forage





February 2018

In This Issue

Prescription needed to purchase
livestock antibiotic 1
Diet Formulation for a
Research Trial 4
Career Opportunities
Interested in being involved
with the WCFA11
Meet a Board Member12

IMPORTANT DATES

March 8: High Legum	e Seminar, Fort
Assiniboine	
March 15: Annual Ger	neral Meeting,
Evansburg	
March 30: 2018 Mem	bership Renewa
Deadline	

This December, you'll need a prescription to buy virtually any livestock antibiotic

Adapted from the BCRC blog article posted February 1, 2018 on www.BeefResearch.ca. Article was edited for length.

Starting late in 2018, Health Canada is introducing a couple of important changes affecting the way animal antibiotic products can be accessed by producers. And having an established Veterinary-Client-Patient Relationship (VCPR) will be an important part of a smooth transition.

The key point is, starting Dec. 1, 2018, all livestock producers will need a prescription from a licenced veterinarian, before they can buy a medically important antibiotic (MIA) for therapeutic use in livestock production. This applies to all beef cattle sectors

using antibiotics - cowcalf operators, feedlots and feedmills (and really all sectors of animal agriculture including beef, dairy, hogs, sheep, horses, fish and even bees). The new policy doesn't just apply to injectable products, but also includes some boluses and calf scour treatments, and **Component and Compudose** implants. At the same time, the new policy does not apply to certain antimicrobials such as the ionophores, which are not considered to be medically important in managing disease in humans.



WCFA Board of Directors President: Grant Taillieu Vice President: Grant Chittick Treasurer: Dale Engstrom Secretary: Stacey Meunier

Larry Kidd Eric Vanderwell Brian Dickson Shavne Horn Greg Malyk, Frank Maddock Brett Byers

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 TOE 0T0



Agriculture Opportunity Fund

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

This December, you'll need a prescription to buy virtually any livestock antibiotic

PRESCRIPTION NEEDED

Producers who are used to picking up a bottle of penicillin or tetracycline at their local farm supply store to treat common infections such as foot rot, pink eye or mastitis, will no longer be able to do so. Many of the antibiotics used for animals are already only available through prescription. However, some common products traditionally available without a prescription through farm and feed supply outlets will soon require a prescription. In the feedlot sector, commonly used in-feed products such as tylosin and tetracycline have been available without prescription. Starting December 1st a prescription will be needed for all these medically important antibiotic products.

For cow-calf producers in Alberta and Saskatchewan. for example, under the current legislation products will only be available from a veterinary clinic or licenced pharmacist. The final distribution system in Alberta is still being reviewed. Commercial feedmills will be able to manufacture and sell MIA in feed pursuant to a veterinary prescription under current provincial regulation in macro premix, micro premix, supplement or complete feed formulations— but again dispensing details still need to be worked out.

If you have established the VCPR— that veterinary/ client/patient relationship with a licenced veterinarian, for example, a producer will be able to obtain a prescription for a given

ΓS ΤΙΜΕ ΤΟ

ENEV

Membership Renewals for 2018 are due no later than March 30, 2018

If you wish to continue receiving the benefits of being a WCFA member!

MEMBERSHIP FEES (2018)

\$30/year - "Forage Views" Newsletter received via email
\$45/year - "Forage Views" Newsletter received via mail

amount of product for perhaps a full year (depending on the circumstance) enabling them to buy it as needed and for use according to advice of the veterinarian.

SO WHAT IS A VET-CLIENT RELATIONSHIP?

In most cases it isn't a formal written agreement and in essence it is a relationship that develops between a veterinarian and a producer - the veterinarian knows the operator, visits the farm or ranch to get an understanding of the operation, sees how animals are cared for and is confident the producer will be responsible in following medical advice and properly use any products as directed. **Establishing a VCPR starts** with a producer contacting a veterinarian, sitting down to discuss their livestock operation and provide some record of animal health treatment protocols. Depending on the veterinarian policy it may or may not involve a farm visit.

