



Western Canadian Association of

BOVINE PRACTITIONERS

NEWSLETTER

VOLUME 7 NO. 2 JUNE, 2002

President's Message - Bob Ruckman



Greetings WCABP!

I hope all are welcoming Summer '02 by dusting off the clubs, fly rods, saddles, camping gear, or whatever equipment allows some diversion from everyday veterinary medicine.

As this season gets underway, so do the requests from young people and students for employment at a vet clinic.

Although this tends to be our "slow"

season (specifically to bovine practice) and keeping another staff member busy seems daunting, I encourage any and all members to capitalize on these requests as our first opportunity to develop new bovine practitioners.

The WCABP Board recently received feedback from our first participants in the Ray Butler – Seeing Practice Bursary Program. Comments from the students included learning "handy tricks", seeing "fascinating" procedures, and observing several "practical" techniques. These comments reflect how influential simple day-to-day exposure of clinic life can be to students or new "Cow Vets". Comments from the sponsoring

practitioners stated how "refreshing", "enlightened", and "delighted" it was to have interactions and accompaniment with these future colleagues. Our involvement in these opportunities was encouraged by a sponsor's comment to invite the students "with or without a bursary". A detailed summary of two of the participants' responses can be found on page 11.

WCABP's communication program development with Meristem Information Resources Ltd. is now underway. This initiative will produce a video, PowerPoint slide show, and brochures to assist our members and association with career promotion of a bovine veterinarian. It is our own responsibility to make first introductions and contacts to junior high, high school, and pre-vet students concerning our roles as Bovine Practitioners.

We can have a large impact in promoting students' practice interests and showing them how WORTHWHILE it is to be a "Cow Vet", even if it might mean taking them fishing or golfing this summer. 🐾

Dr. Bob Ruckman

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From the Secretary-Treasurer's Desk



WCABP has hired Meristem Information Resources Ltd. in Calgary to develop the communication strategy and educational program for enticing students into bovine practice, based on our CARD grant and your contributions at the silent auction. The communication plan will include the development of a wordmark/logo for WCABP to give us a more professional

image, a catchy pocket-sized brochure, a PowerPoint presentation, and video. We hope to have these tools available to you later this fall. As well, Meristem suggested that we have some news releases and feature articles to position the veterinary profession and large animal production in a positive light. Our CARD grant does not have sufficient funds for these latter two additions, but the Board thinks it is important that we do some of this communication to build up our professional image. Thus, we will be looking for other sources of revenue to fund the news releases and feature articles. If any of you have any ideas on how we can generate some extra funds to support these additional communication efforts, please contact myself, the WCABP office, or one of our Board members.

Our office is working on the 2002 convention proceedings and we hope to have those available for you on CD and on the WCABP website under our membership lock and key, in early July. As well, we are proceeding on developing a membership directory for you that will be available on our website later this summer.

Drs. John Campbell and Ray Butler are busy developing a great 2003 convention in Calgary. Please mark off your calendars for this convention, January 16 to 18, 2003.

Dr. Ken Linde is coordinating the Vet Advice column in the Canadian Cattlemen's magazine this year. He is looking for writers to help him submit a monthly article. We have sent a request to OABP to see if they would be willing to help support this CE initiative. If you are interested in writing an article, please contact Ken.

Continued on page 3...

The WCABP Newsletter is published by the Association as a service to its members. The views expressed in this publication are not necessarily those of WCABP. Correspondence concerning the newsletter should be directed to the WCABP office.

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2003 WCABP Annual Conference

Planning for the 2003 conference, under the Chairmanship of Dr. John Campbell, is well underway. The dates are set: Thursday, Friday, Saturday – January 16, 17, 18. The contract is signed with the Executive Royal Inn in Calgary. The program outline has been drafted: dairy and beef in-depth seminars on Thursday; scientific sessions on Friday and Saturday.

Mark these dates on your calendar now and plan to attend!

2003 WCABP Conference

January 16 – 18, 2003

*Executive Royal Inn
2828 – 23 Street NE
Calgary, Alberta*

To book hotel rooms call 1-877-ROYALINC. Mention that you are with WCABP to qualify for the conference room rate of \$81.00.

*From the Secretary-Treasurer's Desk
continued from page 2*

Ken has also been busy chairing the CVMA Task Force on the role of veterinarians in on-farm food safety programs. Dr. Gordon Dittberner is the CVMA representative on the Canadian On-Farm Food Safety Program (COFFSP). The task force has suggested that Gordon continue to represent veterinarians on COFFSP; CVMA write some articles in the CVJ on COFFSP; CVMA ask for national representation on each national livestock commodity groups' on-farm food safety program, and that provincially, there be a veterinary representative on each provincial delivery agent. In Alberta, Dr. Pat Burrage sits on the Alberta Quality Starts Here Steering Committee and provides excellent input. Dr. Ted Dupmeier has been recently hired as Saskatchewan's provincial beef coordinator for QSH and I serve as Alberta's provincial beef coordinator, as well as continue to provide input into the national program development. We will try and

provide you with an update on the dairy and beef on-farm food safety programs at the 2003 convention.

