

Member of



## Grain, Grass & Growth December, 2014

www.chinookappliedresearch.ca





Wishing you peace, joy and all the best the holiday has to offer. May this incredible time of giving and spending time with family bring you joy that lasts throughout the year.

Merry Christmas!

## **CARA Welcomes New Agronomist**

In November CARA welcomed their newest Program Agronomist, Jesse Williams, to the team. Jesse will be working with both the forage & livestock and crops programs with an emphasis on the Environmental Farm Plan and Growing Forward 2 initiatives. She will be available in both the Oyen CARA office as well as the Hanna Special Areas District office a few days per week to accommodate a wider range of producers. You can reach Jesse via email at <a href="mailto:cara-jw@telus.net">cara-jw@telus.net</a>.

While Jesse is originally from Southern Alberta, growing up on a small ranch outside of Brooks, AB, she is no stranger to the Special Areas. In 2011 she married Clayton Williams of Hanna, whose family has proudly graced the Cessford, Hanna & Craigmyle areas for generations. Jesse's strong passion for agriculture

stems from her grandparents' purebred Gelbvieh operation in Cadillac, SK and being a long time 4-H member in both the Brooks & Area Beef and Bow River Riders Horse 4-H Clubs for 9 years. Here she gained a healthy respect for cattle and a hunger to be a positive advocate for the agriculture industry and ranching way of life.

After pursuing a Bachelor's of Science Degree in Botany from the University of Calgary in 2012, Jesse and her husband Clay settled on an acreage near Strathmore, AB, where Jesse worked for Dow AgroSciences as a Solutions Center sales agronomist for two years, learning the ins and outs of crop production & pesticides. Jesse and her husband Clay have now relocated to the Bullpound Flat, south of Hanna and are excited to expand their commercial cow herd of red Angus X Simmentals through their operation-Whiskey Creek Ranches.



I am delighted to be part of a rural oriented organization such as CARA, that is devoted to serving ranchers and farmers with the innovations and research they need to move agriculture as an industry, forward. It is a pleasure to move into such a welcoming community and I look forward to building lasting relationships with producers in the area. Please stop by, call or email

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#### An Overabundance of Choice

Harry Brooks, ARD Specialist

New crop varieties and variety tables will soon be released. It makes for interesting reading but how do you use these tables for selecting your crop? How much of the information on these tables is significant to you, the producer?

As far a choice goes, you have a lot of varieties available to choose from with more being registered yearly. How can you choose the variety that will do the best on your land? There is a lot of information on these tables that needs to be analyzed. The tables are structured with yield potential as the main criteria. This takes into account soil conditions, moisture, as well as individual management. Varieties that perform well under both high and low yield categories have greater yield stability and consistency of performance, and thusly, less risk.

Most producers look for the highest yielding variety. However, you should keep in mind what is a significant difference in yield. If the variety you choose has a 4% increase in yield over the check variety, it may not necessarily be more productive. This relates to the number of trials conducted with that variety. The more tests a variety has, the greater the reliability you can have in the information. As a rule of thumb, a cereal variety needs at least a 6 – 8% yield difference over the check variety to give a consistent improved



yield. In oilseeds, this difference needs to be greater than 12 - 15%.

One of the first factors you need to consider is the ultimate use of the crop. Is it for feed, forage or seed? If its barley, is it for green feed, feed grain or malt? Once you've selected the crop type look at other management factors. What is your current crop rotation? Are you putting barley on barley? If so, your risk of leaf and plant diseases increases. Look at the plant's resistance to common root and

leaf diseases. Is lodging a problem? You should also be selecting for shorter crops or stronger straw. If you are in the irrigated parts of the province, you might select a semi-dwarf variety.

Seed size needs to be considered as well. In peas, seed size has a very significant effect on seed costs. When seeding, you are trying to get a specific plant population per square foot. Seed size will greatly affect the pounds of seed needed per acre. On top of that you also have to look at the germination rate and seed vigour.

Maturity is an issue, especially in marginal cropping areas or when seeding is delayed. The maturity rating is only an approximation and can only be used within a crop and region, not between crops. It is dependent on the kind of year and the area it is grown. Although the Peace region has a shorter growing season than Southern Alberta, this is compensated somewhat by the longer summer days in the Peace.

