



# The Blade

Monthly Newsletter of the  
*Grey Wooded Forage Association*

January, 2019



# COMING UP

Clearwater County EFP Workshop	February 5	*Rocky Mountain House
Ranching Opportunities	February 7	*Olds College Alumni Centre
Benalto Ag Forage Day	February 20	*Leslieville Community Centre
Mountain View County EFP Workshop	March 4	*Didsbury
Alberta Forage Industry Network	March 5	*Leduc
Farm Transition Workshop	March 7	*Crossfield
Alberta Beef Industry Conference	March 12-14	Red Deer, Sheraton Hotel
AFAC Animal Care Conference	March 20-21	*Olds, Pomeroy Inn
Red Deer County EFP Workshops	Feb. 14 & Mar. 14	*Red Deer County office

\*More details on posters inside this edition of *The Blade*

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a member of the Agricultural Research  
and Extension Council of Alberta

Office Report

By Brenda Kossowan



We've been keeping a secret—hidden in plain sight. A few weeks ago, a GWFA member and long-timer supporter asked if we would consider adding a couple of books to our library. The member was especially interested in two books by author Judith D. Schwartz: *Cows Save the Planet* and *Water in Plain Sight, Hope for a Thirsty World*. He felt that both books would be good additions to our collection, which includes an array of titles, some CDs and a few periodicals focused mainly on forages, weeds and grazing management.

The request raised a broader discussion among the Board of Directors concerning the way we have managed our collection and whether we need to make some changes.

A previous board had recommended that the association consider beefing up its collection with subscriptions to a few scientific journals. So far, no evidence had come to light to indicate what happened with this particular idea.

At the end of the day, the current board felt scientific journals would be quite costly and perhaps not well used, given that most people interested in reading publications of that nature would probably be able to feed their curiosity online.

For example, a subscription to the *Journal of Soil and Water Conservation*, published by the Iowa-based Soil and Water Conservation Society, is free online to its members, which start at \$40US per year. Members can receive the printed edition for an additional \$40US. Non-members can view abstracts and read some articles online, but may be asked to pay a fee for additional access.

There was additional discussion about whether members would have to come in to borrow books, or if materials could be shipped to them. This is where shipping costs come sharply to bear. While all members are free to borrow from the collection, GWFA will not cover shipping costs, which can be as costly as the purchase price of a book in some instances.

The discussion closed with a decision that GWFA's lending library should be managed in the same way it has in the past, with new resources added to the collection as the need or opportunity arises.

All materials currently available in our collection are listed on the Resources page of the GWFA website. If you don't see what you need in our collection, there are a few tricks you can use to tease them out of the Internet's infinite list of resources. For example, maybe you would like to see some of the existing research on inter-seeding corn and alfalfa without spending days going through a litany of lists that may include a lot of irrelevant information.

Here are some key words to try: Canada, scientific journal, corn, alfalfa, interseeded. Pop these into your web browser, no need to add

the commas, and up comes a pretty good set of articles. The URL (ie: [www.researchgate.net](http://www.researchgate.net)) on each website will tell you who published it and, once you've opened the page, there should be a date that will tell you if it's new research or ancient history.

For more fun, if you have a good idea who you trust out there, go for the horse's mouth. Try this search: Forage, research, "Grant Lastiwka." Putting Grant's full name in quotation marks will significantly narrow the search. Click on the "images" link in your search results and it will produce the first pages of articles that Grant has co-authored or in which he is mentioned.

And heck, if you get stuck, Greg Paranich and I are here to help. Access to GWFA resources, including our members' library, is really no big secret.

Just call or email and we'll help you find the information or tools you need.

Province Announces Farm Waste Project

The Alberta Department of Agriculture and Forestry has announced approval of the Agricultural Plastics Recycling Group's (APRG) pilot program to recycle grain bags and twine along with \$750,000 in funding.

"This pilot program is shaping a move toward an environmentally sustainable future for our province," Oneil Carlier, Minister of Agriculture and Forestry, said in a statement released from Calgary on Jan. 21.

The APRG will now work to implement the three-year pilot project and will determine the next steps forward including the hiring of a program operator to collect and recycle the materials. As it's rolled out, the plan will also announce opportunities for municipalities to host collection sites. The pilot includes market research for all types of agricultural plastics, a waste characterization study to determine plastic volumes and materials, surveys to producers, and education about the program. It is anticipated that the pilot will start in the Fall of 2019.

"We are thrilled to receive news of the pilot approval and know that we are now working toward viable solutions to collect and recycle grain bags and twine across the province," said APRG Chair, Al Kemmere., who joined Carlier in the announcement. Municipalities and producers can expect to hear more details about the program from the APRG as plans are rolled out in the coming months.



