

# forage VIEWS



May 2017



## In This Issue

Gearing up for the Busy Summer Season ..... 1

May has Arrived and with it WCFA Welcomes Summer Staff ..... 4

Artificial Insemination Adds Value to Cow Herd..... 6

More Soil Organic Matter makes more Rain ..... 8

Realistic Expectations for Estrous Synchronization and AI Programs.... 8

## IMPORTANT DATES

- May 30:** "Setting Up for Farm Business Success" Workshop
- June 1:** Deadline for Weevil Orders
- June 19-21:** WBDC Field Day "Field Trip"
- June 30:** Jim Gerrish Grazing School
- December 5-7:** Western Canada Conference on Soil Health & Grazing

## Gearing up for the Busy Summer Season!

It looks like spring has finally decided to grace us with her arrival (knock on wood!), and that means that we're about ready to get out in to the field and prepare for the busy summer season ahead! The last few months have been spent planning & prepping for the season, and we have some exciting things happening this year!

### Our trials/plots this year will include:

- Perennial Forage Variety Trial
- Winter Cereals Variety Trial
- Comparison trial of the long term effects of pulp mill sludge v. dry fertilizer on perennial forages & soil health

- Corn Variety Trial
- Industrial Hemp Variety Trial
- Sainfoin High Legume Pasture Project

SACA has been busy planning for the summer season as well! We'll be hosting four Pond Days this year!

- June 6 in Yellowhead County
- June 9, Muir Lake School (Parkland County)
- June 15, Duffield School (Parkland County)
- Date TBA in Woodlands County

We've also been busy planning for our Shining Bank Lake Community Stewardship Initiative! The project aims to bring awareness of riparian health, biodiversity, wildlife habitat, water quality, soil



### WCFA Board of Directors

**President:** Grant Taillieu

**Vice President:** Grant Chittick

**Treasurer:** Dale Engstrom

**Secretary:** Stacey Meunier

Larry Kidd

Greg Malyk,

Eric Vanderwell

Frank Maddock

Brian Dickson

Brett Byers

Shayne Horn

### Staff

General Manager

*Melissa Freeman*

Forage & Livestock Program Manager

*Fito Zamudio Baca*

Conservation Ag & Extension Program

Manager, *Jessica Watson*

### Contact

ph: 780-727-4447

5009 45 Ave

Entwistle AB

Box 360, Evansburg AB T0E 0T0



## Agriculture Opportunity Fund

This publication is made possible by funding from our major sponsor, the Agriculture Opportunities Fund (AOF), Alberta Agriculture and Forestry

## GEARING UP FOR THE BUSY SUMMER SEASON CONTINUED

health and beneficial management practices to producers and recreational users on and surrounding the lake. Work will begin on this initiative this summer and will continue over the next few years. Stay tuned for more information and updates on the project as we progress with planning and implementation.

June will see us head down to Montana to pick up and deliver the Canada Thistle Stem-Gall Flies that have been ordered, as well as finalizing up this year's order of Stem-Mining Weevils! Reminder that the deadline to order your weevils this year is June 1!

We'll also be hosting a couple of field/plot tours this summer, so make sure you keep your eyes open for details regarding these! These days will offer opportunities to check out what we've been up to with our trials/plots.

And, of course, we can't forget about our extension events! We've got a few very exciting ones planned for May and June! We'll be hosting our "Setting up for Farm Business Success" Workshop in Blue Ridge on May 30. We've got an exceptional group of speakers lined up for this day and they'll be covering everything from farm transitions and setting up for succession, to financial success, to financing options

available to producers. June, which just wasn't quite busy enough for us, will see us putting on a couple of very exciting events, starting with a road trip out to the Western Beef Development Centre's (WBDC) Field Day in Lanigan, Sk on June 20. The trip will run from June 19-21, and we'll be planning to make some stops along the way as we head out to and return from Saskatoon. The end of June will have us play host to Jim Gerrish for a one-day grazing school as his final stop on his Alberta tour. Mark your calendars for June 30; we're sure this is one that you really don't want to miss! As we get more details for both Jim Gerrish and our WBDC Field Day "Field Trip" we'll be sure to share them with you, so keep your eyes peeled.