The WCABP Board has elected Dr. Pat Burrage to continue to represent WCABP on the AVMA. We are just awaiting confirmation from AVMA on that process.

The Board was asked by one of our members to respond to a proposal from Ducks Unlimited to take marginal agricultural land and riparian areas out of agriculture production, including cattle grazing in perpetuity. This would include 2,365,000 hectares, most of that land from the prairie provinces. Our Board has written a letter to the Canadian Cattlemen's Association, Saskatchewan Cattle Feeders' Association, and Saskatchewan Stock Growers' Association indicating that we support their action against this DU proposal.

That's all for now folks! 🐾

Joyce Van Donkersgoed, DVM, MVS

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Property-Based Risk Assessment for Bovine Johne's Disease

May 8, 2002 Cattle Council of Australia Media Release
<http://www.cattlecouncil.com.au/>

Cattle Council of Australia members at the Council's half-yearly meeting in Canberra today further refined its policy on Bovine Johne's Disease, recognizing it as a disease of importance to the Australian beef industry. Cattle Council's President, Keith Adams, said Bovine Johne's Disease movement restrictions were one of the most contentious issues facing livestock producers and needed to be addressed as a matter of urgency. 'To ensure the heat is taken out of the debate and recent scientific advice adopted, Cattle Council unanimously supported the development and implementation of a risk assessment system where livestock movement would be conditional upon the declaration of transparent and meaningful risk status on a property-by-property, not a zone, basis. Cattle Council will request the Government Veterinary Committee to develop a basis for property-based risk assessment and to provide details of the levels of surveillance

undertaken in each jurisdiction to continue supporting the declaration of Bovine Johne's Disease zones. The Veterinary Committee will also be requested to lift movement controls on non-breeding cattle, namely steers, spayed heifers and cattle destined for slaughter. 'In taking this position, the Council recognised that there are no short-term solutions and that to control Bovine Johne's Disease it must be supportive of the development of strategies to reduce the spread of infection between farms and regions. While management programs will continue to play an important role in minimizing the spread of Bovine Johne's Disease, Cattle Council wants to make sure that any restrictions placed on stock movements are minimized. In recognition of the importance of research and development initiatives the Council provided support for research into new and more sensitive tests and vaccines to aid control and prevention. Cattle Council also reiterated its support of the Goals and Objectives of the National Bovine Johne's Disease Program. 🐄

US Feeder Import Update

The Canadian Cattlemen's Association and Alberta Cattle Feeders' Association have been working to move toward year round feeder trade with northern United States. This trade is beneficial to producers on both sides of the border and is necessary to ensure good trade relations with the US, our largest beef importer. A pilot study was proposed this summer in a few "terminal" feedlots (all cattle directly to slaughter), and it included a tetracycline protocol for anaplasmosis control and a fly control program, including permethrins to remove incoming ticks and reduce biting flies. The summer pilot protocol was submitted to CFIA who submitted it to twelve other stakeholder organizations for input. The feedback from provincial governments was not supportive, generally based on lack of information regarding the program and risks. The largest concern was feedback from Health Canada,

challenging the use of tetracyclines in the Restricted Feeder Program and proposed summer pilot project for anaplasmosis control. Their concern was that the use of two injections of oxytetracycline would pose a risk to increasing antimicrobial resistance and thus harm human health. Currently, the CCA is writing a response back to Health Canada and hopes to meet with them in late May to try to alleviate some of their concerns. As well, the CCA and NCBA will be having an "expert" committee meeting in Ottawa in June, bringing together industry and government with experts on bluetongue and anaplasmosis to help dispel some of the myths concerning these diseases and see if we can work out a year round program with management practices to control these diseases to acceptable risks. 🐄

Joyce Van Donkersgoed, DVM, MVS

www.cattle.ca/wcabp

to keep tabs on your
association and
your industry...

- 2001 conference proceedings
- Numerous links to sites of interest
- Latest industry information
- Vet advice columns (Contributed by WCABP members, and published in the *Canadian Cattlemen*)

To access the 2001 conference proceedings, the user name is **animal**, and the password is **bovinevet**. 🐄

New Livestock Welfare Programs Announced

At AFAC's Annual General Meeting on March 27, 2002 three key funding developments were announced for continued role in livestock welfare extension and training; enhanced efforts in farm animal welfare communication with the livestock industry and the public; partnership in livestock welfare research initiatives.

Training, Extension and Livestock Protection

AFAC will receive funding for developing and implementing livestock welfare training and extension courses from Alberta Agriculture, Food and Rural Development (AAFRD). AFAC is also working closely with industry to develop the Guidelines for the Humane Handling of Unfit Livestock. It will also continue to work closely with the Alberta SPCA in its role of providing province wide livestock protection and enforcement services.

