Grey Wooded Forage Association

The Blade

"Creating an Awareness of Forages"

AUGUST 2012

Box 1448, 5039 - 45 Street, Rocky Mountain House, Alberta T4T-1B1, Phone: 403 844 2645, Fax: 403 844 2642, Email: GWFA1@telus.net or GWFA2@telus.net, Website: www.greywoodedforageassociation.com

Western Canadian Grazing Conference & Tradeshow

In this issue:

Upcoming Events:

VISION STATEMENT

GWFA – The centre of choice for gathering and dispersing of forage and livestock information, providing a strong link with producers and the research community

MISSION STATEMENT

To enhance awareness of the organization as an information exchange centre, illustrating forage and livestock production practices that are environmentally and economically sustainable for the agricultural community.

Approved May 2012

25th Annual

West Country Ag Tour

Thursday, August 23rd, 2012
7:30 am till 4:30 pm

Leslieville Hall

The tour will feature a trade show during breakfast & lunch and a silent auction!

Come join us for an exciting day filled with good company and tasty food as we travel around Clearwater County and visit a variety of agricultural operations to learn about research and innovations that are taking place in our area!

Registration Fee: $25 per person before August 16th
$30 per person after August 16th
(Includes breakfast, lunch and snacks, bus charge and an information package)

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

Registration Deadline: Tuesday, August 21st!

Pancake Breakfast starts at 7:30-8:30am, Leslieville Hall!	Coffee and snacks will be provided!	Tour buses will depart right after breakfast!

25th Annual West Country Ag Tour

Tour Stops

Return of the cattails.... We'll visit a pair of dugouts; one used for livestock watering and another formerly a fish pond. Both have been treated for algal or algal-like growth and the livestock pond is a true success story of recovery resulting from fencing and off source watering. *Brought to you by Clear Water Landcare.*

Unique environmental stop.... Soil is so important we will be visiting with a local entrepreneur couple who enjoy teaching others about building soil on a small and large scale. *Brought to you by Clearwater County Agricultural Services.*

You shall not pass.... Our old weed nemesis Tall Buttercup continues to be a challenge but a suite of range and pasture products can help defend against this significant invader – including new products from DuPont whose name and results you will have to come on the tour to find out about. *Brought to you by Clearwater County Agricultural Services.*

If at first you don't know what to feed..... trial, trial, and trial again! We'll explore 12 different varieties including some unique to grey wooded soil and a short growing season – how about corn, millet and sunflower amongst others. *Brought to you by Clearwater County Agricultural Services.*

Bale Grazing.... A study of nutrient management in an increasingly popular way to feed cattle and fertilize your pastures at the same time! *Brought to you by Grey Wooded Forage Association.*

Kura Clover.... Does this long lived legume have a place in the west country? *Brought to you by Grey Wooded Forage Association.*

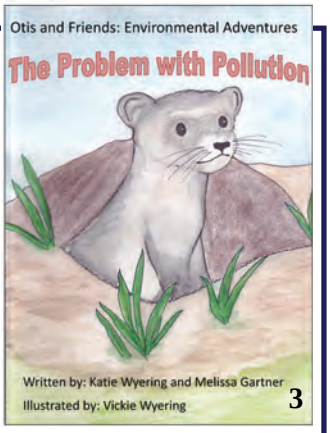
No time for swimsuits.... Cow Lake is a popular recreational fishery and place to relax but it is also the headwaters for Cow Creek. We'll learn about what makes for a healthy lakeshore/ wetland, how the fishery is doing and actually sample the water to see how the lake is doing. *Brought to you by Clear Water Landcare.*

Hosted By: Clear Water Landcare, Grey Wooded Forage Association, Clearwater County

Sponsored By: Caring for our Watersheds, Battle River Watershed Alliance, St. Augustine Catholic School, Keyera, Agrium, Grey Wooded Forage Association

Please join us for an informal gathering to present the book `**The Problem with Pollution**` to the Parkland Regional Library, Battle River Watershed Alliance and Keyera Energy. This book is a sequel to `**The Mystery of the Missing Water**` , which was published in 2011. This event will be held at the **Ponoka Public Library** (5110-48th Ave) on **Wednesday, August 29th, 2012, at 4:00 PM**. Refreshments will be provided.

