

Agriview



Supporting Saskatchewan's Value-added Sector

PAGE 9

Rethinking the benefits of summerfallowing | PAGE 4

The link between animal and human welfare | PAGE 10

Canada's Agriculture Day | PAGE 15



Minister's Message




Lyle Stewart

Welcome to 2017 and the first edition of *Agriview* for the new year.

Now is the perfect time to look ahead to new ideas, and our agriculture sector has a proven track record when it comes to innovation. There are several exciting developments in our industry, including the Livestock and Forage Centre of Excellence currently under construction near Clavet, and the new Agri-Food Innovation Centre in Saskatoon, that will support our value-added sector. These facilities will further enhance Saskatchewan's world-class agricultural research capabilities that keep our industry on the leading edge.

I recently had the opportunity to announce funding for several agricultural research projects through Saskatchewan's Agriculture Development Fund (ADF), which is part of the federal-provincial Growing Forward 2 (GF2) framework. These research projects will tackle important present-day issues for our industry, such as improving plant breeding technology to test for DON toxins that are the result of fusarium head blight infection in wheat. The ADF is another great example of how governments, industry, producers and the research community work together so research dollars go further through collaboration.

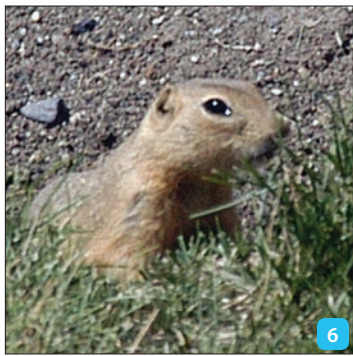
Our agriculture sector has a proven track record when it comes to innovation.

We continue to consult with industry to determine Saskatchewan's priorities for the next agricultural policy framework. The new framework will replace GF2 when it expires in March 2018 and input from farmers and ranchers is a necessity. Thank you to the many individuals who took the time to participate in our online survey about future strategic programming. The survey closed at the end of January and results will be posted at www.saskatchewan.ca/GrowingForward2 in the coming weeks.

It is an honour to be involved in this great industry. The future of agriculture in Saskatchewan remains promising.

Thank you. ■

Table of Contents



Cover: The new Agri-Food Innovation Centre is nearing completion in Saskatoon, SK. For information on the benefits the new facility will offer, turn to page nine.

AGRIVIEW is published by the Communications Branch of Saskatchewan Agriculture for Saskatchewan farmers, ranchers and farm and food organizations. For more information, call 306-787-5160 or email agriview@gov.sk.ca. To view this publication online, visit www.saskatchewan.ca/agriview.

CROPS

Control and prevention of herbicide-resistant weeds	4
Rethinking the benefits of summerfallowing	4
Insect pest risk for 2017 – pea leaf weevil, cabbage seedpod weevil and grasshopper	5
Now is the time to start controlling gophers	6
Sub-surface drainage workshop to be held in Outlook	6

RESEARCH

Continuing the fight against Stemphylium Blight in Saskatchewan lentils	7
The importance of technology transfer to modern agriculture	8
Bringing every link in the livestock production chain under one roof	8
Producers and researchers keep the living soil healthy	9
New Agri-Food Innovation Centre to support Saskatchewan's value-added sector	9

LIVESTOCK

"The Link" between animal and human welfare	10
Have a say in Canada's new plant and animal health strategy	10
Are you managing your pasture or your cattle?	11
Are you ready to spring into forage seeding?	11
Feeding garlic powder to cows could be an option for fly control	12
Is it time to re-think the deworming strategy in your herd?	12

PROGRAMS & SERVICES

Helping producers meet the challenges of 2016	13
Big/Agri data for better farm business management	14
An ounce of prevention	14
Canada's Agriculture Day: join the celebration	15
Online answers to the public's concerns about agriculture	15

EVENTS CALENDAR

Calendar	16
----------	----

PROGRAMS & SERVICES

Share your food story for \$4,000	16
-----------------------------------	----

Control and prevention of herbicide-resistant weeds



Kim Stonehouse, MSc, PAg
Regional Crops Specialist, Tisdale
Regional Services Branch

Over the winter, producers will be making plans for what to grow next year. This is a good time to not only think about the types of crops to be grown, but also the weed control measures that can be used to prevent the build-up of herbicide-resistant weeds.

For some time now, producers have been aware of the potential for weeds to develop resistance to specific groups of herbicides/modes of action. The first documented cases in Western Canada were wild oat and green foxtail that exhibited resistance to Group 1 herbicides. More recently, herbicide resistance has spread to other weeds with an increased number of modes of action—for example, kochia, wild mustard and cleavers with resistance to Group 2 herbicides.

Resistance develops as a result of repeated use of the same herbicide groups over extended periods. Small numbers of plants in the initial population may have some resistance, generally showing up as small patches of weeds that were not controlled by herbicide application. The size of this resistant population increases over time when producers continue to use the same herbicide group that does not control them.

It is important to recognize that, while there are 16 herbicide groups available, only seven modes of action dominate the majority of applications made by Saskatchewan crop producers. As well, recent breakthroughs resulting in new modes of action have been few and far between. Because of this, the most cost-effective way to deal with herbicide resistance is prevention.

There are a number of practices that can be used to prevent the development of resistant populations. Increasing crop diversity by rotating three or more types of crops (such as cereals, oilseeds, pulses and forages) will reduce the risk of developing herbicide resistance. As well, rotating modes of action and using tank mixes of different groups for control of the same weeds can reduce herbicide-resistance risks.

If growers suspect that they have some patches that are resistant, they should ensure that those plants are prevented from setting seed by either herbicide or mechanical means. Producers may also wish to collect some seeds from those areas and have them tested to confirm their suspicions. ■



Consult the *Guide to Crop Protection*;
Contact a Regional Crops Specialist at a nearby Saskatchewan
Agriculture Regional Office; or
Call the Agriculture Knowledge Centre at 1-866-457-2377.

Rethinking the benefits of summerfallowing



Sherri Roberts, AAg
Regional Crops Specialist, Weyburn
Regional Services Branch

In Saskatchewan, summerfallow as a proportion of total farm area is on the decline: 5.8 per cent in 2011 from 9.3 per cent in 2006. In 2015, there were still 1.5 million acres laying fallow, so Saskatchewan producers still have a way to go before they completely end this practice.

Many summerfallow supporters see it as a way to conserve moisture and as a viable part of their rotation strategy, but they may not be aware of the effects that summerfallow has on the soil.

Numerous studies illustrate how cropping systems employing fallow as a component generally result in a reduction in the percentage of organic matter in the soil. Organic matter influences the amount of water and nutrients the soil can hold, and also combats soil compaction. A recent wheat-fallow rotation study in Nebraska found that the soil's organic matter content dropped by 20 per cent. In comparison, efforts in the Swift Current area to reduce tillage and eliminate fallow resulted in an increase in soil organic carbon in the top 7.5 cm of soil.



Summerfallow is seen as a way to conserve moisture, but it actually has a negative effect on the soil.

Another downside of summerfallow is the effect it has on the arbuscular mycorrhizae fungi (AMF) community, which help plants take up nutrients, especially phosphorus, copper and zinc, as well as protecting them from soil-borne pathogens like *Fusarium* and *Phythium*. The number of different AM fungi species varies with the type of crop and the crop rotation. Studies

have shown following land for just one season can reduce AMF numbers by as much as 40 per cent. Saskatchewan Crop Insurance data reveal a consistent decrease in yields for crops that follow summerfallow. The only time a competitive yield seems to occur is when CPS wheat is planted on summerfallow, otherwise yields are significantly lower when crops are planted on summerfallow acres.

Finally, including fallow in your rotation puts you in a negative cash-flow situation. The Saskatchewan Crop Planning Guide shows summerfallowing will provide a negative return over total expenses of \$91.72.