Also remember, once a variety is registered, it usually takes a couple of years before sufficient seed is available for general farm sales. Think of the variety tables as a good tool, not an infallible predictor of production. Experience is still the best measure of which varieties will produce best on your farm. It comes down to personal experience with a variety to see how well it works under your situation.

#### **Environmental Farm Plan: There is Always Room to Improve**

What is it? An Environmental Farm Plan (EFP) is a process completed by agriculture producers to identify and address environmental risks and opportunities specific to your farming operation. You are probably very aware that consumers are becoming more and more interested in where their food comes from, how it is produced and whether or not it is done so in an environmentally sustainable manner. The EFP process will allow you to evaluate your farm's strengths and weaknesses, empowering you to make changes that will benefit your operation farm from both an economical and sustainability perspective.

How do I complete it? There are now two ways to complete your farm's EFPonline or in a hard-copy binder. CARA's newest agronomist, Jesse Williams, is available to work with you to explain the process, answer any questions you may have and help create a realistic plan for improvements to your farm.

#### BONUS

Once you have completed your EFP you will not only have an environmentally sustainable plan to work from, but you will have comprehensive farm safety measures, an in-depth understanding and inventory of your land and farmstead sites, as well as an evolving operational overview to pass on to successive generations or new farm

employees. In addition, once you receive your letter of completion you are eligible for certain Growing Forward 2 programs, enabling you to invest in equipment and procedures at a reduced cost!

For more information on EFP's contact Jesse at <u>cara-jw@telus.net</u> or visit <u>www.albertaefp.com</u>.



### Cattlemen's Young Leaders: Applications Open

A national youth initiative of the CCA, the CYL Program provides industry-specific training and mentorship opportunities to young producers. CYL participants have the opportunity to explore a potential career choice or involvement with a provincial/national producer organization, while gaining the expertise and business acumen necessary to sustain the cattle industry into the future.

Each year 16 CYLs between the ages of 18 and 35 are accepted into the program and then paired with industry leaders to begin their mentorship. CYLs have access to a \$2000 budget to spend on expenses generated by attending meetings such as the CCA Semi-Annual Meeting, Beef Value Chain Round Table, and various industry events as well as meeting with their mentor. CYL presents its participants with the opportunity to travel internationally. CYL has sent delegates to events such as ILC-USA, Canada-US Roundtable discussions, National Cattlemen's Beef Association Annual Convention, and Five Nations Beef Alliance Conference. There is a strong

advocacy component to the program with CYLs working at educational booths at events like the Toronto Royal Winter Fair and Calgary Stampede. The CYLs also have the opportunity to participate in training workshops for business skill development, board governance and succession planning.

We are now accepting applications for CYL 2015 until January 21, 2015! These applications as well as additional information on the program are available on our website at

www.cattlemensyoungleaders.com.

For more information contact:

#### **Jolene Noble**

Canadian Cattlemen's Association CYL Program Coordinator 180, 6815-8th street, Calgary, Alberta

O: 1-403-275-8558 C: 1-780-887-9446 F: 1-403-274-5686 noblej@cattle.ca

## Agronomy Update 2015



January 20 & 21, 2015

Lethbridge Lodge Hotel Lethbridge, Alberta

To register please phone the Registration Desk at:

1-800-387-6030



## **Growing Forward 2 Update**

Due to the overwhelming response to some of the most popular Growing Forward 2 programs there have recently been some significant changes for the 2014/15 fiscal year.

#### The following programs are no longer accepting applications:

Animal Health Biosecurity for Producers Food Safety Systems Delivery Agent Livestock Welfare for Processors Livestock Welfare for Producers

On- Farm Energy Management

On- Farm Stewardship Program projects including:

Portable Shelters & Windbreaks Improved Manure Storage Fuel Storage Chemical Handling Systems Auto Boom Height

Low-drift Nozzles (with the exception of pulse-width modulation systems)

If you submitted an application for the above mentioned On-Farm Stewardship projects post-marked before November 28<sup>th</sup>, 2014 you can expect a letter in the mail soon recognizing your submission. This letter is *not* an approval, however if you are approved in the future, any project costs incurred after the dated letter are eligible. Please be aware that starting the project before receiving a letter of acceptance is at the producers own risk.

