This month it seems that there has been a lot going on behind the scenes at AABP – related to events happening nationally at AVMA and in Washington. First, I am pleased to report that Dr. Roger Saltman, our recent past president, was appointed to the AVMA Veterinary Economics Strategy Committee. We are pleased that we will have a voice on that committee that reflects a large animal perspective.

Second, the recent final FDA rule on cephalosporin use in food animals has generated a lot of publicity. For those of you that have not heard, on January 6, FDA issued its long awaited final rule prohibiting certain extralabel uses of cephalosporin drugs in certain food-producing animals. The deadline for comment on this final rule is March 6, 2012. The original rule, in 2008, proposed an outright ban on extralabel cephalosporin use in food animals. After what one must presume was a reaction to the thousands of comments received on that rule, the current proposed rule is, instead, a ban on extralabel dosing regimens (dose, route, duration, frequency), while preserving our ability to utilize these needed drugs for conditions not listed on the label, as long as the dosing regimen is not altered.

AABP will be making comments on this rule. The AABP Committee on Pharmaceutical and Biologic Issues (CPBI) has been asked to prepare comments to be reviewed and approved by the Board of Directors. Conversations with the present and past chairs of CPBI and the Executive Committee suggest that a consensus position is that we are in agreement with FDA that this antibiotic is valuable in the treatment of many diseases in cattle. We are appreciative of the continued availability of this important class of antibiotics for treatment of our patients when needed. We are concerned that any current or future restriction of antibiotic use due to concerns about resistance developing in bacteria responsible for human infections be done carefully, and be based on solid scientific evidence, and not generalizations without evidence. Please do not hesitate to share your opinions on this rule with any of the officers or the AABP office, and feel free to comment directly yourself if you are so inclined. You can find a discussion online at www.fda.gov.

Third was an action by the AVMA House of Delegates the first weekend in January. They voted to approve a new “Model Practice Act”. This new “model” did not contain revised language for what constitutes a valid VCPR (Veterinary Client Patient Relationship); however, new language redefining the VCPR has now been proposed for inclusion in this new document. (It should be noted that this revision will theoretically not affect the definition of VCPR codified in federal regulations that affects the use of extralabel drugs.) The new Model Practice Act is likely to be used as a template when many states revise and adapt their own practice acts. The new suggested definition for a VCPR was submitted a week after the House of Delegates vote, and is available for review and comment. You can view it online at http://www.avma.org/issues/policy/mvpa_VCPR_attachment1.pdf. A vote on its adoption is tentatively scheduled by the Executive Board in this spring and the AVMA House of Delegates in August. At least partly in response to concerns by swine and poultry practitioners, the proposed definition does not require that a veterinarian be on the premises or see the animals on a regular basis if sufficient knowledge of the operation, including treatment records, disease conditions, and other information such as necropsy results are regularly available and reviewed.
While acknowledging differences in practice conditions between species, many of us believe that a change in the definition of a valid VCPR in this manner is likely to lead to confusion and a loss of oversight of drug use in the cattle industry at a time when public concerns are particularly elevated. One suggestion has been for the AABP to adopt a “Standards of Practice” statement that further helps define what we consider to be adequate or appropriate contact with an operation, animal, or group of animals that would be sufficient to provide the necessary veterinary oversight for judicious drug use on the operation. We believe prior to taking such a step there should be an opportunity for significant member input, so the already busy CPBI has been requested to develop a survey for the membership, and some ideas for language for a possible statement regarding standard of practice. This will be a major topic for the Board of Directors at our March meeting. In addition, we will be making comments and suggestions for revisions to the AVMA proposed definition of VCPR based on these ideas. In the near future, watch for an opportunity to participate in this survey.

So, let us know what you think!

Brian Gerloff

FUTURE MEETINGS

American Association of Bovine Practitioners

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World Association for Buiatrics

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DISCLAIMER

The AABP does not take responsibility for information contained in or accuracy of the abstracts published in this newsletter.