# ENVIRONMENTAL FARM PLAN WORKSHOPS

## Unearth your farm's *Hidden Treasures and Lurking Hazards*

A new or updated EFP will provide credible information that can help your operation in so many ways:

- Protect the natural resources on your farm
- Give you the tools needed to capture cash through federal and provincial funding programs
- Create an inventory of your farm assets for succession planning
- Help you identify and manage potential hazards
- Show the public that you care about the legacy you are building for future generations
- Find resources to help you reach the goals identified in creating your EFP

## We're here to help!

The Grey Wooded Forage Association and its partners will host the following workshops, free of charge, to help you complete your new EFP:

### Clearwater County

Tuesday, Feb. 5, 1-5 p.m.

Rocky Learning Centre

4934—50 Street, Rocky Mountain House, AB

Please register with GWFA at 403-844-2645

Or with Clearwater County Agriculture and  
Community Services, 403-846-4040

### Mountain View County

Monday, March 4, 10-3 p.m.

Mountain View County Building, Didsbury  
10 – 1408 Twp. Rd. 320

Please register with GWFA at 403-844-2645,  
Mountain View County,  
403-335-3311, ext. 163

Or via Eventbrite: [efpworkshop.eventbrite.ca](http://efpworkshop.eventbrite.ca)

*PLEASE SEE PAGE 7 FOR DETAILS ABOUT REGULAR WORKSHOPS IN RED DEER COUNTY*



It is *essential* that you *pre-register* to ensure that we have enough space, technical support, snacks and beverages for everyone.

Please let us know if you are unable to bring your own laptop.  
Please watch our website, [www.greywoodedforageassociation.com](http://www.greywoodedforageassociation.com)  
for additional workshops and updates.

## If You Are the Smartest Person in the Room, You're in the Wrong Room!

By Greg Paranych, Ag Field Specialist



Happy New Year to All and Welcome to 2019!

After a brief side track with a “medical incident,” I’m back in the saddle again and ready to ride into 2019 with an enthusiastic view. With 2018 in the rear-view mirror, I’m sure a lot of us would just as soon leave it there. Winter months have typically been the time the Agriculture industry is in the information mode for conferences, educational meetings, trade shows and a lot of networking with fellow producers.

To me, it is the season of Opportunity to learn more of new trends, managing emerging scenarios, and just improving my general knowledge of what (I think) I already know. Be open minded to new information or opinions outside our traditional mindset.

As I was told once, “if you are the smartest person in the room, then you’re in the wrong room.” We can all benefit from learning.

Looking forward, past winter feeding, winter is more than just marking time. It means planning for whatever circumstances may await us, and those we know we must confront.

Coming off a drought with limited traditional feed stocks has many livestock feeders rethinking our regular routine and adapting new challenges with alternate feeds. The drought effects did not stop at snow fall.

We recognize that coming into winter, pastures were not only drought stressed but pressured by more grazing than usual to make ends meet.

Hay fields were similarly affected, and some grazed to address grazing shortfalls. So, all of this leads us to examine what is our Plan come springtime. We know what lies waiting for us, and it’s not as much as we usually have available to work with. The time to start thinking of our options is now.

### ***“If you fail to plan, you plan to fail”***

The spring feeding and grazing plans will need to be different this year for many. Our standard “forage recovery” time will need to be extended further to allow the previously mentioned stressed pastures and hay field to rebound.

If stockpiled grazing for early spring is no longer available, then we would need to continue to feed the cow herd until pastures recover. That means more winter feed for longer, with feed resources in shorter supply. Do we get more feed? Do we feed less cows? Do we sacrifice some hay acres that are scheduled to rotate out? Do we fertilize our forage acres more for additional production? How we balance the feed budget will be a tough act to achieve.

There are a few other options that have been suggested to help get back available forage. One is growing more annual forage acres/tonnes for grazing or for additional stored feed (greenfeed or silage) to regain our next winter supply and carryover inventory. Do we graze some of those acres? Can we get stored feed and grazing from the same acre? These are some of the questions the GWFA would like to address in producer meetings and demo sites this year.

Consider using some annual forages that are relatively new to the scene in addition to traditional cereal annual forage crops. Stand alone, or interseeded, are areas of interest as well. There are a lot of different types of species available to us that we did not have a few years ago. Next winter’s feed and grazing plans start in the spring, and the planning starts now. Make sure you do your homework to select those options that will deliver what you expect to meet your needs. We can help you with that.

Whatever you choose to do, start planning for it now. When the time comes to make the decision, our information is sound, our inputs are in place, and our action plan is ready to roll.