The above programs may or may not become available in the next fiscal year (beginning April 1, 2015) so please keep in contact with CARA and/or visit <a href="https://www.growingforward.alberta.ca">www.growingforward.alberta.ca</a> for updates.

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## Use the Winter to Train for Safety

Kendra Lubek ARD Farm Safety Coordinator

It's the time of year when some farmers take a step back from their hectic physical farm work and make assessments for the future. If you and your family or work crew made it through the year with no injuries, you either had safety in mind, or you were lucky. However, farming is not the occupation to take luck for granted. Be pro-active and use this winter to ensure next season's farm work is injury-and incident-free.

#### **Training**

Now is the time to plan for training during the winter months. Some courses you might consider taking:

**First Aid.** This is a must for any farm. It is advisable for all workers to have some sort of first aid training, whether it be first aid on the farm, emergency first aid, standard first aid or higher. There are a few options to access training. St. John's Ambulance has a great program and they are available toll free at 1-800-665-7114.

Equipment operator's training. This is particularly important for new and young farm workers. Equipment such as skid steers, loaders, and tractors are powerful and have the potential to severely injure workers. Look for courses in your area.

Chemical-related courses. Farmers working with pesticides, ammonia and in the presence of sour gas will benefit from courses such as pesticide applicators, Workplace Hazardous Materials Information System (WHMIS) or H2S Alive.

Personal Protective Equipment (PPE) training. For those handling chemicals, respirator training will be beneficial. For anyone working from heights, a fall protection course is recommended.

Livestock safety. Virtually any course involving livestock includes aspects of safety. For those using horses to tend cattle, perhaps a horsemanship or ranch hand course will help. Others to consider are stockman courses and horse/livestock hauling.

Machinery maintenance. Well-cared for machinery and equipment means increased safety during use. Take a quick course in how to care for and properly maintain your equipment to decrease the risk of down-time due to machinery failure.

Fire extinguisher training. There are many types of fire extinguishers, and they can be intimidating to operate. It is a good idea to take this training before you need it.

Safety systems training. At the basic level, this type of training course will teach participants the value of a safety program and how to get started setting one up. There are many courses aimed at different industries; farmers should look for a generic course provided by a private consultant or a reputable post-secondary institution.

#### Training plan for your operation

Pull out your farm safety plan (or develop one if you haven't already) and in it decide what kind of training program your family members and employees should take. This can be formal training such as mentioned, or simply going over the plan you have in place along with any farm workplace protocols.

Take into consideration protocols for:

- Hazard assessment and control
- Record keeping
- Communications
- Emergency situations

Planning now for a safe and prosperous year ahead is a sound investment for the future. For more information visit the Alberta Farm Safety Program website at agriculture.alberta.ca/farmsafety.





#### CARA Celebrates 35 Years

Recognition of the completion of 35 years of programming within our agricultural community and the local support which made it all happen will take place Thursday, February 5th, 2015. Several producers from the Special Areas and MD of Acadia initiated CARA's program of applied research, demonstration and extension projects back in 1979. They felt agricultural research at the time was not being tested under the semi-arid growing conditions and poor soils of this area, so was not of value for east central producers. The program has evolved over the years to reflect issues farmers and ranchers face within their operations.

CARA's program is carried out each year thanks to tremendous support from a number of local resources. Those contributing to our program include our project cooperators, who give up field space to host project sites as well as

equipment and manpower; the Special Areas Board, MD of Acadia and our 4 Ag Service Boards who contribute funding, use of equipment, expertise and sponsorship; Ag Societies who provide funding and partner in a number of extension activities and local agribusinesses who contribute inputs, expertise and sponsorship.

To celebrate 35 years and to show our appreciation for this support, CARA will hold a Cooperator Appreciation Night at the Cereal Community Hall on February 5th. Those attending will be treated to a hot beef supper courtesy of the East Sounding Creek 4H Beef Club. We are also excited to welcome guest speaker Leona Dargis, Young Leader in Agriculture, Nuffield Scholar, globetrotter and spontaneous adventurist, who will share her story of turning tragedy into triumph.