AABP is Accepting Applications for Rural Practice Sustainability Project Leader

The American Association of Bovine Practitioners is accepting applications for a Project Leader position to facilitate the efforts and coordinate logistics for the newly established AABP Rural Practice Sustainability Committee. The Project Leader will assist the RPS (RPS) Committee with research and project development and will serve as the liaison with the AVMA Economic Strategy Committee. Three major initiatives have been identified for the RPS Committee’s efforts. These initiatives include: 1) a focus on financial planning for the lifecycle of a veterinary career; 2) the creation and dissemination of rural practice business management tools; and 3) the development of an issue-based clearing house to provide relevant business and financial information for rural practices. This project will utilize a phased approach and the Project Leader will develop or access all available resources (veterinary and general business) for the project’s needs and will use the new RPS Committee as an Advisory Board for accessing discipline-specific experts. The Project Leader will develop a project plan that will include project phase prioritization, timing of phases, and defined resources required for each phase. Demonstrable project leadership and coordination skills are required and a DVM degree or its equivalent is preferred (but not required). This Project Leader position will be a part-time position (10 to 20 hours per week) with compensation based on experience. The tenure of the position will be at least one year with time demands at the direction of the RPS Committee and the AABP Executive Vice President. Please address questions to Dr. Gatz Riddell (mgriddell@aabp.org or 334-821-0442). To apply, please e-mail a letter of interest, resume, and three references (including e-mail addresses) to the AABP Headquarters, aabphq@aabp.org. Applications will be considered as they are submitted with all applications due no later than March 1, 2012. A position description may be obtained by contacting the AABP Headquarters.
Thank You from Hal Amstutz

I thank the AABP members that voted for me for the Dairy Cattle Production Veterinarian Hall of Fame Award. The banquet honoring Dr. Dan Upson and me in St. Louis was truly one of the highlights of my professional life. I will be forever grateful to the voting members and to all of the people who attended the banquet. I also thank the nominating committee that selected the final three candidates for each Hall of Fame Award and the sponsoring organizations. I wish to publically thank Dr. Keith Sterner who presented the award to me.

Hal Amstutz

Cargill Animal Nutrition – AABP Foundation Scholarships

Cargill Animal Nutrition, in cooperation with the AABP Foundation, will award seven $1,000 scholarships to veterinary students in the United States who are currently in their junior year. Applicants should have a strong background and interest in either dairy or beef. To apply, go online at http://foundation.aabp.org/Cargill/, which is found on the AABP Foundation website. Completed applications must be received by June 15, 2012. Successful applicants will be notified by August 1.

Honor Roll Membership

Are you at least 70 years of age, and have been an AABP member for 25 or more years? If so, you may be eligible for honor roll membership in the AABP. All honor roll nominees must be approved by the Board of Directors. If approved, an honor roll member retains his or her full membership benefits without continued payment of yearly dues.

If you meet the above criteria, and would like to be considered for honor roll membership, please contact the AABP Headquarters at (800) COW-AABP, aabphq@aabp.org or mgriddell@aabp.org.

AABP Bovine Veterinary Student Recognition Award

Merck Animal Health is once again sponsoring the AABP Bovine Veterinary Student Recognition Award. Eight (8) awards of $1,500 will be given this year. In addition to the amount of the award, Merck Animal Health will also reimburse the award winners for all travel and lodging expenses to the 45th AABP Annual Conference in Montreal, Quebec, September 20-22, 2012. The award winners will receive a plaque recognizing this achievement. The administration of each applicant’s school and the applicant’s faculty sponsor need to be aware that the awards will be given at the AABP Annual Conference and it is preferred that the award winners be present and take advantage of the opportunity afforded by Merck Animal Health.

A full description of the award, the requirements and selection criteria are available on the AABP website at www.aabp.org (click on “Students”, then “Grants/Scholarships”, then “Student Recognition Award”). Any interested student, currently in their 2nd or 3rd year, is encouraged to apply. All application materials must be submitted online by March 15, 2012. The online application form will be available on or before February 1, 2012. Only applications and supporting letters submitted via the AABP website will be considered.

This is a tremendous opportunity for students interested in careers in bovine medicine and provides a great opportunity to attend an outstanding continuing education meeting. Please contact the AABP office with any questions that you might have.

