



Grey Wooded Forage Association

Creating an Awareness of Forages

ANNUAL REPORT

2016 | 2017

BUILDING CAPACITY

Alberta
Government



PC: Jasmine Boucher

Grey Wooded Forage Association

2016 | 2017 Annual Report



Grey Wooded
Forage Association

Creating an Awareness of Forages

Box 1448, 5039-45 Street, Rocky Mtn. House, AB. T4T 1B1

www.greywoodedforageassociation.com

Ph: 403-844-2645 | Ginette - GWFA3@telus.net | Devin - GWFA5@telus.net

Mission Statement

To promote environmentally and economically sustainable forage and agricultural practices.

Vision Statement

The community is engaged in regenerative agricultural production methods.

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Message from the Chair

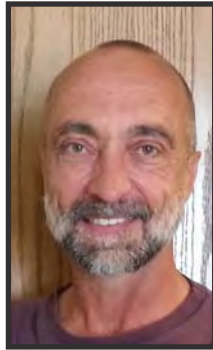
Ken Ziegler

2016/2017 The Year of Building

Where last year was the year of regrouping, the word that most describes this year has been the word “building”. Building happened at various levels in the following ways: through feedback from you the membership, the Board spent serious energy in building a five year strategic plan which is now driving direction for us as an association. The strategic plan gives us guidance in our values, the types of projects and events we want to develop and helps the board and staff priorities those opportunities that come our way.

Staff have done an excellent job in building relationship resulting in trust and respect. Each have come to appreciate each other's strengths and can now be confident in the inputs of both themselves and each other when facing a task. Ginette, Devin and Enna are working very well as a team which gives the Board confidence that projects and events will be carried out with a high level of integrity and resulting quality.

Staff and Board members have built deeper relationships with industry and government by establishing that first level of awareness and then following through by excellent quality of work and by commitment of promises made. Industry and government are continuing to build trust in our staff and appreciating our standards of excellence. As a Board we are very pleased with our staff in



this regard.

Financially, we have built ourselves into a stronger position. We're happy to report that we had a surplus of money that we've been able to carry forward into this year. This has been through careful financial management both in how and where we'd spent the money and in building more partnerships with government and industry which has resulted in more money coming in. Ginette has built trust in this regard which has given us, as a board, confidence that the funds are well managed and with that, we are able to move forward.

Through Herman's commitment at the provincial level on the ARECA Board, we've built trust and respect and are seen as credible and reliable. This has added confidence at the ARECA board level when lobbying at the provincial level. ARECA continues to do an excellent job representing the nine organizations on issues pertaining to our forage industry.

Having experienced commendable levels of “regrouping” and now “building” we look forwards to this coming year. Even with the stepping off, of our three seasoned board members and the loss of their insight and experience, we also look forward to adding three new board members that will give us fresh ideas that will stimulate new thinking. We thank our three board members that are leaving us for their commitment over that past three years and welcome the new replacements. This coming year holds incredible potential and we look forward with anticipation as to what our futures hold, and how we can better further the vision of the Grey Wooded Forage Association.



Pc: Jasmine Boucher



Manager's Notes

Ginette Boucher

Greetings,

Another year has come and gone. As we prepare for the annual meeting and reflect on the past year, these thoughts come to mind. We've successfully strengthened our position and have been building capacity. Devin has settled into his role quite well, and is providing forage & livestock production support to producers in the counties we serve. Most recently Devin and his wife Brenna have had a new addition to their family, Maureen Kelley Knopp. Congratulations to the Knopp family. Enna Graham has joined us on May 1st for summer employment and has focused on developing our website resources and communications. Enna has been a tremendous help.

We have successfully updated our Strategic Plan; it will be available in the handout at the AGM. We plan to increase our community engagement through various activities in the coming years. Those of you who have ideas in this regard please be sure to share your thoughts.

We are currently in a good financial position; and have identified the need to develop a strong financial business plan to ensure long term viability of our association. This coming fall, once the new executive is in place we will be working towards the development of this plan. Those of you with experience in this area are welcome to provide input to assist us in this endeavour.

We continue to build and develop relationships with our county partners, and are growing our Corporate sponsors. We have recently developed a Corporate membership program to increase our visibility and build strong industry partners that we can network through. We have recently developed a new relationship with the Field Crop Development Center in Lacombe, there are more details of this potential collaboration on page 24. We continue to work closely with Lacombe Research Centre and the Lethbridge Research and Development Centre to enable us to extend their research information.

Last year I applied through Alberta Agriculture for a grant to develop new skills to do with Board Governance. I have currently just started the first course. This is a series of courses that I must take and complete by the end of the fiscal year. Luckily the grant was approved at 75% and we will recover the cost of the course upon completion. These courses will enable me to better assist the Board with roles and responsibilities, and governance. I will also be updating our board member manual to include all the necessary information to support the board.

We hosted some new extension events that were received very positively; these are included in the annual report and include, the Cat-



tle Handling Systems Tour in Mountain View County, the Feed in a Flash event at a Lacombe dairy farm, The Cow Herd event in Ponoka County. We have recently hosted two webinars to evaluate the efficacy of this new method of extension delivery. We found this is reaching a different audience, which was the intention. This is another positive move for GWFA.

We have our ongoing projects; the alfalfa projects at the Skeels farm, which we are currently seeking some new funding sources to continue to support the project. Our 3D Fencing project in Sundre has had little to no wildlife pressure which is making it difficult to collect data evaluate its efficacy. Last year we partnered with Alberta Agriculture & Forestry, and developed a ten-acre high legume pasture plot containing alfalfa, sanfoin and a grass mix which is located at Murray Abel's farm. We will be deploying some grazing cages in July and taking some plant clippings. Thank you, Murray Abel, for providing your land for research and learning. Another new project in 2017 through ARECA is the Operation Pollinator project which is getting off the ground this spring, and lastly our Canada Thistle Stem Mining Weevil project which is currently underway and will be implemented by September 2017. We have developed several partnerships and contract agreements with county partners and others and are looking forward to establishing this long-term project. We plan on developing new and innovative projects in the coming years with the input of our members.

We have added to our environmental program the Environmental Farm Plan. We hosted two workshops in the last fiscal year, one with County of Wetaskiwin, and the other with Clearwater County both were successful. Producers are seeing the value in developing their Environmental Farm Plan and the funding opportunities it brings. With the EFP webbook version functioning at its best, it is making this process much easier. We have several EFP workshops planned for this fiscal year. These will take place in November, January and February.

We continuously look for new directors and would like for you to keep an eye for some potential prospects. As you are aware, each year three members come off and are replaced with three new members, if you happen to identify some good prospects please be sure to forward their names to the office and we will contact them at the appropriate time. This would assist us tremendously. Also as a member of the association we value your input and look forward to hearing from you. As we continue to build capacity, if you have some fund-raising ideas or ways of generating revenue we would be happy to hear from you.

Kind regards,
Ginette



Grey Wooded Forage Association 2015—2016 Board of Directors & Staff

Chair	Ken Ziegler	Rocky Mountain House
Vice Chair	Theodore Chastko	Lacombe
Treasurer	Vance Graham	Rocky Mountain House
Secretary	Brendon Anderson	Rimbey
ARECA Rep	Herman Wyering	Ponoka
Directors	Benz Rufenacht	Bluffton
	Amy Leitch	Alhambra
	Cy Newsham	Sundre
	Andrew Ritson-Bennett	Innisfail

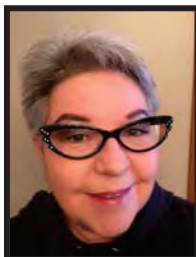
Staff

Manager	Ginette Boucher	Caroline
Forage & Livestock	Devin Knopp	Leslieville
Agronomist		



Back Row Left: Devin Knopp, Brendon Anderson, Benz Rufenacht, Cy Newsham, Vance Graham,
Herman Wyering, Andrew Ritson-Bennet

Front Row Left: Ted Chastko, Ginette Boucher, Ken Ziegler, Amy Leitch



Heather
Lyon
Bookkeeper



Brenda
Kossowan
Publisher

Thank-you to our corporate sponsors who support our organization and all of its activities throughout the year!



Thank-you to our AGM sponsors



Thank-you to the counties who support and collaborate with us!



ARECA Report

Janette McDonald, Executive Director

2016 was a good year for ARECA. We worked with our 9 members associations to deliver programs across the province.

We launched a new website. It is cleaner, leaner, and is full of information about programs delivered by our member associations (www.areca.ab.ca).

