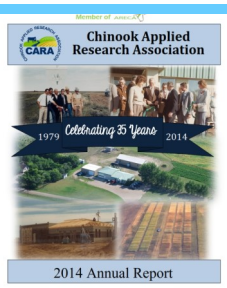
Grain, Grass & Growth

February, 2015

www.chinookappliedresearch.ca

CARA Celebrates 35th Anniversary

Although stormy weather kept a few people away, an enthusiastic crowd was hosted to celebrate completion of 35 years of applied research, demonstration and extension projects by CARA as well as honor project cooperators and local supporters. The evening included a glance at the past as a continuous pictorial loop contained shots of CARA characters, staff and Board members, equipment, the CARA Center as well as project sites and extension events. Del Pratt, local cowboy poet and historian, shared some of his original works prior to everyone settling in to a delicious beef meal prepared and served by the East Sounding Creek 4-H Beef Club. Following the meal, Dianne shared a brief look at CARA's program from the past year. She then introduced inspirational and motivational guest speaker Leona Dargis. Leona, an Olds College graduate and Nuffield Scholar, explained how a positive attitude can determine how a person can survive and even thrive through adversity. You can learn more about Leona at her website *(www.leonadargis.com).*



Our **2014 Projects Report** will be available in mid March for our CARA members. For those who prefer a digital version, please let us know. If you are able to pick up your report at the office to save mailing cost, it be appreciated.

Reseeding Forage Stands

From the February 16, 2015 Issue of Agri-News

This year may be a good time to look at reseeding forage stands.

"Because of tough financial times, we've been allowing some of our forage stands to just go from year to year," says Grant Lastiwka, forage/livestock business specialist with Alberta Agriculture and Rural Development. "In addition, many forage stands that were best suited to forage were taken out of forage and seeded into grain. With some of the current favourable cattle prices, we've got an opportunity to invest in having pastures that can pay their bills better. We can also take this time to convert grain land that is better suited to forage back to forage. Alternatively, stands in forage are known to produce higher grain yields for many years once they have been taken out of forage, so adding forage in a rotation is an excellent tool for the soil health."

The unusually warm temperatures recently are another good reason to be thinking about forage seed, says Lastiwka.

"Snow is an insulator while ice is not, and ice even limits the oxygen that gets to plants. Older stands with legumes are carrying a little higher disease load and are usually lower in soil nutrients. These plants are not as able to withstand stress as well as younger legume mix stands would be. This danger is a good reason to look at buying some forage seed to be prepared in case some stands don't survive."

He says with the high price for land and the slightly better price for hay it makes sense to try to seed pastures to be pastures so they are highly productive and highly profitable. "In that case, you will want to look at forage species that grow better for grazing and then seed the grain field back into forage if that's the best use for that land's productivity. You should also consider putting some legume in with the grasses to raise its productivity and profitability. Forage species that grow better for grazing are not usually the best hay species as they are better at regrowth as opposed to growing tall and creating a seed head."

Lastiwka notes that no matter what the regrowth strategy is, now is the time to make sure the right seed is available.

"People looking for forage seed this year should probably look sooner than later. Forage seed up until last year had not been moving well so fewer acres were left in forage seed production. As a result supplies are probably going to be lower this year. You may need to move quickly to get the species you want for the hay stand and the species you want for a pasture.

"Planting what works best for the use intended is the best way to gain the most production and profit per acre. This will allow more animals to run on any given acre which fits well with today's strong cattle market and opportunities for herd growth."

Varietal Improvement and High Market Price Encourages Lentil Production

Neil Whatley, ARD Specialist

There has been remarkable improvement in lentil genetics in recent years, contributing to an increase in grower satisfaction. Newer red lentil varieties like CDC Maxim and CDC Dazil possess several improved characteristics compared with the older green varieties that producers historically grew or experimented with in Alberta. Given lentil's current high price and its continually positive rotational effects as a grain legume, it appears to be another good crop option in 2015.