Why continue with a practice that harms the soil, reduces crop nutrient uptake, lowers yields and costs you money? ■



Contact a Regional Crops Specialist at a nearby Saskatchewan
Agriculture Regional Office; or
Call the Agriculture Knowledge Centre at 1-866-457-2377.

VACANT AGRICULTURAL CROWN LAND SALES

Eligible vacant agricultural Crown land will be sold by tender or auction in February and March 2017. Persons interested in purchasing agricultural Crown land are encouraged to visit the Crown land website at saskatchewan.ca/crownlands. When more information is available, it will be published on this website. ■

Insect pest risk for 2017 – pea leaf weevil, cabbage seedpod weevil and grasshopper

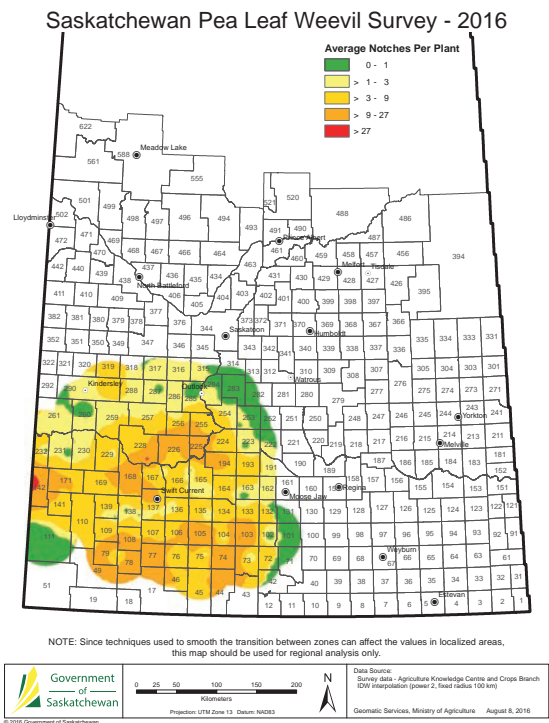


Scott Hartley, PAg
Provincial Specialist, Insect/Vertebrate Pest Management
Crops and Irrigation Branch

Saskatchewan Agriculture conducts and participates in a number of pest surveys to determine insect population levels and distribution to provide an estimate of potential risk from certain insect pests. Agriculture and Agri-Food Canada is a major partner in insect monitoring, providing coordination and personnel.

Pea leaf weevil – spreading east and north

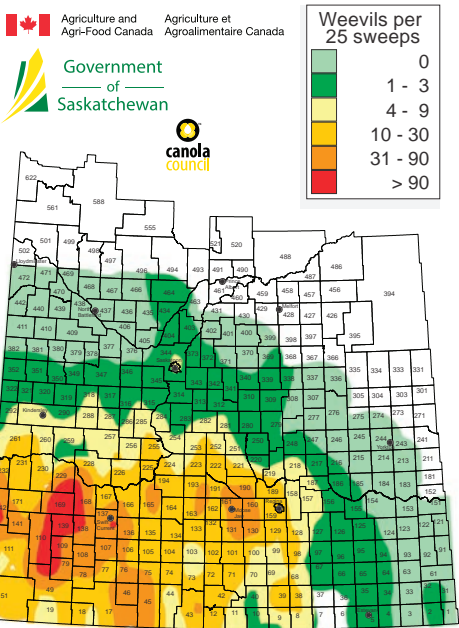
The pea leaf weevil, a pest of pea and faba bean, first appeared in southwestern Saskatchewan in 2007. Its range has gradually expanded across the southern part of the province, north of the South Saskatchewan River into the west-central region. The 2016 pea leaf weevil survey shows higher feeding damage than previous years. Based on the survey and additional reports, it appears that the pea leaf weevil has a much wider distribution east and north than was previously known. Signs of weevil damage were noted southeast of Moose Jaw. Pea fields in the Outlook area (RM 284) had light levels of feeding, but faba bean plots at the Canada-Saskatchewan Irrigation Development Centre in Outlook showed potentially economic levels of damage. High levels of feeding damage were noted in a pea field near Kyle in RM 228 and pea leaf weevils were collected in the Saskatoon area. If significant damage to pea or faba bean was observed in 2016, a seed treatment with an insecticide is the most effective method of managing the pea leaf weevil. Higher soil nitrogen levels have been shown to mitigate some of the effects of pea leaf weevil larval feeding on root nodules.



Cabbage seedpod weevil – an annual economic pest

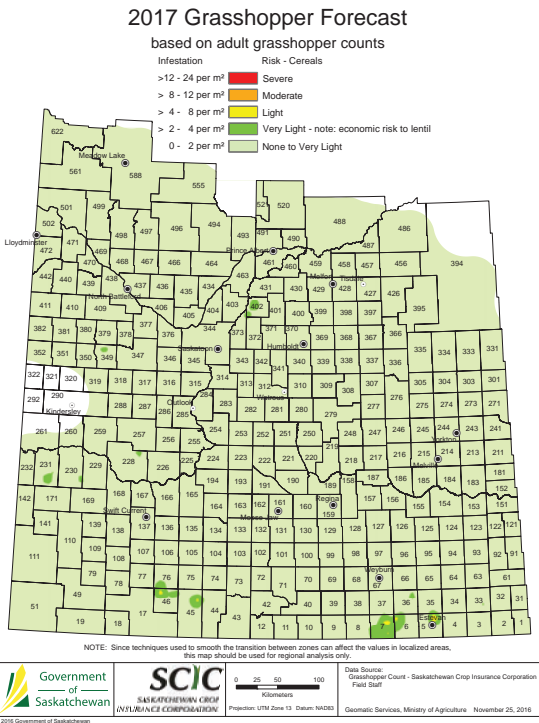
Cabbage seedpod weevils were first collected in the southwest near Maple Creek in 2000 and, as shown in the 2016 cabbage seedpod weevil survey map, have nearly reached the Manitoba border. These weevils have become an annual economic pest in canola and mustard (except for yellow mustard) in the southwest. Economic levels of cabbage seedpod weevils have been identified as far north as Kindersley and Outlook. In 2016, cabbage seedpod weevil numbers rebounded to a level similar to 2013. This insect is best monitored with the use of a sweep net. An average of only two weevils per sweep is the recommended economic threshold at which chemical control may be required.

Cabbage Seedpod Weevil 2016 Survey



Grasshopper – low risk for most of the province

Grasshopper surveys have been conducted annually in Saskatchewan since 1931. The surveys are based on late summer observations of adult grasshoppers that are capable of reproduction and present a risk to crops the following year. Grasshoppers thrive in dry years and populations can increase dramatically over a series of dry years. Although there were reports of significant egg-hatching in the dry spring of 2016, wet conditions did not favour development and survival of grasshoppers. As a result, the 2017 grasshopper forecast indicates low risk for most of Saskatchewan. Keep in mind that some crops such as lentil can have economic damage with lower numbers of grasshoppers than other crops. ■



FOR
MORE
INFO

Visit www.saskatchewan.ca/agriculture; or
Call the Agriculture Knowledge Centre at 1-866-457-2377.

Now is the time to start controlling gophers



Rich Wilkins
Provincial Specialist, Pesticide Regulatory
Crops and Irrigation Branch

The Richardson’s ground squirrel, commonly known as the gopher, is a perennial problem for producers. If you experienced problems with these pesky little rodents last season, now is the time to plan and to implement control activities for the upcoming growing season. Annual control of this pest is necessary to prevent an explosion in the gopher population like Saskatchewan producers experienced from 2008 to 2010.

Adult gophers may become active as early as late February, depending on the weather, and are very active by late March. Males come above ground first and are followed by the females a few weeks later. Producers should focus on the control of the females, as reducing the opportunity to reproduce is necessary to control the gopher population.

Rodenticides are the most effective method of control. Properly timing bait placement is very important. Early spring is the best time for baiting as the gophers are in search of food after emerging from their winter burrows. Research has shown that once the fields green up, gophers are less likely to take the bait as they prefer the lush green vegetation.