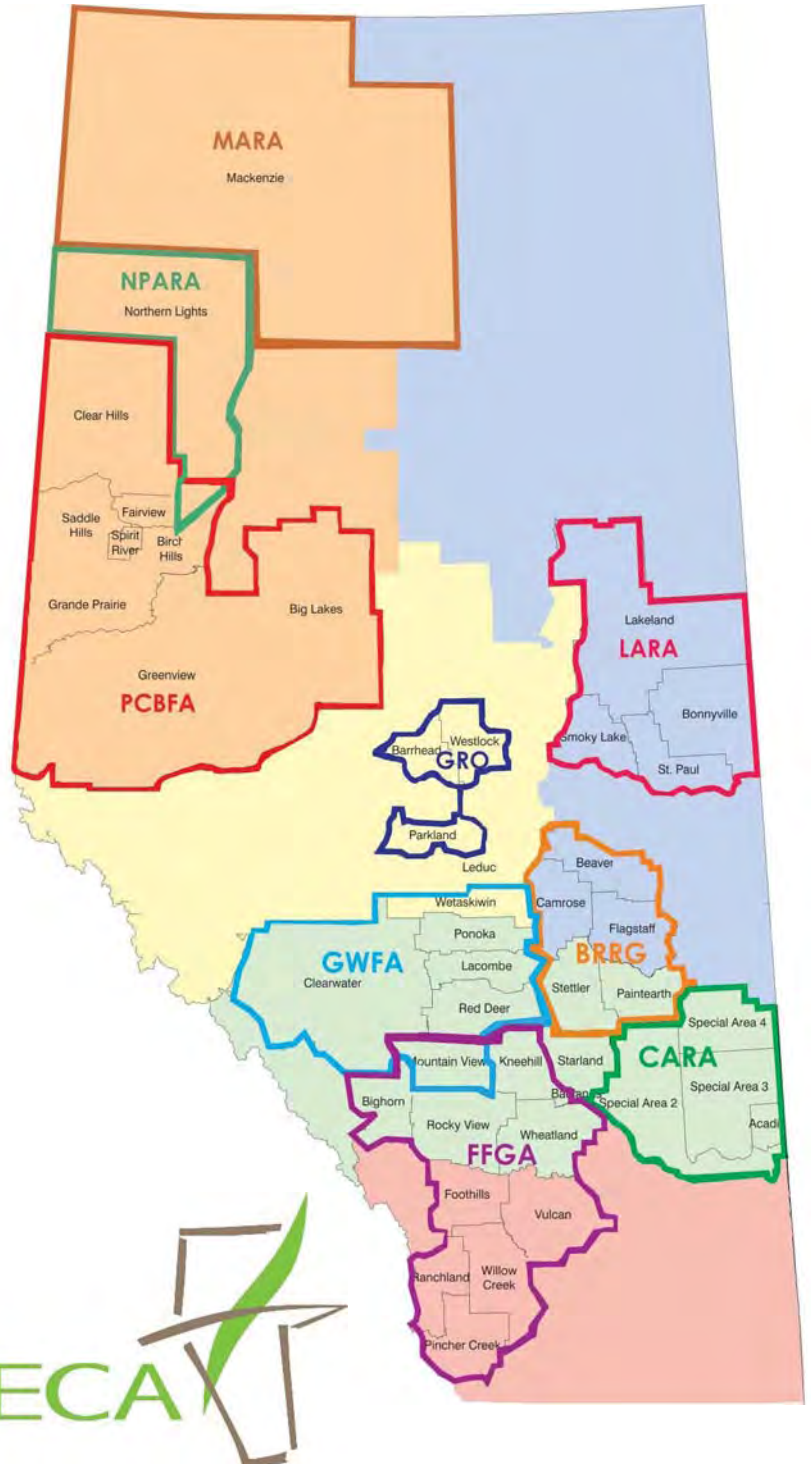
Connections Newsletter: We created and distributed 9 newsletters with the intent of increasing the connection between our member association Boards. Each edition featured one member association. The newsletter is distributed internally to all association Board members.

Environmental Farm Plan: In 2016, we introduced the Web 3.0 edition of the EFP. As well, ARECA was instrumental in leading a movement to a national EFP. We hope to move this plan further in 2017. Late in 2016, we started preparing the Alberta EFP 5-year Business Plan for 2018-2023.

Sustainable Sourcing: ARECA was awarded Green Intern funding in 2016 and our intern has completed an excellent summary of potential global sustainability requirements and how those requirements will impact Alberta farmers.

Sainfoin Pasture: All associations are collaborating with ARECA and Alberta Agriculture and Forestry (AAF) on a province-wide sainfoin pasture project. We established 10 sites and will be measuring plant health and grazing yield in 2017.

Blackleg Surveillance: ARECA and 7 associations co-operated with AAF to collect and submit samples from 171 canola fields across the province. This project is a significant benefit to canola producers and we have the opportunity to expand it in 2017 and beyond.



Alberta Environmental Farm Plan Report

Paul Watson

Alberta EFP's work in 2015-16 focused on creating and cementing partnerships with agricultural industry groups and government. This past year the emphasis was on improving and expanding the EFP to better meet emerging international standards, and forming strategic alliances to prepare producers for the increasing demand for sustainable sourcing.

EFP Workbook 3.0

The EFP Workbook 3.0 become fully digitized, it has also had a structural overhaul, guided by the feedback provided by Alberta EFP's techs. Producers can now complete their EFP online at their convenience and EFP technicians are still available to guide them through the process.

Tech Training

EFP technicians have long delivered the EFP. But with so many changes, they needed to be brought up to speed. (Former) program manager Sharon Faye surveyed/interviewed as many techs as she could reach. Her results were presented to Alberta EFP's committees and guided changes in delivery, training and communications with and for EFP Technicians.

Species at Risk Initiative

Part of the EFP overhaul was the development of a Species-At-Risk (SAR) module. This module will be simple and deliver education and extension around species and habitat protection while capturing producers' best practices as well as areas needing improvement.

Sustainable Sourcing

Alberta EFP partnered with a number of industry groups to support initiatives that help prepare their members for the increasing worldwide demand for sustainably-sourced agricultural products. Alberta EFP commissioned a study that captured key features, commonalities and differences among emerging programs. The *Sustainable Sourcing Ac-*

tivities for Agricultural Products in Canada report was released in May 2016.

National EFP

Alberta EFP's director Paul Watson initiated discussion with colleagues across the country and a steering committee to national harmonization of EFPs was formed. Watson chaired, and subsequently named co-chair, of the committee. Industry groups and government soon got involved. Their work led to the first National Environmental Farm Plan Summit, held in Ottawa on November 1, 2016.

Moving Forward

The coming year will see Alberta EFP go fully digital with the advent of online registration. It will also see the completion of the Species at Risk project. The push toward Sustainable Sourcing is expected to see most savvy producers apply to work on an EFP or upgrade the one they have. And the impetus for the provincial/territorial EFPs to work together on common projects and issues should move forward. Alberta EFP looks forward to the challenges and opportunities in the year ahead.



ENVIRONMENTAL FARM PLAN WEBBOOK WORKSHOP

Get started online with the help of Clearwater County and the Grey Wooded Forage Association

WHEN
Wednesday, February 22, 2017
10am - 2pm

WHERE
Rocky Learning Centre
4524 - 50 Street
2nd Floor, Old Provincial Building
Rocky Mountain House

Rocky Learning Centre is located on Main Street in Rocky Mountain House at the intersection of 20th Ave and 50th Street, Second floor of the Old Provincial Building.

Register with Clearwater at Clearwater County Ag Services and Landcare (403) 640-4444 or clearwater@clearwatercounty.ca

FREE

LIGHT LUNCH INCLUDED

COMPUTERS SUPPLIED FOR THE DAY

LIMITED SPACE, SIGN UP EARLY!

Environmental Farm Plan WebBook Workshop

FREE Workshop - Light Lunch Provided
Qualify for "Growing Forward 2" Funding

November 14, 2016
Rider Flats/Buck Lake Public Library
10:00am - 3:00pm

Must Register by November 10, 2016!
To register and reserve your spot, contact Kim Barkwell at: 780-367-6392 or kbarkwell@countywetaskiwinnab.ca

ALUS Canada

ALUS Canada, a Weston Family Initiative, is a national program dedicated to supporting farmers and ranchers who produce cleaner air, cleaner water, more biodiversity and other ecosystem services on their land, for the benefit of all Canadians. ALUS currently sustains 21 ALUS communities in six provinces, with more than 15,500 projects, 700 participants, and 18,000 acres enrolled in the ALUS program. With support from ALUS, farmers and ranchers establish wetlands, native prairie, pollinator habitat, and other projects on select areas of their land, and manage these projects going forward.

As a recent Alberta Emerald Award and Clean50 award winner- and ranked among the exclusive Clean16- ALUS Canada is a recognized leader in sustainability that is rapidly expanding. In 2016, Lacombe County joined ten other communities already delivering ALUS in Alberta.

In 2016, Alberta farmers and ranchers added 2,640 new acres of projects which produce ecosystem services, bringing the total to 6,841 acres working to produce a healthier environment in Alberta.



GWFA and County of Wetaskiwin No. 10

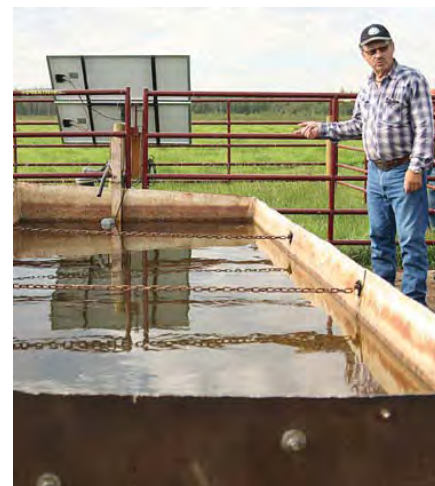


Building relationship between the Grey Wooded Forage Association and the County of Wetaskiwin and its residents has passed the one year mark.

Through funding secured by their Agriculture Services Board (ASB), the County of Wetaskiwin provides the Sustainable Agriculture (SA) program to its residents. This program works to promote the awareness and adoption of beneficial management practices as they pertain to water, soil and energy management. Some of the tools and services provided by the program overlap with those offered by other groups, like the Grey Wooded Forage Association. The ASB is mindful of this overlap.

However, the Grey Wooded Forage Association can provide more specific expertise to residents that the more generalized SA program cannot. The additional value GWFA can provide to county residents, particularly those in the west portion of the county, needs to be emphasized as the relationship moves forward.

Over the past year, the SA program and GWFA staff have collaborated to bring both more valuable experiences and awareness of the GWFA to county residents. As we continue to work together in 2017, it is hoped to find more ways to support GWFA and increase its presence in the county.