For example, the Alberta Veterinary Medical Assoc. has formalized five points, which constitutes a VCPR. Their requirements include:

1. The veterinarian has assumed the responsibility for making clinical judgments regarding the health of the patient (livestock) and the client has agreed to follow the veterinarians' instructions 2. The veterinarian has sufficient knowledge of the patient to initiate at least a general or preliminary diagnosis of the medical condition of the patient. This means that the veterinarian is personally acquainted with the keeping and care of livestock by virtue of a timely examination of the herd or individual animals by the veterinarian, or medically appropriate and timely visits by the

veterinarian to the farm or ranch.

- The veterinarian is readily available for follow-up evaluation or has arranged for the following: veterinary emergency coverage, and continuing care and treatment.
- 4. The veterinarian provides oversight of treatment, compliance, and outcome.
- 5. Patient records are maintained.





Diet Formulation for a Research Trial -Putting Feed Test Results to Work

Hushton Block, Ph.D., AAFC

.

hushton.block@agr.gc.ca

@hushtonblock

.

I am leading a study at the Lacombe Research and Development Centre (RDC) that is looking for an interaction between cattle efficiency type and diet quality. The study uses recently weaned steer calves (n=128) in each of two 112-d winter (2016-17 and 2017-18) backgrounding trials. In each trial, the steers are sorted into four efficiency groups, randomized to one of 16 pens (8 steers per pen), and then fed one of two diets. The way in which the diets were developed for this study

provides a good example of how to transition from feed testing to diet formulation.

The silages used as the forage base for the diets were selected using a spreadsheet calculator (Canadian Journal of Plant Science 95:647-651) developed to assist with crop breeding and selection. The calculator uses agronomic yield and quality data to estimate carrying capacity and animal performance. For this study, Canmore (2-rowed, rough awned, medium height, food and general purpose barley) and Bunker (awnletted, standard height, spring triticale) were the selected varieties.

Prior to the start of the trials, multiple probe samples (to ensure a representative composite sample) were collected for each of the silages, and submitted for analyses.

Once the feed test results were received, the calculated values reported were checked as feed tests can be misleading, especially with limited analyses and

		EFFICIENCY GROU		
	HIGHLY EFFICIENT	EFFICIENT	INEFFICIENT	HIGHLY INEFFICIENT
CANMORE	2 pens of 8 steers	2 pens of 8	2 pens of 8 steers	2 pens of 8 steers
BARTLEY SILAGE		steers		
BUNKER	2 pens of 8 steers	2 pens of 8	2 pens of 8 steers	2 pens of 8 steers
TRITICALE SILAGE		steers		

FIGURE 1. TWO (DIET QUALITY) BY FOUR (EFFICIENCY GROUP) TREATMENT DESIGN.

*Steer efficiency group was based on molecular breeding value for residual feed intake (RFI). Use of recently weaned steer calves for the trial meant there was no opportunity to measure residual feed intake directly before starting the trial. Genomic tools were used to predict individual RFI, which is a measure of feed efficiency based on the difference between actual feed intake and predicted feed intake after accounting for animal weight, rate and composition of gain.

unusual feeds. Nutritionists can advise on which tests to have conducted and how to interpret the results.

The feed analyses and cattle data were the entered into a diet evaluation model to evaluate how well the silages would meet steer requirements and support growth. I used the empirical version of the 2016 Beef **Cattle Nutrient Requirements** Model (https://www.nap. edu/catalog/19014/nutrientrequirements-of-beef-cattleeighth-revised-edition), but an earlier versions or Cowbytes® could be used. The correct feeds (or best match) were

selected from the library and all relevant feed composition values were overwritten with test results. Steer intake and final weight were adjusted to match the intake and gain predicted by the model and animal performance predictions were assessed. I ran my predictions without accounting for environment. This is not quite correct, but past experience (Journal of Animal Science 79:267-275) has found that when housed under clean and dry conditions, assuming no effect of environment has resulted in more accurate predictions than using actual

weather conditions.

The trial started later in 2017-18 than in 2016-17. This gave steers more time to grow before the trial started, resulting in larger steer sizes which in turn increased the predicted voluntary intake. There is a discrepancy between the predictions of gain as limited by energy and metabolizable protein (MP) availability. The energy from the silages should support about 1.4 lb per day more gain than is possible given the MP available. This is reflected by the negative MP balance for the silages. To get the best growth rates possible from diets based on these silages, I need to correct this imbalance between energy and MP limited predictions of gain.