Please contact the GWFA office for more information.



September 30, 2012 AgriStability Supplementary Forms Deadline Fast Approaching

CONTACT YOUR LOCAL AGRISTABILITY FIELD ANALYST TO DISCUSS:

- Questions regarding completing your supplementary forms
- E-filing your supplementary forms
- Submitting your 2012 AgriStability Program Fee prior to the December 31, 2012 deadline
- Other questions regarding AgriStability or AgriInvest

September 30, 2012 is the deadline to file your 2011 Supplementary Forms without a penalty. December 31, 2012 is the final deadline (with penalty) to file your supplementary forms for the 2011 program year.

To receive a copy of your supplementary forms, please contact any District Office or toll free at 1-877-899-(AFSC) 2372.
Your local AgriStability Field Analyst is:

Leslie Garries
Lacombe, Ponoka & Rocky Mountain House
Ph. 403-782-0159

Robert Forsstrom
Lacombe, Stettler & Rimbey
Ph. 403-782-0187

Click on Risk Management at www.AFSC.ca for more information.

Canada | AFSC Unique Financial Services | Growing Forward A federal-provincial-territorial initiative | Government of Alberta

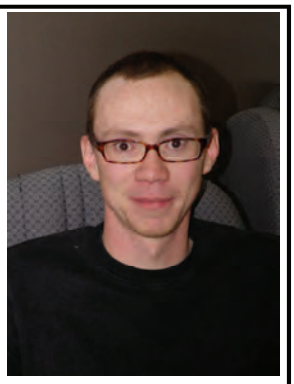
Agriculture Financial Services Corporation

Director's Corner:

My name is Cameron Jenkins. I was born and raised in Calgary, where I was homeschooled and later studied theology at post-secondary, but left before graduating. Having worked at farmer's markets for years, and with a bit of experience as a farm hand, I decided to have a go at farming for myself.

I bought my farm in November 2009. I currently raise a small flock of sheep, poultry and a weed infested garden. Some of my farming goals include raising grass finished certified organic lamb, establishing a rotational grazing plan that includes year round grazing (as much as possible in this province), and keeping the quack grass out of my vegetables.

My farm experience is limited and I am extremely grateful for the help Grey Wooded has provided to me. I hope I will be able to bring a fresh, if somewhat naïve, point of view to this association.



Thank you, *Cameron Jenkins*

'Like' Grey Wooded Forage Association on Facebook and enjoy viewing our latest photos and hear about upcoming events!

facebook

Contact us to read 'The Blade' online on our new website:

www.greywoodedforageassociation.com

*Email us for a username/password and enjoy reading 'The Blade' anywhere!

* Restricted to members only!

gwfa1@telus.net

Manager's Notes:

By Albert Kuipers

A week or so ago, my friend and past Director, Chris Sande, dropped by the office. He just had to tell me about his results with direct seeding into two existing hay stands that had pretty much lost their legume content.

The first field he told me about was seeded in the spring of 2011. He used a Haybuster 107 zero-till disc drill to apply ten lbs per acre of red clover, alsike clover and orchardgrass. Each made up a third of the seed mix by weight.

He applied no fertilizer till 2012 at which time he applied 120 lbs per acre of 21:0:0:24. This worked out to about 25 lbs of nitrogen and 30 lbs of sulfur per acre, so not a lot of fertilizer.

Below and to the right are pictures showing the difference between the seeded and un-seeded areas of the field. I'd say the result is very successful.

He also told me about another field he had seeded and fertilized in exactly the same way, but the seeding was done in the end of October, 2010. I'd say this was equally successful.

Every year I get questions about rejuvenating old forage stands of either hay or pasture. We also receive lots of feedback that forage stand rejuvenation is high on the list of priorities for us to gather and provide information about.

Every year I talk with someone or another who has, or is trying to rejuvenate an old forage stand by direct seeding some kind of mix into it. We often see mixed results, though. Even when seeding into cereal stubble, or a thoroughly prepared seed bed, we see everything from huge successes to dismal failures. So, why is that?

Well, to start with, there are a lot of factors that contribute to the success, or failure of a seeding project. When we add to them the challenges that come with direct seeding into an existing perennial forage stand, we add a considerable amount of plant competition factors to the challenge. These plants compete for space, sunlight, nutrients and water, not necessarily in that order.