Farm Operator: Larry Zeiger at the Grazing Management, Watering System and Alert Monitoring System Field Tour

GWFA Community Investment

One of the values that we, as a board, have identified as important, is the value of serving our greater community outside of the association. Narrowing that down a bit, we chose the 4H clubs that utilize forages as a group of people that could benefit from our experiences and we could also promote our existence to.

In this regard, I had the privilege of serving two times this past year. The first time was to offer a teaching session on how ruminants utilize forages as



Rocky North 4-H Multi Club

their primary nutrition source. I had the opportunity to meet with about 20 enthusiastic 4H youngsters and explore the aspects of protein, energy, minerals and vitamins. In this session, I had the opportunity to present the use of ionophores that can be fed in the mineral supplement and that for a few cents/day, cattle can substantially improve the efficiency of transferring plant energy into animal energy. In this session, I also had the opportunity to introduce the 4Hers and their parents to the website foragebeef.ca. Foragebeef.ca is a massive website with an incredible collection of fact-sheets and research papers from around the world that contain credible infor-

mation pertaining to forage and beef production under western Canadian growing conditions. Foragebeef.ca is a one stop website that people can go to for their forage and beef information.

The second opportunity to serve our youth was when I was invited to partner with the Rocky Agricultural Society and the Ag Service Board of Clearwater County where 275 grade 4 students visited 4 farms and were introduced to various aspects of where their food comes from. At my station, I had the opportunity to explain the uses of the several field crops that get grown and how people benefit from their production. I did my presentation 12 times to the 12 groups coming through. From the evaluations from the teachers, the tour day was well received and that the topics dove-tailed the curriculum taught throughout the year.

From both of these sessions, I would like to encourage us as an association to continue to engage in the serving of our community, particularly our youth. Service of any sort drives us out of our own sphere of thinking and expands our thinking which is healthy on many levels.

-Ken Ziegler



The Blade

The monthly publication is a important vehicle for regularly supplying event announcements and information to the members. The Blade is currently 16 pages and we continuously search for content of quality and value for our readers. We are constantly looking for articles to improve our publication. If you should have some thoughts for content, please be sure to share it with us.

The Grey Wooded Forage Association publishes The Blade monthly and distributes five hundred copies digitally, and prints to distribute by mail and other methods over 200 publications. Our board also distributes copies; we provide publications to our sponsors, and bring several to our many events to create awareness of our association and develop new members. One of our goals is to grow our digital distribution into the thousands and reach beyond our borders. We have been working at developing The Blade into a publication that is of high enough value that people want to be GWFA members just to get it.

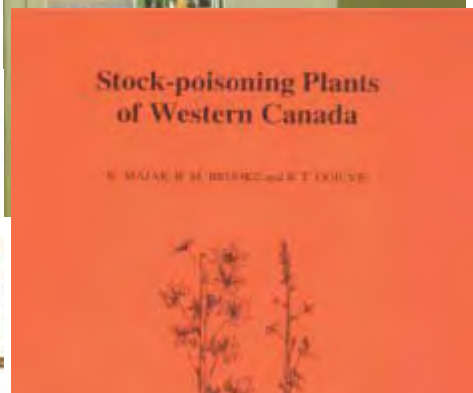
The Blade is available on our website.



Publications Available to Members

A few of the publications available to members, some are available as handouts, others are available in our library. Feel free to contact us at any time for these publications. We are often out of the office at events or meetings, please contact us ahead of time to be sure there is someone in the office to greet you. 403-844-2645

A list of our library resources is available on our website



Stockmanship School

Organic Alberta and Grey Wooded Forage Association partnered together to host a very successful two day Stockmanship school at the Red Deer County office, on June 13th and 14th, 2016.

Richard McConnell and Tina Williams of Hand'n Hand Solutions provided the attendees with a very in depth look at livestock handling. There was a large array of topics covered; from how to communicate with livestock without yelling, to creating movement within a herd, and how best to work with the livestock when working in a corral, sorting, or loading.

Richard and Tina would introduce a topic and discuss how to put your best foot forward in these different situations. They used videos of themselves demonstrating certain techniques. Richard and Tina would pause or slow the videos down at certain points to explain what they were doing, and why. It provided the audience with a first hand look at the theory in practice. They also showed videos of people doing things incorrectly and how the livestock reacted. It provided the audience with additional perspective on how the interaction with livestock, when done correctly, can be a very rewarding experience, and when it is not done correctly a very stressful one for all involved.

Discussion was a big aspect of their presentations. They, as much as the audience, wanted to learn from the knowledge sitting in the room. Some of the topics were difficult to grasp and required discussion of the finer details and situational advice to help drive home the point.



JOIN RICHARD MCCONNELL AND TINA WILLIAMS, OF HAND'N HAND SOLUTIONS, AS THEY PRESENT THEIR TWO-DAY PROPER STOCKMANSHIP SCHOOLS IN TWO LOCATIONS IN ALBERTA.

ALL SESSIONS ARE TAUGHT IN A CLASSROOM, USING LECTURE, Q&A, AND MANY VIDEOS.

- Research benefits
- Pressure and release
- How we communicate with our livestock
- Instincts of humans and livestock
- Predator/prey relationship
- Positioning
- Movement
- Training the herd
- At the gate
- Working in the corral
- Sorting livestock
- Weaning and receiving livestock
- Loading livestock

Learn more about Hand'n Hand Solutions:
www.handnhandlivestockolutions.com

STOCKMANSHIP SCHOOLS with Richard McConnell & Tina Williams of Hand'n Hand Solutions

#60 for members (Organic Alberta; Partner Forage Association) #90 non-members
Lunch included.
Space is limited. Participants must register in advance.
To register and for more information, contact
Organic Alberta or your local Forage Association:

**JUNE 13 & 14, 8:30am-5:30pm,
RED DEER COUNTY OFFICE
38106 Range Road 275, Red Deer County, AB
RSVP June 6th**

**JUNE 16 & 17, 8:30am-5:30pm,
WEEDON PIONEER COMMUNITY HALL
42299 Weedon Trail, Cochrane, AB
RSVP June 9th**



Some of the take home points:

- Whooping and hollering only builds stress in the herd
- Always remain calm
- When applying pressure: apply just enough to get the desired movement in the herd and release the pressure
- Apply pressure at an angle to the shoulder never from behind
- Don't push the herd or they'll turn to look at you rather than walk away
- Move the herd not the animal
- When working with more than one person always work in a line or a "T" to your direction
- When working with livestock move with a purpose
- Enjoy working with the livestock, it will decrease stress and make the experience enjoyable for all.



Battle River Watershed Alliance Riparian Field Day

Grey Wooded Forage Association had the opportunity to partner with Battle River Watershed Alliance in their Riparian Field Day. The field day was held July 12, 2016 at MSW Farms, in Ponoka County, along the banks of the Battle River.

The afternoon and evening were kicked off with a free supper. After supper we heard from Cows and Fish as they gave a presentation on riparian health assessments and some of the work that is currently being done to improve the banks of the Battle River. The Cows and Fish presentation allowed for hands on work with a riparian health assessment tool. It gave the attendees an in-depth look not only at the overall vegetation of the area, but what vegetation is there, where its located, and how it is interacted with the plants surrounding it. It was a very interesting presentation.



Steve Cannon with Lonestar Ranch was also there. He gave a presentation on proper electric fencing techniques, and how some of these tools can be employed to help improve wetlands. Steve also talked about some of the new technology that is coming down the pipe with Gallagher.

Agroforestry Woodlot Extension Society had previously been involved with the landowner where this field day was taking place. They had done a series of tree plantings in and around the banks of the Battle River. Jeff Renton with AWES was present to describe the tree planting and how it was important to the ecosystem ecology. We visited these planting sites and had a chance to discuss why they planted certain tree species where they did and how that will affect the health of the overall ecosystem. All in all it was a great event and I believe those who attended were given a great learning opportunity. GWFA was present and did some advocacy. The Blade publication was distributed to all attendees and we gave away two free memberships.

High Legume Pasture Field Day

August 17, 2016, GWFA partnered with Alberta Agriculture and Forestry for the High Legume Pasture field day. The field day was hosted at Murray Abel's farm north west of Lacombe.

The day started off with a tour of the high legume pasture project that Murray Abel planted on his farm. This project consists of a mixture of Sainfoin, alfalfa, and smooth brome. Murray discussed the successes and challenges he had in planting and establishing the stand. We also heard from Grant Lastiwka as he discussed the project and the agronomics of using Sainfoin and alfalfa in a mixture for pasture. After the stop at the Sainfoin project, Murray brought everyone to a second pasture that has a very good establishment of cicer milkvetch. Murray spoke about this pasture and how it has worked in his rotational grazing system. The cicer milkvetch stand looked great.



After the field tour, everyone came back to Murrays shop to hear from Leon Specht. Leon is a livestock producer with a lot of experience grazing high legume pastures. He spoke about the importance of grazing legumes, but also the benefits he has seen in the many year of grazing. He provided tips and examples to help anyone interested in transitioning to high legume grazing.



Feed in A Flash

On August 17, 2016, GWFA partnered with Central Alberta Hay Center to provide the first annual Feed in a Flash demonstration and field day. There was 120 people in attendance.



This event was hosted at Rob Luymes Dairy farm West of Lacombe. We started the day off with lunch in Rob's shop. Richard Sietzema, from Canadian Hay and Silage talked about the products they offer and how they can benefit producers trying to put up dry feed in a wet year. It was perfect timing as last year was a very wet summer and difficult for producers to put up dry feed. We heard about some of their silage inoculants and the benefits of those products. What was the most interesting to most producers was the hay preservatives they sell. These products are meant to be used on moist hay to help prevent spoilage in the bale. The best results are seen at around 18% moisture, but you can use them wetter or dryer than that.

