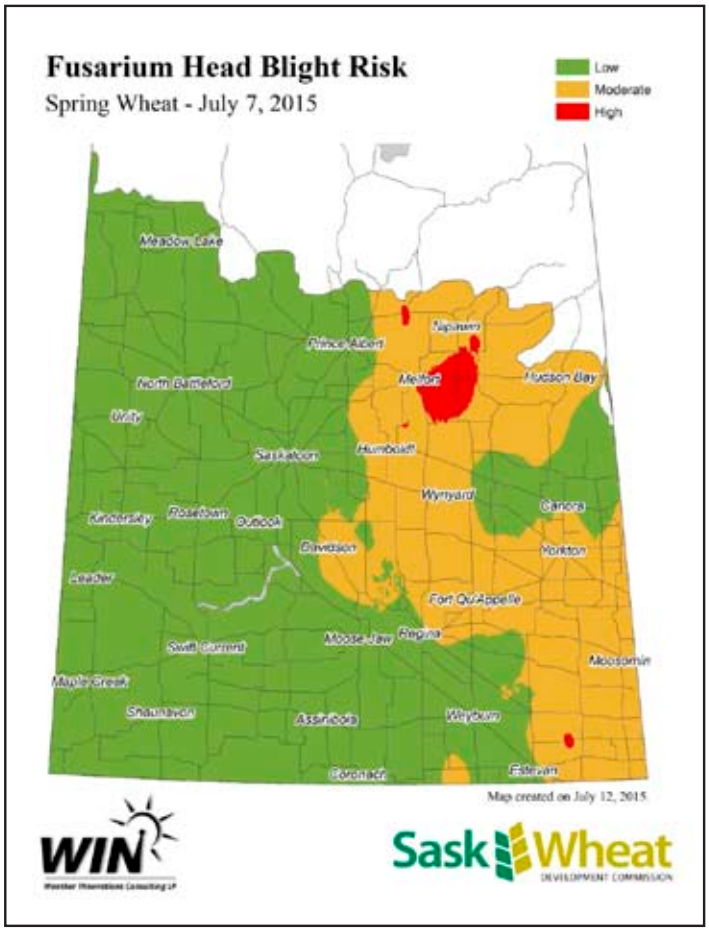
The seed testing labs track the incidence and severity of fusarium infection as well, including seed infected without fusarium damage, which is important because even seed that appears sound could harbor fusarium species that may lead to seedling blight. In discussions with Discovery Seed Labs, Biovision Seed Labs and 2020 Seed Labs, the consensus is that incidence and severity of fusarium infection on seed is down considerably from 2014. However, the levels vary widely and are high enough to warrant seeking new seed (up to 10 per cent of samples) or using a seed treatment (up to 40 per cent of samples).

There is still time to get seed tested for the 2016 crop. Basic recommended tests include germination and thousand kernel weight to determine seeding rates, as well as screening the seed for diseases like fusarium.

Fusarium on the seed can lead to seedling blight, but generally does not cause FHB in the same year. FHB develops from infected residue. However, there is no evidence that burning or tillage are effective at reducing infection levels. This may be because neither effectively removes all the residue (including roots and crowns). It is not known what temperature is required to destroy the fungus.

Fusarium management is challenging because several strategies must be employed to be effective and even when all are done correctly, it can still cause damage. Fusarium management should include:

1. Crop rotation (at least three crops, with as much diversity as possible);
2. The use of the best genetic resistance available (see the 2016 SaskSeed Guide); and
3. The use of fungicides (with optimum timing).



Fortunately, the Saskatchewan Wheat Development Commission initiated FHB risk maps (such as this one) in 2015 and will be making them available for spring and winter wheat growers again in 2016. The FHB risk map is a tool that helps producers to identify the level of risk of a FHB infection. The maps, in conjunction with a cost/benefit analysis tool help producers determine whether or not a spray application is worthwhile.

The FHB risk maps are based on the heading date for a specific crop. Producers should determine when the heading date is, then follow the maps as they are generated for that heading date. Another tool on the Sask Wheat website helps to determine how fast heading will come on and identifies the optimum spray timing.

Fusarium is a pathogen that necessitates a lot of planning for. It affects planting decisions and seeding management and requires integrated pest management throughout the growing season. Knowledge is the key to reducing fusarium damage – knowledge about the quality of seed going in the ground, crop rotation benefits, the value of genetic resistance and how to make the most of a fungicide application. The resources available in association with Sask Wheat's FHB risk maps are a good source of knowledge.