Lentil varietal research on the Canadian Prairies has developed red lentil varieties with improved resistance to selected herbicides (Group 2), disease resistance, lodging prevention, earlier maturity, a more determinant growth habit and improved seed yield. CDC Maxim and CDC Dazil, for example, are CLEARFIELD varieties, so are tolerant to IMI herbicides (Group 2) such as Odyssey. These varieties have 'good' resistant to the once devastating ascochyta blight disease, and Maxim, for example, has 'good' resistance to both ascochyta and anthracnose, the most common foliar lentil diseases. Dazil has 'fair' resistance to anthracnose. Plant breeding has created a thicker, stronger stem base, minimizing lodging issues. Along with earlier maturity, a more determinant growth habit has also been bred into these varieties. So, varieties like Maxim and Dazil are more ensured to set seed instead of growing into lentil hay if precipitation is present during the latter part of the growing season. As a result, they do better in the Thin Black soil zone where extra soil moisture historically limited successful lentil production. The new red lentil varieties are also higher yielding than traditional varieties.

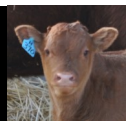
Red lentils are highly adapted to Alberta growing conditions, especially the Brown, Dark Brown and Thin Black soil zones. Current research is assessing the viability of red lentil production in the Thick Black and Gray soil zones.

The 10-year average red lentil yield in Western Canada is 1,400 lbs/acre. Experienced growers harvest 1700 to 2000 lbs/ac on a good year. With current red lentil prices at 28 to 30 cents/lb, this is a very good economic return on investment. Lentil prices may or may not soften a bit in the spring and early summer, depending on the yield and quality of India's and Turkey's winter crop. Keep an eye on red lentil prices over the next few weeks.

Excess precipitation during the month of June in the 2013 and 2014 growing seasons has contributed to increased root rot susceptibility in lentil and field pea. Although several root rot cases have occurred in soil that has had either lentil or pea grown in it every two years, it has also occurred in wider rotations, so use caution. Even though a return to normal weather patterns would lessen this problem, it is advised to leave at least 4 years between field pea or lentil crops in a crop rotation to prevent issues like root rot.

Experienced pulse growers readily admit that market opportunity isn't the only reason to include a grain legume in their crop rotation. Positive rotational effects from growing pulses also include disease and insect breaks for other crop types, soil water use efficiency in rotation with cereals and oilseeds, lower overall nitrogen fertilization cost, improved soil tilth and promotion of beneficial soil biological activity.

It looks like another exciting year for lentil producers.



Nutrition & Beef Reproduction

This article was adapted from Alberta Agricutlture's 'Effects of Nutrition on Beef Cow Reproduction' by Cornelia Kreplin & Barry Yaremcio. Visit agric.gov.ab.ca for full article.

Unbalanced and nutrient deficient rations can be a major cause of poor reproductive performance in your herd. While there are many other causes of reduced reproduction, feed management is a relatively simple tool producers can use to mitigate reproductive losses.

You should always consult a veterinarian to discuss potential diagnosis, deficiencies and nutrient imbalances in your herd.

Energy

Animals require energy to grow and function, maintain milk production and progress pregnancies. This energy is provided by carbohydrates and fats in the animal's diet and is particularly important during the third trimester of a cow's pregnancy. A low energy intake at this time can result in slightly lowered birth weights, higher calf death rates, decreased milk production, lighter weaning weights, increased days to first heat and reduced future conception rates.

On the contrary, an overconditioned cow due to high energy intake for long periods of time, can contribute to reduced fertility.

The easiest method of checking your herd's energy requirements is to use Body Condition Scoring. The Beef Cattle Research Council just recently launched a new website, **www.bodyconditionscoring.ca** to help producers accurately score their animals.

Protein

Protein is second in importance only to energy, in terms of limiting nutrient factors in your ration. A sufficient diet requires 8-12% crude protein and if there is a deficiency, the body will break down fat and muscle, eventually resulting in loss of body condition. Protein deficiencies in cattle will result in a reduction in daily feed consumption and overall decrease in digestive efficiency, in turn causing an energy intake reduction and the symptoms discussed above become apparent.