Communication

Funding through the Livestock Industry Development Fund (LIDF) will allow AFAC to build upon its communication efforts to include:

- Livestock Care Conferences;
- Farm Animal Welfare News;
- Increased profile at major fairs;
- Expand 4-H Learning About Animal Welfare (LAW);
- Regular columns in agriculture related publications;
- Development of a Livestock Welfare Course, partnering with Olds College;

- Interactive teacher resources; and
- Technology transfer of livestock welfare research.

Darcy Fitzgerald, LIDF General Manager said, "LIDF supports initiatives that promote an environmentally and socially responsible livestock industry. We are very pleased to provide financial support to AFAC over the next three years to look at farm animal welfare communication programs."

Research Federal and provincial Agriculture Ministers, along with AFAC, announced a three-way partnership during a press conference after AFAC's AGM. Alberta-Canada Livestock Welfare Research Partnership will support research based at the Lacombe Research Centre. Dr. Al Schaefer, a researcher at the Lacombe Research Station, said "consumers have a right to know that animals are raised humanely. Research will provide those assurances." He added, "research can give producers the information they need to continually improve." Shirley McClellan, provincial Agriculture Minister, believes Alberta already has a high standard for farm animal care, but this important agreement will further ensure a sustainable livestock industry. At the AGM, Susan Church, AFAC Manager said, "the livestock industry is actively involved in improving animal well-being. The food industry is stepping up its demands for humane handling assurances through audits. We must deliver our messages to the public when the public trust in agriculture is continually eroded by animal rights activists." 🐾

Guidelines for the Handling of Cull Livestock - AFACOR

AFAC Spring 2002 Newsletter

A few years ago, sick or weak animals were brought to an auction market and were killed within two days at a local abattoir. With fewer small plants and none of the large plants willing to take poor quality animals, the cull animal can now spend two or three weeks shunted between auction markets and assembly yards before being trucked long distances to a US slaughter plant. At AFAC's AGM the head of the Alberta SPCA enforcement branch, Morris Airey, asked producers to stop shipping weak animals and stem the increasing number of animals collapsing in trucks on the way to slaughter. Aart Okkema of Vermilion, Alberta (and director on AFAC's board representing Alberta Milk), said the dairy industry is working on solutions to shipping culled dairy cows. It has developed a

guide to help producers decide what is and isn't an acceptable animal to ship. A copy of this report is available from the AFAC office (www.afac.ab.ca). The pork industry is developing a similar approach. The general accepted practice is, if an animal isn't in good strength, it should be killed on the farm or kept at home until it can be shipped. "We have to work with the industry to set standards and provide inspectors and enforcement staff with these standards," Susan Church, AFAC Manager said. While many people point fingers at the truck drivers for transporting weak animals, Darren Malchow, CFIA Inspector, said the responsibility lies with the producer, who knows the animal, to make the final decision on whether it should travel. 🐾

CCA on Country of Origin Labelling in US Farm Bill: The Work Continues

The Canadian Cattlemen's Association (CCA) is extremely disappointed that the US House-Senate Conference has failed to heed the sage advice of its own retailers, packers, and beef producers and has included a provision in the US Farm Bill for mandatory country of origin labelling after two years.

House-Senate negotiators indicated the Farm Bill will include voluntary country of origin labelling provisions for the next two years, with the possibility of mandatory labelling after that. The provision will apply to retail sales of fresh and ground beef, pork, lamb, and veal not born, raised, and slaughtered in the US and to farm-raised fish, produce, and peanuts.

"Two years of voluntary labelling gives American retailers and packers the opportunity to show their government what they already know – that mandatory country of origin labelling is unworkable and will cost the US industry and US consumers millions if not billions of dollars," says CCA President Neil Jahnke. "United States Department of Agriculture studies have already concluded there's no economic efficiency argument for mandatory country of origin labelling to the point of retail sale. We will continue to work with the coalition of food producers, processors, and retailers on both sides of the border to prove this point and hopefully logic will prevail over

politics and head off this threat of mandatory labelling before it gets started."

CCA is supported in its position by the National Cattlemen's Beef Association (NCBA), the official organization representing beef cattle producers in the US. NCBA Vice President of Public Policy Chandler Keys stated, "The two-year voluntary program will provide an opportunity to determine the sustainability of a mandatory program." He goes on to say, "NCBA will closely monitor the country of origin labelling program for its impact on the industry. We have concerns that a mandatory country of origin labelling program may have negative trade implications and place regulatory burdens not only on retailers and packers, but on cattle producers themselves."

Jahnke also points out that mandatory country of origin labelling can likely be challenged under several trade agreements, including the Canada-US Free Trade Agreement, North American Free Trade Agreement, and World Trade Organization. "We will be discussing Canada's trade challenge options with our Federal Government representatives in the coming days," he says. 🐾



WCVM BOVINE CLUB EXECUTIVE 2001-2002

Back row (L to R):

Jason Ricka, 3rd year representative
Patrick Whittaker, 2nd year representative
Glen Griffin, Public Relations representative
Carol Cockwill, President

Front row (L to R):

Jessica Miller, 1st year representative
Tawnya Copland, Secretary
Cathy Etson, Treasurer
Christy Barlund, Vice President

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ANSI Approves Five Standards

Feedstuffs, May 6, 2002 • Issue 18 • Volume 74

Environmental Management Solutions LLC (EMS) announced that the American National Standards Institute (ANSI) has approved five distinct American National Standards (ANS) relative to environmental stewardship in livestock and poultry production.