Central Alberta Hay Center also spoke about some of the equipment they are selling. It set the stage for the field demonstrations that followed.

After the talks, we headed out to the field, where CAHC had a couple rows of equipment on display. In the days prior to the event they had been cutting and preparing the site so that

there would be hay ready to bale, some ready to turn and some left standing to cut. Before they demonstrated any equipment, they spoke about each piece of equipment. The first demonstration was their mower and mower conditioners. They demonstrated a cut down and back across the field so everyone could look at the quality of swath as well as see the machines in action. Secondly, they demonstrated the hay rakes, by raking both the dry swath and the freshly cut swathes to show how they can handle just about any type of swath. They demonstrated three different types of balers. They had an all in one unit that baled and wrapped the bales in silage plastic before off loading. They had two individual silage balers that chopped and baled the silage. After the balers, they demonstrated two different types of bale wrappers. They had an individual bale wrapper that would completely wrap all sides of the bale and then a wrapper that would wrap a continuous line of bales into what looked like a long tube.



It was a fantastic day. The weather held beautifully and all the equipment and demonstrations went off without a hitch. All the attendees got to see a start to finish process and how quickly you can put of quality feed in a very short amount of time. It truly was Feed in a Flash.



Watershed Friendly Feeding Sites

GWFA hosted with Panoka County a Watershed Friendly Feeding Sites workshop at the Homeglen Community Hall. The workshop was developed to increase awareness of proper wintering site selection, water quality, and provide information about Growing Forward 2 programs. The event was held in the morning, of October 27, 2016.

Sharon Reedyk, with Agriculture and Agri-Food Canada discussed water contamination from cattle feeding grounds. She has been doing research in the area for some time, and has extensive knowledge of the potential for water contamination from intensive feeding. Chris Ullmann of Alberta Agriculture and Forestry, spoke about the regulations behind choosing a suitable wintering site for livestock. Mike Hittinger with AAF gave a Growing Forward update, and spoke about some of the programs that were available. He also talked more specifically about what programs could help producers when planning wintering sites. We had a very good turnout of producers. It was a great event and one we can continue to build on to include different factors for cattle wintering site selection.



The Cow Herd: Setting It Up For Success

On a cold November 17th day, we hosted a herd health event in Ponoka. The Cow Herd event had three different speakers talking about different aspects of a well-rounded herd health program.

Dr. Trevor Hook spoke about the importance of a whole herd health vaccination program. He explained the importance of ensuring your herd is vaccinated, as the diseases that are currently affecting many herds are major economic and animal welfare problems. Dr. Hook also spoke about neonatal health management in the herd. It was an extension of the vaccination talk, but also touched on other factors that can affect the health of a growing fetus. Kristen Ritson-Bennett, a nutritionist with Blue Rock Animal Nutrition and a former board member, spoke about winter feeding programs and their importance for proper calf development, but also proper cow health. She also spoke about pre-calving nutritional considerations. This covered not only feed, but also the importance of balanced minerals. She also touched on different risks in feed such as molds and mycotoxins that can affect the health of both the cow and the growing calf. Finally, we heard from Deserae Hook. She is with Saskatoon Colostrum Company. She spoke about the importance of colostrum management in the herd. It was a full day jammed with very good information and we plan to deliver a similar workshop this coming year.



Acres				Head				
Pasture	Hay	Crop	Other	Beef	Feeders	Sheep	Goats	Other
56388	7582	20650	70	10562	3851	405	13	11
11600	12400	20000						

Producers	72
Consultants	2

Potential cumulative impact of Watershed Friendly Feeding Sites, Cow Herd, West Country Cattle Handling Systems, and Carbon Sequestration events, based upon results from event surveys.

West Country Cattle Handling Systems Tour

On November 30th, GWFA partnered with Mountain View County for the West Country Cattle Handling Systems tour. The event was held on CR Ranches west of Bearberry.

The morning started off with a low stress cattle handling presentation by Jim Bauer. Jim spoke about some of the experiences he and his wife Barb have had with handling cattle on their ranch near Acme. He also discussed many of the principals Bud Williams developed. We wish we would have had more time for Jim to continue speaking, as the hour seemed to fly by and everyone thoroughly enjoyed his talk. After the morning presentation, we toured the CR Ranch corrals and Hi-Hog handling system. The corrals are new and designed for continuous flow of cattle in and out. It was a very interesting setup with lots of options for working with livestock. In the afternoon, we toured the three remaining sites. Viney Farm had a well designed home-made handling system. Leslie and Dean Lovell's Farm was a Lakeland system out of Manitoba, purchased with Growing Forward 2 funding. The final stop was a Tuff portable system at Cy News-ham's farm. Each system was different from the other, but the message was the same from each of the hosts. That these were designed or purchased for the ease of handling cattle in a low stress environment. It was a very informative day with some of the stops bringing cattle through their systems to show how they worked for them. Everyone who attended learned a great deal about additional ways they could design or purchase a system that fits their needs. Anyone who finished a survey was entered into a draw for a bundle of posts donated by Brisco Manufacturing. We had a great turnout for this event.



Carbon Sequestration: Land Management and Its Value

We had a jam-packed fall with four events happening over 3 months. Our final event in the fall of 2016 was our Carbon Sequestration event December 6th. This was hosted at the Ponoka Legion.

GWFA brought in high caliber speaker to discuss the process of carbon sequestration, possible programs for carbon, and benefits. Dr. Vern Baron from the Lacombe research center, started the day off and spoke about the process of carbon sequestration as it pertains to perennial forages. It was very interesting and helped answer a few questions producers had in regard to how perennial forages contribute to the sequestration process. Dr. Baron also explained how producers that have perennial forages can continue to contribute to the sequestration process. We then heard from Dr. Scott Chang from the University of Alberta, who also spoke about carbon sequestration processes, but how it relates to other perennial plants outside of agricultural production. Paul Jungnitsch from AAF did a presentation on the current and potential future programs that may be available to producers regarding funding or investment opportunities from government. Paul provided some very good information that helped producers and industry understand the direction the government is going as it pertains to carbon levy programs. Jeff Renton with AWES spoke about the potential benefits that his programs may see, as they continue to enhance ecological goods and services through tree planting. Ken Lewis gave a presentation on the ALUS program on behalf of ALUS Canada. There are a wide range of benefits that carbon levy programs and taxation may have on some of the ALUS programs. He also spoke about the importance of the program from a municipal perspective and encouraged those present to approach their municipality to join the ALUS program.

**Carbon Sequestration:
Land Management and its Value**

HOW DO WE AS FARMERS CONTRIBUTE AND BENEFIT?

December 6, 2016
Ponoka Legion
10:30am - 3:00pm

Featuring:
Paul Jungnitsch • Dr. Vern Baron • Dr. Scott Chang
Jeff Renton • ALUS Canada

COST:
FREE for GWFA Members
\$20.00 for Non-Members

Please register to reserve your spot:
Click to register via eventbrite.ca
Or call the GWFA office: 403-844-2645
or Email: gwfa5@telus.net



Other Events



**Transition Planning Workshops
for Farm and Ranch Families**

January 11 and February 8, 2017
Lacombe Memorial Centre, 5214-50 Avenue, Lacombe

Design Your Farm and Ranch Transition Plan

Creating a farm and ranch transition and succession plan takes time, effort, family communication and working with professionals. These 2 day workshops will get you started on the road to designing your own transition plan and provide creative solutions to implementing your plan. You will be prepared to discuss, write, and plan the legacy of your farm and ranch. You will also have access to business, tax, financial and legal experts in farm transition.

Who Should Attend?

The workshops are for families who are interested in shaping the future ownership of their family farm or ranch. Families are encouraged to register together and the registration fee will cover both days. Workshops will run from 9:00 a.m. to 3:30 p.m. each day (registration starts at 8:30 a.m.).

How to Register

Cost: \$75 per workshop (including GST for both days (businesses only)).
To register please call the Ag-Info Centre at 1-800-387-6030




Cattleman's Day
Dovercourt Hall November 24, 2016
10:00 a.m. TO 3:30 p.m.

Shannon Argent - Verified Beef Production Plus Program
A look at VBP+, an expansion of the former verified beef production on-farm food safety program. Find out how to become certified and become part of the growing Canadian sustainable beef supply stream.

Bob Lowe - McDonald's Sustainable Beef Project
Bob will be sharing information on McDonald's Sustainable Beef Project, why it is important and how you can become involved.


Roast Beef Lunch

Anne Wasio - Cattle Market Update
Anne will be bringing in a dynamic presentation on the cattle industry along with a market update and an outlook for the future. Find out what is going on with our markets and what the future may hold.

Dr. Huxton Block - Beef Production Systems Research Scientist with Agriculture and Agri-Food Canada
Huxton will be speaking about the importance of nutrition and balancing rations especially after a wet year where the majority of feed was put up in less than ideal conditions.

Cattleman's Day is an event that is free to producers thanks to our sponsors:

Register with Ag Services by November 21, 2016: 403 845 4444
(or email: shannon@kiewitwatercountry.ca)



Cow-Calfenomics
Managing Uncertainty in Alberta's Cow-Calf Sector

Date	Location	Notes	Time
November 1, 2016	Harbin	Nation Community Center	9 a.m. registration
November 2, 2016	Lethbridge	Country Market Centre (same building as the Reg or Beef Support Group)	9:30 a.m. - 3:30 p.m. sessions
November 3, 2016	Okla.	Student Alumni Centre at Okla College	
November 8, 2016	Okemuncie	Westview Regional Center	
November 9, 2016	Extonburg	Royal Canadian Legion	

The agenda this year will cover:

- Market Outlook and your Marketing Options
- Transition Planning - The Human Aspect
- Risk Management Perspectives
- Cost of Production - Do you break even?
- 7 drivers to Financial Success
- What does your Neighbor Think? A Beef producer's perspective

How to Register
All participants are requested to register prior to Wednesday, October 26, 2016. The registration fee is \$38 (GST included) per attendee lunch. Registration for students and young professionals (under 25 years of age) will be sponsored by the Alberta Beef Producers. To register please call the Ag-Info Centre at 1-800-387-6030.