## Not All Sainfoin is Created Equal

Linda Hunt, P.Ag Former Forage Specialist Ag-Info Center

The development and release of the new AC Mountainview sainfoin has caused a bit of a stir in the forage world. The renewed interest in sainfoin coupled with an apparent increase in forage establishment has led to higher than expected sainfoin sales. Some retailers have even begun to import sainfoin seed from the U.S., but not all sainfoin has been created equal and it is important to make sure that you know what you are buying.

Sainfoin is a plant that was heavily researched in the 60s and 70s as a non-bloat alternative to alfalfa that could be grown in the drier, alkaline areas of the North American Prairies. The earliest plants were imported from Russia and other parts of Europe, and used to develop local varieties. Melrose and Nova were the two varieties developed and registered in Canada, and most of the Canadian grown seed in the market today is assumed to come from these varieties.

Soon after their introduction into the marketplace, sainfoin quickly fell into the background and out of favor. Up to this point sainfoin was selected for biomass production and winter hardiness. The result was the development of varieties that had excellent production when grown in a pure stand for hay or once over fall grazing, but were not suitable for a multi cut hay or grazing systems. Forage growers found that although sainfoin was palatable, it just did not persist more than one or two growing seasons in mixed stands and so was not worth the high cost of seed.

Research on sainfoin has declined in North America with dwindling market demand and gradually Canadian growers stopped producing pedigreed seed. There are a few seed growers in the U.S. that are producing pedigreed seed, however none of their varieties are registered with the Canadian Food Inspection Agency so none of their pedigreed seed is being sold in Canada. As a result only Common sainfoin seed is available in Canada. That means that any sainfoin currently being purchased has a low requirement for weed cleanliness and germination, and may not be suitable for the Canadian climate.

The new AC Mountainview is a different kind of sainfoin and unique in North America. This new variety was selected from populations being grown with alfalfa under a multi cut system. The resulting variety has excellent regrowth and the potential to persist in stands of alfalfa. The idea is that the tannins in the sainfoin when seeded in the right proportion with the alfalfa will buffer the bloat risk of the alfalfa and allow producers to safely graze a high quality, highly productive forage stand. Early research in this intensive grazing system is showing promise.



Currently Northstar Seeds owns the rights to market the AC Mountainview sainfoin, and will begin multiplying the seed as soon as they can produce certified seed. It was hoped to have product to market for the 2014 growing season, however hail damage to the Breeder seed fields has slowed down production considerably. The new outlook is for pedigreed seed to be available in 2016.

## 2014 Western Canadian Grazing Conference A Success

From December 9-11th, 2014 CARA and other forage and research associations with the support of the Agriculture Research and Extension Council of Alberta (ARECA) and Alberta Agriculture hosted the biennial Western Canadian Grazing Conference in Edmonton at the Radisson Hotel.

Over 275 attendees travelled from across the prairies, from BC to Manitoba to share in the wealth of knowledge this conference brings to its producers.

The conference was titled *Going Beyond Sustainability* and as organizational cochair Nora Paulovich put it, "Producers desire to be more than *just* sustainable. They want to improve the health of their soils, increase the productivity of their pastures, increase biodiversity and improve their profit margins and their environment".

With the sustainability focus on their minds, this year's conference emphasized creating soil, increasing carbon capture, improving soil-water-air quality and addressing the profitability and quality of life that is needed for young people to choose to be part of the beef industry in the future.

The Special Areas contributed their expertise by having numerous local producers speak to conference goers. CARA's own Dianne Westerlund shared information on the Commission for Environmental Cooperation that is committed to improving environmental protection issues and currently has a ranch pilot project supporting beneficial management projects to link beef production with conservation of native rangeland. Marj Veno of Richdale expressed her concerns for the invasive weed Absinth Wormwood and her

successes with pasture control. Matthew Gould of Consort demonstrated how grazing large square bales contributes to his operation's bottom line and improves soil fertility. And Spondin's Dylan Biggs shared his low stress cattle handling methods with an eager audience. Another popular speaker included certified educator of Holistic Management Joshua Dukart, from North Dakota presenting a new way of 'thinking regeneratively' when it comes to managing your operation. Dr. Dianne Knight gave participants an indepth view of legume nitrogen fixation, while Graeme Finn shared his successes rejuvenating pastures with a wide variety of legume crops.