For more information on any of our upcoming events, or what we're up to be sure to follow us on our social media pages, or contact us at 780.727.4447.

It's looking like it will be a very busy, as well as exciting next few months here, but we're all looking forward to what the upcoming season has in store.

# May Has Arrived And With It WCFA Welcomes Summer Staff!

If you've been by the office recently, you may have noticed a few more vehicles than usual parked out front. As of May 1 we are pleased to have Anna Harapchuk and Rachael Nay join the WCFA team for the summer.



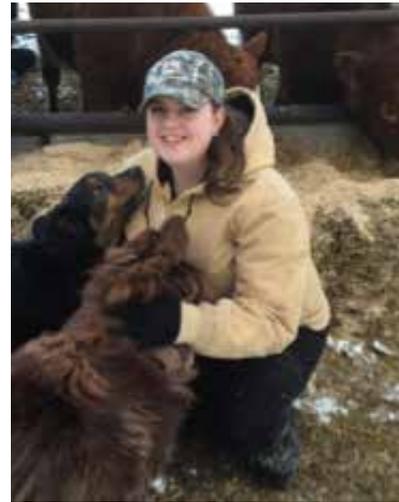
## ANNA HARAPCHUK

Anna was raised in the Sangudo, AB area; where her family runs a mixed grain and commercial cattle operation. Gaining a strong interest for Agriculture at a young age, Anna has always had a drive to pursue an education and a career in Agriculture. Currently enrolled at Lakeland College in Vermillion AB, Anna hopes to achieve a Diploma in Crop Technology and then further her education at the University of Saskatchewan focusing on achieving a Bachelor of Science in Agriculture with a major in Crop Science. In her spare time Anna enjoys everything related to cattle, whether she's helping dad manage the cattle operation or she is taking care of her own show cows. Anna also loves being outdoors; whether

that is with her cows, in the tractor helping out in the field or hiking and traveling. Anna is thrilled to be working as a summer student at West-Central Forage Association, as well as working with members, the board directors and the staff.

## RACHAEL NAY

Rachael grew up on her family's commercial beef farm near Fallis, AB with her younger sister. She is currently heading into her final year of a Bachelor of Science in Agriculture at the University of Alberta and is majoring in Sustainable Agriculture Systems. She is also involved in the University of Alberta's Agriculture club and enjoys volunteering in her spare time. Rachael has a passion for agriculture and loves being outdoors. When not busy with classes and extra curricular activities, she likes to go back home to the farm and spend time with the cows, cross-country ski, and hike. Rachael is looking



forward to working at West-Central Forage Association as one of their summer students and is excited to meet everyone.

All of us here at WCFA are excited to have these two wonderful ladies with us for the next few months, and we know we will very much appreciate the extra help and support they will lend to the full time staff and to the Association. If you see them out and about be sure to stop and say hi!

# VERBEEK HEREFORDS

Hereford Bulls  
For Sale by  
Private Treaty

Errol & Barb Verbeek  
And Family

Box 649  
Evansburg, AB  
T0E 0T0



Home: 780.727.2775  
Cell: 780.542.9794

# Artificial Insemination Adds Value to Cow Herd

By Evan Whitley, Ph.D. \*

One area that has potential to add value to a cow-calf operation is the implementation of an artificial insemination (AI) program. This topic is not a new one, but I find very few commercial producers, regardless of size, actually implement AI as a management tool to improve herd performance and revenue generation. The reasons are varied and in many instances ultimately appropriate. However, the sentiment of „I have never done it,“ or „It looks too hard,“ oftentimes rules the overall decision-making process and the potential benefits are left untapped.