Water

Water makes up about 50-70% of an animal's body weight and is the least expensive nutrient required in the diet. With a mature cow drinking between 35-120L of water per day, this nutrient should always be accessible. In the winter months some producers choose to use snow as a source of water. While this method can work in some instances, the National Farm Animal Care Council (NFACC) release this Beef Code in August 2013:

Snow may only be used as a sole winter water source providing it is of sufficient quantity and quality to meet the animals' physiological requirements.

Snow must not be used as a sole water source for the following cattle:
lactating, or

- *newly-weaned, or*
- *that have a body condition score of less than 2.5 out of 5, or*
- *that don't have access to optimal feed resources.*

Only adequate quantities of clean, loose snow may serve as the sole water source. Monitor snow conditions on an ongoing basis. Have a back-up water source in the event of insufficient loose snow or an interruption in water supply.

Minerals & Reproduction

Calcium

Just like in humans, Calcium is needed for skeletal growth and milk production. From mid to late pregnancy, a bred cow's calcium requirement will increase by 22% with an additional 40% after calving. Calcium deficiency can lead to 'milk fever', a greater incidence of calving difficulties, retained placenta and prolapsed uterus.

This mineral also interacts with phosphorus and Vitamin D. If calcium is extremely high in a diet, phosphorus availability will be reduced. The ideal ratio of Calcium to Phosphorus is 2:1.

Phosphorus

Phosphorus has many known functions in the animal body, including bone and tissue development, energy utilization and milk production. Phosphorus requirements increase 12% from mid-pregnancy to the last month of gestation, and 50% after calving. Deficiencies of this mineral can affect reproductive performance greatly, delay puberty, increase number of services required per conception , reduce milk production and lower calf weaning weights.

Selenium

This micronutrient gains a lot of attention in our area. An important part of enzyme systems, selenium interacts with Vitamin E to prevent tissue damage. Deficiency has been known to cause reduced fertility, higher number of retained placentas, occasional abortions, premature or weak calves, reduced ability to resist disease and 'white muscle in disease' in calves. Selenium can be added to feeds but is highly regulated due to the narrow range between deficiency and toxicity.

Copper

Copper is a trace mineral but is required by the body for connective tissues, red blood cells and enzyme production. Deficiencies may present as delayed puberty, poor fertility (bulls may have reduced libido, poor semen quality or even become sterile), higher than expected number of retained placentas and animals may appear unthrifty, anemic and can even have a bleached hair coat in severe cases.

Other minerals that can have a big impact on your herd's reproduction include:

- Manganese, needed for energy metabolism and enzyme activation
- Zinc, which can affect testicular development in bulls and reduced Vitamin A utilization
- Iodine, needed for hormone production and metabolic body rate control and may result in abortions, longer gestation periods and the birth of dead, weak or hairless calves
- Cobalt, required for Vitamin B synthesis and energy metabolism
- Sodium & Chloride, the components of salt, are required to regulate body fluid levels and absorb sugar and proteins in the digestive tract

Vitamins also play a huge role in beef cattle reproduction. Vitamin A, D and E are essential in maintaining overall cow health as well as the health of newborn calves. Stay tuned for future issues of the CALVING CORNER to learn more or contact a CARA staff member today.

Meet Your Agricultural Fieldmen

Agricultural Fieldmen are uniquely qualified to manage the diverse Agricultural Service Board programs across Alberta. Many members have university or college degrees in Agriculture, Biology, Environmental Technology, and/or Business Administration. All AAAF members have an extensive applied agricultural or environmental science background. All share a common tie to the diverse world of agriculture, and believe strongly in the importance of the industry to society's well being.

Agricultural Fieldmen are the administrative officers that carry out the various programs set out by their Agricultural Service Boards. They are also appointed as inspectors or regulatory officers to administer the four acts for which the municipalities and counties are responsible.

These four acts are:
Agricultural Service Board Act
Weed Control Act
Soil Conservation Act
Agricultural Pests Act

Agricultural Fieldmen also assist in the enforcement of the Animal Health Act.