Another wise saying that was given to me, particularly applicable to Agriculture, is that success adheres to the Three R’s, like three legs on a stool:

- \* Do the right things.
- \* Do them at the right time.
- \* Do them the right way.

Making sound decisions and proper timing seem like obvious statements but shortchanging any one of the 3 principals will off balance your “stool”. Challenging times require us to reach out to talk with our neighbors and peers, not only for information, but for some moral support as well. Together we can get through tough times.

### **Speaking of planning . . .**

Watch for GWFA producer meetings on various forage and soil health management topics to be announced.

Consider an Environmental Farm Plan (EFP) for your operation. Workshops will be conducted this winter throughout the Central Alberta region.

The **Environmental Farm Plan (EFP)** is a voluntary, whole farm, self-assessment tool that helps producers identify their environmental risks and develop plans to mitigate identified risks. We are working together with farmers committed to environmental stewardship.

An EFP will help focus on areas where you can improve your management, identify areas you are doing well in, and get assistance for any actions you decide to take moving forward to sustainable agriculture. Additional benefits of an EFP is that you have a structured plan of resource management with you, if asked for, to qualify for some financial assistance or funding opportunities. Call our office if you are interested in attending a workshop.

*May your belly never grumble,  
May your heart never ache,  
May your horse never stumble,  
May your cinch never break!*

We are heading into a New Year. Let’s do it with energy and enthusiasm. Here comes 2019. Giddyup!

# FARM Transition Workshop

March 7th, 2019

Crossfield Community Hall, 9:00AM to 4:00PM

Cost: \$50

**The Tale of Two Generations...How to Make a Successful Ending!**  
*Speakers Merle Good and Tracy Hanson will help you understand the tax rules applicable to farm property and unlock unique approaches for implementing your business succession and estate plans, including strategies for transferring the family farm business and exploring ways to ensure your Will and estate plan fits with the succession of your farm business.*



Register online at  
[2019farmtransition.eventbrite.ca](http://2019farmtransition.eventbrite.ca)  
or Phone: 403-335-3311 Ext. 204  
Email: [darcher@mvcounty.com](mailto:darcher@mvcounty.com)



## How to Apply for ALUS

By Ken Lewis, Red Deer County conservation co-ordinator

The ALUS (Alternative Land Use Services) Program can provide funding for things you want to do on your farm or ranch, to increase the production of ecosystem services. Put another way, it can provide funding for actions you take that benefit the environment.

You can get up to 85 per cent of cash costs covered by the ALUS Program PLUS you can get up to \$50 per acre per year for the acres involved.



How do you apply for this funding?  
It's easy as 1-2-3:

### **First Contact:**

You call either me, your ALUS Program Coordinator at 403-505-9038 or your local ALUS Farmer Liaison:

- *Red Deer County West:* Kevin Ziola at 403-352-0662
- *Red Deer County Central:* Tom Towers at 403-352-6901
- *Red Deer County East:* Stephen Smith at 403-318-3371



Red Deer County Farmers and Ranchers are invited to join us for FREE Online Environmental Farm Plan (EFP) Workshops.

This is a chance to start, complete or update your EFP.

**Date:** Second Thursday of each Month

**Time:** 10 – 2pm

**Where:** Red Deer County – Council Chambers

**Cost:** FREE – Lunch Included

**Note:** Please bring a laptop as this is an Online EFP Workshop (via internet).

**For More Information and to Register:** Contact Agriculture Services at 403.342.8654 or agriculture@rdcounty.ca

**Registration Deadline:** First Thursday of each Month

For more information on Environmental Farm Plans, visit [www.albertaefp.com](http://www.albertaefp.com)

We will arrange with you, a time to come to your place and have a chat about what you want to do.