The accredited standards developer, National Pork Producers Council, developed these standards in close cooperation with other major livestock groups. The documents outline a consistent set of voluntary standards that American livestock producers can use to evaluate their environmental management practices, according to EMS.

The standards, named Good Environmental Livestock Production Practices (GELPP), are based on management rather than engineering approaches. Results of national environmental management assessments of livestock facilities, such as those conducted under the On-Farm Assessment & Environmental Review Program, have shown that conformance with best management practices can be an inexpensive way to foster environmental stewardship, EMS said.

Development of ANS involves a rigorous examination of information obtained from many sources, including the livestock industry, academia, and governmental sources. The review process consists of an independent evaluation by producers, academics, engineers, environmental professionals, government officials, and other interested parties. The standards also were offered for two separate periods of public review and comment.

Through this process, the standards were developed, and all reviewers and developers achieved consensus on their final form. In addition, the standards were influenced by findings from more than 2,500 on-farm assessments conducted on concentrated livestock production operations across the US. These assessments were designed to evaluate a farm's environmental impact, EMS said.

The GELPP standards address the five fundamental concentrated livestock production risk areas:

- (1) general site conditions;
- (2) production areas;
- (3) outdoor manure and storm water storage;
- (4) manure utilization; and
- (5) mortality management.

The ANSI standards will provide long overdue aid to the entire confined livestock production industry by presenting essential environmental management and protection practices in a standard format that can be voluntarily applied across the US, EMS said. In addition, EMS said, ANSI standards will provide confined livestock producers with the opportunity to obtain independent certification of their environmental stewardship. This independent certification would have wide-ranging implications on public perception, insurance or lending, relative to a certified farm.

The standards can be obtained, for a fee, electronically at the www.ses-corp.com or in hard copy format from SES, Inc., Attn.: ANS, Suite 105, 8208 Melrose Drive, Lenexa, Kansas, 66215; 1-800-897-1163. ♣

Effects of Supplemental Vitamin E on Performance, Health, and Humoral Immune Response of Beef Cattle

J. Anim. Sci. 2002. 80:933-941

J. D. Rivera, G. C. Duff, M. L. Galyean, D. A. Walker, and G. A. Nunnery

Three experiments were conducted to examine the effect of dietary vitamin E on receiving performance and health and on finishing performance of beef cattle. One hundred twenty beef steers (Exp. 1; initial BW = 173 kg) and 200 beef heifers (Exp. 2; initial BW = 204 kg) were assigned randomly to one of three treatment diets formulated to supply 285, 570, or 1,140 IU/animal daily of supplemental vitamin E during the receiving period. Average daily gain, gain:feed, and DMI were calculated every 14 d, with pen as the experimental unit. Morbidity and retreatment data were analyzed using a nonparametric procedure. After the receiving period, cattle were assigned to a grazing period followed by a finishing program and fed until slaughter. In Exp. 3, 17 beef steers were used to evaluate effects of the same three vitamin E levels on humoral immune response to an ovalbumin vaccine

given on d 0 and 14. Jugular blood samples were collected on d 0, 7, 14, and 21. In Exp. 1, vitamin E did not affect ($P > 0.10$) ADG, DMI, or gain:feed for d 0 to 14, 14 to 28, or 0 to 28. No effects were noted for percentage of morbidity; however, cattle receiving 1,140 IU/d had a numerically ($P = 0.15$) lower incidence of retreatment. During the 91-d finishing phase, a quadratic effect ($P < 0.08$) was noted for DMI, ADG, backfat thickness, longissimus muscle area, and yield grade. In Exp. 2, a tendency for a linear ($P = 0.10$) increase in ADG was observed for the first 14 d of receiving; however, ADG decreased linearly ($P = 0.06$) with vitamin E concentration thereafter. For the 28-d period, ADG and DMI did not differ among treatments, but gain:feed decreased linearly ($P < 0.05$) for d 14 to 28 and for d 0 to 28. No effects on percentage morbidity were noted in Exp. 2, and no differences were detected for ADG, gain:feed, or DMI for the 98-d finishing period. There was a linear increase in yield grade ($P < 0.05$)

Continued on page 8...