Besides the competition factors, we have soil health and composition factors, nutrient and water availability factors and then, everyone's favorite subject, the weather. With anything from cool and wet to hot and dry, and some untimely frosts thrown in to boot, there are a lot of challenges for a new crop of seedlings to face.

We seem to have the best success when we can reduce as many of these challenges these seedlings face when they're trying to get started; at least those which we can control.

Healthy and fertile soil is a factor I see as being of top importance. If you want to have healthy plants, we must take care of the soil. Keep in mind that old hay fields and old pastures can be seriously depleted in nutrients. I know, we face many challenges in making sure our soils are healthy and fertile in an economically possible and sustainable way. It seems that we`ve only begun to scratch the surface with our knowledge of soils and how they live and breath and work. The science of soils is a very complex universe of biological and chemical worlds that work together in ways that most of us have yet to understand.

We can have some control over plant competition factors. We generally only consider rejuvenating a hay stand when it has thinned out considerably, especially when it`s lost its legume component. Space for seedlings, competition

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and seed to soil contact tends to be acceptable in these conditions.

Where forage stands become unproductive because of species shift and fertility issues, but bare soil is not present, plant competition and poor seed to soil contact tend to be serious issues reducing the success of direct seeding attempts.

Choice of seeding equipment for direct seeding into sod is somewhat limited. We have seen success with some of the units with disc openers, like the Haybuster 107s and John Deere 750s. We`ve also seen success with the Agrowplow seed drill with its inverted T openers and old seed drills converted with Eagle-Beak openers and units with other knife type openers.

Where sufficient bare soil is present, all of these units have been successful. As the sods being seeded into get thicker and tougher, the disc opener types tend to be more successful, but I have seen very poor results in heavy sod with them as well.

Seeding depth is an important consideration. Some seeding equipment tends to work better than others at getting seeds placed at a consistent depth.

An important rule of thumb is the smaller the seed, the shallower it must be placed. Typical forage legume seeds of less than a sixteenth of an inch in size should be planted not much more than that in depth, into actual soil, of course. We often see forage seeds hung up in the heavy thatch and dense, shallow roots of thick sods.

More success has been seen seeding larger seeded cereals into these heavy sods and then seeding forages after the sod has been broken down. Herbicides are often needed to successfully break down these sods, but then we`re looking at much more of a total stand renovation rather than a simple and inexpensive rejuvenation.

Timing of seeding is useful in helping us deal with our climate and weather. For forages we see the most success with seeding in early spring and late fall, with late fall seeding timed so germination does not happen till early spring. Late fall seeding can be a great choice on land that is often too wet to get equipment onto in early spring.

We often see forages seeded in late spring or summer after the annual crops have been seeded. This choice has often been the greatest factor in reducing the success of a forage rejuvenation attempt, especially when we get hot, dry conditions. Between the scorching temperatures, reduced available moisture and competition from plants with much larger root systems, small forage seedlings just don`t have a chance.

Another factor we haven`t really addressed yet is the one of species and variety choices. I think it`s quite well known that all plant species have climate and soil conditions to which they`re best adapted. To take plant species and expect them to thrive in areas and soils that they`re not well adapted to is only asking for reduced success.

For example, we`ve heard many times of complete failures in establishing alfalfas in some areas of the west country, whereas alfalfas are very successful in most of the rest of the province. We also see alfalfas as being quite short lived in the west country, while being long lived in other areas. Adaptation of the species is a powerful factor to consider.

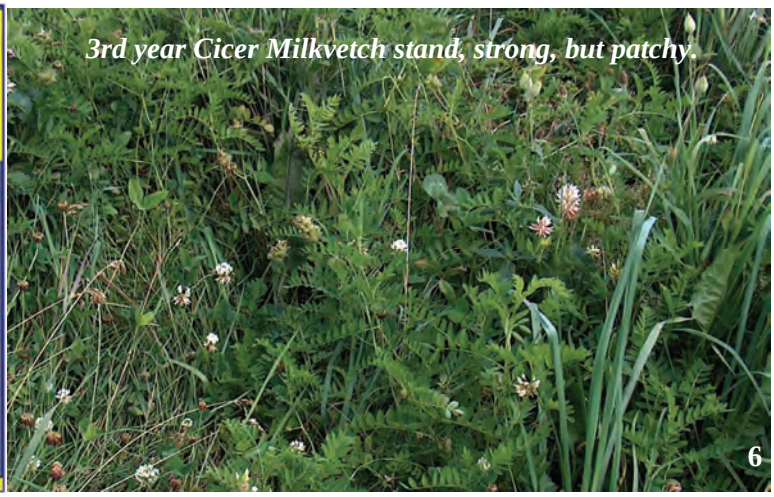
Clovers, on the other hand, tend to do very well in the cool, wet conditions of the west country. Clovers tend to do especially well in the cooler, wetter years like this year and last year.