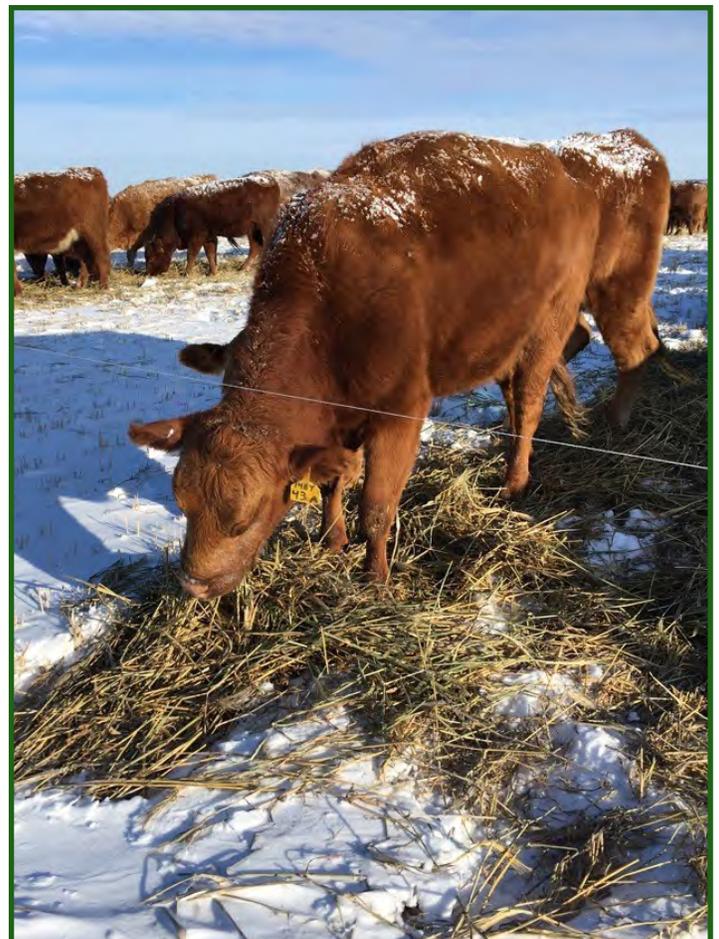
### **Funding Proposal:**

Based on your initial conversations with us, I'll draft a funding proposal for you. I'll then work with you to finalize your proposal. Then, you get to wait, while I take your proposal to our ALUS Partnership Advisory Committee. This farmer-focused Committee will have a look at your proposal, make suggestions to improve it, and make the final decision on how your project gets funded.

### **Funding Contract:**

Once the Committee approves funding for your project, I prepare a contract for you, that you and I sign. This guarantees your funding.

That's it. After the contract is signed, you go ahead and complete the work, send in your receipts, and receive your funding as per the contract.



Beeves fill up their insides to keep their outsides warm on a crispy January day at GWFA director Jess Hudson's place near Bashaw/Jess Hudson photo.

The Red-Bow Agricultural Partnership Presents

FEBRUARY 7 - 2019

# RANCHING OPPORTUNITIES CONFERENCE

REGISTER ONLINE AT

[www.redbowag.com](http://www.redbowag.com)

\$50 registration fee (student rate \$30)  
Includes lunch, coffee and tradeshow  
Register by February 1st, 2019

Contact Daniela at Mountain View  
County for more information:  
Ph: 403-335-3311 Ext. 204  
or [darcher@mvcounty.com](mailto:darcher@mvcounty.com)

THANK YOU TO OUR  
SPONSORS

**RED BOW**  
Agricultural Partnership



Olds College Alumni Centre

8:50 AM to 4:30 PM (8:30 Registration)

\* Free Parking

For the current agenda and list of speakers  
visit [www.redbowag.com](http://www.redbowag.com)

**Offsite Watering Systems:**

*The benefits & economics*

**Hybrid Vigour  
Scoring**

*Demonstration*

**Livestock  
Transportation  
& Handling**

**Animal Health:**

*Pain mitigation &  
Antimicrobial Resistance*

**Producer Panel:**

*Data sets & new technology*

**Spring Forward into  
Grazing Management**

*Managing pasture after drought*

**WWW.REDBOWAG.COM**

## Sale of Delta Genomics Lab Will Benefit Canadian Livestock Breeders

The cost for genetic sampling of livestock in Alberta has fallen sharply with the sale of an Edmonton-based lab. Early in January, geneticist Graham Plastow, chair of the Delta Genomics Centre, joined Neogen Canada in announcing that the newly-formed company, a subsidiary of Michigan-based Neogen Corp., had purchased the lab effective January 1.

In her presentation to Ladies Livestock Lessons in Airdrie on January 19, Andrea Hanson, livestock extension specialist with Alberta Agriculture and Forestry, confirmed that the sampling fee had dropped from \$45 to \$30.

Alongside making genomics testing more affordable for producers, selling the lab has provided Delta Genomics with the resources it needs to support development of value-added genomics tools while maintaining high-quality services for its clients, said Plastow.

Neogen Canada will provide laboratory services while Delta will focus its resources on analyzing results and then passing that information along, he said.

Outside the price drop and change in logo, Delta's customers will see very few changes. Most of the staff will remain the same,

including former CEO Michelle Miller, who has been named general manager of Neogen Canada.

"Even though the testing will be done in Nebraska, the DNA extraction, sample storage and analysis will still be done in Edmonton, so the interface with our clients remains the same," Miller said in a statement released with the announcement.

Stewart Bauck, vice-president of agri-genomics for Neogen Corp., said at the time of the announcement that adding Delta's facilities, expertise, local support and customer base strengthens the company's capabilities and presence.