Failing to correct the MP deficiency will result in real gain between that predicted based on energy and MP availability. This results from the 'unusable' energy from the 1.4 lb per day difference between the two

TABLE 1. SELECT FEED TEST RESULTS FOR PRE-TRIALSILAGE SAMPLES*

	CANMORE BARLEY SILAGE		BUNKER TRITICALE SILAGE		
	2016-17	2017-18	2016-17	2017-18	
DM	29.3	33.9	40.2	41.9	
TDN	61.8	68.3	63.6	62.5	
СР	10.5	12.0	9.6	9.4	
RDP	81.1	87.0	86.5	87.1	
CA	0.40	0.38	0.26	0.36	
Р	0.22	0.27	0.22	0.26	

*DM – dry matter; TDN – total digestible nutrients; CP – crude protein; RDP – rumen degradable protein; Ca – calcium; P –

TABLE 2. MODEL PREDICTIONS OF STEER PERFORMANCE*

	CANMORE BARLEY SILAGE		BUNKER TRITICALE SILAGE		
	2016-17	2017-18	2016-17	2017-18	
DM	14.7	16.6	14.9	16.2	
ME ADG	1.6	2.3	1.8	1.8	
MP ADG	0.55	0.57	0.40	0.35	
MP BALANCE	-0.32	-0.51	-0.43	-0.43	
RDP BALANCE	0.37	0.68	0.31	0.35	

* Units are Ib per day; DMI – dry matter intake; ME ADG – average daily gain (ADG) as limited by energy availability; MP ADG – ADG as limited by protein availability; MP balance – metabolizable protein balance; RDP balance – rumen degradable protein balance.

predictions being used to deposit fat instead of lean tissue. However, while we know that weight gain from fat deposition is less efficient than from lean growth and overall gain will be lower than possible from a balanced diet, the lack of good models for growth from unbalanced diets makes a reasonable prediction of gain very difficult.

To increase the supply of MP available to the steers, I need to either increase the supply of microbial protein leaving the rumen, or the supply of feed protein escaping degradation in the rumen (rumen undegradable or bypass protein (RUP or BP)).

Microbial protein results from rumen microbes fermenting feed within the rumen to yield energy (for both the microbes and the cattle) and then using some of that energy and rumen degradable protein (RDP) for growth. With a surplus of RDP from these silages, only an increase in the supply of energy (to the microbes, but also to the cattle) will increase the supply of microbial protein. Increasing the supply of energy will not fix our issue with a surplus of energy relative to the MP available for gain. As an important aside, having a RDP deficiency can limit performance even when MP requirements are met as the RDP deficiency will limit microbial growth and fermentation reducing the energy available to the cattle.

To increase the supply of RUP we need a BP supplement. I contacted several feed manufacturers that operate in Alberta and requested information on the cost and composition for a variety of cattle protein supplement ingredients. I then formulated and evaluated a series of diets based on each silage and supplement combination.

The first formulation added just enough BP to bring MP limited prediction of gain up to the energy limited prediction of gain for a silage only diet (i.e. 1.8 lb per day). The second formulation added more BP to result in predicted gain as limited by energy and MP availability to be equal. Comparisons were then made among different formulations based on cost. The type and level of supplementation selected was based on the lowest cost of gain.

A corn dried distillers' grains based supplement was used for both silage based diets. Both diets were supplemented at 25% of diet dry matter. The supplement contained additional vitamins, limestone, and an ionophore. The steers were provided with ad libitum access to trace mineral salt.

By basing supplementation on minimal cost of gain, I did not minimize the expected daily feed cost (silage only) or supplement cost (low level corn distillers' grains). The cost of supplement was substantial at 73% of the silage only diet, but expected the cost of gain was reduced to about 25% of the silage only diet. The cost of silage that I used (\$60 per tonne as fed) is in line with the CanFax approach of 12.5 times the bushel price of barley grain.