Some forage species do very well in many of our areas, but really struggle with competition from other plants. Cicer Milk Vetch and Kura Clover come to mind here. Both of these tend to have a reputation for slow establishment, but often flourish and become very competitive once they have a good foot hold.

Variety choices are an important consideration when making seed choices as well. Within most of our common forage species, we have several variety choices. Most of our available varieties have been developed to improve plant survival and productivity under specific adaptations. I think there`s considerable value in researching the variety options to find ones that are well suited for your climate and soil conditions, and for your intended uses.

I think, if we can visualize the many challenges young forage seedlings face, we can reduce some of the challenges they face by the choices we make. Yes, there are a lot of choices to consider, so take the time to do some research before making your seeding choices. Make use of our office, the ARD Ag-Info Centre and the many industry resources that are available.

Many of the forage seed suppliers and equipment suppliers are very knowledgeable about the products they supply. Your local county agricultural services staff are also very knowledgeable about many aspects of successful forage production. I`d say all of us can direct you to someone who is more knowledgeable if we find that we are not able to answer your questions, so please don`t hesitate to ask.


3rd year Cicer Milkvetch stand, strong, but patchy.

Bale Silage, Everything You Need to Know, and More!

Thinking about trying bale silage, but not sure how or where to start? Reading this short article will hopefully give you a better understanding on how to produce the highest quality silage possible.

When should you cut and bale?

It is generally noted that legumes should be cut at one quarter bloom and grasses at a later stage. For crops such as oats, barley, rye, and triticale, it is suggested that they be cut just before the boot stage. Of course, weather also has a huge impact on cutting time as well.

Baling is determined by the moisture content of the feed. When the feed is too dry (<40%), the fermentation process is greatly reduced, meaning that the pH level is very high or very basic. Without the fermentation process, mold production increases because the feed is very wet and tightly wrapped. However, if the moisture content is too high (>65%), feed quality is drastically lowered and the likelihood of undesirable, butyric acid fermentation increases. Taking these considerations into account, the ideal moisture content should fall somewhere around 50%.

Wrapping the bales in plastic should follow closely behind the baler. Within five hours after baling is an ideal time to get the bales wrapped and stored, anything longer than ten hours will result in a slower fermentation process.

The silage making process:

Just like chopped silage, bale silage also involves a two-part ensiling process. In the first phase, known as the aerobic phase, living plant matter works hard to consume the available oxygen and burns up the plant water-soluble sugars to produce carbon dioxide and heat. The longer it takes to burn up the sugars, the higher the temperature rises, increasing the amount of heat damage to the feed. Once all the oxygen is consumed, the next step called the anaerobic phase begins. Since all the oxygen has been removed, anaerobic bacteria are now able to rapidly multiply, initiating the fermentation process. Throughout the process, lactic acid is produced lowering the pH level. After about two or three weeks, the feed becomes so acidic that microbial growth is inhibited.

Where should you store bales and for how long?

Although individually wrapped silage bales can be transported from one location to the next, the likelihood of puncturing the plastic increases during movement. As well, small rodents and even birds may peck tiny holes in the plastic. Holes in the plastic will let oxygen into the bale, causing spoilage. Storing your bales in a location where they can be easily monitored for damage is the best way to prevent spoilage.

The longer the silage bales are in storage, the greater the risk of deterioration. Cool temperatures in the fall and winter help to preserve the bales as microbial activity is limited. However, once temperatures begin to rise, any mold that may have been present in small amounts could begin to grow in size. To help preserve the quality of your bales from one year to the next, more plastic wrap should be used. The minimum amount of plastic required is 4 ml; however, as much as 8 ml is suggested for bales being stored for longer periods of time.