For a copy of the proceedings with speaker summaries please contact CARA. The next Western Canadian Grazing Conference will be held in 2016. Page 6 Grain, Grass & Growth

## 'Bin' There, Checked That...

#### **Heating Up**

Just because there is snow on the ground doesn't mean farmers can sit back and relax (too much!). Keeping an eye on your grain bins is an extremely important task over the winter, but is all too often forgotten about.

You probably heard about the increase in canola spoilage over the last few months across the prairies. Heated grain can be caused by a variety of factors including a very hot harvest, high moisture when binning, green seed or high weed seed content. All of these situations lead to your seed heating up in the bin, which can be detrimental to your seed quality and germination, not to mention downright dangerous for your farm if combustion occurs.

Temperature sensing cables are an excellent source of information for your bins but not everyone has them. You can also check your bins by opening your hatch and taking a look around. Your grain should not smell musty, moldy or sour and should not have any grey or white crusting. If you do not have cables you can insert a metal rod into the core of the bin, wait 30 minutes and then check the rod for warmth upon removal. This method can give you some indication but it is important to remember that hotspots can develop anywhere in the bin and may be difficult to detect. Probe many different areas if using this method.

You should be able to probe the core of your bin without difficulty. If you meet resistance there may be a moldy crust forming inside your bin.

A tell-tale sign of grain spoiling is unexpected snowmelt off of bins. If you experience variation from bin to bin or the snow is melting faster than off other buildings, be sure to check your grain. You could have heat build up from spoilage.

Alberta Agriculture and Rural Development Specialist Harry Brook recommends that if grain was stored 'tough' (greater than 14.8% (feed barley), 14.5% (wheat), 14.0% (triticale and oats) moisture), then you should be checking your bins for spoilage every two weeks.

If you do detect grain heating, transferring the seed from one bin to another is

recommended. The Canola Council of Canada suggests transferring at least 1/3 of your canola from one bin to another is the most accurate way to check for spoilage. If detected, transferring the entire bin is best.

#### **Pesky Pests**

High moisture content upon binning can also lead to insect and mite infestations, on top of the mold. A moisture content of over 10% could contribute to development and reproduction of most grain pests.

One way to detect pests in your bins is to use sieves. A 4 meshes/cm sieve can be used for insects, while a 12meshes/cm sieve is ideal for mite detection. After sieving grain samples from throughout the bin (a probe may be useful here) hold the screenings over a slight heat source. If there are any insects or mite the heat will cause them to move and allow easier identification. Mites will require a magnifying glass to detect.

The two most important insects to be on the watch for in Canada are the Rusty Grain Beetle and the Red Flour Beetle, according to Alberta Agriculture.



Rusty Grain Beetle adult, photo courtesy of The Canadian Grains Commission.

Cryptolestes ferrugineus, also known as Rusty Grain Beetles, are one of the most common grain insects in Canada and have one of the highest rates of population growth for stored-product insects, with each female capable of laying 200-500 eggs. The larvae feed on germ and endosperm, however their damage is not easily identified with the naked eye. Therefore it is very important to check your bins with the above sieve method or alternative traps.

Rusty Grain Beetles prefer to feed on wheat, barley, rye and oats, however they will occasionally be found in milled products or heated flax. The shiny reddish brown adults are about 2mm in length and are approximately as thick as 2 Canadian dimes. The larvae are 1-4mm in length and are white or yellowish with a brown head.



Red Flour Beetle adult, photo courtesy of The Canadian Grains Commission.

*Tribolium castaneum*, or the Red Flour Beetle, as it is more commonly known, are slightly longer (4mm) as adults than the Rusty Grain Beetle, and their larvae are whitish with brown bands.

This species prefers to feed on stored grains as well as oilseeds and starchy materials such as peas, beans and spices. The Red Flour Beetle will seek out damaged kernels but will also feed on intact grains if needed.

Uniquely, this pest releases a noxious secretion that when disturbed results in a very strong odour, deeming the product unfit for consumption. If the pest population becomes high enough, a pinkish tinge will appear in the commodity.