"This laboratory in Edmonton will provide our Canadian customers the same access to the best animal genomics technology as our customers elsewhere in the world. Neogen operates labs in four other countries, including the United States, Scotland, Brazil and Australia.

Delta Genomics is a strong supporter of research in Alberta's livestock industry and has a history of partnerships with research associations throughout the province, including Grey Wooded Forage Association.



## Rake in security with Perennial Crop Insurance.

Your line of defense when the unpredictable happens. Customize your hay and pasture insurance with multiple coverage options to fit your operation's unique needs. The deadline to apply for the Perennial Crop Insurance Program is the last day of February.

Talk to an AFSC Insurance Specialist about available options.

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# 25% Genetics 75% Environmental

As food producers we hold the cards that can give your genetic production all of the potential that it needs. We have products that will help you get the most from your genetics. Check out the websites of the companies that **Green Earth Nutrients** represents!



get the most from your genetics

## Green Earth Nutrients Ltd.

HARVEY HOLLMAN | 403.588.3913 | [hj4dj@platinum.ca](mailto:hj4dj@platinum.ca)

### Proud to Represent

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HUMIC GROWTH  
[humicgrowth.com](http://humicgrowth.com)

ADVANCED AG  
[awtech.ca](http://awtech.ca)

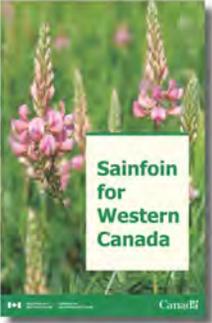
## Sainfoin Update from Agriculture and Agri-Food Canada



**NEW! SAINFOIN FOR WESTERN CANADA BULLETIN**

Sainfoin is an introduced perennial forage legume that has been grown for centuries in parts of Europe and Asia. It is a relatively high yielding, high quality livestock feed resource with high protein content and palatability. This cool-season legume, alone or in grass mixtures, can be hayed, ensiled or grazed. Other desirable characteristics include early maturity and high productivity with dry matter yields up to 90% of alfalfa (under a one-cut/graze system). In autumn, sainfoin forms a low rosette that remains green under snow cover for most of the winter, making it ideal for late season grazing. One of its greatest advantages is that it is a non-bloating legume and can reduce the risk of bloat from alfalfa when the two are grown together.

This new, 36 page, full-colour manual describes the benefits of choosing sainfoin as a forage option, sainfoin cultivars, using sainfoin as a bloat management tool, seeding rates, post-seeding weed control, management options (haying, grazing), pests and more. There is also a chapter on the economics of growing sainfoin.



**FREE download from [www.publications.gc.ca](http://www.publications.gc.ca)**

Agriculture and Agri-Food Canada / Agriculture et Agroalimentaire Canada

Canada

*Agriculture and Agri-Food Canada has released a 36-page bulletin describing the use of sainfoin as a forage option. Grant Lastiwka, forage extension specialist for Alberta Agriculture and Forestry, offers the following comments for grass farmers considering sainfoin in their forage mix:*

This publication's timeliness is great with the new sainfoin AAC Glenview (advertised as an insert with the last Cattleman Magazine) also for sale as is AAC Mountainview. Both are the newer sainfoins that regrow with alfalfa.

Note that I am not a fan of just one legume in a mix. I see all legume choices as having places for many. This should be well thought out and planned for attributes of multi-functional legumes and grasses suited to the situation.

Even then the growth coming will be expressed to varying degrees in the mixtures. This will vary even if everything is done right and from year to year. It will not be equal to seed count determined potentials you have planned. Some may not compete enough in certain areas to even establish and others lost in the competitive stand mix. Straight legume to me is too high in crude protein, high in energy, and not enough fibre if immature and is not good for a ruminant either.

From a lot of our findings I believe we see it is more important to have high functioning biodiverse stands for the resilience and multi-functional traits they provide. They will contribute to a more dependable long season of more stable green growth. Only green with a higher leaf area index can capture more carbon for soil health and provide resulting higher sustainable stocking rates. Sustainable is still not equal over years and varies based on many reasons that many of you are aware of.

Biodiversity is needed especially across land seeded to forages. Land which may be getting more diverse all the time. This latter comment is due to the most uniform land often being seeded to annual grain crops.

Our Phase two of the Sainfoin project-Higher Legume Pastures had some good information sharing. At our Grimshaw wrap up the Mackenzie Applied Research Association legume grazing mentor, Dickie Driedger noted that where there were low areas and draws the sainfoin alfalfa were drown out. He was disappointed, and I agree as every acre counts to land carrying capacity of animals, finances, and achieving greater soil health.