Big Deal Callows

Salinity Causes & Cures
April 7, 2016 at Coburn Hall
9AM - 1PM (Includes lunch)

How forage production improves soil salinity, forage establishment & seed options

Register Free Online: <https://soilsalinitycausescures.eventbrite.ca>
Registration Deadline: April 4, 2016

For More Information Contact:
Carrie Mabin, Mountain View County, 403-335-3311 ext 204
or via email at cmabin@mvcounty.com




West Country Ag Tour 2016
Thursday, August 20th
8:00 AM to 4:00 PM
Dovercourt Hall

Sign up today for an experience that will be both social and educational! Meet new people and discover new things. Gain a greater appreciation for our beautiful country. Many different facets of Agriculture will be explored.

Registration Fee:
Early Bird \$30 per person (before August 15th). After this date registration is \$35.

Includes breakfast, lunch, snacks, bus charge and take home educational materials!

To register, please contact:
Clearwater County Agricultural Services and Landcare
(403) 845-4444

Registration Deadline is August 23rd.
Register now to avoid disappointment!
Maximum registration 100.



DROUGHT 2016?
Managing your Cattle, Pasture & Feed Resources Seminar

Are you wondering what amount of precipitation you will get this spring? Hard to predict but the drought of 2015 and the lack of winter moisture in west central Alberta is causing concern among many stockmen. Come and hear some practical ideas on managing through another drought from our two key note speakers and experienced cattle producers panel.

To register on line go to www.westcentralforageassociation.com and follow the links to "Events" and "Event Signup"

WHEN 1:00 PM - 4:00 PM, Tuesday, April 19, 2016
WHERE Thorsby Community Center, 4813 49 St., Thorsby Alberta

FREE OF CHARGE

SPEAKERS:
Dr. Ed Stark / Range Ecology and Management, University of Alberta
Grant Lashley / Livestock & Forage Business Specialist, Alberta Agriculture and Forestry

PRODUCER PANEL:
Alberta cattlemen who have survived multiple droughts will share their thoughts, ideas and practical solutions to managing cattle and feed resources.

For more information contact West Central Forage Association at the Toll Free number (800) 726-6447.



Soil Health: The Bottom Lines
Nicole Masters
June 24, 2016

Carstairs Community Hall and Outdoor Field Site
9:15am-3:30pm
\$25/member, \$40/non-member

FOOTWEAR FOR THE GRAZING ASSOCIATION

- Am I getting max yield from my land?
- How can I reduce costs while increasing production?
- Is my soil healthy?
- How can I reduce pests, weeds, and disease?

Visit: <http://soilhealth.bottomlines.eventbrite.ca>

To Register:

"My expectations were high and the essential signs, that knowledge, persistence, honesty, and enthusiasm were compelling. One hour the audience brought engaged in this discussion about the field and changed the way we look at soil."

Sainfoin/Alfalfa– High Legume Pasture Project

In the spring of 2016 ARECA and Alberta Agriculture and Forestry approached GWFA, with a high legume pasture project. The idea behind the project is to plant a pasture stand containing a high percentage of alfalfa mixed with sainfoin. The sainfoin contains beneficial tannins that help to offset the effects of bloat in cattle.



Recently Mountain View Sainfoin had been released to the industry. It is a more competitive sainfoin variety than its predecessors and has good establishment potential. In order to help increase the awareness of this sainfoin blend and its potential beneficial effects, ARECA and Alberta Agriculture put together this project. Currently Mountain View sainfoin is only available in a blend with alfalfa. So, the blended alfalfa/sainfoin was provided to each cooperator in this project to plant on their pasture.

GWFA partnered with Murray Abel for this project. Murray had a 10-acre field he had previously used for grazing corn and decided to convert those acres back to permanent forage. He seeded the trial in May. Unfortunately, last spring was very dry, so the seed had delayed germination. There was considerable weed pressure initially. Weed pressure is not uncommon in the first year after seeding a forage stand without a cover crop. It is a good reminder to look at the juvenile plants coming below the weed canopy and remember that they will outcompete the weeds in year two and beyond. After the summer rains the stand did establish well and is competing with the other weed species. During the fall, a final walk and plant stand count was done to determine if there were any areas that may need touch-up seeding. A few spots that needed some touch-up seeding we identified and the seeding will occur next spring. There was no grazing during the summer, as it was important to give the sainfoin and alfalfa a chance to get established. We held a high legume pasture field day at this site last year in August. This helped bring awareness of this project, but also to the importance of grazing high legume pastures.

The project is designed to run for a number of years. Year one was the establishment year, in year two the plot will be fenced into small paddocks and grazed. Grazing cages will be placed at random throughout the 10ac parcel. Once the cows are released into the pasture clippings in the grazing cages will be done. The clippings will then be sorted by species and then dried down to determine the percent composition of the stand. Also, the weight of the clippings will be taken and a yield on a per acre basis will be calculated. This will be done each year going forward for the duration of the trial. This will tell us how much available yield there was, grazing days, pounds of gain per head, regrowth potential, economic impact, longevity, etc. this stand has. These are very important numbers to calculate as there is an industry push to graze high legume percentage pastures in order to improve the rates of gain on cattle, increase carrying capacity or grazing days, and improve overall pasture health.

This is a very exciting project. Stay tuned, as we will be collecting data through the summer of 2017 and will be able to begin seeing how well this pasture and the cattle perform.

We are hosting a high legume field tour on Aug. 22 in conjunction with the Gentec Field Day at the Lacombe Research Centre.



3D Fencing 2016

Project # 2011C **Cooperators:** Otto Seidel, Darryl Murphy & landowner, Rene Poirier
By: Mountain View County & Grey Wooded Forage Association **Funding:** Agriculture Opportunities Fund (AOF)
Sponsors: Mountain View County Agricultura Services, PowerFlex Fence Canada & Gallagher Canada

Farmers across Alberta are dealing with elk and deer feeding on and fouling their winter feed stacks, bale yard, swath grazing and other feed supply. To find solutions for these serious problems, we have initiated two 3D fencing project sites in the Sundre area of Mountain View County.



We located two cooperators in the Sundre area that were having significant elk damage to their winter hay supplies. Both Otto and Darryl agreed to be cooperators for the project. GWFA staff with the help of our cooperators, Otto and Darryl, built the fences around the bale yards at the two locations.

Fence construction consisted of a 4 wire, high tensile electric fence about 4 feet high. An additional one wire fence was built outside of that, 3 feet from the 4 wire fence and 3 feet high. Gates were built to have the same configuration. Once the fences and gates were built, fence energizers and ground fields were installed. We also flagged the fence and attached foil cups with scents to attract cow elk. During the winter the sites were continually monitored, doing some occasional maintenance to the fences and keeping the elk attractant scents fresh.

January 2015 a large herd of elk visited Otto's site with half a dozen getting inside the fence. Judging by the tracks it looked like they were jumping the fence.

Besides the few elk that got into Otto Seidel's site, a few mule deer were seen inside the enclosure at Darryl Murphy's site. The tracks showed that they went under the outside fence and over the inside fence.

After more research a decision was made to modify the fences, by adding wires and flex posts to the 4-wire fence at Otto's farm, and to increase the height by 2 feet. Flex posts were also added to position a single wire into the space between the outer fence and the inner high tensile fence to give the overall fence more depth. The winter of 2015/2016 was very mild and there was little to no game pressure. The game cameras did capture a few deer in the late spring making it through the fence, but the wires had slackened through the winter and the deer could duck the outside fence and crawl through the slack wires on the main fence.

Summer of 2016 maintenance was done to tighten the slackened wires and pound the flex posts that had heaved with the frost. The long grass was clipped under the wires to reduce the chance of grounding the fence. The game cameras were redeployed with a bit of elk attractant. Our cooperators collected the fence voltage and weather data during winter. The game cameras were pulled at the end of March 2017, and the pictures were reviewed. We didn't capture any photos of deer or elk attempting to breach the fence. Otto said there was little to no deer or elk present through the winter at his location.



Biological Control of Canada Thistle Using Weevils

Cooperators/Sponsors: Lacombe County, Medicine River Watershed Society, Mountain View County, County of Wetaskiwin No. 10

In the spring of 2016 there was some interest from the GWFA projects committee and board in trying out different biological control agents for weed control. After some research and discussion with some of the other Forage and Applied Research Associations, GWFA decided to develop a couple of projects to test weevil success. GWFA reached out to its membership and its partners to see if there would be any interest in partnering on a project with the Canada Thistle Stem Mining Weevil.



Through the summer GWFA staff developed two different projects and protocols for running the trials. The first is the Monitoring Project. It is a set area of about four meters by four meters. Thistle stand counts were done to determine an approximate population within the test area. Then one cup of weevils would be released into the center of the test area. A cup of weevils contains 105 weevils. Since the weevils would be released in the fall there wouldn't be any reproduction occurring in the fall. The following summer thistle dissections would be done at random to determine if the weevils are reproducing and get an approximate population. In year three we would do plant stand counts and thistle dissections to determine if we are seeing a reduction in thistle population and a growth in the weevil's population. This will be a long-term project and we hope to maintain our locations for at least a five-year period. GWFA has partnered with Lacombe County, Medicine River Watershed Society, and County of Wetaskiwin in this style of project. GWFA is managing the local locations and County of Wetaskiwin is using our proto-

cols to run their own project, but will be providing us with the data they collect.