Strychnine is an effective rodenticide and is available at rural municipal offices, but it comes with restrictions. Producers must complete and sign a Purchase Agreement Form and a Product Evaluation Form detailing where and when the product was applied and any Integrated Pest Management practices that were employed in addition to strychnine, as well as information on species at risk and any secondary or non-target species poisonings.

When using chemical methods, always read and follow the product label. Implement measures to prevent the accidental poisoning of non-target animals and secondary poisoning of predators.

In order to be effective over the long term, every pest control program must include Integrated Pest Management (IPM) strategies. Alternative control methods include trapping and shooting. Predation accounts for up to 30 per cent of gopher control, so it is important to maintain predator habitat and to keep pasture and forage vegetation above 15 cm (six inches) in height so the gophers will not be able to spot the predators. ■



February or March is a good time to control gophers because that is when they become active.



Contact the Agriculture Knowledge Centre at 1-866-457-2377.

Sub-surface drainage workshop to be held in Outlook



Kelly Farden
Manager, Agronomy Services
Irrigation Unit, Crops and Irrigation Branch

Saskatchewan Agriculture, in partnership with the Irrigation Crop Diversification Corporation (ICDC), will be hosting a workshop on subsurface drainage design and water management in Outlook at the Heritage Centre on March 21 and 22.

Guest speakers include Dr. Garry Sands of the University of Minnesota, Dr. Tom Scherer of North Dakota State University and Evan Derald with Agriculture and Agri-Food Canada in Saskatoon. Dr. Sands and Dr. Scherer are both seasoned speakers on the topic of tile drainage, having conducted numerous workshops throughout the northern United States over the last 10 years. A detailed overview of the various technical aspects of tile drainage—including soil factors, design, construction and maintenance—will be provided. The workshop also has an interactive component in which attendees will work through their own drainage design projects.

Representatives from the Saskatchewan Water Security Agency will also be present to provide an overview of the Province’s new drainage regulations and the process for acquiring approvals and permits for new drainage works.

Tile drainage is commonly used in humid climates for managing wet soils or high water tables. In Saskatchewan, where much of our agricultural region is classified as semi-arid, tile drainage has been considered unnecessary or of little value. Recently, however, with the wet climatic cycle experienced throughout central Saskatchewan, drainage has risen to the top of many farmers’ minds. Irrigation farmers in particular have become keenly interested in making drainage improvements to maximize the production capacity and revenue of their operations. Many farmers in Saskatchewan’s irrigation districts are within close proximity to district drains, making these on-farm drainage improvements a viable option.

Tile drainage is a water management tool that can help to address problems, such as water logging and/or salinity, associated with high water tables. However, proper planning is essential to ensure that any investment made in a drainage project will provide a long-term benefit. This workshop is intended to educate producers on the technical and regulatory components of drainage.

Due to the interactive component of the workshop, space will be limited to 50 people. Anyone interested in attending is asked to register with the ICDC at admin.icdc@sasktel.ca. ■



Contact the Irrigation Unit at 306-867-5500.

Continuing the fight against Stemphylium Blight in Saskatchewan lentils

Sometimes, in order to fight something, you first have to get really good at growing it. Stemphylium blight is an emerging problem in Saskatchewan. It produces lesions on lentil leaves that will gradually kill the entire branch. Its symptoms are similar to those of a number of other fungal diseases, which makes early diagnosis difficult, and it can also be mistaken for environmental stress.

Research into the disease under Saskatchewan growing conditions is still in its infancy. There is little information about the optimal conditions for a serious outbreak, or the potential yield loss from such an outbreak. The disease is caused by the fungus *Stemphylium botryosum*, but agrologists cannot determine when—or even if—a fungicide application is warranted because the growth stage at which an infection would cause serious yield loss is unknown. Finding lentil germplasm resistant to stemphylium blight is a major objective of plant breeders, but efforts are hampered by the lack of a reliable method of resistance screening in the field.

The Crop Development Centre (CDC) at the University of Saskatchewan started researching *S. botryosum* in 2002 with financial assistance from the Saskatchewan Agriculture Development Fund (ADF). Attempts were made over several years to conduct field research in infected fields, but the time it took to confirm an infection meant that research started too late in the season to yield reliable data. A 2006 study by a major agro-chemical study used blight-infected spreader plants, but that proved to be expensive and labour-intensive. A 2009 ADF-funded study evaluating techniques for producing the infection also relied on spreader plants, and was proven to be too inefficient for large-scale screening and experimentation.

The researchers concluded that, if they were going to fight stemphylium blight, they had to learn how to produce it, and then how to spread it in a controlled manner. By inducing infection through an inoculation, and controlling the environment with fabric tunnels, researchers could determine the growth stage at which an infection could cause economic loss. As well, the technique would be useful in resistance screening of lentil germplasm.

In 2010, with another ADF grant and matching funds from the Saskatchewan Pulse Growers, CDC researchers led by Dr. Sabine Banniza set out to mass-produce stemphylium blight, and then learn how to reliably infect plants in the field.

After two unsuccessful attempts in 2011, the research team succeeded in mass-producing *S. botryosum* spores. They found that the spores could be stored for three months with minimal effect on germination. Even after 29 months, germination was still more than 50 per cent. This means that researchers can produce and store spores over the winter and deploy them quickly in the spring to get a full season of data.

The next step was to learn how to spread the disease. The team grew lentils in the greenhouse, infected them with various spore concentrations and charted the development of stemphylium blight.

Moving on to field-scale experiments, the researchers tested covered versus uncovered plots. They found that plants in tunnels had significantly higher disease severity, an increased incidence of seed infection and seed staining, a reduced seed diameter and lower yields.

Two different tunnel fabrics were tested. Both produced similar results, but green polyethylene tunnels had a lower incidence of green aphids, so that became the standard fabric for future field experiments.

The researchers found that the growth stage at time of infection had no particular effect on yield. However, they also found a considerable amount of stemphylium blight in the uninfected control plots, which showed that more effort was needed to keep naturally occurring *S. botryosum* spores out of the test plots. Infection at the seedling stage produced the most severe symptoms; a mid-flower-stage infection produced the most seed infection and seed staining was greatest with infection at the early and mid-flower stages.

Armed with this knowledge, the team successfully established stemphylium blight in research plots in 2014 and 2015. The researchers found significant variability among lentil varieties, which suggested that the single-row breeder plots they were using were inadequate for stemphylium blight testing.

Yield loss studies indicated that stemphylium blight affects seed quality more than quantity, but the amount of naturally occurring infection in the control plots could have masked real differences between infected and disease-free plots — a truly blight-free plot may have yielded significantly more than the inoculated, diseased plots. What was certain, however, is that infection at seedling stage, and possibly early and mid-flower stages, can affect seed quality. Conveniently, this is the same stage at which producers are scouting for other lentil diseases such as ascochyta blight and anthracnose, and fungicides that work against those two diseases are also effective against stemphylium blight. This underlines the importance of producers and agrologists being able to distinguish stemphylium blight from the other fungal diseases and environmental stress.

As a result of the work of the CDC, crop researchers now have an efficient and

effective method of producing spores for field experiments and disease nurseries. Reliable protocols have been developed for the use of low tunnels and spore inoculations under field conditions, including germplasm evaluations for the breeding program. Now that the screening methods are standardized, research into stemphylium disease resistance development can be accelerated.

The Agriculture Development Fund provides funding to institutions, companies and industry organizations to help them carry out research, development and value-added activities in the agriculture and agri-food sector. The results produce new knowledge, information and choices in technologies, techniques and varieties for farmers, ranchers, processors and input suppliers, to improve the competitiveness of Saskatchewan’s agricultural sector.

In 2017, the Saskatchewan Ministry of Agriculture and Agriculture and Agri-Food Canada committed \$11.1 million in new funding for 70 ADF research projects through Growing Forward 2, a federal-provincial-territorial initiative. ■



Some lentil plots were covered with low tunnels to create conducive environments and to control infection through targeted inoculations.