I would add that it is important to use the most locally adapted and hardy Canadian forage plant breeders' genetics if longevity of plants in a stand is desired. One of our forage and turf peers In Quebec, agronomist Christian Duchesneau, has found that certified seed also was worth the extra cost as yields of forage in his trials were consistently higher.

Research scientist Shabtai Bittman has spent over 40 years with AAFC across Canada. In the article *An Ecological Approach to Forage Research*, co-authored with Duane McCartney in April of 2018, Bittman had the following observation: He initially felt grazing stress on alfalfa was one reason for its decline in a pasture mix, but that was not exactly right. Later they found very winter hardy strains would survive in pure stands and in grass mixtures but less winter hardy strains that could survive in pure stands might not in mixtures, and grazing has little effect on this. So, grazing tolerant mixes must include a very hardy alfalfa.

Further, he found that soil nutrient deficiency also leads to declines in species in mixes more sensitive to that shortage. Adding them kept species in at more stable levels over time.

I would advise, if you are short of phosphorus or sulfur or potassium, you should try to address that as you seed down a stand. *Hard copies of the bulletin may be available from forage associations and AAF offices throughout the province. It can also be downloaded free of charge from [www.publications.gc.ca](http://www.publications.gc.ca).*

Alberta Ag-Info Centre

**310-farm**

Phone 310-FARM (3276) toll-free to contact Alberta Agriculture and Rural Development, or visit one of our field offices across the province for your agricultural information needs.

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## Alberta's Largest Crop-Canada's largest Acreage

### Forage Acreages Changes in Alberta

A recent analysis of information from the Statistics Canada 2016 Census of Agriculture shows the following trends in Alberta:

0.27 % drop in Natural Land for Pasture

8 % drop in Tame seeded pasture.

24.4 % rise in Forage Seed for Seed

16.4 % drop in alfalfa and alfalfa mixtures.

20.8 % drop in all other tame hay and fodder crops.

108.9 % rise in corn silage land.

2011: All forage 27,175,245 acres

2011: All forage 10,997,429 hectares

2016 : All forage 25,865,580 acres. Forage acreage dropped 4.8% from 2011 to 2016.

2016 : All forage 10,467,429 hectares

Census of Agriculture	2011		2016	
	Acres	Hectares	Acres	Hectares
Natural land for pasture	15,903,273	6,435,825	15,861,059	6,418,742
Tame/Seeded pasture	5,920,507	2,395,944	5,421,962	2,194,190
Forage seed for seed	131,933	53,391	164,070	66,397
Alfalfa and alfalfa mixtures	3,657,114	1,479,981	3,056,701	1,237,003
All other tame hay and fodder crops	1,466,557	593,494	1,161,521	470,051
Corn for silage	95,861	38,794	200,267	81,045

Source: Statistics Canada, Census of Agriculture 2011-2016



#### Alberta Farm Animal Care—2019 Conference

“Partners in Progress: Tools for Success”

March 20-21, Pomeroy Inn and Suites  
Olds, AB

Register online: [www.eventbrite.sg](http://www.eventbrite.sg)  
(Search in Olds area events)

View program and speaker details at  
[www.afac.ab.ca](http://www.afac.ab.ca)

## The Weed Seed Bank- the Gift That Keeps on Taking

By Harry Brook, Alberta Ag-Info Centre

Below the soil surface is a bank account you don't want to draw on: The weed seed bank. It is a source of annual and perennial weeds that will wait for years before the right conditions come about and then germinate to steal moisture and nutrients from your crop. They are the predominant source of weed pressure on current and future crops.

The seed bank consists of freshly shed seeds from this year's weeds as well as older seeds that have persisted in the soil.

What causes weeds to germinate in the first place? Of the many seeds in the soil seed bank very few will ever result in adult plants. Most will either die, decompose or be eaten by predators prior to germination. Seed predation has the greatest effect when weed seeds are left on the soil surface, as in zero tillage or perennial forage crops. Ground beetles and crickets can reduce weed seed emergence by 5 to 15%. Add to this are weed seeds consumed by rodents and birds. Keeping the soil in permanent cover increases predation on weed seeds.

Causes of seed mortality, other than predation, are lethal germination and desiccation. Lethal germination is when the seeds germinate at too great a depth and seeds exhaust their energy and die before emergence. Kochia and some other weeds can sense the depth of burial and limit lethal germination.

Desiccation is when the seeds germinate but then the soil dries out after germination starts, before emergence. Dry seeds are very resistant to desiccation. If it stays dry, seeds can remain viable for hundreds of years. However, frequent and short term wetting and drying will increase weed seed losses due to desiccation. This occurs more often near the soil surface. In a research trial in Montana, wild oat seed losses increased from 55 – 88% as soil moisture went from 6 – 24%.