Depending upon the individual situation, arguably the biggest benefit in utilizing AI is access to superior genetics as AI studs are selected. Electronic databases, available through many of the breeding services suppliers, can be easily sorted based upon a prioritized list of genetic traits that are specific to your operation. Oftentimes, this results in access to AI studs that wouldn't otherwise be available with greater genetic predictability than is available when purchasing younger, relatively unproven natural service sires.

Doing so leads to another important potential benefit of AI, which is the possibility for the AI event to target specific traits in subsequent offspring such as replacement quality and/or carcass merit, and the



clean-up event to target paternal endpoints such as weaning and/or yearling weight. The result will be heifer calves that are born early in the calving season and possess the maternal traits desirable to either go back in the herd or market as replacements as well as later born calves that possess the growth potential to overcome their lack of age and still wean at an acceptable weight.

Accompanying the AI program, consider whether to inseminate based upon standing heat or at a timed interval. The vast majority of commercial operations elect to implement a synchronization program and inseminate at a specified interval within the resulting heat cycle. Realistically, only expect around 50 percent conception from the timed AI event. But, by synchronizing you should get more females bred earlier during the clean-up period.

Keep in mind there are several different synchronization programs; they are specific to whether mature cows or

heifers are the target animal and whether they are English or Brahman influenced. Implementing the appropriate estrous synchronization program and not synchronizing more animals than you can breed at any one interval are important points to learn from others' mistakes as opposed to making them yourself.

Although there are other potential reasons (e.g., costs, labour availability, AI technician access, desire, etc.) that would yield AI infeasible, in my estimation there is really only one true deal breaker: if an individual operation doesn't have access to working facilities that are safe to both personnel and animals. AI technicians are similar to many veterinarians in that they can do a lot with very few resources in the form of fancy pens, yet if the basic functionality of your working pens is in question then definitely use the adequate number of bulls. It will make everybody happier, including the bulls.

*\*Article has been edited slightly for length*

# JIM GERBISH

## Grazing School



June 30, 2017

Pasture or range improvement

Grazing cell design for Management-intensive Grazing

Developing a year-around grazing program

Pasture finishing

Multi-species grazing

Location: TBA

More details will be announced as they become available.



For more information or to reserve your spot now call 780.727.4447



## WESTERN CANADA CONFERENCE ON SOIL HEALTH & GRAZING

*Profit Above , Wealth Below*

December 5-7, 2017  
The Radisson Hotel  
South Edmonton

REGISTRATION IS NOW OPEN!

Check out the website for more information or to register!  
[www.absoilgrazing.com](http://www.absoilgrazing.com)

## WESTERN BEEF DEVELOPMENT CENTRE

### 2017 Summer Field Day "Field Trip"

We'll be taking a trip out to the Termuende Ranch near Lanigan, SK to attend Western Beef's 19th Summer Field Day on June 20 2017. We will also be planning some exciting stops for the trip out to and returning from Saskatoon, June 19 - 21, 2017.

This year's theme is "Moving Research into a New Corral"



Chip Hines will share his perspectives on managing for efficiency in the cowshed.

Dr. Earl Leitcher will share the Top 10 research findings from Western Beef's 20 Years at Termuende.

Dorothy Murrell, Project Manager for the Livestock and Forage Centre of Excellence.

After lunch, Mr. Hines will give Part II of his talk and then we will head out to the pastures for field tours.

The day ends off with a steak supper (tickets for purchase) catered by a local 4-H Lighthouse Club.

This will be the last Field Day held at Termuende as Western Beef prepares for its transition into the Livestock and Forage Centre of Excellence. [www.usask.ca/wcvm/lfce/#About](http://www.usask.ca/wcvm/lfce/#About)



For more information please contact WCFA at (780)727.4447 or [Info@westcentralforage.com](mailto:Info@westcentralforage.com)



# Got Thistle?

## CONSIDER STEM-MINING WEEVILS!



Canada-Thistle Stem Mining Weevils are biological control agents that can aid in controlling Canada Thistle!