Stemphylium blight symptoms on lentil leaves.

FOR
MORE
INFO

Visit [Saskatchewan.ca](https://www.saskatchewan.ca) and search for Agriculture Research; then enter the report number 20100080 into the search function.

The importance of technology transfer to modern agriculture



Jeff Braidek, PhD
Research Specialist, Forages
Agriculture Research Branch

Within the context of the agricultural industry, and particularly from the perspective of those involved in primary production, the term ‘Tech Transfer’ has often meant the delivery or dissemination of the latest information on best management practices, or perhaps a presentation on the newest technological tools.

When we look through the literature on the topic, we find that knowledge dissemination, as described above, is now widely characterized under the terms ‘Knowledge Transfer’ or ‘Knowledge Translation and Transfer,’ defined as the transformation of knowledge into use through synthesis, exchange, dissemination, dialogue, collaboration and brokering among researchers and research users.

The term ‘Tech Transfer’ is becoming increasingly associated with the activities focused towards moving a concept along the research-development-commercialization process; ultimately leading to tangible products and technologies farmers can choose from the marketplace.

The transfer of knowledge from research into farming practice is a constant requirement for the industry to develop new ways of working and thinking. It is crucial to realizing the value of innovative research.

Saskatchewan Agriculture funds research projects that provide new knowledge in both the Knowledge Transfer and the Tech Transfer (product development) streams.

Ministry research funding has, by design, focused on applied research and development projects with the potential for on-farm application within a short time frame. Occasionally, Ministry programs will support more basic or theoretical research if there is the potential for a significant innovative advance and benefit to the industry.

Contrary to popular belief, publishing research results in an academic journal will not guarantee that those results are noticed or that someone will continue development into a tangible product that will reach the end user. Full development requires reaching out to and collaborating with development and commercial partners. Successful collaborations are formed among researchers across different universities or industries in order to advance the knowledge in a particular field or to further develop a technology.

The ultimate goal of research is to have it put to meaningful use in real-world settings. The knowledge translation section of Ministry grant applications, where the researcher describes how he/she will move towards that end, has become increasingly important in past years. ■



Visit the Agriculture Research page on www.saskatchewan.ca/agriculture.

Bringing every link in the livestock production chain under one roof



Henry Soita, PAg, PhD
Research Specialist, Livestock
Agriculture Research Branch

There are many goals for cattle production in Saskatchewan: reducing winter feeding costs, reducing the herd’s environmental footprint, maintaining a healthy herd and improving production efficiency. These goals are critical to the long-term sustainability of cattle production in Canada.

The Livestock and Forage Centre of Excellence (LFCE), currently under construction near Clavet, integrates the provincial and university livestock research facilities into one centre of excellence that will conduct life cycle research, beginning with reproductive physiology and cow-calf and pasture studies, to feedlot health and management, along with expanded teaching and outreach capacity.

The centre builds on the work of the University of Saskatchewan, bringing together the Western College of Veterinary Medicine, College of Agriculture and Bioresources, Health Sciences Centre, Global Institute for Water Security and graduate schools of Public Health and Public Policy, along with the Western Beef Development Centre to create a life sciences cluster. It links the science and field laboratories that model all aspects of raising livestock on the Canadian Prairies. The first phase of

construction began in 2016 with financial support from the federal and provincial governments through Growing Forward 2, the University of Saskatchewan and livestock industry associations.

Through an integrated multi-disciplinary approach to basic and applied science, the LFCE will strive to be a national and international leader in:

- Forage breeding and management, beef cattle physiology, genomics and nutrition, novel grazing management, forage varietal development, and feeding and management approaches.
- Reducing the environmental footprint of intensive and extensive cattle operations through monitoring, research and the development of facility and manure management practices.
- Herd health, disease prevention, animal welfare and public health and food safety management practices.
- Advanced reproductive technologies, genetic selection tools and the study of the interaction of genomics and nutrition.
- Economics, production efficiency and environmental sustainability to help the cattle industry produce safe, high quality, affordable beef for Canada and the world. ■



Visit the LFCE webpage at www.usask.ca/wcvm/lfce.

Producers and researchers keep the living soil healthy



Blake Weiseth, MSc, AAg
Research Specialist, Soil, Environment, Horticulture
and Alternative Crops, Agriculture Research Branch

“The nation that destroys its soil destroys itself.”
US president Franklin D. Roosevelt

Although some may consider that to be a bold statement, Roosevelt understood that humanity’s ability to produce food is strongly linked to the health of the soil. The importance of soil was recognized in 2015 when the United Nations declared it the International Year of the Soil. When surveying the array of crops being grown across the Saskatchewan landscape, it is easy to appreciate the diversity of life growing above ground. However, the unseen diversity below ground may go underappreciated.

Soil is a living resource. Consider that a single teaspoon of soil can contain up to one billion bacteria. Much is unknown about this vast source of life. In fact, a recent survey of microbial diversity of soil collected from Central Park in New York City revealed that only 16 per cent of the microbes that were found had been previously classified. To a large degree, a plant’s survival is dependent on the functions that these

microbes carry out in soil. As many are aware, 2016 was celebrated as International Year of Pulses, as declared by the United Nations. Pulse crops have the ability to meet the majority of their nitrogen needs through fixing atmospheric nitrogen. We must not neglect the fact that this process occurs due to a symbiotic relationship between the pulse crop and a specific bacteria in soil. No microbe, no nitrogen fixation.

Producers in Saskatchewan have long been wise stewards of the land, and their management practices have led to vast amounts of carbon being sequestered in the soil. Soil microbes also have a role to play in this process, by aiding in the breakdown of crop residue and eventually converting it into the stable organic substance known as humus. In a single year after crop residue is added to the soil, up to one-third of the carbon in the residue is sequestered in the soil in the form of stable organic compounds.

One of the targeted outcomes of the Saskatchewan Agriculture Development Fund (ADF) is enhancing the adaptive capacity of the province’s soil and ecosystem resources, which highlights the importance the Ministry has placed on soils research. This research has been made possible through Growing Forward 2, a federal-provincial-territorial initiative. ■



Visit www.saskatchewan.ca/agriculture and search for ‘agriculture research.’

New Agri-Food Innovation Centre to support Saskatchewan’s value-added sector



Harsha Marambe, PAg, PhD
Research Specialist, Processing and Value-Added
Agriculture Research Branch

The Saskatchewan Food Industry Development Centre (Food Centre) is expanding to meet the needs of the province’s growing agri-food industry. A new 35,000-square-foot facility, the Agri-Food Innovation Centre (AFIC), is being constructed on Schuyler Street in Saskatoon’s south-western industrial area. The AFIC will enhance the Food Centre’s current expertise in product and process development, interim processing, extrusion technology, commercialization, training and market development, entrepreneurial support and research and development.

Since its inception in 1997 as a not-for-profit organization, the Food Centre has helped many producers, entrepreneurs, food processors and researchers in Saskatchewan and beyond add value to agricultural products and move their products from concept to commercialization. So far, the Food Centre has assisted more than 275 clients and has developed more than 750 products, of which half were introduced to the market and nearly three-quarters of those found success in the marketplace.

Currently, the Food Centre is housed at the University of Saskatchewan. After the new AFIC building opens its doors in early 2017, the pilot plant of the Food Centre will remain operational in the current location under federal inspection.

The new facility will have an extrusion line, drying capabilities and fermentation equipment, doubling or tripling the centre’s product development capacity and allowing more client service opportunities. It will house analytical labs, offices, a mini-pilot plant for product and process development, a commercial kitchen for incidental small- to



The new centre is scheduled to open in spring of 2017.

medium-scale enterprises, a commercial incubator for pulse and cereal processing and units to assist both food and non-food commercialization activities. AFIC will also have three incubation suites, ranging in size from 2,000 to 5,000 square feet, for food processing companies to lease. These suites will be suitable for start-up companies to operate their businesses within AFIC, which will facilitate technology transfer. The Food Centre offices and labs in the AFIC will open this month, whereas the other facilities will be operational by June 2017.