National Beef Quality Audit-2000: Survey of Targeted Cattle and Carcass Characteristics Related to Quality, Quantity, and Value of Fed Steers and Heifers

J. Anim. Sci. 2002. 80:1212-1222

D. R. McKenna, D. L. Roeber, P. K. Bates, T. B. Schmidt, D. S. Hale, D. B. Griffith*, J. W. Savell, J. C. Brooks, J. B. Morgan, T. H. Montgomery, K. E. Belk, and G. C. Smith

The National Beef Quality Audit-2000 was conducted to assess the current status of the quality and consistency of US fed steers and heifers. Between May and November 2000, survey teams assessed hide condition (n = 43,415 cattle for color, brands, mud/manure), bruises (n = 43,595 carcasses), offal and carcass condemnation (n = 8,588 cattle), and carcass quality and yield information (n = 9,396 carcasses) in 30 US beef packing plants. Hide colors were black (45.1%), red (31.0%), yellow (8.0%), Holstein (5.7%), gray (4.0%), white (3.2%), brown (1.7%), and brindle (1.3%). Brand frequencies were no (49.3%), one (46.2%), and two or more (4.4%), and brands were located on the butt (36.3%), side (13.7%), and shoulder (3.6%). Most cattle had no (18.0%) or a small amount (55.8%) of mud/manure on their hides, and they had no (77.3%) horns. Most carcasses (53.3%) were not bruised, 30.9% had one bruise, and 15.8% had multiple bruises. Bruise location and incidence were round (14.9%), loin (25.9%), rib (19.4%), chuck (28.2%), and brisket, flank, and plate (11.6%). Condemnation item and incidence were liver (30.3%), lungs (13.8%), tripe (11.6%), heads (6.2%), tongues (7.0%), and carcasses (0.1%). Carcass evaluation revealed these traits and frequencies: steer (67.9%), heifer (31.8%), and bullock (0.3%) sex-classes; dark-cutters (2.3%); A (96.6%), B (2.5%), and C or older (0.9%) overall maturities; and native (90.1%), dairy-type (6.9%), and Bos indicus (3.0%) breed-types. Mean USDA yield grade traits were USDA yield grade (3.0), carcass weight (356.9 kg), adjusted fat thickness

(1.2 cm), longissimus muscle area (84.5 cm²), and kidney, pelvic, and heart fat (2.4%). USDA yield grades were Yield Grade 1 (12.2%), Yield Grade 2 (37.4%), Yield Grade 3 (38.6%), Yield Grade 4 (10.4%), and Yield Grade 5 (1.3%). Mean USDA quality grade traits were USDA quality grade (Select⁸⁵), marbling score (Small²³), overall maturity (A⁶⁶), lean maturity (A⁶⁵), and skeletal maturity (A⁶⁷). Marbling score distribution was Slightly Abundant or higher (2.3%), Moderate (4.8%), Modest (13.1%), Small (33.3%), Slight (43.3%), and Traces (3.4%). USDA quality grades were Prime (2.0%), Choice (49.1%), Select (42.3%), Standard (5.6%), and Commercial, Utility, Cutter, and Canner (0.9%). This information will help the beef industry measure progress compared to the past two surveys and will provide a benchmark for future educational and research activities.

Implications

The NBQA-2000 continues the process of updating information on various factors that affect the value of live cattle and their carcasses and by-products. Compared to previous audits, number and location of bruises have remained consistent; however, bruise severity has decreased. The number and location of brands, especially side brands, have remained relatively constant. Quality as measured by marbling score and USDA quality grade appears to be back to the level observed in the early 1990s, but carcass weights continue to increase dramatically. This information adds to the existing knowledge base of beef quality and consistency factors and will be a useful reference for various educational and research endeavors as the beef industry addresses issues related to improving the value of beef. ♣

Effects of Supplemental Vitamin E

continued from page 7...

and a linear ($P < 0.08$) decrease in longissimus muscle area with increasing vitamin E. Heifers receiving 570 IU of vitamin E during the receiving period tended to have a higher ($P < 0.09$) dressing percentage at slaughter. In Exp. 3, no significant differences were detected in serum IgG titers to ovalbumin on d 0, 7 or 14; however, on d 21, a linear increase ($P = 0.07$) in serum IgG titers was noted with supplemental vitamin E. Supplemental vitamin E had limited effects on performance; however, effects on humoral immune response and recovery from respiratory disease warrant further research.

Implications

Results of the present studies indicate that supplemental dietary vitamin E might be beneficial for helping stressed,

lightweight cattle recover from bovine respiratory disease. The increase in circulating antibodies to a foreign antigen noted with supplementation of 1,140 IU/d indicates that vitamin E can enhance humoral immune response. The positive effects of vitamin E on health status might be time-dependent, because the maximum antibody response was noted after 21 d of supplementation. However, the receiving data suggest that lower concentrations (285 to 570 IU/animal daily) may be adequate in receiving diets. The degree to which stress affects vitamin E metabolism might help explain conflicting data from previous studies and warrants further research. ♣

Relationship Between Postpartum Changes in 13, 14-Dihydro-15-Keto-PGF_{2α} Concentrations in Holstein Cows and Their Susceptibility to Endometritis