They restrict their feeding to thistle, making them perfect for ecologically sensitive areas!

To Order Your Weevils Contact Jessica At:

780-727-4424

[conservationag@westcentralforage.com](mailto:conservationag@westcentralforage.com)

PLEASE ORDER BY JUNE 1, 2017



# More soil organic matter makes more rain

Alan Newport | Jan 18, 2017

Some meteorologists say up to half of the rainfall on a continent comes from the evapotranspiration of plants and soil. This implies a huge reward for better soil management.

To be contrarian, I say meteorology has similar problems to economics as a science. Neither discipline can truly control enough variables to make a good measurement of the effects of a single happening, therefore they can only use scientific principles to imply those results. Nonetheless, I'm going to agree in this case that the amount of soil organic matter and therefore the amount of moisture present in the soil has huge effect upon plant health and therefore upon plant transpiration. Therefore, across large expanses it should have huge effect upon moisture put back into the air and upon rainfall.

Another way of measuring all this was drawn to my attention recently. It's a year's worth of satellite data on worldwide soil moisture .

It began with the launch in 2015 of a NASA satellite called Soil Moisture Active Passive (SMAP). It is designed to provide globally comprehensive and frequent measurements of the moisture in the top two inches of soil every two to three days. SMAP's first year of observational data has now been analyzed and scientists on the project say it

is providing some significant surprises that will help in the modeling of climate, forecasting of weather, and monitoring of agriculture.

Apparently, this top level of soil preserves a "memory" for weather anomalies, more so than had been predicted from theory and earlier, disparate measurements. The researchers' use of the word "memory" refers to the persistence of effects from unusually high or low amounts of rainfall. Contrary to most researchers' expectations, it turns out that these effects persist for a matter of days, rather than just a few hours. They say on average, about one-seventh of the amount of rain that falls is still present in that topmost layer of soil three days after it falls — and this persistence is greatest in the driest regions.

Researchers also say the data also show a significant feedback effect that can amplify the effects of both droughts and floods. When moisture evaporates from wet soil, it cools the soil in the process, but when the soil gets too dry that cooling diminishes, which can lead to hotter weather and heat waves that extend and deepen drought conditions. These things were known true at the micro level, meaning they have been measured with soil thermometers and moisture meters, but had never been

quantified on a large scale.

I'll remind you this is from depleted soil, which today is the standard the world over. What if we were dealing with healthier soil, with higher organic matter?

Let's think about what could happen if we raised the organic matter significantly and across large areas. Since science tells us a 1% increase in soil organic matter holds at least 20,000 gallons of water in each acre of soil, that suggests my home state of Oklahoma, containing 44.7 million acres, could hold at least 894,694,400,000 gallons more water in the soil after each rainfall event of one inch or more. We can multiply that by the number of one-seventh from the SMAP satellite data. That means seven days after that one-inch rainfall event, Oklahoma's soil would still have an extra 127.8 billion gallons of water the plants could continue to use for evapotranspiration, thereby further moistening the air and increasing the potential for more rainfall.

This is exciting because it strongly suggests grazing and farming that builds soil is not only directly beneficial to those practicing it for higher yields, lower inputs, more profit and more drought resiliency, it also appears it helps make more rain for everybody.

Source URL: <http://www.beefproducer.com/management/more-soil-organic-matter-makes-more-rain>

# Realistic Expectations for Estrous Synchronization and AI Programs

By Glenn Selk, Oklahoma State University Extension | May 03, 2017

Producers that are wanting to improve the genetic makeup of their beef herds very often turn to artificial insemination (AI) as a tool to accomplish that goal. Many times, these producers have very high expectations as they begin the first season of artificial breeding. Perhaps they have heard other producers tell of situations where “near-perfect” pregnancy rates resulted from THEIR artificial insemination program. Everyone wants to get every cow or heifer bred as they start the labor and expense of an AI program. However, the rules of biology do not often allow for 100% pregnancy rates in most situations.