Through Growing Forward 2, the federal and provincial governments have committed \$9 million for the AFIC. Another federal department, Western Economic Diversification, also provided \$4.35 million. This exciting facility will bring new initiatives and opportunities for the agri-food industry and people of Saskatchewan. ■



Contact the Saskatchewan Food Industry Development Centre at 306-933-7555 or info@foodcentre.sk.ca.

“The Link” between animal and human welfare



Dr. LeeAnn Forsythe, DVM, MVetSc
Disease Surveillance Veterinarian
Livestock Branch

Many animal welfare cases involve not only distress in animals but also mental health conditions in humans, such as hoarding or underlying complex social problems. Underlying mental health conditions, social isolation and other challenges further complicate situations involving large numbers of animals. These situations can be very difficult to manage and resolve without employing a “One Welfare” collaborative, interagency approach involving government social service agencies, community-based organizations, and the livestock industry.

The human-animal bond is the relationship between people and animals that influences the psychological and physiological state of each other. It is the human-animal bond that makes animal-assisted therapies effective, for example.

A “One Welfare” approach intersects human and animal welfare to address complex issues ranging from animal hoarding to on-farm animal neglect issues that relate to socioeconomic conditions, aging and mental health. Child welfare officers, animal care and enforcement professionals, domestic violence and adult protection services need to coordinate their efforts using a “One Welfare” approach. Through collaboration, agencies provide a more effective approach to breaking the cycles of violence and protecting all vulnerable members of the community.

“The Link” is where child maltreatment, domestic violence, elder abuse and animal cruelty intersect. Acts of cruelty against animals can be a predictor of other forms of family and community violence. Research has shown the relationship between a childhood history of animal cruelty and patterns of chronic interpersonal aggression. Animals become victims in the battles of power and control that typically mark domestic violence.

According to Phil Arkow, Coordinator of the National Link Coalition, “When animals are abused, people are at risk. When people are abused, animals are at risk.”

The National Link Coalition is an informal, multidisciplinary, network of individuals and organizations in the human services and animal welfare fields who address the intersection between animal abuse, domestic violence, child maltreatment and elder abuse through research, public policy, programming and community awareness. Their belief is that human and animal wellbeing are intertwined and that the prevention of family and community violence can best be achieved through partnerships representing multi-species perspectives. ■



Visit the National Link Coalition website at www.nationallinkcoalition.org.

Have a say in Canada’s new plant and animal health strategy



Wendy Wilkins, DVM, PhD
Disease Surveillance Veterinarian
Livestock Branch

Keeping plants and animals healthy is critical to the long-term success and sustainability of Canada’s agricultural industry. Safeguarding plant and animal health also protects the environment and contributes significantly to food safety and food security. The world around us is changing rapidly, and so are the threats to the agricultural industry. New challenges have emerged. New diseases have appeared—the porcine epidemic diarrhea (PED) virus is an example. Global travel and trade mean plant and animal pests and diseases have the opportunity to spread quickly and widely.

Saskatchewan producers have the chance to take part in the development of a national plant and animal health strategy to protect Canada’s plant and animal resources. Some work has already been done on the new strategy. Feedback from a discussion document and a national planning forum in the fall of 2016 is being used to create a draft plan that will be circulated this spring for further comment. This will be producers’ opportunity to have a say.

What does a national plant and animal health strategy look like? Each stakeholder group will have a different vision. A rancher may have different ideas than a grain farmer, and a government official may have a different vision than a university professor. All feedback on the draft

strategy will be considered, and the most common themes or “needs” will be identified as priority actions under the strategy.

When thinking about your priorities and needs relative to improving plant and animal health, decide what is most important to you and your industry and try to identify specific actions that will help reach the following goals:

- Defining roles and responsibilities at all levels;
- Identifying research priorities;
- Gathering information (i.e. disease surveillance);
- Improving collaboration;
- Increasing disease prevention and biosecurity;
- Improving national and international relationships;
- Stopping pests and diseases from entering Canada (border biosecurity); and
- Improving efficiency in plant and animal health issues.

Don’t miss the opportunity to have your say. Watch for announcements about the upcoming consultation on the plant and animal health strategy in your industry newsletters and emails. ■



Visit www.inspection.gc.ca and search for “Plant and Animal Health Strategy.”

Are you managing your pasture or your cattle?



Terry Kowalchuk PAg, MSc
Provincial Specialist, Forage Crops
Crops and Irrigation Branch

Native pasture management involves deciding how to utilize cattle to maintain a broad range of plant types that will make the grasslands resilient to changes in the environmental conditions.

Before European settlement, large bison herds intensively grazed areas and then moved on, not returning for extended periods of time. Over the millennia, native plant communities adapted to periodic grazing and rest.

Variations in animals’ grazing patterns are largely due to variations in topography, which affects soil moisture and microclimate. With the exception of saline areas, plant growth corresponds to moisture regimes, with lush growth in the depression areas and sparse growth on knolls.

When cattle continuously graze a confined area, they often return to previously grazed locations before the plants have recovered. This results in some areas being over-utilized and others untouched. If the animals have a preference for certain plants, they may repeatedly graze these same plants, weakening the roots of the preferred plants and giving other plants a competitive advantage. Over time, the less desirable species can become the dominant plants in the pasture.

Rotational grazing seeks to mimic the intensive grazing under which the plant community evolved. When done properly—matching stocking rates to productivity, allowing adequate recovery time and leaving sufficient carry-over to build litter—rotational grazing can improve overall pasture utilization while increasing the pasture’s resilience to climate variation.

Managing through drought is the biggest challenge to rotational grazing, so be prepared to make adjustments as grass production may vary from year to year. One key to managing drought is to increase litter cover during high-moisture years to prepare the pasture for the next drought. Pastures with adequate litter can remain productive longer during dry periods and can recover more quickly compared to over-grazed pastures. Over-grazing also reduces plant diversity and exposes the land to other risks such as invasive weeds and soil erosion.

Whole-season grazing lets the cattle choose where and when they graze, but rotational grazing lets the producer actively manage grazing to improve plant utilization, reduce grazing selectivity, maintain biodiversity and increase pasture resilience. ■



Call the Agriculture Knowledge Centre at 1-866-457-2377; or
Contact a Regional Forage Specialist at a nearby Saskatchewan
Agriculture Regional Office.

Are you ready to spring into forage seeding?



Stacey Spenst, BSA, PAg
Regional Forage Specialist, Kindersley
Regional Services Branch

Successful perennial forage establishment starts with good preparation and planning well before seeding occurs. Taking time this winter to plan your next forage stand will help to ensure successful establishment of your long-term investment.

Site selection should take into consideration many factors that will influence the establishment of your forage stand. Weed species and densities will influence the management plan required to ensure a weed-free seedbed. Previously applied herbicides may leave behind residues for multiple years that will effect germination and plant growth. Previously grown crops may also influence the probability of establishment—alfalfa seeded directly after an alfalfa stand creates an auto-toxic effect which will create problems for the newly seeded alfalfa trying to establish.

The intended use of the forage crop and time of use will influence the species chosen for seeding. Personal preferences such as tame versus native species, longevity requirements or bloat risk must also be considered when choosing species. After all factors have been considered, species can be chosen that can accommodate the limitations of the site. Soil texture, pH level, salinity and moisture availability will all determine which species will be able to grow on your site. After you have decided which species to include, it is also important to purchase certified, high quality, weed-free seed.

Seedbeds must be weed free before seeding as in-crop weed control can be difficult with forages since there are often multiple species present, usually including legumes and grasses. A firm seedbed is also required to ensure a uniform, shallow seeding depth is achieved with adequate seed-to-soil contact. Soil tests should be completed to determine if any fertility issues exist.