When taking action in a beef

		2016-17 BUNKER TRITICALE SILAGE			
	SILAGE ONLY	CANOLA MEAL		A MEAL CORN DRIED DISTILLERS' GRAIN	
SUPPLEMENT	-	22.3	24.7	17.6	23.6
DMI	14.9	14.8	15.1	14.7	15.3
ME ADG	1.8	2.0	2.0	2.2	2.4
MP ADG	0.4	1.8	2.0	1.8	2.4
MP BALANCE	-0.43	-0.05	0	-0.12	0
SUPPLEMENT COST	-	\$0.85	\$0.95	\$0.53	\$0.74
TOTAL FEED COST	\$1.01	\$1.63	\$1.72	\$1.35	\$1.53
COST PER LB ADG	\$2.53	\$0.91	\$0.86	\$0.75	\$0.64

TABLE 3. MODEL PREDICTIONS COMPARING SELECTSUPPLEMENT TYPES AND LEVELS

*Supplement is on a % of diet DM basis, all other unspecified units are lb per day or \$ per day; DMI – dry matter intake; ME ADG – average daily gain (ADG) as limited by energy availability; MP ADG – ADG as limited by protein availability; MP balance – metabolizable protein balance; silage cost was assumed to be \$60 per tonne as fed.

production system, there should always be an objective for that action. Feed testing provides the information necessary for nutritional evaluation. Nutritional evaluation identifies both the potential performance of the cattle being fed and any deficiencies with the main ingredients on which the diet is to be based. Supplementation is intended to correct deficiencies to prevent disease (i.e. vitamins and trace mineral salt) or improve performance (balancing energy and MP supply). Supplementation should always be done with regard to what is in the base diet and on a least cost



ERROL & BARB VERBEEK AND FAMILY



Box 649 Evansburg, AB TOE 010 Home PH: 780.727.2775 Cell PH: 780.542.9794



basis. That is the lowest cost of performance, not lowest cost per day, or lowest cost of supplement.

With what I did above, the cost of supplement increased by \$0.74 per day and the cost of feed by \$0.52 per day (supplement replaced some of the silage). However, I also increased the expected gain by 2 lb per day. The value of that added gain (\$3.20 per day using 2016-17 trial end weights and Ponoka Auction prices) should easily pay for the increased cost of supplement.

As a disclaimer, all the information above is based on the feed tests and nutritional modelling process I went through in planning our feeding trial. It is represents a select subset of data used and considered. It is presented here as an example of how feed test results can be evaluated and used to improve animal performance. All the animal performance data are predictions derived from models known to be less than perfectly accurate. The corn distillers' grains based supplement selected above was used in the feeding trial in 2016-17, and a very similar supplement in the 2017-18 feeding trial (the feeding trial ends in February). Actual results from these feeding trials will follow...





March 15, 2018

Evansburg Royal Canadian Legion

Registration through WCFA website or call 780-727-4447 Ft: Mini-Ag Tradeshow \$50 Registration Fee

Schedule of Events 4:00pm Registrations 4:30 Year End Updates 5:30 Supper 6:30 General Meeting 7:30pm John Knapp



John Knapp

"Global Macro Trends and the Future of Agriculture in Alberta"

- Retired Deputy Minister of Alberta Agriculture after 36 years
- Recipient of Outstanding supporter of Agriculture Award
- Consultant to the agricultural sector
- Author of, The Leader's Practice Guide



Career Opportunities



WORKING MANAGER -MEUNIER STOCK FARMS

'Thriving Plants, Animals and People'

Are you excited about Grazing Management, Animal Husbandry and Improvement through Grazing?! Meunier Stock Farms Ltd. near Cherhill AB is looking for a Working Manager with attention to detail to lead our ranch. We are dedicated to improving productivity of our soil and ranch land through management intensive grazing. If you are interested in an environment where you can try new ideas for temporary fencing, water systems and extended grazing this position is for you! For more information contact Stacey Meunier at meunierfarms@mcsnet.ca or 780-674-0148.



SUMMER FIELD TECHNICIAN-WCFA

WCFA requires two Summer Field Technicians to assist with our summer research, demonstration programs, and extension delivery geared towards agriculture and environmental stewardship from May 1 to August 31, 2018.

Duties will include but are not limited to:

- Assisting with the design, establishment, maintenance & harvesting of forage demonstration plots and field trials (rototilling, fertilizing, taking sample cuttings, weighing samples etc.).
- Assist staff with the collection of data and data entry from research projects;
- Office work (computer skills essential – Microsoft Word, Excel, Power Point, Publisher);
- Assist staff with the planning and delivery of agriculture extension events, workshops, tours, seminars, and technology transfer.