What can you feed it to?

Normally baled silage has been fed to beef and dairy cows. However, there is no particular reason why it could not be fed to sheep, goats and even horses. On a cautious note, just like horses should avoid moldy hay, any slight mold detected in the silage should also be avoided by horses. Cattle on the other hand are not normally affected by mold unless there are too many spores, in which case lung irritations may occur.

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Potential health problems associated with silage:

Due do to the wet, warm nature of silage, bacteria tends to flourish leading to some potential health problems in livestock. Listeria monocytogenes can be responsible for causing abortions and is associated with feeding silage. This bacterium can be found throughout the environment, in water, pastures and soil, however silages with a high pH level are likely to harbour growth more readily. Infection in the animal occurs by eating or inhaling the bacteria.

Infected livestock may appear to be depressed or may show signs of a fever. Abortions can occur, although they are not usually present unless the animal has undergone a stressful event, in which case it may appear much later.

Currently there is no vaccine available to prevent this from happening; as well, farmers should be made aware that this bacterium may cause sickness in humans as well.

Bonita Knopp

Hail Got Your Hay? Or, You Don`t Think You`ll Get Your Hay Up? Consider strip grazing this fall. Often, when a forage crop gets knocked down by hail, or heavy rains it becomes very difficult for a haybine to pick up, or gets very difficult to dry. Especially the way this summer`s going, many of you are faced with heavy, mature hay crops that will be difficult to dry. Baled silage, as Bonita writes about in this issue, can reduce the required drying time and the percentage of moisture desired, but that may not work for the logistics and economics of your operation. Forage maturity might also hamper the ensiling process.

Can strip grazing work for you? Well, for starters, when strip grazed at a reasonably high stock density, cattle can pick up flattened and tangled forages much better than any cutting machine. Forages left standing are not likely to mold as we continue to have warm, moist conditions.

How to make it work? Setting up a temporary electric fence across the field so it can be easily moved each day is your main tool. A back fence behind the herd is not necessary in fall as forage growth will be pretty much stopped. Just make sure the critters have access to sufficient water, even if they have to walk a ways for it.

I think you`ll find this to be an effective and economical way to make opportunities out of the haying problems you`re facing. Please call if you'd like some input on how to make it work.

Albert Kuipers

Large Hay Crops May Have Nutritional Deficiencies

Ideal growing conditions in many areas of the province should result in above average first cut hay yields. This could, however, raise concerns about feed quality.

High yielding forage crops typically have lower nutritional content than hay from years with average or below average yields. Soils contain limited amounts of nitrogen, phosphorus, potassium, sulfur and other trace elements needed for plant growth. As these soil nutrients are taken up by the plant, soil reserves are rapidly reduced or depleted.

With higher yields, the nutrients available from the soil are distributed in the plant material, and nutrients are diluted down and are not as concentrated as in other years. For example; protein content in the hay can be at 8 to 10% rather than an average of 12 to 14%. Macro and micro nutrients can be a one third to one half lower than average. With this in mind, the use of a fortified trace mineral salt with selenium is strongly recommended. Blue salt will not meet the animals' trace mineral requirements in most situations.

This year's hay that has a nice smell and good color may not have the kick it needs to keep the cows in good condition and calves growing. Just because the hay is green, does not mean that it has adequate amounts of protein, and energy – the two most important nutrients. Hay that is over mature or if there was cool cloudy conditions for most of the growing season can result in low protein and high fibre (low energy) hay.

As hay matures, protein, energy, calcium and phosphorus levels decline. The reduction in quality becomes more pronounced after grasses have headed out and legumes have set seed. Cut the hay according to maturity and weather conditions not the date on the calendar.

The only way to know what your animals are receiving in their ration is to send samples away for analysis. Spending $50 to $60 per sample of hay or silage is the only way to know the quality. Balance the ration and prevent feed related problems before it reduces growth rates, reproduction, or herd health.

Having feed test results available and using the Cowbytes ration balancing program at home, or working with a nutritionist can save money either on the purchases required, or having more pounds of calf for sale in the fall.

Barry Yaremcio

GROWING FORWARD UPDATE

Announcements:

The Grazing and Winter Feeding Management Program ***WILL BE CLOSED AS OF AUGUST 31, 2012***.