Take advantage of early spring moisture and do not leave planting your forages until the last minute. Legumes and grasses can germinate at temperatures as low as 5 C and 8 C, respectively. Seeding as early as possible will let plants use moisture from spring rains. The more time plants have to establish, the greater the likelihood they will be able to survive the winter. Spring seeding can be planned even further by determining proper seeding rates, required seed treatments (if any) and the equipment that will be used. ■



Healthy forage stands are beneficial to livestock production.



Contact a Regional Forage Specialist at a nearby Saskatchewan
Agriculture Regional Office; or
Call the Agricultural Knowledge Centre at 1-866-457-2377.

Feeding garlic powder to cows could be an option for fly control

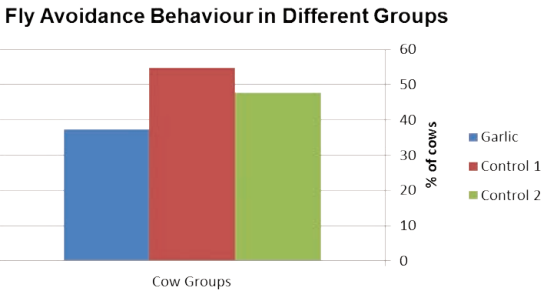
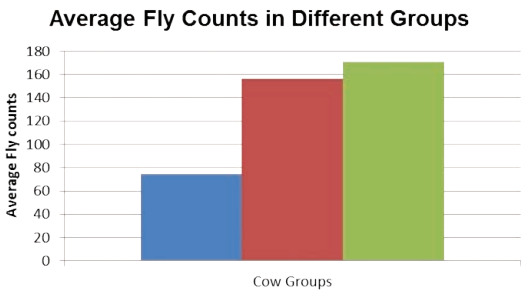


Obioha Durunna, PAg, PhD
Regional Livestock Specialist, Prince Albert
Regional Services Branch

Several fly control strategies exist, but an unusual new one—garlic powder—is piquing the interest of cattle producers. Last summer, many Saskatchewan cattle producers experienced large numbers of flies, which negatively affect cattle performance. Studies have shown that cattle productivity during the summer can be improved with an effective fly management strategy. Feeding garlic powder to cows to ward off flies is growing increasingly popular because it is easy, inexpensive and appears to work. However, anecdotal reports from producers or bloggers on its fly-repellent qualities and support for higher mineral intake are mixed, and there is very little scientific data on the subject.

To give producers some hard data on the topic, Saskatchewan Agriculture joined with cattle producers and Compass Minerals® to stage a pilot project at the Beacon Hill Community Pasture.

Three groups of cow-calf pairs were studied from May 25 to September 13, 2016. One group of 150 cow-calf pairs was fed trace mineral salt (TM-salt) to which garlic powder had been added as 2.1 per cent weight of the mix. The other two cow-calf groups, 115 (Control 1) and 150 (Control 2) pairs respectively, received TM-salt only. To determine average fly



counts and fly-avoidance behaviour in each group, we collected and analyzed digital video and pictures of lateral body sections of cows. Fly avoidance behaviours included bunching, tail-flicking, head-throwing, leg-stamping and side-licking.

Our results showed that feeding the garlic-salt mix did not affect expected salt intake. The garlic group had a lower average fly count (75 flies) than the control groups (156 and 171 flies, respectively). Similarly, there were fewer fly-avoidance behaviours in the garlic group than Control 1, but

there was no difference between garlic group and Control 2. There was no incidence of pink eye in any group, which could be associated with the low numbers of face flies. The cost of garlic powder (not including labour and other incidentals) in this study was \$1.46 per head for the

summer compared to the \$1.06-per-application cost using Cylence® (not including labour and other incidentals), with at least two applications being required over the season.

While very little is known about the implications of feeding high levels of garlic powder on fly count, animal health and meat/milk products, this demonstration showed a reduction in observed fly numbers. ■

FOR
MORE
INFO

Contact a Regional Livestock Specialist at a nearby Saskatchewan Agriculture Regional Office.

Is it time to re-think the deworming strategy in your herd?



Jessica Smith, PAg
Regional Livestock Specialist, Swift Current
Regional Services Branch

Deworming is a standard practice on most beef operations as it has benefits for both the herd’s health and the producer’s bottom line. However, there has been some research showing that parasites are developing resistance to certain endectocide products. A parasite is considered to be resistant to a product if that product does not reduce the parasite egg count by more than 90 per cent. Using a variety of deworming products is an effective method of preventing parasites from developing resistance to any one product.

Saskatchewan Agriculture’s regional livestock specialists are undertaking a project to demonstrate the efficacy of two different parasite control strategies—an ivermectin pour-on product and an ivermectin pour-on product augmented by a fenbendazole oral product.

The main objectives of the project are to demonstrate the economic and production benefits of adding a dewormer containing fenbendazole (Safe-Guard™ in this demonstration) in backgrounded cattle. The introduction of deworming products containing fenbendazole has given

producers a new tool with which to combat parasites’ resistance to macrocyclic lactone dewormers. It is hoped that this project will raise producers’ awareness of the increase in parasite resistance in Western Canada as well as demonstrate alternative deworming strategies.

Five backgrounding lots located around the province have been set up as demonstration locations for this project. Two treatment groups have been set up at each site. The control group of calves is being treated with ivermectin and the test group is being treated with ivermectin and fenbendazole. The initial parasite load of each group will be determined at the time of treatment by sending fecal samples to a lab for a fecal egg count. A second set of fecal samples will be taken two weeks after treatment and sent to the same lab to determine the effect of the treatments on the fecal egg count. This will help to show the effectiveness of each strategy. Animal weights will also be taken at treatment time and then again 110 days later. This will help determine any variance in weight gain and production between the two groups that may be due to parasite load.

Results for this project will be available in the spring. ■

FOR
MORE
INFO

Contact a Regional Livestock Specialist at a nearby Saskatchewan Agriculture Regional Office.

Helping producers meet the challenges of 2016

2016 was a challenging year for Saskatchewan’s producers. With an early spring, the 2016 crop started off well, but ongoing moisture created its fair share of challenges for growers. The quality of many crops was downgraded as a result, with durum and lentils experiencing the biggest issues. Although weather conditions improved in late October and early November, over one million acres of crop will still need to be harvested come spring.

We’re farmers too!

Saskatchewan Crop Insurance Corporation (SCIC) staff are closely connected to the agricultural industry. Many are farmers and ranchers themselves and understand the challenges producers face. SCIC staff know the importance of efficient claims processing for yield and quality losses. SCIC made changes to claim procedures, speeding up the inspection process by completing claim inspections on a crop-by-crop basis. This allowed claims to be paid before producers harvested their other crops. By taking this step, producers were able to access their payment quickly. Adjusters also went beyond their usual territories to help with inspections in other regions. With 21 customer service offices across the province, SCIC staff are always ready and willing to go the extra mile.

Custom-fit Insurance

As producers begin planning for the 2017 growing season, they are reminded each farm’s Crop Insurance can be customized to meet individual needs. It begins with individual coverage. This is specific to each farm using its own historical yields as the starting point. Producers with low-claim histories receive an experience discount and can get up to 50 per cent off their premiums if they have strong history of claim-free years. Once the individual coverage is determined, producers can customize their insurance by selecting coverage and pricing options. Coverage options of 50, 60, 70, or 80 per cent of a producer’s long-term individual yield are available.

Several options are also available for pricing the insured crops. The most common choice is the base price. The base price is set in January using market forecasting provided by Agriculture and Agri-Food Canada. Producers can also select the Low Price Option for each crop, which is set at 85 per cent of the base price and comes with a lower premium. Two additional price options are the Variable and In-Season Price Options, which provide insured prices later in the year. The Variable Price Option uses July price forecasts to set prices representative of current market conditions with premium values known up-front, giving premium certainty to producers. The In-Season Price Option uses actual crop price averages from September to February. The average from that six month period is used for the producer’s coverage. The premium is set up-front, ensuring producers are not caught with a premium hike, should crop prices rise.