First of all it is important to understand several terms.

**Estrous response rate:** the percentage of cows found to be cycling in response to an estrus synchronization protocol. In other words, if we put 100 cows through the working chute and give them estrous synchronization drugs, and only 80 of those cows responded to the estrous synchronization products, then we have an “estrous response rate” of 80 percent. Perhaps some of the cows were not “ready” because they were later calving or they were in poorer body condition. If we are breeding only after they are detected in heat, then only 80 of the original 100 cows would be bred to AI. The effects of the drought may have an impact on the body condition of cows going in to the estrous synchronization protocols and adversely impact the percentage of cows responding to

the synchronization products.

**Conception rate:** the percentage of the cows that were actually inseminated that were palpated and found to be pregnant 60 or more days later. In other words, of the 80 cows in the above example, that were found in heat and inseminated, if we later found that 70 percent of those “settled” or became pregnant, we would have found 56 cows pregnant.

**Pregnancy rate:** the percentage of cows that were initially started on the estrous synchronization protocol that actually became pregnant. In the above example, 56 of the original 100 cows became pregnant to the AI program resulting in a pregnancy rate of 56%.

Therefore, the Estrous response rate X Conception rate = Pregnancy rate.

In this example: 80% Estrous response X 70% Conception = 56% Pregnant. The above example is hypothetical, yet very much close to the expected outcome of a successful synchronization and AI program. If heat detection is incorporated as part of the system, then it becomes another very important part of the equation.

Research conducted that evaluated different synchronization protocols very often illustrated variables other than protocol were most important. Differences in body condition of the cattle, experience and skill of the AI technicians, and weather influences, often played larger roles in the pregnancy rates than did the

synchronization protocol. There was more difference expressed between operations than between the synchronization methods chosen.

After artificial insemination is conducted on the cows or heifers, clean up bulls will be introduced to the breeding pasture to breed those females that did not conceive to AI. How many clean up bulls are needed?

University of Nebraska researchers (Nielson and Funston, 2016) have published a review on beef AI trials and have evaluated the reported cow to bull ratios used in the clean up portion of the breeding seasons. They grouped the trials into three categories based on the cow to bull ratios used. Final pregnancy rates for cow to bull ratios of 1:20 to 30, 1:31 to 49, or 1:50 to 60 were 87.8, 82.6, and 89.2%, respectively. These ratios are based on the number of cows entering the estrous synchronization and AI breeding season. The fact that the wider cow to bull ratio was as successful as the others should not be surprising. Half or more of the cows were already bred when the bulls were introduced and therefore an actual number of cycling cows to bull ratio was actually near 25:1. In addition, estrous synchrony on the subsequent heat cycles was not as tightly synchronized as the first heat at AI. Natural variation in cycle lengths will cause less synchrony and therefore less intense breeding pressure on the cleanup bulls .

# Setting up for Farm Business Success

## W o r k s h o p

Succession planning, strategies for business, financial success, buying farmland, cash flow, and financial drivers are some of the topics to be addressed.

**May 30, 2017**

Where: Blue Ridge Community Hall. Blue Ridge, AB

Registration and Coffee: 9 am

Cost: \$30 members, \$40 non-members

### Speakers:

Dave Horner, Farm Succession Solutions - "Farm Transitions: The Cost of Doing Nothing"

Joel Bokenfohr, AB Ag & Forestry - Succession/ Business Structure

Rick Dehod, AB Ag & Forestry: "Buying Farmland: Have a Plan"

AFSC - Financing Options

Feeder Associations of Alberta Ltd. - Financing Options



**RSVP By: May 24, 2017**  
**At 780-727-4447**