The Manure Management Program WILL BE CLOSING on AUGUST 31, 2012 to allow time for application processing before year end and for project completion during the normal construction season. Any new applications received after August 31, 2012 will be returned to the Applicant.

PROGRAM APPLICATION FORMS FOR 2012-13 ARE NOW AVAILABLE. A new Manure Management Program Application form is available online. Also, minor changes have been made to the program Terms and Conditions.

Growing Forward

Alberta

Agriculture and Agri-Food Canada | Agriculture et Agroalimentaire Canada

Canada

Alberta EFP
Environmental Farm Plan

Please call **GWFA Manager, Albert Kuipers at (403) 844-2645** or your local County Agricultural Services staff if you would like to complete an Environmental Farm Plan. **Your EFP is required** to apply for funding to the Environmental Stewardships Plan Program of Growing Forward. Grazing & Winter Feeding, Integrated Crop Management and Manure Management are the 3 Stewardship programs available.

Your farm information is the ***key*** to making better business choices and your farm more ***profitable*** ...

Sign up for an ***AgriProfit$*** Business Analysis today!

Call: 310-0000, then 780-422-3771
E-mail: dale.kaliel@gov.ab.ca
jesse.cole@gov.ab.ca
pauline.vanbiert@gov.ab.ca

Government of Alberta
Agriculture and Rural Development

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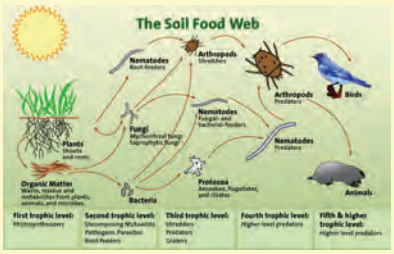
SOIL FOODWEB CANADA



Soil Chemistry Now Available @ Soil Foodweb Canada!

Soil Foodweb Canada is proud to announce that effective immediately we will be offering not only biological testing but chemistry testing as well! We are using a 'Melich I' extraction to assess the water soluble portion of the macro and micronutrients.

Go to http://soilfoodweb.ca/SFC-Newsletter4.4.pdf for more information!

Soil Foodweb Canada Ltd.
285 Service Rd. Box 420
Vulcan, Alberta T0L 2B0
403-485-6981

What's New *on Foragebeef.ca?*

See Front Page News
New information on forage beef issues from across Canada

New and Improved Swath Grazing Manual Available Soon!
Summarizing research done by Western Forage/Beef Group and Others

Coming Soon!
Greenhouse Gas Research Summary as it affects the forage beef industry

www.foragebeef.ca

Alberta

Ropin The Web

If you're interested in starting or being involved in a Grazing Club, please call: Arnold at 780 495-4593 Or Albert at 403 844-2645.

Agriculture et Agroalimentaire Canada | Agriculture and Agri-Food Canada

ARECA

This publication is made possible by funding from Alberta Agriculture & Rural Development & Alberta Environment and Water via the Agriculture Opportunities Fund (AOF).

Alberta

AOF Agriculture Opportunity Fund

!!!Don't miss any issues of The Blade!!!

Join *Grey Wooded Forage Association*

Or renew your membership!

2012 –2013 Memberships are available now for $20.00
and run from April 1,2012 to March 31,2013
For more information phone 403-844-2645

Become a part of an enthusiastic group of people who are exploring ways to turn grass into $$$.

Membership is open to anyone interested in forage production and grazing management in an economically and environmentally sustainable way.

Members benefit by:

- Receiving discounts on Controlled Grazing Courses, seminars, tours, farm calls and consulting on grazing management, pasture rejuvenation, feed production (annual forages) and more.
- Receiving *The GWFA Newsletter* in Spring & Fall and *The Blade* monthly.
- Receive up-to-date information on G.W.F.A. activities via The Blade.

Please mail the portion below with a cheque for $20.00 to:

Grey Wooded Forage Association
Box 1448
Rocky Mountain House, Alberta
T4T-1B1

PLEASE PRINT CLEARLY: Renewal_____ or New Member_____
Canada Post_____ or Email_____

Name..... Phone.....
Address.....Fax.....
Town. .....Prov..... Email.....
Postal Code..... Confirm Email.....