For more information:
http://www.saskwheatcommission.com/producer-info/fusarium-risk-assessment-map/

Check with your grain buyer **before using plant growth regulator**

Plant growth regulators (PGRs) are generally synthetic compounds that change plant growth by altering the plant's hormonal balance. PGRs are not new to agriculture, but have not been commonly used in Western Canada because they are mostly used in conditions of high moisture and high fertility to shorten and strengthen straw. In Western Canada, we *normally* have drier weather tendencies and several varieties with good lodging resistance.

However, new, higher yielding genetics are now available in Western Canada and producers are targeting higher yields than in the past. PGRs can be used to manage detrimental effects of higher crop inputs, such as lodging and more straw to process through the combine.

There are many semi-dwarf wheat varieties that have short, strong straw, but some popular varieties are tall, including all currently available midge tolerant wheat varieties and several fusarium tolerant varieties. Growing these in high fertility, high moisture environments may lead to lodging problems that could potentially be reduced with the use of a PGR.

The PGR product Manipulator (Engage Agro) was recently registered in Canada for use on spring and winter wheat (durum pending review). Manipulator suppresses gibberellins, a group of plant hormones responsible for stem elongation. Manipulator can cause plants to have shorter and thicker stems, potentially reducing lodging.

Other PGRs, such as Ethrel (Bayer) and Cycocel Extra (BASF), have been registered in Canada for decades, but they have not been widely used. In Western Canada, Ethrel is registered on spring wheat. Cyclocel Extra has the same active ingredient as Manipulator (chlormequat chloride), but is registered for winter wheat only.

PGRs generally have a specific application window to be effective. Application outside of the application window may not only be ineffective, but also potentially detrimental to the crop. Manipulator for a single application is best applied at the one-to-two node stage (Zadoks growth stage 31-32) and Ethrel at flag-leaf-emergence to swollen-boot stage (Zadoks GS 37-45).

"Spraying crops in the evening dusk" by Tamina Miller is licensed under CC BY-NC 2.0

While new products like Manipulator may be of interest agronomically, using new products may cause problems with marketing the grain.

Manipulator is currently approved in Canada but not in all markets of Canadian grain, such as the United States. When an export market has not established maximum residue limits (MRLs) for a crop input like pesticides or PGRs, grain treated with that product may not be accepted by that country. Producers are cautioned to be certain that their grain buyer will accept grain treated with Manipulator, or any other product, before applying the product.

SR&ED tax credits **for 2015**

The Scientific Research and Experimental Development (SR&ED) Program is a federal government program that encourages research and development by providing tax-based incentives.

By using levy contributions to finance research and development work that benefits Saskatchewan wheat producers, Sask Wheat is able to participate in this program and distribute these tax-based incentives to producers.

The program gives registered wheat producers access to investment tax credits (by means of cash refunds and/or reduction to taxes payable) for their levy contributions that are spent on qualifying research.

For 2015, producers may claim 3.34% of their levy contributions as a qualifying SR&ED expenditure on their federal tax return.

In addition, farm corporations may also claim 2.36% of their levy contributions as a qualifying expenditure towards the Saskatchewan Research and Development Tax Credit program.

Producers who have requested a refund of their levy are not eligible for either tax credit.

Although the research tax credit amount is relatively low for 2015, this percentage will grow each year as Sask Wheat ramps up its research program. Research investments will be accrued over time, inclusively from Sask Wheat's inception, so wheat producers will not lose claims on any research investments. Sask Wheat will communicate all new SR&ED information to wheat producers when it becomes available.

Please see the Sask Wheat website for links to the tax forms and more information.

Midge Tolerant Wheat **Celebrates Milestone**

Producers continue to benefit from technology that keeps midge at bay

Reprinted from Western Grains Research Foundation 35th Anniversary Magazine

Last year marked the fifth anniversary of producers in Western Canada growing midge tolerant wheat. The varieties help defend against orange wheat blossom midge, which can significantly reduce crop yield and grade.

Since their commercial launch in 2010, the industry has witnessed strong uptake of midge tolerant varieties, which were first developed by wheat breeders at Agriculture and Agri-Food Canada (AAFC) and the Crop Development Centre (CDC) with the support of funding from producers through the WGRF check-off program.

According to the Canadian Grain Commission, 18 percent of total western wheat acres in 2014 were midge tolerant – that's up from 16 percent in 2013. In Saskatchewan, midge tolerant wheat accounts for more than 36 percent of the province's total wheat acres. In Alberta, producers in the Peace River area were caught off-guard with a midge infestation in 2013. Midge tolerant varieties were shipped into the region and producers took advantage of the technology in anticipation of more midge pressure.