The second project we developed protocols for, is a longer term multi test location project. We would like to see if there is any benefit to 'overloading' a thistle population initially to speed up control and what would be a release rate that would increase the rate of control without being cost prohibitive. We will have 4 tests, a check with no weevils, a single release, a two-cup release, and finally a three-cup release. These sites will be separated, but will need to represent similar climates, topographies, and land use. The size of the test sites is the same as the monitoring project. Currently we have commitment to two locations of this magnitude with Mountain View County. The sites will be selected in spring of 2017 and the initial setup will be done during the summer and the release will follow in the fall.

Unfortunately, we were unable to do any weevil release in the fall of 2016. We source our weevils through West Central Forage Association, and there was a freak weather event right before they were to go down to Montana to pick up the weevils. The early snow caused the weevils to go underground earlier than normal and could not be collected. To combat this WCFA are sourcing their weevils from different regions in Montana to help prevent any sourcing issues in the future. We will be doing the releases on all our locations in 2017.



Hardy Alfalfa Varieties

Project ID: 2013A **Cooperators:** Doug and Deb Skeels



In 2013, the Grey Wooded Forage Association and Agriculture and Agri-Food Canada supported by the Beef Cattle Research Council, Alberta Beef Producers and Alberta Agriculture and Forestry, embarked on a joint alfalfa demonstration project at the Skeels farm, southeast of Rocky Mountain

House. This project originated from discussions within the GWFA regarding the lack of longevity of alfalfa stands in the West Country.

On July 1, 2013 six cultivars were planted in a plot format designed to allow us to assess the winter hardiness and resistance of different alfalfa cultivars to grass invasion. The six alfalfa cultivars were based on their longevity reputations on grey wooded soils and presence in Central and Northern Alberta. These species included the following four producer-based populations, Rhizoma (Allen Batt), Anik (D. Bartlett) Lundgard's Falcata (a Siberian creeping rooted type) and Lundgard's taprooted cultivar (G. Lungaard) and two from local seed companies, MV Blend (Seaborn Seeds) and Yellowhead (Secan). The seed from seed producers came from Fairview and Fort Vermillion, AB; Seaborns are from Rocky Mountain House.



All of these, with the exception of Yellowhead and Seaborn's MV Blend, are from very old seed stands, some over 30 years old. When they were selected, GWFA expected them to differ from original plantings due to cross breeding from outside cultivars. In 2014, Yves Castonguay from AAFC's Quebec Research and Development Centre genotyped each species and found Rhizoma and MV Blend to be genetically similar, Anik and

Lundgard's Falcata to be very similar while Yellowhead and Lundgard's taprooted cultivar were relatively unique. They established that Anik and Lundgard's Falcata were diploids (two sets of chromosomes) and the others tetraploids (four sets of chromosomes). Most of the alfalfa we grow are tetraploids; tetraploid plants are larger than diploids and should be more competitive in mixtures. Even though Rhizoma and MV Blend are closely related they don't look alike. Rhizoma has a wide base with rhizomes, while MV Blend is much more erect.

Over the last two growing seasons, the eastern half of each cultivar plot has been harvested in late July as one cut per season and the western half of the plot has been harvested in late July and then grazed in the fall. Annual yield clips and alfalfa cover estimates have been completed to measure productivity and the encroachment of other species into the individual alfalfa stands. These measurements will continue in 2017.

1. Tap Root Provided by: Glen Lundgard
2. Lundgard Falcata Provided by: Glen Lundgard
3. Rhizoma Provided by :Allen Batt
4. Anik Provided by: Dave Bartlett
5. MV Provided by: Seaborn Seeds
6. Yellowhead Provided by: Secan

↑
N

Range Road

Map of Alfalfa Trials

Continued from previous page

Table 1 highlights the yield from each site in September 2016. From this information, the MV Blend stand was the highest producer when not grazed in the fall of 2015 while the Taproot Lundgard stand produced the most when grazed. A look at the summer cover data (Table 2) tells a different story.

The cover data illustrates the dominance and persistence of genetically similar MV Blend and Rhizoma in their stands when grazed especially when compared to the other cultivars. In the absence of grazing the alfalfa cover of all cultivars decreased with the exception of both Lundgard cultivars which actually increased. It will be interesting to see if

these trends continue in 2017. The demonstration at Skeels farm is a part of a larger research project. We have all of these populations space-planted in dormancy vs. winter survival tests at two locations in Quebec, Swift Current, SK. and Lacombe, AB.



Table 1. 2016 Fall yield of grazed and non-grazed alfalfa on grey wooded soil at the Skeels farm

<u>Alfalfa type</u>	<u>Non-grazed</u>	<u>Grazed</u>	<u>Mean</u>
	kg ha ⁻¹		
Yellowhead	2912	4133	3523
MV Blend	3477	3655	3566
Anik	2574	2568	3396
Rhizoma	2980	3811	3390
Falcata Lundgard	2302	2398	2350
Taproot Lundgard	3262	4252	3757

Not analysed statistically.

Table 2. 2016 percent summer alfalfa cover of grazed and non-grazed alfalfa on grey wooded soil at the Skeels farm

Alfalfa type	Grazed Fall 2015	Non Grazed Fall 2015	Non Grazed Fall 2016
	% Cover-----		
Yellowhead	43	65	55
MV Blend	90	94	75
Anik	53	54	47
Rhizoma	91	80	72
Falcata Lundgard	58	56	63
Taproot Lundgard	79	70	74

Not analysed statistically.

2016 Fall grazed percent cover was not measured as grazing had already taken place when cover estimates were completed.

Finding an Easier Way to Estimate Forage Production



Agriculture and
Agri-Food Canada

Agriculture et
Agroalimentaire Canada

Estimating forage production can be a time consuming and inaccurate endeavor, especially if a pasture has a variety of environmental conditions. At Agriculture and Agri-Food Canada (AAFC) we are trying to use various electronic devices to provide us with a quick and accurate prediction of overall pasture yield.

Currently, the best and most widely used method for estimating forage yield is by hand clipping, collecting, drying and weighing random samples throughout the pasture of interest. This practice is laborious, time consuming, and often doesn't capture subtle differences in plant vigour that may be difficult to assess in the field.

During a recent project, forage clippings and an ATV-mounted Greenseeker were used to capture forage production and normalized difference vegetation index (NDVI) data respectively, from 2012 to 2015 at two different Alberta sites (Caroline and Vermilion). Data was collected in early summer (May-June), mid-summer (July), and late summer (late August) from four 12.5m² sampling grids (two at each site) divided into 25 individual 2.5 m² cells. One clipping (yield) was taken during each sampling event from each cell and compared to NDVI values on a cell by cell basis. Statistics (regression analysis) were then used to determine the degree of correlation between NDVI and yield.



Greenseeker sensor mounted to ATV.