Seed dormancy prevents germination when conditions are otherwise conducive to seed germination. When weed seeds are dormant at plant maturity it is called primary dormancy.

Seeds can also alternate between dormancy and not dormant due to environmental conditions. This on again, off again is called secondary dormancy. Secondary dormancy prevents germination when the weeds cannot complete their life cycle within the time left before winter. It is regulated by seasonal soil temperatures.

For most summer annual weeds that spring germinate, the winter cold breaks dormancy allowing spring growth. Conversely, winter annual weeds require the summer heat to break dormancy and form rosettes in the fall. Seed dormancy is controlled by a variety of factors. This can be immature embryos at maturity requiring time to ripen, or, hard, impermeable seed coats preventing moisture penetration, or environmental factors for cyclical seed dormancy.

Changes in cropping system will also shift the prominent weeds and change what is in the seed bank. Some seeds, like kochia and dandelion, will not survive more than a year or two while wild oats or redroot pigweed can last decades buried in the soil.

Perennial forages in the crop rotation deplete the soil seed bank of annual weeds, primarily weeds with a short viability in the soil. It is most effective on kochia and grassy weeds like wild oats and green foxtail. Perennial forages are extremely useful in preventing additions to the weed seed bank. Research in Canada and the U.S.

show rapid declines in the weed seed bank when no new seeds are allowed to enter the soil.

Another strategy that effectively reduces weed seed banks is chaff collection in annual crops. Chaff collection, during harvest, can prevent up to 90% of weed seeds from being added to the weed seed bank.

Position in the soil also has a marked effect on seed longevity. Using zero tillage places the vast majority (up to 90%) of weed seeds in the top 4 inches of soil.

There they are subject to wetting and drying cycles, stimulating germination. If weed seeds are prevented from going to seed, as in a haying situation, there can be major weed seed reductions. Using cultivation, the majority of weed seeds are placed lower than 4 inches from the surface and thusly, the dormant seeds will survive longer in the soil. It is vital to keep weeds from going to seed and adding to the seed bank.

Herbicides are useful tools to combat weeds. Don't forget to use some of the other tools out there to minimize weed pressure in the crop. Don't make large weed seed deposits to the soil, it is a "gift" that keeps on taking.



**JOIN US!**  
March 5, 2019  
Leduc, Alberta

**AFIN**  
ALBERTA FORAGE INDUSTRY NETWORK

**Forage Industry Updates  
and Annual General Meeting**

**Registration NOW OPEN**

**Keynote Speaker: Kim McConnell**

Please email [albertaforages@gmail.com](mailto:albertaforages@gmail.com) to register