R.C. Seals, I. Matamoros, and G.S. Lewis

J. Anim. Sci. 2002; 80: 1068-1073

Uterine infections (i.e., endometritis) can have a major economic impact on dairy production. Identifying cows that are susceptible to endometritis and improving the diagnosis of endometritis could lead to a reduction in the imyAct of such infections. Thus, we used Holstein cows to determine whether postpartum changes in 13, 14-dihydro-15-keto-PGF_{2α} (PGFM), a metabolite of PGF_{2α}, could be used to identify cows that are susceptible to endometritis and to improve the diagnosis of endometritis. Cows were assigned to three treatments:

- 1) Control (n = 10) had no clinical or bacteriological signs of endometritis during the study.
- 2) Treated (n = 11) developed endometritis spontaneously and were treated i.m. with 25 mg of PGF_{2α} immediately after clinical diagnosis (d 17.6 ± 0.8 postpartum; mean ± SEM).
- 3) Untreated (n = 10) developed endometritis spontaneously and were not treated after diagnosis (d 20.0 ± 0.5).

Examinations of external and internal genitalia and bacteriological data were used to diagnose endometritis. From d 0 (calving) until approximately d 63 postpartum, jugular blood was collected three times weekly. Progesterone and PGFM were quantified in plasma. For PGFM, the treatment x day interaction was significant (P < 0.01). Overall PGFM profiles for Control and Treated differed (P < 0.05), but the Untreated profile did not differ from either Control or Treated. To better understand the interaction, PGFM data from d 0 to 35 postpartum were partitioned into consecutive 7-d periods, and d-36 and greater data were partitioned into one period. Effects of treatment, day, and the treatment x day interaction were then evaluated within period. Except for the d-15 to -21

period, PGFM was greater (P < 0.03) in Control than in Treated and Untreated. In Treated and Untreated, PGFM increased during the d-15 to -21 period. For progesterone, treatment did not affect the profiles, but day was significant (P < 0.001). Progesterone concentrations were basal from d 0 until approximately d 12, and they generally increased after d 12. Onset of endometritis was associated with increased progesterone concentrations. Treatment did not affect the interval from calving to first detected estrus (29.5 ± 4.9 d) or from calving to AI (73.3 ± 8.7 d). We conclude that PGFM measures have the potential to be used to identify cows that are more likely to develop endometritis and that PGFM may aid in the diagnosis of endometritis.

Implications

Nonspecific uterine infections affect 10 to 40% of postpartum dairy cows and can have major economic consequences. Although the impact on the dairy industry is best documented, beef cattle, swine, and sheep are also affected. In dairy cows, uterine infections tend to reduce overall reproductive efficiency and often increase culling rates. Our research with Holstein cows indicates that plasma concentrations of 13, 14-dihydro-15-keto-PGF_{2α} (PGFM) were less, except from d 15 to 21, during the first 60 d postpartum in cows that were diagnosed with endometritis than they were in cows that did not develop endometritis. In addition, PGFM increased around the time (i.e., d 15 to 21) when uterine infections were diagnosed. Thus, reduced PGFM concentrations during the early postpartum period seem to presage endometritis, and increased PGFM concentrations during the postpartum period when hormonal conditions are conducive for development of uterine infections may aid in their early diagnosis. ♀

The Corral **Classified Listings for Practitioners**

**Contact the WCABP Office to post
your ad or listing!**

Toll Free: 1-866-269-8387 (COW VETS)

Fax: 403 244-2340

Email: wcabp@incentre.net

Please note:

WCABP is looking for volunteer writers for the monthly "Vet Advice" Column which appears in the Cattleman's Magazine. If you are interested in this opportunity, please contact the office at 1-866-269-8387 for details.

Effects of Ketoprofen Alone or in Combination with Local Anesthesia During the Castration of Bull Calves on Plasma Cortisol, Immunological, and Inflammatory Responses

J. Anim. Sci. 2002. 80:1044-1052

B. Earley and M. A. Crowe

To determine the effects of the anti-inflammatory ketoprofen, alone or with local anesthesia (LA) during castration on cortisol, immune, and acute phase responses, 40 Friesian calves (215 ± 3.5 kg) were assigned as follows: 1) control, 2) surgical castration (SURG), 3) SURG following ketoprofen (3 mg/kg BW i.v.; SURG + K), 4) SURG following LA (9 mL of 2% lidocaine hydrochloride to each testis; SURG + LA), or 5) SURG following LA and K (SURG + LA + K). Total cortisol response was greater ($P < 0.05$) in SURG, SURG + LA, and SURG + K + LA calves than in control calves and was not different between control and SURG + K calves. The interval to peak cortisol was longer ($P < 0.05$) for SURG + K + LA calves than for either SURG or SURG + K calves. On d 3, KLH-induced interferon- γ production was lower ($P < 0.05$) in SURG calves than in control calves, whereas concanavalin A-induced interferon- γ production was lower ($P < 0.05$) in all castration groups than in control. On d 1 after surgery, fibrinogen was higher ($P < 0.05$) in SURG and SURG + LA calves than in control calves, whereas SURG + LA + K calves

had lower ($P < 0.05$) fibrinogen than did SURG calves. Haptoglobin was higher ($P < 0.05$) in SURG calves on d 1, 3, and 7 than in control calves. On d 1 after surgery, SURG + K and SURG + LA + K calves had lower ($P < 0.05$) haptoglobin concentrations than SURG calves, whereas SURG + K calves had lower ($P < 0.05$) levels than SURG calves on d 3. In conclusion, surgical castration induced a significant elevation in cortisol secretion; the rise in cortisol was reduced to control levels by the administration of ketoprofen but not local anaesthetic. Thus, systemic analgesia using ketoprofen is more effective than local anesthesia during castration to alleviate the associated stress response.