SCIC also offers the Contract Price Option. The Contract Price Option allows customers to insure crops at the price at which it is contracted. The insured price is an average of the producer’s contract price and SCIC’s base price based on the amount of crop contracted and the production guarantee. This blended price will be used to calculate the coverage and premium for all acres of the insured crop, including those not contracted. The insured price does not guarantee market price. SCIC covers both commercial and organic crops under the Contract Price Option, including flax, lentils, field peas and mustard.

Additional Features

Through the multi-peril program, producers have access to additional features. The Unseeded Acreage Feature ensures producers are protected should they be unable to seed normally seeded land due to excessive spring moisture. An Establishment Benefit is also included. This provides compensation should a producer have a crop that fails to establish or suffers significant damage due to an insurable cause. This is designed to help cover the cost of reseeding that crop.

With Crop Insurance, producers also have access to CropConnect, SCIC’s digital platform for the Crop Insurance Program. CropConnect gives customers the flexibility of providing program information online from a home computer or mobile device. They can enter insurance selections, estimate costs with the insurance calculator, add or delete crops, select options and select the level of coverage. In addition to selecting coverage needs, completing Seeded Acreage Reports, Production Declarations or filing a post-harvest claim can also be conducted online.

As part of the Crop Insurance Program, producers are covered for losses in yield and crop quality. A designated grade has been established for each crop based on a historical average grade. When the grade of harvested production is below the designated grade due to an insurable peril, that production is reduced by a quality factor and is used in calculating the claim. Quality factors are determined by comparing the price of the harvested grade to the price of the designated grade. Post harvest selling prices, established through a survey of Saskatchewan grain companies and processors, are used to calculate quality factors.

Additional Options

Through SCIC’s Forage Insurance, producers can receive individual coverage for their hay, alfalfa and/or greenfeed crops. Grazing acres can be insured using the Forage Rainfall Insurance Program against a lack of precipitation. Farmers who grow corn for forage can use the Corn Heat Unit program to protect against the impact of a cold growing year on their production.

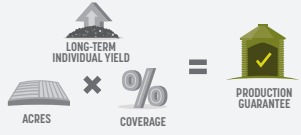




History

With over 55 years in the business, SCIC has evolved with Saskatchewan’s agricultural industry. By listening to producers’ needs and working with industry, SCIC continues to adapt its programs and services to meet the needs of today’s farmers and ranchers. As producers consider risk management options for 2017, they are encouraged to visit their local Crop Insurance office to review the program and ensure their coverage selections meet their needs.

The deadline for enrolling in the 2017 Crop Insurance Program is March 31. ■

QUALITY COVERAGE

How SCIC will calculate your quality payment

<p>★ Contact SCIC</p> <p>Contact SCIC with your production information by November 15 so we can help you. Visit saskcropinsurance.com to file or call 1-888-935-0000.</p>	Example:
<p>1 Production Guarantee</p> <p>We cover you for a percentage of your long-term individual yield at harvest.</p> <p></p>	<p>100 ac × 25 bu/ac × 70% = 1750 bu</p>
<p>2 Quality Factor</p> <p>We divide the value of the harvested production by the base grade price for the insured crop to determine the quality factor.</p> <p></p>	<p>\$2.50/bu ÷ \$5.00/bu = 0.50</p>
<p>3 Impact of Quality Loss</p> <p>We base the adjustment of your production on your quality factor.</p> <p></p>	<p>1000 bu × 0.50 = 500 bu</p>
<p>4 Eligible Compensation</p> <p>You claim the difference between your production guarantee and actual harvested production.</p> <p></p>	<p>1750 bu - 500 bu = 1250 bu</p>
<p>5 Payment</p> <p>We will cover you for eligible crop loss</p> <p></p>	<p>1250 bu × \$5.50/bu = \$6,875.00</p>

Big/Agri data for better farm business management



Shankar Das, PAg, PhD
Regional Farm Business Management Specialist, Outlook
Regional Services Branch

The old saying “you can’t manage what you don’t measure” is a hallmark in cost/benefit analysis and is a crucial aspect in farm business management. Throughout the history of farming, however, inexpensive, robust and accurate measurements of cost of production were not possible on a regular basis. Now, technologies are available to accurately and economically measure those costs to help producers make better management decisions. For example, modern farm machinery (e.g. combines) has built-in technology to collect data that farm managers can use to improve crop and livestock production and pasture management.

Farmers have always used whatever data was available to make their management decisions. For example, conventional soil fertility data is used to know more about the fertility status of a soil for judicious fertilizer applications. The use of variable rate technology is a refinement to the existing fertilizer application management. However, these conventional data tools are not the only options. Big Data, a relatively new data collection, analysis and management tool, is being promoted by the big data firms. There are a growing number of data firms that now offer agr-data solutions to producers.

There are many sources of farm data: soil (e.g. soil maps), seeding (e.g. seed depth, population density), emergence, scouting, weather, harvest and marketing, etc. The underlying assumption behind Big Data is that more—as well as more precise—information improves efficiency, productivity and profitability, and enhances competitiveness. Data is a renewable resource that a producer can use to make better farm management decisions.

As production agriculture is a function of the interactions between biology, the environment and management, evidence is starting to show that big/agri data can influence these variables to reduce cost, optimize production, minimize environmental impact and maintain a food traceability trend that will improve efficiency and provide the transparency that more and more consumers demand.

Nevertheless, most farmers take time to get to know new technologies before they adopt them, and Big Data is no exception. Also, questions remain such as who owns the data, who profits off the analytics and how secure the services are. Yet, in a low-margin, high-risk business like farming, Big Data, technology and digital agriculture can have a significant effect on profitability. ■



Contact a Regional Farm Business Management Specialist at a nearby Saskatchewan Agriculture Regional Office.

An ounce of prevention



Terri Kerbrat
Community Relations Coordinator
Saskatchewan Safety Council

During spring and fall—busy times on the farm—it is tempting to take time-saving shortcuts, but shortcuts don’t always pay off. It is estimated that preventable injuries cost the Saskatchewan economy \$1.1 billion annually. Those costs, however, pale in comparison to the cost in pain and suffering to the injured, their families, their friends and their communities.

Benjamin Franklin is generally credited with saying that that an ounce of prevention is worth a pound of cure, and those in safety know that education goes a long way when it comes to preventing injuries and fatalities. To this end, the Saskatchewan Safety Council has launched the Online Agriculture Training System, or OATS, a general orientation for young or new farm workers.

The online format provides interactive scenarios, visuals and audio and text-based learning in a self-paced environment. Users can save their progress and log in from multiple locations, allowing them flexibility in completing the program. Thanks to the generous support of the council’s partners, the program is completely free.

Since 1955, the Saskatchewan Safety Council, a non-profit registered charity, has been dedicated to the prevention of injury. Funded through donations, membership contributions, sponsorships, grants, and the distribution of its safety programs, the revenues generated are invested within the province to further promote safety.

The council’s roots in agriculture safety can be traced to 1962 with the formation of the Farm Division. Much of the early work was to track, and report on, agriculture-related injuries and deaths. Since its inception, the Farm Division has taken the lead in several farm safety groups and initiatives:

- Created the Farm Safety Video Program which was expanded to include print and online resources;



- Developed and delivered the Farm Safety Workshops for Women; Farm Safety for the Family; Farm Safety School Presentations; and the Pesticide Safety workshop; and
- Implemented the Farm Safety Team (renamed the Power PAC Farm Safety Team), a group of teens and disabled farmers trained to deliver presentations. In the first year, the team reached 8,000 students. By the time the program wrapped up, three “Safety on the Farm” videos had been produced and more than 1,500 presentations on safety and injury prevention had reached more than 400,000 students in more than 300 schools. ■



Visit www.sasksafety.org.