Stay Connected!

www.aaaf.ab.ca

@AAAFieldmen

AAAF Association of Agricultural Fieldmen

Justine Simpson
Special Area No. 2

Justine grew up on her family's ranch Northeast of Sedalia. Coming home on weekends to help her parents with the ranch, she balanced her scholastic endeavors with working on the farm as well as competing in rodeo up until her graduation. She graduated in 2013 from the University of Calgary with a Bachelor of Science Degree. After 3 seasons as a summer assistant to the Ag. Department for Special Areas, Justine became a Fieldman for Special Areas 2 in January of 2014.

403-854-5628 Hanna District Office justine.simpson@specialareas.ab.ca

James Skjenna
Special Area No. 3

James grew up on his family farm south of Buffalo. Home on weekends, James enjoyed helping out on the farm, while going to school in Calgary during the week. James completed his Bachelor's of Kinesiology Degree at the University of Calgary. In the spring/summer James worked as a summer assistant to the Ag. Department for Special Areas for 4 seasons. James became a Fieldman for the Special Areas No. 3 in January of 2014.

403-664-3618 Oyen District Office james.skjenna@specialareas.ab.ca

Ryan Buehler
Special Area No. 4

Ryan grew up on his family farm south of Consort where he still currently lives. He actively runs a cow/calf operation, growing a variety of crops and producing hay. In 1995, he graduated from Lakeland College with a diploma in Crop Technology. In the summer of 2010 he completed the Certified Agronomist course through Olds College. He has been the Agricultural Fieldman with Special Area No. 4 since November of 2008.

403-577-3523 Consort District Office ryan.buehler@specialareas.ab.ca

Alan Hampton (left)
Starland County

Alan was born and raised in Starland County and continues to grain farm at Rowley as the 4th generation on their 100 year farm. He attended the U of C for 2 years, and then went to Olds College where he took a Field Crop Management Program which he completed in 2007. From May 1987 to December 1988 Alan was employed as a seasonal worker with the Starland Agricultural Service Board (ASB). In April 1989 Alan became the CASCI co-ordinator with the ASB and in January 2001 the Agricultural Fieldman. He currently resides on the family farm at Rowley where he lives with his wife and 2 sons.

403-321-1287 Morrin Office ahampton@starlandcounty.com

Dara Calon (above, right)
Starland County

Dara Calon is the Assistant Ag Fieldman for Starland County, and has been in this position for two years. She finished her diploma in Land and Water Resources from Olds College in 2009 and completed a Bachelor of Science in Environmental Science from the U of L in 2012. Dara grew up on a grain farm 20 miles NE of Drumheller and always knew she wanted to be involved in agriculture. She still helps out on the farm as much as possible, and does hopes to farm one day. After university she purchased a small house in Drumheller where she currently resides.

403-772-3793 Morrin Office dara@starlandcounty.com

Burt Forbes
MD of Provost

Burt worked for the M.D. of Provost for four years while he attended the University of Saskatchewan. When finished he was approached to see if he would consider being the Agricultural Fieldman. He told his Dad he wanted to try it for a couple years before returning to the farm. This April is the start of year 32 as the fieldman. He still farms with his wife, son and Daughter and a brother 30 miles north of Provost where they have grain and cattle.

780-753-0510 MD of Provost Office bforbes@mdprovost.ca

How's Your Weed Seedling ID?

For answers see the last page of our newsletter.

Please Join Us To Celebrate

The International Year of Soils

Dr. Yamily Zavala, CARA

2015 is the International Year of Soil (IYS). Yes, the whole year dedicated to the soil. Events and celebration are taking place around the world to connect people with soils and to increase awareness to recognize and to value the soils for their productive capacities as well as their contribution to food security and the maintenance of key ecosystem services.

The specific objectives of the IYS 2015 are to:

- Raise full awareness among civil society and decision makers about the profound importance of soil for human life;
- Educate the public about the crucial role soil plays in food security, climate change adaptation and mitigation, essential ecosystem services, poverty alleviation and sustainable development;
- Support effective policies and actions for the sustainable management and protection of soil resources;
- Promote investment in sustainable soil management activities to develop and maintain healthy soils for different land users and population groups;
- Strengthen initiatives in connection with the SDG process (Sustainable Development Goals) and Post-2015 agenda; Advocate for rapid capacity enhancement for soil information collection and monitoring at all levels (global, regional and national).