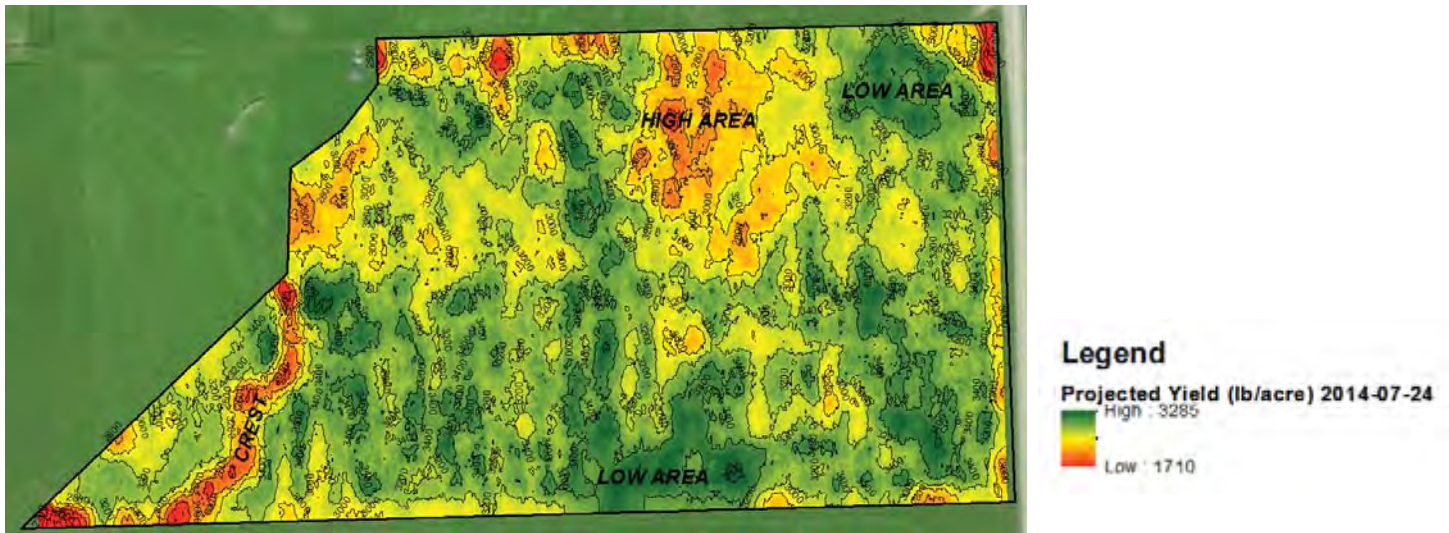
Greenseeker NDVI sensor



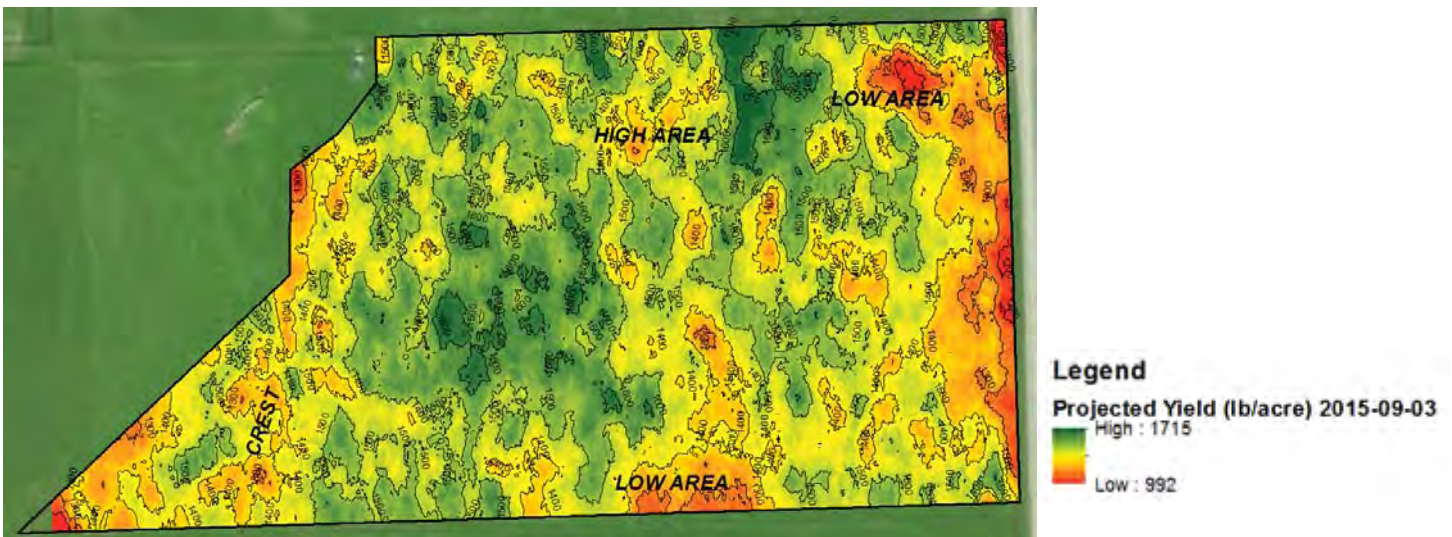
Trimble Nomad 900 Series
hand held . computer used for

Following statistical analysis, NDVI values were found to be accurate (>70% and often >90%) at predicting forage yield provided that a small set of clippings were taken at the same time and used to calibrate the NDVI data. For example, pasture forage yield could be predicted by harvesting a small number of clippings (at least 5) and measuring NDVI values on that same sample area that same day. The correlation factor is derived by calculating the average yield of the sampling grid area and dividing it by the average NDVI value of the same sampling grid area. With this information, pasture yield could then be predicted by running the Greenseeker over the entire field and using the correlation factor provided by the sample clippings. The correlation factor is then multiplied by the average NDVI value for the entire pasture to arrive at an estimated pasture yield. Here are a couple of examples showing how this information can be presented and possibly used for future pasture improvements.

Continued from previous page



Projected yield map for Caroline site – July 24th, 2014.



Projected yield map for Caroline site – September 3rd, 2015.

In closing, using NDVI as a tool to accurately predict yield is feasible, but only if taking a “snapshot in time”. This is achieved by calculating a one-time correlation factor based on current conditions. That is, a combination of NDVI values and forage clippings obtained on a given day can be used to accurately (>70% and often >90%) predict yield for the entire field. The resulting information could then be used to modify grazing management, pasture fertility programs or develop plans for future pasture improvements.

The Impact of Bale Grazing on Forage Resources



Agriculture and
Agri-Food Canada

Agriculture et
Agroalimentaire Canada



Bale grazing continues to be an important component of many extending grazing system. Whether conducted along or within a system that includes stockpiled grazing, swath grazing, corn grazing etc., many producers use bale grazing as a method to lower their winter feeding costs. Other benefits of bale grazing have also been described. These benefits include improved animal welfare, increased pasture production and a reduction in greenhouse gases.

From 2011 to 2015, Agriculture and Agri-Food Canada with the assistance of Alberta Beef Producers and the Grey Wooded Forage Association conducted a study that focused on the impact that bale grazing has on soil and forage resources. This factsheet will focus on forage resources.



What we know

In Alberta, it is suggested that bales be placed 12.5m (40 feet) apart (Agriculture and Agri-Food Canada 2011) and that bale grazing only take place on a portion of land once every five years (Alberta Agriculture and Rural Development 2013).

Following bale grazing, many pastures display areas of greater growth where individual bales were located and lesser growth in between the bales (Photo 1). This variability originates from the non-uniform deposition of bale residue, manure and urine and may result in a site having excess nutrients near where bales were placed (resulting in increased forage production, environmental risk and nutrient loss) and insufficient nutrients between bales (resulting in lower forage production). In addition to soil fertility, moderate soil temperatures and increased soil moisture from bale residue may also play a role.

Project Locations

In Alberta, bale grazing occurs primarily in the Parkland and Boreal Forest Natural Regions. In order to increase our understanding of how this practice affects soil and forage resources, two sites with different soil and climate regimes were chosen. Site one is located north of Caroline in the Dry Mixedwood Subregion of the Boreal Forest Natural Region on an Orthic Gray Luvisol while site two is located south of Vermilion in the Central Parkland Subregion of the Parkland Natural Region on a thin Black Chernozem. Bale grazing occurred on both locations in late 2011 until early 2012. Each study area contains a bale grazed early site (last week of December and early January) and a bale grazed late season site (late March to early April).

Key Findings

Forage Productivity

With the exception of a site that was subjected to overgrazing in years three and four, forage productivity and quality increased on all sites where bale grazing occurred in all years.

Forage production at the Vermilion site was more than two times greater on the areas directly influenced by the bales in the first two growing seasons following bale grazing when compared to areas between the bales. When excluded from grazing this trend continued in years two (2.13) and three (1.82). When heavily grazed however there was no discernible difference in years three (0.88) and four (1.05). The effect on forage production at the Caroline site although less pronounced was still 20 to 40 percent greater on bale affected areas during all years (1.4, 1.3, 1.4 and 1.2 times respectively).

Forage Quality

In Vermilion, Crude Protein (CP) levels were consistently higher (30 to 40 percent) in areas influenced by the bales when compared to areas between bales. There are some discrepancies in Relative Feed Value (RFV) and Relative Forage Quality (RFQ) that warrant further investigation. These discrepancies can be attributed to the heavy grazing experienced on one experimental site and the other one being excluded from grazing since 2013.

The effect of the bales on CP at the Caroline sites was less significant than the Vermilion site in the second growing season being only 20 percent greater in years 12 following bale grazing and ten percent greater in years three and four.

Field Crop Development Center seeks collaboration with Grey Wooded Forage Association for forage cereal breeding and extension work

Yadeta Kabeta, Erin Collier, Pat Juskiw and Flavio Capettini

The Field Crop Development Center (FCDC), based in Lacombe, AB has been breeding cereal crops for Alberta and western Canada for over 40 years. As a result of these four decades of effort at the Center, some 40+ varieties of different crops (barley, triticale and winter wheat) have been developed. Many of these varieties are being grown in Alberta and other prairie provinces for feed, malt and forage uses.

Breeding cereals for forage has been part of the program at FCDC since its inception. Our top three objectives for breeding forages have been biomass yield, standability and quality. On the forage front, the top barley varieties developed by the FCDC include ‘Canmore’, ‘Seebe’, ‘Ponoka’, ‘Falcon’, ‘Vivar’, and ‘Sundre’. Among the triticale varieties developed by the Center, ‘Bunker’, ‘Taza’, and ‘Pronghorn’ are the most commonly grown.

However, there is potential to make further improvement through targeted, forage-specific breeding, especially on the forage quality attributes. As well, the whole plant biomass yield of current varieties is significantly lower than what barley and triticale can potentially yield.

Over the last several months, the FCDC team has put together a research plan that will help realize the genetic potential of forage cereals. The idea is to carry out targeted breeding for forage characteristics to develop varieties specifically suited for greenfeed, swath grazing, or silage production.

The most limiting challenge in the breeding program has been that we cannot measure biomass yields or quality at the soft dough stage until later generations, when we have sufficient seed supplies for destructive sampling (Fig 1). With the new proposed plan, we intend to revamp our breeding philosophy and start selecting for forage yield earlier in the breeding cycle using nondestructive surrogate measures such as crop canopy sensors (Fig. 2).



Fig. 1. Forage plot harvest and sampling



Fig. 2. Crop canopy sensing with Greenseeker

This proposed research will primarily target forage yield and digestible energy content. The availability of forage barley and triticale varieties with high biomass and digestible energy will increase cattle carrying capacity, reduce feeding costs and enhance the competitiveness of the local livestock industry.

We hope to work together with the Grey Wooded Forage Association, different cereal breeding programs in western Canada, and other stakeholders. A team of breeders, agronomists, feed quality scientists, molecular biologists, plant pathologists, and an economist will be involved in this research.

We have applied for funding support for this new initiative. If successful, we hope to get the work started in early 2018.