CALL FOR ABSTRACTS

Research Summaries and Scientific Poster Sessions
45th Annual Conference of the AABP
September 20-22, 2012 in Montreal, Quebec

The 45th Annual Conference of the American Association of Bovine Practitioners will once again feature scientific sessions focused on cutting-edge research that is directly applicable to the health, welfare and productivity of cattle, as well as food and environmental safety associated with cattle production. These sessions provide the opportunity for researchers from
Research projects having direct application to bovine practitioners are being solicited for presentation at the Oral and Scientific Poster Sessions for the 2012 Annual Conference of the AABP. Project summaries focused on all areas of bovine health, welfare and production are welcome including pharmacology, epidemiology, medicine, surgery, economic analysis, pathology, pre-harvest food and environmental safety, diagnostics, and health monitoring. Projects should have relevance to bovine practitioners and may be broadly applicable to the cattle industry or more specifically applicable to the beef or dairy industry.

**Oral presentations made by graduate students in the AABP Research Summaries will be eligible to compete in the “AABP Graduate Student Research Summary Presentation” competition.** The top three presenters from the graduate student competition will receive cash awards.

**To be considered for the AABP Research Summary sessions (either the oral or poster sessions) and publication in the Annual Meeting proceedings, your abstract must be submitted to AABP by May 1, 2012.** Abstracts submitted after May 1, 2012, will be considered for the POSTER SESSION ONLY, but those abstracts will NOT be published in the meeting proceedings. **Abstracts must be submitted electronically.** For more information and to submit an abstract, go to [www.aabp.org](http://www.aabp.org) and select the “Conference” link located on the top of the page and then click on the “Abstract Submission” link located in the “Conference” submenu. If you have questions about the research summaries program, contact Drs. David Smith (dsmithr@unlnotes.unl.edu) or Roxanne Pillars (rpillars@avma.org).

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**Manuscript Submission Deadlines for the Bovine Practitioner**

Manuscript submission deadlines for the Bovine Practitioner are **October 15** and **February 15**, respectively, for the Spring and Summer issues. Contact AABP Editor, Dr. Bob Smith, at 405-372-8666 or cowdr@sbcglobal.net with questions or submissions.

**FDA Milk Sampling Assignment**

The drug-residue-sampling survey by the U.S. Food and Drug Administration has begun. The survey will involve 900 milk samples from dairy producers who have had a cull dairy cow residue violation in the past, as well as another 900 milk samples from randomly selected dairies.

The purpose of the sampling assignment is to see if there is a correlation between drug residues that may be showing up in the carcasses of cull cows with those that may be showing up in milk. Last September, at the 44th Annual Conference of the AABP, FDA official Dr. William Flynn said regulators want to know how cull-cow-tissue violators are doing in comparison to the industry as a whole. Flynn, who serves as deputy director for science policy at the FDA’s Center for Veterinary Medicine, said the survey would be a “blind” study, meaning that regulators will not be able to tie a specific milk sample back to a specific farm. That is what makes the current initiative a “survey” more than a “regulatory action.”

The FDA will be using testing equipment and methodology that is far more sensitive than conventional screening tests. The FDA-CVM milk sampling assignment will screen milk from these dairies for 27 different drug residues using a multi-drug residue screening procedure validated by AOAC. The sampling survey is detailed in the FDA Laboratory Information Bulletin #4443. The drugs are: ampicillin, cepahpirin, cloxacillin, penicillin G, erythromycin, tylosin, enrofloxacin, sarafloxacin, chlortetracycline, oxytetracycline, tetracycline, doxycycline, sulfachloropyridazine, sulfadiazine, sulfamerazine, sulfadimethoxine, sulfamethazine, sulfapyridine, sulfadiazine, sulfadimethoxine, sulfamethazine, sulfathiazole, tripeleanamime, thiabendazole, pirlimycin, flunixin, bacitracin, virginiamycin, and tilimicosin.

The following has been excerpted from the February 2011 AABP Newsletter:

If you are aware of a client that has had a tissue residue violation in the past three years, below are some quick points to cover with them in preparation:

1) Review which employees are involved with initiating treatments and their training on diagnostic and treatment regimens.
2) Review treatment protocols.
3) Review treatment records for accuracy and adequacy.
4) Review drug inventories on the dairy so you know what they are using for both the replacement and adult animals in the herd.
5) Review this information with people that supply drugs to the dairies and stress the importance of communication with veterinarians, as well as dairy personnel.

6) Encourage the dairy management team to actively communicate with their milk handler to ensure an understanding of how being selected for sampling will impact the handling of milk following sampling.