Like the Rusty Grain Beetle, the Red Flour Beetle has one of the highest rates of population growth in stored products and therefore should be monitored for adamantly.

#### Bin Safety Tips!

- •If you must enter a bin, always do so with a minimum of three people and a safety harness. It will take at least two people to pull you out via the harness, should you require it.
- Never walk on the crust inside a grain bin as the crust can bridge and form a cavity underneath. Your body can be completely submerged by flowing grain in 8 seconds, rendering you helpless.
- •Don't rely on someone outside the bin to help or take direction. Equipment noise could block your calls for help.

#### You're invited to ...

#### Managing Information for Profit in Your Cow Herd 2015

Managing Information for Profit in Your Cow Herd is a workshop designed for Cow/calf producers who want to capture additional profits by managing and analysing their herd information to make informed business decisions. It will also benefit those who want to evaluate current and future genetic tools that can improve profitability further.

This year we will be hosting four sessions in February:

	Date	Location	Venue	Time
	February 10, 2015	High Prairie	Days Inn and Suites 9:30 a.m. Coffee and registration	
				9:30 a.m3:30 p.m. Workshop sessions
	February 11, 2015	Vermilion	Lakeland College	9:30 a.m. Coffee and registration
				9:30 a.m3:30 p.m. Workshop sessions
	February 12, 2015	Olds	Olds College	9:30 a.m. Coffee and registration
				9:30 a.m3:30 p.m. Workshop sessions
	February 13, 2015	Lethbridge	Lethbridge College	9:30 a.m. Coffee and registration
				9:30 a.m3:30 p.m. Workshop sessions

Registration fee is \$25.00 per person, includes lunch for those who pre-register. Space is limited so please register by February 6 by calling the Ag-Info Center at 1-800-387-6030.

#### Topics this year include:

BIXS 2 Update: "I'm registered, now what?": Hands-on learning focused on entering and retrieving animal data - Larry Thomas & Holly LaBrie

Beef Herd Management Options - Freeman Iwasiuk/Pat Ramsey/Vince McConnell

Genetic Selection Tools & Designing Breeding Programs – How to use Expected Progeny Difference's for Profitability - Kajal Devani and Stephen Scott

Animal Health and Welfare Best Practices – Local Veterinarian

Nutrition – How to Use Cowbytes to meet cattle requirements and save on feed costs - Monika Benoit, Barry Yaremcio, Jim Hansen

Profiting from Information Management and Geonomics – How Geonomics and other emerging technologies can add value – John Crowley and Tom Lynch-Staunton



### **Participants Needed**

The Western Beef Development Center is carrying out a very unique survey for cattle producers across the Prairie Provinces. The Western Canadian Cow-Calf Survey is based off of the 1988 'Alberta Beef Herd Analysis' and will be used to benchmark changes in the beef industry since the 1990's.

Cow-calf producers can fill out the survey online or in hard-copy, answering questions about their farm's productivity and management practices. All individual farm submissions will be kept confidential but will be used together to paint a picture of Western Canada's cow-calf sector. Results will be published next spring.

Access online at: http://www.wbdc.sk.ca/wccs.htm

## THANK YOU TO CARA'S 2014 Field Staff Jerry, Karen, Sydney, Angela & Janelle



# We want to hear from YOU!

CARA is a producer-directed society. We base our programs, extension and research on what you, our local producers, want information on. It is our mandate to help you become profitable, sustainable and responsible stewards of the land. To ensure we are aligned with your values and operational needs, please take the time to fill out our survey. You may have received it via email or you may be contacted by one of our CARA staff members over the phone. You can also access it via the below QR code with your Smart Phone.

If you have already completed the survey we thank you very much!



https://chinookappliedresearch.fluidsurveys.com/s/NewsL-Dec14/



Coming Soon ...

## Farm Succession Planning

with Reg Shandro

The week of **January 12-16th**, **2015** CARA will be hosting Farm Succession Planning afternoon workshops in Oyen, Buffalo, Morrin & Spondin.

Specific times & locations will be shared on our website at www.chinookappliedresearch.ca

Registration will be appreciated and can be done by calling the office at (403) 664-3777.