Qualifications/Skills/ Attributes:

- A strong interest/ background in agricultureformal education in agriculture would be a definite asset.
- Hold a valid driver's license;
- A basic knowledge of farm equipment and safety practices;
- Quality and detail orientated;
- Team player who can work independently with little or no supervision;
- Enjoy working outdoors, enthusiastic and a strong work ethic;
- The successful applicant must be currently registered as a full time student and returning to full time studies or enrolled in a Co-op program.

Interested applicants are asked to submit their resume, with cover letter, to:

Melissa Freeman, General Manager

- Box 360 Evansburg, AB TOE OTO
- manager@ westcentralforage.com
- 🖶 Fax: (780) 727-4424
- For more information please contact the WCFA office at (780) 727-4447



Register Through WCFA website or by calling 780.727.4447 RSVP by March 1/18



High Legume Pasture Seminar

Fort Assiniboine, AB Legion Hall

March 8, 2018

10am**-**3pm

Lunch included

\$25





Rudy & Darleen Stein, Greg Thompson - Regional Cooperators, High Legume Pasture Panel
Grant Lastiwka, Forage/Livestock Business Specialist, Alberta Agriculture and Forestry - Why High Legumes & Project findings
Dr. Surya Acharya - AAC Mountain view and Glenview Sainfoins
Graeme Finn - "I have been there and done that"

Come and learn from producers' experiences; focus on establishment, management tips, and challenges; and meet the ambassadors for high legume grazing.

Growing Forward 2

A federal-provincial-territorial initiative





INTERESTED IN BEING ACTIVELY INVOLVED WITH WCFA?

Why not consider becoming a board member?!

On March 15, at our Annual General Meeting, we will be looking to fill a couple of board member positions. This is a great opportunity to offer input and get involved with our Association!

If you would like more information on the roles and responsibilities of being a board member please contact our office at 780.727.4447.

YOUR AD HERE

CONTACT US AT 780.727.4447 OR INFO@WESTCENTRALFORAGE.COM FOR DETAILS AND PRICING!

Meet a Board Member: Shayne Horn

Shayne Horn is co-owner of Tangle Ridge Ranch. Originally from Leduc, Alberta, he now ranches with his wife Vicky and two children - Shelby (8) and Brantley (5) in Thorsby, Ab. His passion for agriculture and the people involved started at a very early age. His grandparents owned a farm out by Hay Lakes, Ab and he would love to spend time out there. His Grandfather was also the manager at the Alberta Wheat Pool in Leduc and he has fond memories of spending the days watching trucks unload grain and speaking with local farmers. He attended NAIT and received his diploma

in Chemical Engineering in 2001. In 2003, he attended the University of Alberta where he graduated with a Bachelor of Science in Agriculture with a Major in Animal Science. During his University years, he gained experience working at the U of A Dairy Farm, working at a large custom grazing operation by Cherhill, Ab, and then starting his career in the feed industry at Unifeed (now Hi-Pro Feeds). Shayne worked as a Dairy Nutrition and Sales Representative for 6 years helping customers maximize their herd production and health. In 2007, he married his wife Vicky and they started up Tangle Ridge Ranch. They grew a successful sheep business where they direct marketed their grass-finished lambs to customers and high-end restaurants. After 10 years in the sheep business, they are expanding and transitioning the operation into a 480 acre custom grazing ranch where they will continue to utilize rotational grazing, water management, and biodiversity to ensure a healthy land base. Shayne is also involved with the Thorsby Beef 4H club, Thorsby Minor Hockey, and is proud to be serving as a board member with the West-Central Forage Association.

Calvin Grabler

OLS Tubs Dealer Barrhead, AB

780-305-4490
 csranching@hotmail.com
 olstubs
 www.olstubs.com

Combine the best proven ingredients and super concentrate them....

> All Natural Protein & Energy Vitamin & Chelated Minerals Amaferm, Lacto-Mos, Bio-Mos DE, Oxy-Gen, IntelliBond B-Traxim, Zinpro and More. Guaranteed Consumption Rates Low Cost Per Day, Big Results!

That's what WE'RE made of

Kāla Ranch

Black Angus Yearling Bulls For Sale by Private Treaty

Virgin, Vet Checked, Semen Tested

Call Géza (180) 515-0616

Nojack, AB