Soils are considered a non-renewable resource, meaning their loss and degradation is not recoverable within a human lifespan. It is therefore a highly valuable natural resource, yet it is often overlooked. We have neglected our soils for too long. Healthy soils are the basis for healthy food production.

CARA is joining the whole world community in this important role to communicate this vital information on soils. During this year we will provide you with resources to learn more about soil, especially soil health, and you will help us to spread the word about it.

Do you want to contribute with this important movement?

Let's start with our on-line survey for collection of soil information in your cropping systems. The survey is almost ready; it will be launched very soon. The data will be used to document soil health constraints, site characteristics and other conditions in our region. This will be the starting point for a long term extension effort on soil health indicator evaluation, monitoring and management strategies.

Please contact us (caracrop@telus.net) for more information on the online soil health survey!

Welcome

Grace Patricia Gould

Daughter of
Matthew & Lacey Gould

Born January 20th, 2015
Weighing 7 lbs 4 oz, 20" long

Congratulations!

This Business of Farming

Monday March 2, 2015 10:00am—4:30pm
Oyen Senior's Center

Cost: $20/person or $30/ couple

Registration is appreciated by Friday February 20, 2015 . Call CARA at (403) 664-3777.

A Tale of Two Generations

Merle Good, Farm Business Advisor GRS Limited

Learn how to tax plan for succession and hear what Merle thinks about the impact of rising land prices on future farm expansion & survival.

Weather Wise: What will 2015 & beyond bring?

Mark Robinson, STORM HUNTER

Mark is a severe weather expert, educator and stormchaser based out of Toronto, Canada and featured on The Weather Network. Hear his opinion on what weather we should be expecting in 2015 and beyond.

Grain Market Forecast Lee Melvill, Farm Marketing Advisor

Cattle Market Forecast Neil Blue, ARD Market Specialist

Lunch Is On Us!

Chinook Applied Research Association CARA · Alberta Canola Producers Commission · Alberta Wheat Commission · Alberta Barley · Big Country Ag Society

CROP STRATEGY SEMINAR

Thursday March 12, 2015 9:30 am – 4:00 pm
Provost, AB Provost Recreation & Culture Center *Alberta Room*

Cost: $20/person or $30/couple

2015 Crop Pest Outlook– Scott Meers, ARD Insect Management Specialist

Canola Seeding for Success– Canadian Canola Council Agronomist

Fababean 101– Neil Whatley, ARD

Weather Watch: 2015 & Beyond– Drew Lerner, World Weather Inc.

2015 Grain Marketing Forecast– Neil Blue, ARD Marketing Specialist

Pulse Producer Panel– Local growers will give you an insight into their operations, their pulse successes & the lessons they learned over the years.

LUNCH IS ON US!

Registration is appreciated by Friday March 6th, 2015.
Call CARA at (403) 664-3777 to register.

Stock Dog & Stockmanship Clinic

Ranch Roping Clinic & Big Country Ranch Roping

February 27 & 28, 2015 Crossroads Arena, Oyen AB

For more information or to register please contact:
John & Kelsey Beasley (403) 779-2662 or visit their website at www.integrityranching.com

If you would like to participate with a dog call to check availability and register. Auditors are always welcome. Auditing is $25/day. Roping Clinic begins at 9:00AM with Big Country Ranch Roping at 4:00PM. Rules are on the website.

Weed Seedling ID Answers

A) **Scentless Chamomile**
B) **Absinth Wormwood**
C) **Black Henbane**

Congratulations!
Diana Walker
Winner of the draw for completing our survey. She won a $200 Visa card. Thanks to everyone who responded.

More of a DIGITAL person?

If you would like to receive this newsletter via email, please contact Jesse at **cara-jw@telus.net**

CHINOOK APPLIED RESEARCH ASSOCIATION
Box 690 Oyen, AB T0J 2J0
Ph: **403-664-3777** Fax: **403-554-3007**
Email: **cara-1@telus.net** Web: **chinookappliedresearch.ca**
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