Implications

The results of the present study indicate that systemic analgesia (using ketoprofen) is more effective than local anesthesia during castration to alleviate the associated acute stress. The routine use of local anesthesia alone for procedures such as castration in calves may need to be reconsidered. 🐾

Growth of Holstein Calves from Birth to 90 Days: The Influence of Dietary Zinc and BLAD Status

J. Anim. Sci. 2002. 80:545-552

J. L. Arrayet, A. M. Oberbauer, T. R. Famula, I. Garnett, J. W. Oltjen, J. Imhooff, M. E. Kehrl, Jr., and T. W. Graham

The main objective of this study was to describe Holstein neonatal growth and development as influenced by dietary zinc supplementation and the CD18 genotype, both of which may affect immune competence. Holstein calves ($n = 421$), after being fed colostrum, were brought to a calf facility, randomly assigned to one of four zinc supplementation groups (control at 40 mg Zn/kg DM or the control diet supplemented with an additional 60 mg Zn/kg DM provided as either zinc sulfate, zinc lysine, or zinc methionine), weighed, and measured for morphometric growth parameters. Measurements were repeated at 30, 60, and 90 d. Calves were also genotyped for the presence of the mutant D128G CD18 allele, which, if present in two copies, causes bovine leukocyte adhesion deficiency. Zinc supplementation above 40 mg Zn/kg DM, regardless of the chemical form, did not accelerate growth ($P > 0.25$). Further, overall calf growth performance was not suppressed or improved ($P > 0.4$) in calves heterozygous at the CD18 locus relative to calves homozygous for the normal CD18 allele, although genotype negatively affected some morphometric measurements

($P < 0.05$). Using these data, quadratic models of early growth were generated as a preliminary step to develop growth criteria that will allow producers, veterinarians, and animal scientists to identify poor growth performance early in neonatal life. Such criteria provide the basis for tools to improve economic performance.

Implications

This study evaluated growth parameters of Holstein calves from birth until weaning at 90 d of age. Zinc supplementation above current governmental recommendations was shown not to be required as an accelerator of growth in Holstein calves from birth to 90 d. As expected, twins and heifer calves were smaller and grew more slowly than single calves. Heterozygous bovine leukocyte adhesion deficiency status was not considered to have a detrimental effect on calf growth. Further evaluation of normal growth patterns of Holstein calves, identification of environmental and genetic traits, and their effect on growth will allow for establishment of standards of performance to assess growth in production units. 🐾

Ray Butler Bursary Update

With the school year wrapped up, two of our Ray Butler Bursary winners have submitted reports on the work experience they gained from these externships. Excerpts of these reports are included below:

Justin McLash – Bratton Road Veterinary Service, Outlook, Saskatchewan

"The days that I spent during Fall 2001 were heavily involved in pregnancy checking for numerous clients. I was shown the correct methodology for conducting such an examination, and also some of the handy 'tricks' that make a veterinarian's job that much easier.

I addition to large animal medicine, I was exposed to some small animal work as well. The daily leap from one species to another provided me with a well-rounded veterinary experience and a view of what mixed animal practice is all about. Furthermore, I was lucky enough not only to witness medical procedures, but also to see how a veterinarian and clients interact in a way that results in a successful practice. I believe that a vet can be extremely gifted technically, but without proper interpersonal skills they are bound to fail.

The WCABP Ray Butler Bursary Program, in my opinion, has been a great success and gives students a rare opportunity to explore the career path they have chosen before graduating. I urge you to continue helping students, and I would like to thank the WCABP and Dr. Julie de Moissac for their time and support."

Jessica Miller – Deep South Veterinary Clinic, Ogema, Saskatchewan

"I spent 11.5 days at the clinic and one night on call. We did post-mortems on two feedlot steers, diagnosing one with an infectious disease and advised the owner to vaccinate the rest of his steers. Other than these calves, I spent time doing physicals and vaccinations on a dog, and preparing slides for yeast infections diagnosis in two Golden Retrievers. We also

had to euthanize a puppy with distemper, and a cat with mammary tumors.

At the end of February, we spent a lot more time with cattle. There were some very interesting cases involving cows. One heifer had cellulitis covering much of her dewlap and face. Another cow had a growth in her nose, impairing her respiration. Another cow presented with anorexia, and I did a physical and rectal exam. I assisted with and did several post mortems on calves. This reinforced my knowledge of anatomy, as I had to perform tissue collection needed for histopathology.