Alberta Beef, Forage and Grazing Centre Update

Background

The concept for the Alberta Beef, Forage and Grazing Centre arose from concerns expressed to the Alberta Minister of Agriculture and Rural Development by individual beef producers and forage/beef interest groups about a lack of essential applied forage research and extension available to beef producers in Alberta. A research-extension group called the Western Forage Beef Group had operated as a federal-provincial organization out of the Lacombe Research Station, from 1995 to 2005, and had a focused approach to these issues. The concerns and inquiries expressed the necessity for a similar group to address current industry issues. Subsequently, focus groups were organized and carried out by a third party, which confirmed the interest and the need for a renewed research and extension effort in the forage-beef area. This led to the formation of a steering committee in the summer of 2011, with representatives from ARD, AAFC, University of Alberta (U of A), Alberta Beef Producers (ABP), Beef Cattle Research Council (BCRC), Agricultural Research and Extension Council of Alberta (ARECA), Alberta Forage Industry Network (AFIN) and the Canadian Forage and Grasslands Association (CFGa). Support for the concept was recognized throughout all levels of industry and government.

In April of 2015, The Alberta Beef, Forage and Grazing Centre became a reality, with a tripartite agreement between Alberta Beef

Producers (ABP), Agriculture and Agri-Food Canada (AAFC), and Alberta Agriculture and Forestry (AF). It has the mission of developing and transferring knowledge, innovative processes and tools to improve the forage/beef industry.

The Centre utilizes existing AAFC and AF facilities and staff, with a small cash infusion from ABP to assist with core funding and extension initiatives.

Objectives

The Centre has six strategic objectives, with a long term (20 year) time horizon.

- Reduce winter feeding costs by 50%
- Reduce the environmental footprint of the cowherd by 15%
- Improve cow efficiency by 15%
- Reduce backgrounding costs by 50%
- Improve late summer/fall pasture productivity by 30%
- Build and maintain research and extension capacity

We would like to introduce the members of the Industry Advisory Committee of the Centre:

Arno Doerksen, Gem, AB (cow/calf, finishing) – current Chair of the Industry Advisory Committee
Sean McGrath, Vermilion, AB (cow/calf)
Ron Buchanan, Fort St. John, BC (cow/calf)

Matthew Gould, Consort, AB (cow/calf, backgrounding, finishing)

Stacey Meunier, Barrhead, AB (cow/calf, custom grazing)

John Ruschkowski, Oyen, AB (cow/calf)

Assar Grinde, Rimbey, AB (Alberta Beef Producers representative)

Christine Fulkerth, Olds, AB (Alberta Forage Industry Network representative)

Herman Wyering, Ponoka, AB (Agricultural Research and Extension Council of Alberta representative)

The Centre held its first annual meeting in December in Lacombe, with 36 attendees. The morning sessions included presentations on the background/formation of the Centre, what research is currently in progress that supports the strategic goals, and the planned extension and communication strategies for the Centre. The afternoon brought meetings of the Management Committee and Industry Advisory Committee, along with a discussion with external stakeholders from across Western Canada about the initiative. This was an extremely valuable event, and feedback has been overwhelmingly positive.

To support Centre extension activities, ABP applied for and was successful in receiving funding from Alberta Agriculture and Forestry's Industry and Market Development program to support a pilot extension program that will link research directly with producers to examine new management practices or innovations that are applicable to their production systems, and why or why not producers adopt certain technologies. It will also include an economic component, led by Kathy Larson from the Western Beef Development Centre.

Website development for the Centre is currently underway as well, so stay tuned.

On August 22, the Centre will be hosting a joint field day with Livestock Gentec at the Lacombe Research Station, and is planning another Industry Advisory Committee meeting around that time as well. More information on the field day can be found here:

<http://livestockgentec.com/media-and-outreach/field-day-in-lacombe-2017>



**ALBERTA BEEF,
FORAGE & GRAZING
CENTRE**

Alberta Beef Producers Update

One question that nobody in the cattle and beef industry ever has trouble answering is the conversation starter, what's new? Sometimes I think it would be nice if we could ever reply, not much. Instead, there always seem to be something new and unusual for producers to deal with and the ABP Semi-Annual General Meeting seems to trigger more than its share of these events. As we approach the Semi-AGM, we are looking to address the major challenges and opportunities facing our industry.

Two of our top objectives at ABP for several years have been improving our government relations position and addressing the industry funding issue. We have made substantial progress in both of these areas in the past six months. We are starting to reap the benefits of having Tom Lynch-Staunton doing government relations work for us in Edmonton, even though he has a joint appointment to also work on issues management for the CCA. In a short time, our Edmonton position will become full-time with the person, hopefully Tom, working on government relations and policy analysis.

With Tom's help, we are building strong and effective relationships with elected officials, their senior staff members, and the senior bureaucrats in the Alberta government. We have been able to provide clear direction to the government on issues such as the Castle Park and Castle Wildland Park management plan, the Alberta Climate Leadership Plan, the grazing lease rental rate framework, and the subject of payment for ecosystem services. We just hosted our second successful MLA reception with the Alberta Cattle Feeders' Association at the Federal Building near the legislature. We also have hosted government officials and opposition party officials at the Canadian Beef Centre of Excellence. These relationships do not make our industry immune to impacts from all government legislative and policy decisions, but we have found the government officials generally willing to listen to our points and consider our industry in their actions.



Minister Oneil Carlier

As we try to move toward resolution of our industry funding issues this year, we did receive good news this spring when the government introduced amendments to the *Marketing of Agricultural Products Act* (MAPA) that will allow service charges to be non-refundable at the

direction of producers. We had formally requested that the government make changes to the MAPA as the first step in the process of restoring a non-refundable service charge. The MAPA amendments allow producers to decide how their commissions will be funded, a position that ABP has strongly supported through our history.

We expect the MAPA amendments to be proclaimed soon after the

spring sitting of the legislature ends, but we need to recognize that these amendments are just the first step toward a non-refundable service charge. The Agriculture and Forestry Minister has stated that he will not make a service charge non-refundable without a plebiscite of producers and I think it is reasonable to believe that the government will not even allow a plebiscite if they think it will cause bitter divisions among producers and cattle industry organizations. I think that ABP needs to ensure that we have strong support from producers and other industry associations before we seek a plebiscite on a non-refundable service charge.

Further on the issue of industry funding, ABP has committed to increasing the Canadian Beef Cattle Check-off, formerly called the National Check-Off, to \$2.50 per head sold by next April. This increase that is proposed in the National Beef Strategy that ABP joined provincial and national cattle organizations in creating several years ago. The APB delegates supported this increase with a resolution at our Annual General Meeting in 2015, but Marketing Council has asked us to have the increase approved again by our delegates at this Semi-AGM.



A third objective for ABP this year will be enhancing our dialogue with consumers to build greater consumer confidence and public trust in Alberta Beef and Alberta Beef Producers. We will be launching a new Alberta Beef marketing campaign that will be focused on consumers, but also will speak to producers. We also will be pursuing opportunities for conversations with consumers through social media, brochures and public events.

This is a time of challenges and opportunities for the cattle and beef industry, but we also see it as a time of challenges and opportunities for ABP. We face challenges with respect to government legislation and policies and we would like to have more young people expanding our cow herd. In the face of these challenges, ABP is in a position to generate significant benefits for producers through the opportunities created by our improved government relations and the industry funding developments. We hope that our delegates and directors will help us take advantage of these opportunities in our time together at the Semi-AGM.



Agriculture Opportunity Fund

Promoting the long term sustainability of Alberta's agriculture industry and our rural communities.

2015-16 Year in Review

The Agriculture Opportunity Fund (AOF) provided \$1.95 million in funding to 13 partner organizations to deliver agriculture extension and research programs. These partners have reported the estimated economic impact of this investment at \$250 million. Some of the impacts and partner activities as reported are summarized below.

KNOWLEDGE EXTENSION AND INFORMATION SHARING

- **10,052** producers attended **224** extension events
- **1016** producers attended **seven** conferences
- **941** one-on-one consultations
- **64** newsletter issues published
- Agriculture production information extended to over **50, 910** producers farming over **42,042,122** acres
- One peer-reviewed scientific paper published and **four** more submitted
- **120,079** web hits on partner websites
- **36** AOF partner board members participated in board governance training
- **1077** producers attended **35** field schools
- **142** workshops delivered
- **50** media interviews

REGIONAL APPLIED RESEARCH AND DEMONSTRATION

- **203** applied research projects
- **128** demonstrations of new technologies
- **Nine** partner organizations collected data in **183** sites for the Provincial Pest Monitoring Program
- **13** of 24 Regional Variety Testing sites in Alberta were delivered by AOF partners with final data provided for the 2015 Alberta Seed Guide

INDUSTRY ENGAGEMENT, COLLABORATION AND SUPPORT OF AGRICULTURE AND FORESTRY PROGRAMS

- **119** Agriculture and Forestry staff and **332** other specialists collaborated with nine Applied Research Associations, four Forage Associations and the Applied Research and Extension Council of Alberta
- partnered with **54** rural counties and municipal districts to deliver agriculture production extension

Agriculture Opportunity Fund

2015-16 Year in Review

AGRICULTURE STEWARDSHIP PROGRAMS

- **Eight** partners worked with **25** rural counties and municipal districts to deliver environmental extension programs
- **58** Growing Forward 2 supported workshops
- **24** Environmental Farm Plan workshops
- **37** Alberta Environmentally Sustainable Agriculture Program projects

AGRICULTURE STEWARDSHIP PROGRAMS

- Delivered **12** 4-H educational events
- Organized **six** agricultural tradeshow or fairs
- Employed **67** staff employed
- Received **21** staff speaking requests

AOF Partnership Map



We especially would like to thank our major funder, Alberta Agriculture and Forestry, for supporting our program. We would also like to thank ARECA (the Agricultural Research and Extension Council of Alberta). ARECA unifies all the member applied research associations and forage associations in Alberta. ARECA helps us get funding, channels funding and gives our associations a level of strength that we would not have alone.



Kokanee

Heavy Truck Sales Inc.



Rocky Mountain House

Central Veterinary Clinic



Produced by: Enna Graham