Additional information on the National Residue Program can be found at the following location on the AABP website: [www.aabp.org/resources/residue.asp](http://www.aabp.org/resources/residue.asp). Please don't hesitate to contact the AABP Office or your District Director with questions. (mgriddell@aabp.org/800-269-2227)

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**Behaviour and Welfare of Veal Calves Fed Different Amounts of Solid Feed Supplemented to a Milk Replacer Ration Adjusted for Similar Growth**

L. Webb*, E. Bokkers, B. Engel, W. Gerrits, H. Berends, C. van Reenen

Veal calves in Europe are typically fed large quantities of milk replacer and small amounts of solid feed, a diet known to lead to the development of abnormal oral behaviours in these animals. These abnormal oral behaviours are thought to be an indication of frustration, chronic stress, and hence poor welfare. The present study investigated how different feeding strategies, differing in solid feed and milk replacer provision, affected the behaviour and welfare of veal calves across time. Four treatment groups (A–D) comprising of 12 Holstein–Friesian bull calves each (7.6 ± 0.1 weeks old and 54.7 ± 0.3 kg at arrival), penned in groups of three, were fed one of four amounts of a solid feed mixture, i.e. 50% concentrates, 25% fresh maize silage, and 25% wheat straw (on dry matter [DM] basis): A = 0, B = 9, C = 18, and D = 27 g DM/kg^{0.75}/d. Provision of milk replacer was adjusted to achieve similar average daily gain across treatments. Behaviour was recorded around feeding (10 min continuous focal observations of individual calves) and throughout the day (7 sessions of 30 min scan sampling at 5 min interval every 2 h from 06:30 h) every week for four months. In an attempt to find an easy practical method to measure behavioural response to feeding strategy, two 3-min behavioural tests were carried out: (1) in months 1 and 3, calves were presented with a ball and latency to make oral contact with it was recorded; and (2) in month 1, calves were presented with an overall and time spent orally manipulating (i.e. chewing or licking) it was recorded using scan sampling every 10 s. Calves in treatment D displayed less abnormal oral behaviours around feeding, less tongue playing throughout the day, and more chewing in the first two months, compared to treatment A. Treatment B only led to lower tongue playing levels compared to A and treatment C had no benefit in terms of reducing abnormal oral behaviours. Although a solid feed dose–response was expected on the display of abnormal behaviours in veal calves, treatment C did not fit within this expectation. These findings point to a more complex relationship between solid feed and abnormal oral behaviour frequency in veal calves. The two behavioural tests distinguished the different treatments as expected, and thus showed a solid feed dose–response. Because of an increase in chewing and ruminating efficiency over time, amounts of solid feed should be increased with age to maintain high levels of chewing and ruminating. Moreover, high levels of chewing and ruminating may have to be maintained long enough at the beginning of the fattening period to lead to a reduction in abnormal oral behaviours.

*Animal Production Systems Group, Wageningen University, P.O. Box 338, 6700 AH Wageningen, The Netherlands

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**Effect of Intravenous Sodium Salicylate Administration Prior to Castration on Plasma Cortisol and Electroencephalography Parameters in Calves**

L. Bergamasco*, J. Coetzee, R. Gehring, L. Murray, T. Song, R. Mosher

Nociception is an unavoidable consequence of many routine management procedures such as castration in cattle. This study investigated electroencephalography (EEG) parameters and cortisol levels in calves receiving intravenous sodium salicylate in response to a castration model. Twelve Holstein calves were randomly assigned to the following groups: (i) castrated, untreated controls, (ii) 50 mg/kg sodium salicylate IV precastration, were blood sampled at 0, 5, 10, 20, 30, 45, 60, 90, 120, 150, 180, 240, 360, and 480 min postcastration. The EEG recording included baseline, castration, immediate recovery (0–5 min after castration), middle recovery (5–10 min after castration), and late recovery (10–20 min after castration). Samples were analyzed by competitive chemiluminescent immunoassay and fluorescence polarization immunoassay for cortisol and salicylate,
respectively. EEG visual inspection and spectral analysis were performed. Statistical analyses included ANOVA repeated measures and correlations between response variable. No treatment effect was noted between the two groups for cortisol and EEG measurements, namely an attenuation of acute cortisol response and EEG desynchronization in sodium salicylate group. Time effects were noted for EEG measurements, cortisol and salicylates levels. Results from this study suggest that intravenous sodium salicylate in excess of 50 mg/kg administered once daily immediately before castration would be required to attenuate the cortisol response associated with castration in Holstein calves 12- to 20-week old, weighing between 119 and 190 kg. Additionally, salicylic acid derivatives may need to be administered more frequently than every 12 h as currently recommended. These findings have some implications for designing effective analgesic regimens to aid in alleviating the stress response associated with a noxious stimulus during routine animal husbandry procedures. Alternative doses or application methods might enhance analgesic efficacy. However, these results suggest that EEG can be useful to monitor acute pain attributable to castration, leading to important implications for pain assessment in farm animals, thus helping in the development of science-based variables to assess animal well-being in livestock production systems and to compare pain-mitigating techniques. Further characterization of objective pain measurements will help in developing less painful management practices and more effective analgesic drug regimens.