Canada's Agriculture Day: join the celebration



Candace Hill
Manager, Agriculture More Than Ever
Farm Credit Canada

Agriculture is a vibrant, forward-thinking industry that feeds the world. This is something to be proud of and celebrate. Everyone involved in agriculture will have the opportunity to do just that during Canada's Agriculture Day on February 16.

Launched in June in Ottawa by Farm & Food Care Canada, Agriculture More Than Ever and Agriculture in the Classroom, Canada's Agriculture Day is a time to come together as an industry to celebrate the business of agriculture and engage in positive dialogue about agriculture and food. It's a time to showcase all of the amazing things happening in the industry and help consumers draw a closer connection to where their food comes from and the people who produce it.

The theme of the day is "Let's celebrate the food we love," and there are many ways to get involved and celebrate the day. Whether you're interested in participating on social media, taking a personal ag challenge or getting your community involved, there are plenty of ways to share your love of Canadian agriculture and food. It can be as small or as big as your imagination can make it.



Here are a few ideas to get you started:

- Challenge yourself to make a meal for your family with all Canadian foods.
- Snap a pic of what you're doing and share it on social media—include hashtags like #CdnAgDay, #IWorkInAg, #FarmLife and #OurFoodHasAStory.
- Host a potluck and encourage your friends to use all Canadian ingredients. Tweet about it with #CdnAgDay as well as hashtags, like #LoveYourFood and #Foodie, that reach a non-ag audience.
- Visit **AgMoreThanEver.ca** and take an advocate challenge.
- Give back to the community by volunteering at your local food bank or soup kitchen.

Visit **AgDay.ca** for more ideas to celebrate Canada's Agriculture Day and downloadable resources to help you out. Be sure to visit the Events page for a list of activities happening in your community—many industry associations, businesses and Ag More Than Ever partners are hosting their own Canada's Agriculture Day events that are open to the public. It's all about celebrating Canadian agriculture and food in engaging, fun and respectful ways.

Saskatchewan Agriculture is proud to support Canada's Agriculture Day and encourages everyone involved in the industry to get involved and celebrate the day in their own way. ■



Visit AgDay.ca.

Online answers to the public's concerns about agriculture



Shelley Jones
Manager, Agriculture Awareness Unit
Regional Services Branch

In the face of public concerns about agriculture and food production, producers often do not know where to turn to find scientific research. When asked questions about the safety or sustainability of modern agriculture, the agricultural industry has a responsibility to respond with, or at least refer to, sound science.

The Genetic Literacy Project (GLP) at www.geneticliteracyproject.org is a good source of information when it comes to the benefits and potential pitfalls genetics offer agriculture. Funded by independent foundations and charities, the GLP provides science-based information on genes, genetic engineering, biotechnology, genetically modified organisms (GMOs) and synthetic biology—tools that are often misunderstood but which have facilitated the advancement of modern agriculture. Producers can also subscribe to the GLP newsletter for regular updates or to review their extensive list of external resources.

One of those external resources is GMOAnswers at www.gmoanswers.com. Here, anyone can enter a question and get an easy-to-understand answer from more than 100 leading experts from academia, industry and member companies. Their studies and articles section includes contributions on current media stories and resources to demystify the science behind GMOs.

Biology Fortified at www.biofortified.org is a non-profit organization which has a mission is to enhance public discussion of biotechnology and other issues in food and agriculture through science-based resources and outreach. Their articles and blogs, written by scientists and science communicators, are easy to understand. The 'Resources' section includes links to projects, infographics and the GENetic Engineering Risk Atlas (GENERA), a searchable data base of peer-reviewed research.

The Canadian Centre for Food Integrity has recently been established in Canada. As an affiliate of www.foodintegrity.org, it provides research and resources to create a better understanding of public opinions about agriculture, and how the industry should address them. The centre has a number of programs, including the www.bestfoodfacts.org site where over 200 food system experts provide answers to the questions consumers are asking about food.

Research is vital to all aspects of agriculture and to the industry's continued growth and prosperity. Saskatchewan's contribution to a safe, abundant, affordable and sustainable food supply will not happen without continued investment in beneficial technologies and practices. To maintain the public's trust in and continued support for agricultural technology, the industry needs to communicate the benefits of those technologies and practices to consumers. ■



Contact the Agriculture Awareness Unit at 306-787-9773.

Events calendar

Date	Event	Location	Phone	Internet
February 1, 2017	Producers can begin purchasing calf coverage under the Western Livestock Price Insurance Program	Saskatchewan	1-888-935-0000	www.saskcropinsurance.com
February 7 – 9, 2017	Western Canada Feedlot Management School	Heritage Inn Moose Jaw, SK	306-969-2226	www.saskcattle.com
February 11, 2017	Saskatchewan Goat Breeders Association AGM and Conference	Best Western Regina, SK	306-692-3229	www.saskgoatbreeders.com
February 28 – March 2, 2017	Western Canadian Wheat Growers Association 47th Annual Convention	Sheraton Cavalier Hotel Saskatoon, SK	306-955-0356	wheatgrowers.ca/events/annual-convention
March 2 – 3, 2017	2nd Annual Celebrating Rural Ranching Women Event	Elks Hall, Maple Creek, SK	1-866-457-2377	www.saskatchewan.ca
March 6, 2017	Advancing Women Conference	Hyatt Regency Calgary, AB	403-686-8407	www.advancingwomenconference.ca

Share your food story for \$4,000



Taylor Pepler
Agriculture Awareness Intern
Regional Services Branch

You’ve probably heard that sharing your food stories is important, but did you know that young people who do so could be rewarded with a grand-prize scholarship valued at \$4,000, or one of three \$2,000 scholarships?

Saskatchewan Agriculture’s Agriculture Student Scholarship Program encourages young leaders to share their passion for Saskatchewan agriculture by submitting a three-minute creative video or writing a well-researched 1,000 word essay aligned with the theme ‘Our Food Has a Story.’

Last year’s grand-prize winner was Sheldon Daniel from Avonlea. His video highlighted how creative and innovative technological advancements can help the industry meet the needs of a growing global population. Daniel noted that the Ministry’s scholarship is the one that he values most and not just because of its significant monetary value. He values it because he believes that it is important that we all take the time to promote, and tell the story of, Saskatchewan agriculture.

Sheldon shared these tips for students interested in applying:

1. Apply for the Agriculture Student Scholarship for financial support. “The \$4,000 that was given [to me] by the Ministry made a big impact on relieving my financial burden. It makes school that much easier when you don’t always have to worry about money.”
2. Be sure to tell your food story. “It is up to the people who are actually in the agricultural sector to show their food is safe and that they work hard to ensure that.”
3. “When it comes to your food story, think about your personal connection to agriculture. Think about how you are making a difference and why doing what you do contributes to finding solutions in global food security.”

To qualify, applicants must be Saskatchewan Grade 12 students or recent high school graduates who are pursuing an agriculture-related post-secondary education. Applications will be accepted until March 1, 2017. ■



Visit www.saskatchewan.ca/thinkAG.

MANAGING CHANGE ON THE MULTI-GENERATION FARM WORKSHOPS

Kindersley – March 21 | Humboldt – March 22 | Tisdale – March 23

Many Saskatchewan farmers will eventually want to transfer farming responsibilities and farm assets to the next generation. Sometimes this seems like a monumental task. There are so many things to consider that you just don’t know where to start or where it all will end. This workshop will help you organize your thoughts and actions to ensure a successful transition. You will learn about useful strategies, tools and structures to make this change while keeping the farm viable, your retirement comfortable and your family on good terms.

The keynote speaker is Jeanne Martinson, a best-selling Canadian author and presenter on generational differences, who will focus on improving communication between the generations. Understanding the different generations’ leadership styles, information needs and expectations can contribute to a more cohesive and effective farm management team. Jeanne’s presentation will explore these issues and offer strategies for improvement. ■

FOR MORE INFORMATION: Call Brenda Stefanson, Regional Farm Business Management Specialist, at 306-946-3214 in Watrous or email brenda.stefanson@gov.sk.ca.