Working at the clinic helped me gain more practical veterinary experience, rather than just studying textbooks. The vets at Ogema were really helpful and easy to work with. I think that the externship program worked well this year and I would encourage anyone else interested in bovine medicine to apply for this bursary."

Bursary applications will again be circulated to first-year students at WCVN. Please consider hosting one of these students at your veterinary practice. As Dr. Julie de Moissac attests, "I would encourage other beef practitioners to get involved with this bursary program for several reasons. First, it is refreshing and enlightening to have a student traveling on farm calls, and a histology course never does anyone any harm. Secondly, it gives the student valuable time outside of the college. And last but definitely not least, I truly think that if we as beef practitioners want employees in the future, we have to make contact with them while they are still in school, and get them interested and excited about being a beef veterinarian."

Anyone interested in acting as a host for an externship can contact the WCABP office by phone at 1-866-269-8387 (COW/VETS), or by email at wcabp@incentre.net. ♣

Stay tuned for the new online directory available on the WCABP website (www.cattle.ca/wcabp)

This will be a Members Only benefit, accessible only by individual password.

Further details will be sent out later this summer.

POSITION ANNOUNCEMENT

CHAIR IN BEEF CATTLE HEALTH AND PRODUCTION MANAGEMENT

Title: Alberta Chair in Beef Cattle Health and Production Management
Western College of Veterinary Medicine
University of Saskatchewan

Description: Tenure-track equivalent position in beef cattle health and production medicine.

Duties: The Chair holder will be expected to provide educational leadership in beef cattle health and production management to undergraduate and graduate veterinary students, veterinary practitioners and livestock producers, and liaise with the beef cattle industry in western Canada. A priority of the Chair will be to provide the leadership and an environment to encourage veterinary graduates to enter food animal practice. The successful candidate will devote a major portion of their time to clinical teaching as well as participating in continuing veterinary education, extension, research and other scholarly activities.

Requirements: Applicants must hold a DVM (or equivalent) and completed post-graduate training; Board Certification in a relevant specialty is desirable. The candidate must also be eligible for licensure to practice in the Province of Saskatchewan. Preference will be given to those with appropriate clinical experience and a demonstrated record of scholarly activity; clinical teaching experience and communication skills are expected to be strong. Familiarity with modern beef cattle business and production economics are essential.

Salary: Salary is negotiable and will be commensurate with the applicant's qualifications and experience.

Appointment: This position is available commencing September 1, 2002.

Applications: Applications will be considered through June 30, 2002, or until the position is filled. Please forward a curriculum vitae and the names and addresses of three persons for references to:

Dr. Reuben Mapletoft
Department of Large Animal Clinical Sciences
Western College of Veterinary Medicine
52 Campus Drive
Saskatoon, Saskatchewan S7N 5B4
Canada

This position has been cleared for advertising at the two-tier level. Applications are invited from qualified individuals regardless of their immigration status in Canada.

The University is committed to Employment Equity. Members of Designated Groups, (women, aboriginal people, people with disabilities, and visible minorities are encouraged to self-identify on their application.)

For further information contact Dr. Reuben J. Mapletoft: email: reuben.mapletoft@usask.ca

Purpose of the Chair:

- To allow the College to expand its activities in beef cattle health and production management, especially in undergraduate and post graduate training, continuing veterinary education, extension and research
- A high priority is to attract students to specialization in agricultural veterinary practice

Expectations of the Chairholder:

- Expertise and leadership to the veterinary profession and beef industry
- Active participation in clinical teaching in the undergraduate and graduate programs
- Involvement in extension and technology transfer programs for the beef industry
- Promote and actively participate in research and/or scholarly activity
- Help identify beef cattle health problems and issues
- Serve as a knowledge resource for the veterinary profession and beef industry
- Act as a proponent of careers in food animal veterinary medicine
- Raise the profile of beef cattle health and production management to the beef industry and veterinary profession

Chair responsibilities and duties:

- Devote at least 50% of time to teaching, continuing veterinary education and extension; and no less than 35% time to research and scholarly activities
- Prepare annual reports for the advisory committee
- Other duties assigned

Advisory committee:

- Dean of the Western College of Veterinary Medicine or designate
- Head, Department of Large Animal Clinical Sciences (Chair)
- Veterinarian involved in beef practice to be nominated by the Western Canadian Association of Bovine Practitioners
- Beef producer nominated by the Alberta Cattle Commission
- Veterinarian and/or producer may be appointed by the Dean

Summary

The Alberta Chair in Beef Cattle Health and Production Management represents a partnership among the Government of Alberta, industry, other interested parties and the WCVM; in increasing the body of knowledge and the level of expertise in beef cattle health and production management. The Chair will provide students with specialized training and provide an academic atmosphere for veterinary students to consider bovine practice in order to meet the veterinary needs of beef producers.