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Am J Vet Res
Vol. 73, No. 2, pp. 248-256

Evaluation of an Alternative Method of Herd Classification for Infection with Paratuberculosis in Cattle Herds in the United States
S. Tavornpanich*, S. Well, C. Fossler, A. Roussel, I. Gardner

The objective of this study was to develop a better system for classification of herd infection status for paratuberculosis (Johne's disease [JD]) in US cattle herds on the basis of the risk of potential transmission of Mycobacterium avium subsp paratuberculosis. The study utilized simulated data for herd size and within-herd prevalence; sensitivity and specificity for test methods obtained from consensus-based estimates. Interrelationships among variables influencing interpretation and classification of herd infection status for JD were evaluated by use of simulated data for various herd sizes, true within-herd prevalences, and sampling and testing methods. The probability of finding ≥ 1 infected animal in herds was estimated for various testing methods and sample sizes by use of hypergeometric random sampling. Two main components were required for the new herd JD classification system: the probability of detection of infection determined on the basis of test results from a sample of animals and the maximum detected number of animals with positive test results. Tables were constructed of the estimated probability of detection of infection, and the maximum number of cattle with positive test results or fecal pools with positive culture results with 95% confidence for classification of herd JD infection status were plotted. Herb risk for JD was categorized on the basis of 95% confidence that the true within-herd prevalence was ≤ 15%, ≤ 10%, ≤ 5%, or ≤ 2%. Analysis of the findings indicated that a scientifically rigorous and transparent herd classification system for JD in cattle is feasible.

*Department of Veterinary Population Medicine, College of Veterinary Medicine, University of Minnesota, Saint Paul, MN 55108
Influence of Inducing Luteal Regression before a Modified Fixed-time Artificial Insemination Protocol in Postpartum Beef Cows on Pregnancy Success

G. Perry*, B. Perry, J. Krantz, J. Rodgers

Most fixed-time insemination protocols utilize an injection of GnRH at the beginning of the protocol to initiate a new follicular wave. However, the ability of GnRH to initiate a new follicular wave is dependent on the stage of the estrous cycle. We hypothesized that administering PGF$_{2\alpha}$ 3 d before initiating a fixed-time AI protocol would improve synchrony of follicular waves and result in greater pregnancy success. Therefore, our objective was to determine whether inducing luteal regression 3 d before a fixed-time AI protocol would improve control of follicular turnover and pregnancy success to fixed-time AI. Multiparous crossbred cows at 3 locations (n = 108, 296, and 97) were randomly assigned to 1 of 2 treatments: 1) PGF$_{2\alpha}$ [25 mg; intramuscularly (i.m.)] on d −9, GnRH (100 μg; i.m.) and insertion of a controlled internal drug-releasing device (CIDR) on d −6, PGF$_{2\alpha}$ (25 mg; i.m.) and CIDR removal with PGF$_{2\alpha}$ (25 mg; i.m.) at CIDR removal on d 0 (PG-CIDR) or 2) GnRH (100 μg; i.m.) and insertion of a CIDR on d −5 and CIDR removal with PGF$_{2\alpha}$ (25 mg; i.m.) at CIDR removal and 4 to 6 h after CIDR removal (5-d CIDR). Cows were time-inseminated between 66 and 72 h (PG-CIDR) or 70 to 74 h (5-d CIDR) after CIDR removal, and GnRH was administered at the time of fixed-time AI. At location 1, ovulatory response to the first injection of GnRH was determined by ultrasonography at the time of GnRH and 48 h after GnRH administration. Among cows with follicles ≥10 mm in diameter, more (P = 0.03) PG-CIDR-treated cows ovulated after the initial GnRH injection (88%, 43/49) compared with the 5-d CIDR-treated cows (68%, 34/50). Pregnancy outcome was not influenced by location (P = 0.96), age of the animal (P = 1.0), cycling status (P = 0.99), BCS (P = 1.0), or any 2-way interactions (P ≥ 0.13). However, pregnancy success was influenced by synchronization protocol (P = 0.04). Pregnancy outcome was greater (P = 0.04) for the PG-CIDR protocol (64%) compared with the 5-d CIDR protocol (55%). In summary, control of follicular turnover was improved by inducing luteal regression 3 d before initiation of a fixed-time AI protocol, and pregnancy success was improved with the PG-CIDR protocol compared with the 5-d protocol.