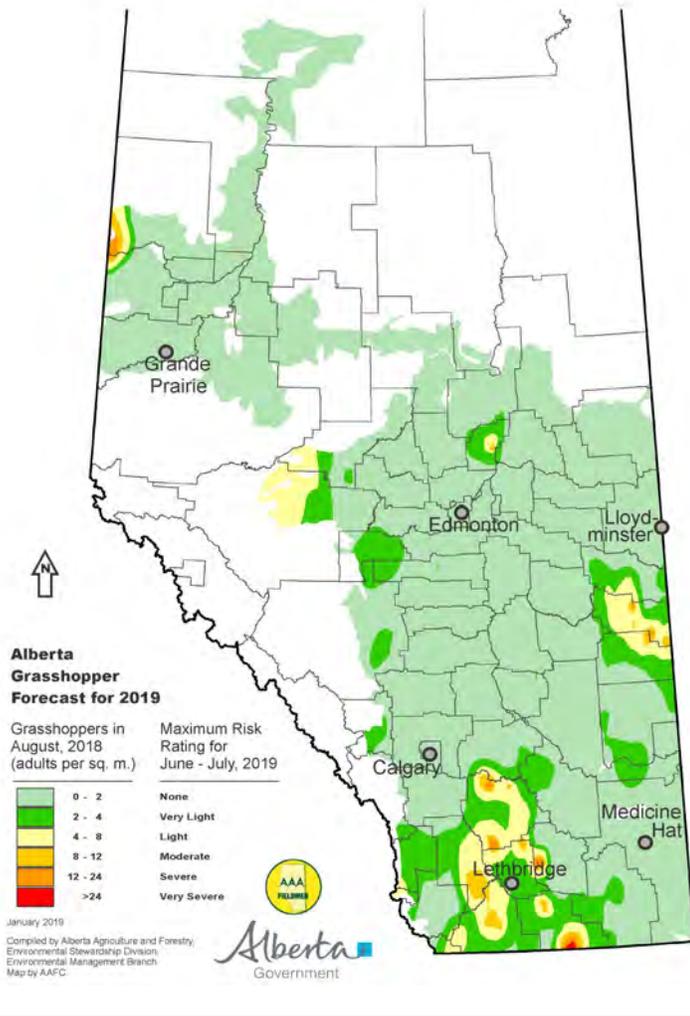
Cost \$70/person- Lunch included

Deadline to Register is February 24, 2019



### The Shape of Things to Come:

The map below shows some promise for producers within the six counties served by the Grey Wooded Forage Association. Alberta Agriculture and Forestry offers reams of information online to help with planning and risk management for the coming year. Take note, however, that the province is restructuring its web pages, so familiar sites including Ropin the Web will be moved or gone by the end of March. Learn more at Alberta.ca



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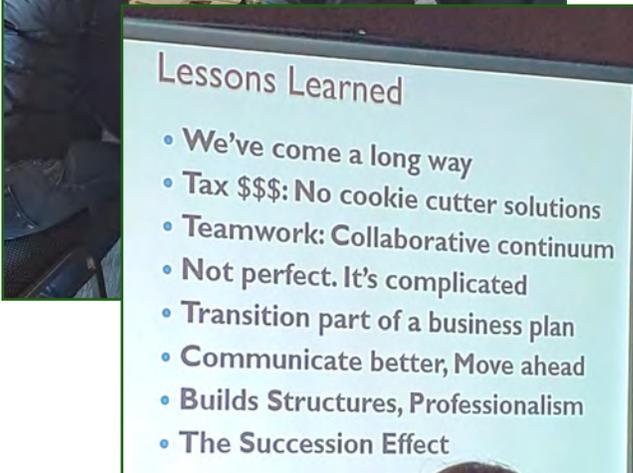
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## Ladies Livestock Lessons

Photo Essay by Brenda Kossowan, GWFA



Producers from as far away as Grande Prairie converged at the Apple Creek Golf Course near Airdrie for the Red-Bow Partnership's annual Ladies Livestock Lessons on January 19. Counterclockwise from the top, Andrea Hanson from Alberta Agriculture and Forestry holds a genetics workshop, a slide from southern-Alberta producer Stina Nagel's presentation, Marvin Jackson from Sundog Solar shows the finer points of tying high-tensile wire, networking during the morning break and Jackson preaching the fencers' gospel.





# Grey Wooded Forage Association

*Creating an Awareness of Forages*

## 2019/20 Membership Application Form

**Membership in the GWFA is open to anyone interested in forage production, grazing management and environment sustainability**

**The fee is \$40 per year, running from April 1 to March 31**

**For information, call 403-844-2645 or email gwfa3@telus.net**

### Benefits of joining GWFA:

- ◆ Discounts on courses, seminars, workshops and tours.
- ◆ An automatic subscription to *The Blade*, published monthly online. Hard copy is available on request.
- ◆ Assistance with your Environmental Farm Plan.
- ◆ Equipment rental (deposit required).
- ◆ Access to our reference library.
- ◆ Access to our members-only Facebook group.
- ◆ Networking with like-minded producers and advisors.
- ◆ Farm consultation services (farm calls are 55 cents per kilometre, each way).
- ◆ A copy of the GWFA Annual Report.

**GWFA 2019/20 memberships fall due on April 1.**

**Please mail your completed form and cheque to:**  
*Grey Wooded Forage Association*

*PO Box 1448, Rocky Mountain House, AB T4T 1B1,*

**Or scan and email the completed form and send an e-transfer to gwfa3@telus.net**

Renewal  New member

How should we send your copy of *The Blade*: Email  Canada Post

Name: \_\_\_\_\_ Email: \_\_\_\_\_

Mailing address: \_\_\_\_\_

Landline: \_\_\_\_\_ Cell: \_\_\_\_\_

### **\*How do you describe your operation (tick all that apply)**

- Beef producer
- Sheep/goat\ producer
- Dairy producer
- Annual crops producer
- Forage producer
- Other \_\_\_\_\_

### **\*How many head of livestock do you manage:**

- Beef cows/heifers \_\_\_\_\_
- Dairy cows \_\_\_\_\_
- Feeders \_\_\_\_\_
- Ewes \_\_\_\_\_
- Does \_\_\_\_\_
- Other \_\_\_\_\_

### **\*How many acres of land do you manage:**

- Pasture \_\_\_\_\_
- Hay \_\_\_\_\_
- Crop \_\_\_\_\_
- Other \_\_\_\_\_

*\*These questions are voluntary.  
We do not share your information*

How can we improve our service to you? \_\_\_\_\_

Please suggest topics you would like to learn more about: \_\_\_\_\_