Please give us an idea of what area of forage production you are interested in:
Controlled Grazing & Pasture Management:_____
Growing Annual Forages for Extended Grazing or Swath Grazing:_____
Growing Annual Forages for Silage or Greenfeed:_____
Growing Hay:_____ Ration Balancing:_____
Soil Biology:_____ Pasture Rejuvenation or Renovation:_____
Low Cost Cow/calf Production:_____
Environmental Sustainability:_____ Economical Sustainability:_____
COMMENTS:_____
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October 2004 Agdex 420/52-4

Beef Ration Rules of Thumb

This factsheet can both guide producers through a feed test and help them understand the results.

With a feed test in front of you, look at the following rules and compare them to the feed test. Remember, these are rules of thumb, which means they hold true most of the time, but variations in management and cow type will affect the end result.

These rules of thumb should not be considered a replacement for balancing rations with proven software, but rather an aid to understand the feed and where it fits in the management.

Rules of Thumb

Dry matter

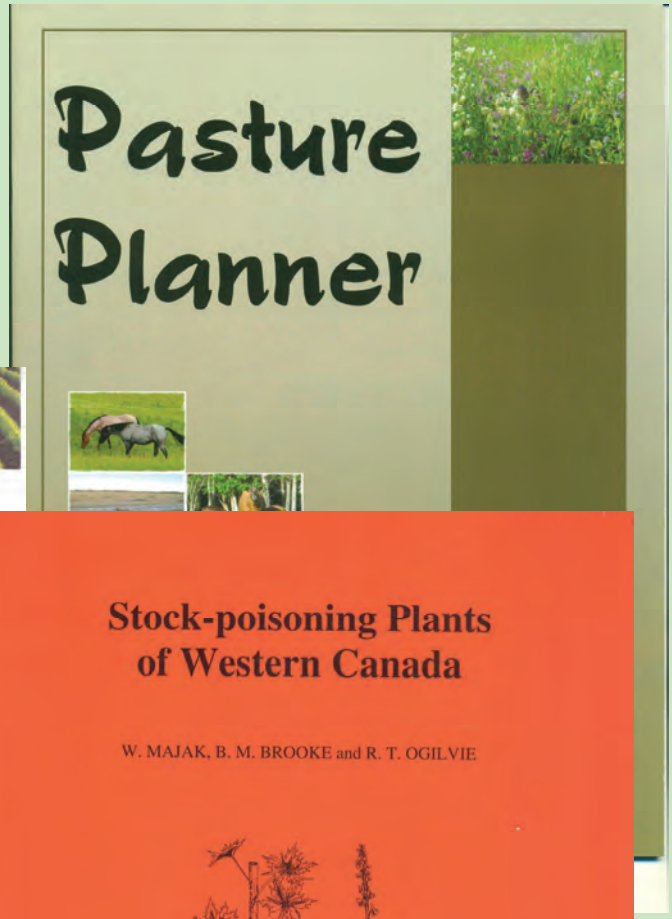
Always refer to the **"dry matter"** numbers. These numbers have the moisture factored out and allow the comparison of all feeds, from silage t grains.

Crude protein

Protein is a building block. The **Beef Cow Rule of Thumb** with protein i **7-9-11**, which means an average mat requires a ration with crude protein c pregnancy, 9 per cent in late pregnan

Energy

Energy gives the ability to use the building blocks for growth and other productive purposes. Learn one of the six measures for energy and stick with it. Using Total Digestible Nutrients (TDN) per cent, the **Rule of Thumb** is **55-60-65**. This rule says that for a mature beef cow to maintain her body condition score (BCS) through the winter, the ration must have a TDN energy reading of 55 per cent in mid pregnancy, 60 per cent in late pregnancy and 65 per cent after calving.