"Wheat producers really value this technology and are committed to maintaining its viability," says Mike Espeseth, Communications Manager for WGRF and co-chair of the Midge Tolerant Wheat Stewardship Team.

"The proof is in the numbers. Nearly four million acres of midge tolerant wheat were planted in 2013 and 2014 alone," he says. "The adoption is a testament to the quality of the varieties and the benefit and convenience that they provide producers."

Midge tolerant wheat varieties offer flexibility in crop rotations and seeding dates. Most importantly, they eliminate the need to use insecticide as a control method. Instead, midge damage is dramatically reduced with help of *Sm1,* a midge tolerant gene that is moved into wheat varieties using traditional plant breeding techniques.

"Growers told us they didn't have to worry about their wheat," says Ed Mazurkewich, Business Development Consultant for AgCall, whose team interviewed producers in 2014. "They didn't have to scout and they didn't have to spray. Not spraying an insecticide was pretty critical to them," he says.

Midge tolerant wheat is sold as a varietal blend; 90% is made up of a midge tolerant variety and the remaining 10% is a midge susceptible variety. But that doesn't mean producers sacrifice any agronomic benefits. Those who grow midge tolerant wheat report significant yield and grade benefits – approximately $36 per acre (based on wheat priced at $6 bu/ac).

The varietal blends provide an "interspersed refuge system" that disrupts the midge's ability to produce resistant offspring, preventing a build-up of the resistant midge population. Without an interspersed refuge system, midge tolerance could break down within 10 years.

"Sitodiplosis mosellana" by Gilles San Martin is licensed under Creative Commons BY-SA 2.0

There are currently 11 varieties of midge tolerant wheat available in Western Canada. Durum producers will have a chance to take advantage of midge tolerant technology for the first time during the 2016 seeding season. The first midge tolerant durum wheat variety was available for sale last fall; it features the same *Sm1* gene as the other varieties. Hence, the same stewardship principles will apply.

"At the same time that we celebrate this five-year milestone, we need to keep vigilant to ensure the technology is protected for future growing seasons. To date, there is no other known source of midge tolerance. In other words, there is no Plan B if we lose the *Sm1* gene," says Brenda Trask, Communications Manager, SeCan and co-chair of the Midge Tolerant Wheat Stewardship Team. The industry coalition, which includes plant breeders, government, seed growers, seed distributors and producer groups has been active educating Western Canadian wheat producers on the importance of proper stewardship of the technology since before the launch of the technology.

It appears the efforts are paying off. Results of an annual audit show 96 percent of producers in compliance with the stewardship practices in 2014.

"By far the majority of growers said that the technology and the stewardship was really critical for them. They understand it and they are doing everything they can to protect the technology," says Mazurkewich.

With this outlook, it looks promising that the industry will celebrate more midge tolerance milestones in the future.

MIDGE TOLERANT WHEAT
Plant · Protect · Preserve

Sask Wheat needs to hear from producers **about the WCD transition**

Sask Wheat needs to hear from producers on the transition of the Western Canadian Deduction (WCD), which will sunset on July 31, 2017.

The WCD was established in 2012 to provide financial capacity to support market development and research efforts until the newly established provincial grower commissions had the organizational capacity to assume the responsibilities. The WCD check off for wheat is $0.48 per tonne – $0.30 goes to the Western Grains Research Foundation (WGRF) to support research efforts while $0.15 goes to the Canadian International Grains Institute (Cigi) for market development. $0.03 is used for administrative expenses. The Sask Wheat check off is $0.52 per tonne; so collectively wheat growers pay an even $1.00 per tonne towards these efforts.

Sask Wheat and the other provincial wheat and barley commissions are preparing to assume the responsibilities supported by the WCD and to move to a single check off to increase efficiencies and effectiveness with no increase in overall deductions. The commissions have been working with the recipients of WCD funding to provide assurance of stable, secure funding to continue important, long-term work.

The transition to a single check off will require an industry discussion regarding how each provincial wheat commission will assume the responsibility and capacity to fund the important ongoing work in research and market development.

After consulting with producers, Sask Wheat will present a resolution to producers at the 2017 AGM for a single, unified wheat levy in Saskatchewan.

Please go to our website – *saskwheatcommission.com* – to give us your opinion on the WCD transition on our WCD feedback form. You can also give us your opinion in person at the Sask Wheat Semi-Annual Meeting on June 15, 2016 at the Farm Progress Show in Regina.

Sask Wheat DEVELOPMENT COMMISSION

310 - 111 Research Drive, Saskatoon SK S7N 3R2
Phone: (306) 653-7932 | Web: saskwheatcommission.com

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