August 2009 Agdex 130/536-1

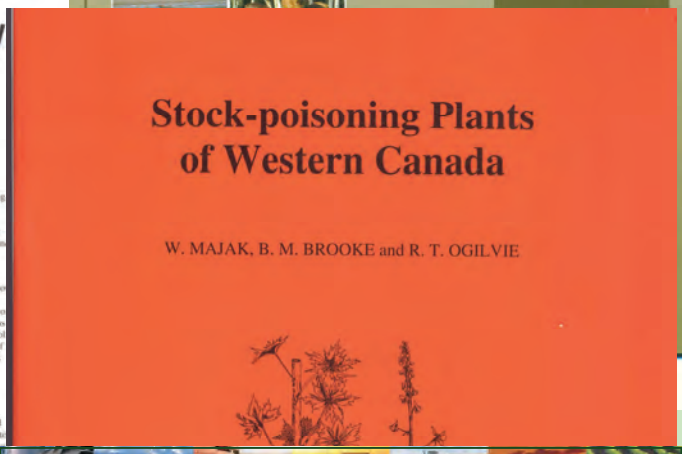
Nutrient Management on Intensively Managed Pastures

Pastures are unique to agricultural production systems in that only a very small portion of the nutrients

• effect of legumes

and environmental risks

and pathways



September 2008 Adgex 420/56-3

Agronomic Management of Swath Grazed Pastures

Feed, feeding, cow management and manure disposal can account for up to two-thirds of the total cost of production in a cow-calf operation. Systems that can extend the grazing season and reduce these costs are of great interest to cow-calf producers. One of these is swath grazing.

Many factors come into play to determine forage quality, quantity and unit cost of production in a swath grazing system. Some of these factors, such as weather, are

Swath

ts = outputs + losses

when they are removed or hay or silage. These exported

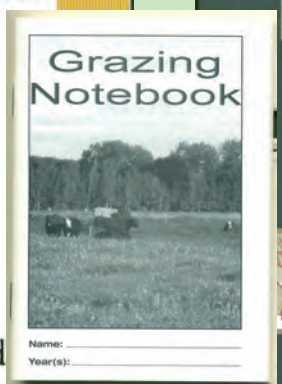
These publications are available to our members by phoning or emailing the GWFA office!

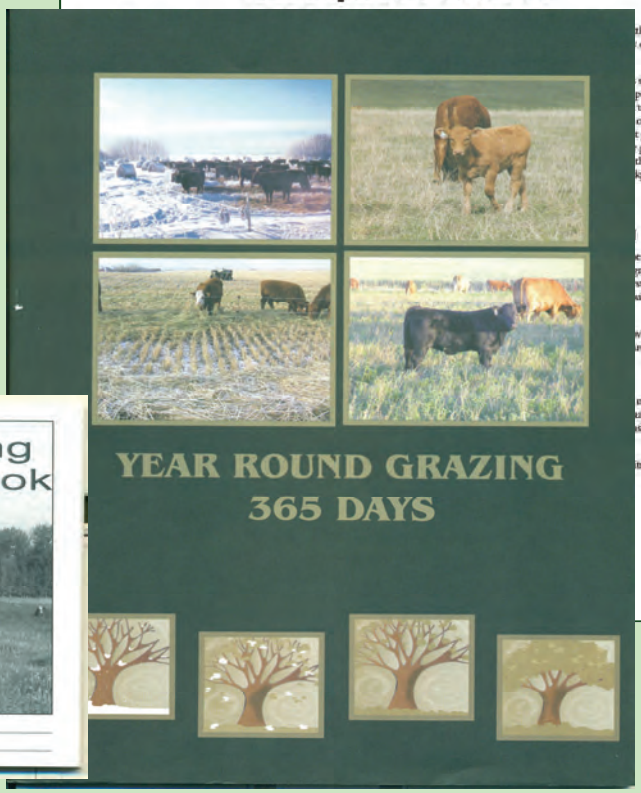
Agdex 420/56-4

Agronomic Management of Stockpiled Pastures

Management of Canadian Prairie Rangeland

Canad





Western Canadian Grazing Conference & Trade Show

ARECA

Grass Roots of Grazing

November 28 & 29, 2012
Sheraton Hotels & Resorts
Red Deer, AB

Optional Field Tour - November 27

Lacombe Research Station - Swath Grazing Trials

Keynote Speakers:

Neil Dennis *- Managing Chaos to Improve Soil Health*
Charley Orchard *- What Really Counts for Grazing Managers*
Glen Rabenberg *- Improving Crop Quality for All*
Christine Jones *- Fundamentals of Soil*

Banquet: ***David Irvine*** *- Working with the Ones You Love: The Human Side of Agriculture*

For more information contact:
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