*Department of Animal and Range Sciences, South Dakota State University, Brookings, SD 57007

Fertility-associated Antigen on Nelore Bull Sperm and Reproductive Outcomes following First-service Fixed-time AI of Nelore Cows and Heifers

J. Dalton*, L. Deragon, J. Vasconcelos, C. Lopes, R. Peres, A. Ahmadzadeh

The objective was to determine whether the presence of fertility-associated antigen (FAA) on sperm collected from Nelore (Bos indicus) bulls can be used to assess potential fertility of sperm for use at first-service fixed-time AI (TAI). Six Nelore bulls were selected based on FAA status (FAA-negative: N = 3; FAA-positive: N = 3) and the ability to produce neat semen with ≥ 70% morphologically normal sperm and 60% estimated progressive motility before cryopreservation. In Experiment 1, suckled multiparous Nelore cows (N = 835) were evaluated for body condition score (BCS) and received an intravaginal progesterone device (CIDR) and 2.0 mg of estradiol benzoate (Day 0). On Day 9 the CIDR was removed, 12.5 mg of PGF$_{2\alpha}$ and 0.5 mg of estradiol cypionate were administered, and calves were removed for 48 h. All cows received TAI on Day 11 (48 h after CIDR removal). Pregnancy per TAI (P/TAI) was not different between FAA-positive and FAA-negative bulls (41.5% vs. 39.3%, respectively). There was an effect of AI technician on P/TAI (36.0% vs. 43.9%; P < 0.05) and BCS tended to affect P/TAI (P = 0.09), as cows with BCS ≥ 2.75 were 1.4 times more likely to become pregnant compared with cows with BCS < 2.75. In Experiment 2, nulliparous Nelore heifers (N = 617) were evaluated for BCS and received a CIDR and estradiol benzoate (2.0 mg) on Day 0. On Day 7, all heifers received PGF$_{2\alpha}$ (12.5 mg). On Day 9, CIDR inserts were removed and all heifers received estradiol cypionate (0.6 mg) and 200 IU eCG. All heifers received TAI on Day 11 (48 h after CIDR removal). Pregnancy/TAI was different (P = 0.04) between FAA-positive and FAA-negative bulls (33.7% vs. 40.7%, respectively). Presence of FAA on sperm was unsuccessful in assessing the potential fertility of sperm for use in TAI.

*Department of Animal and Veterinary Science, University of Idaho, Caldwell, ID 83605
Effects of Iodine Intake and Teat-dipping Practices on Milk Iodine Concentrations in Dairy Cows
S. Borucki Castro*, R. Berthiaume, S. Robichaud, P. Lacasse

Two studies were conducted to determine the effects of dietary iodine and teat-dipping practices on iodine concentrations in milk. In the first study, 63 cows in mid lactation were assigned to a 3 × 3 factorial design in which the main effects were dietary iodine levels (0.3, 0.6, and 0.9 mg of dietary I/kg of dry matter) and 3 different postdip managements (chlorhexidine with dip cup, 1% iodine dip cup, and 1% iodine by manual spray). During the 13-d pre-experimental period and the 15-d experimental period, noniodized sanitizers were used in premilking management. During the pre-experimental period, the levels of milk iodine averaged 241.2 ± 5.8 μg/kg, and no relationship was found with lactation number, days in milk, or milk production. Milk iodine concentrations increased linearly with iodine intake. Although teat dipping with 1% iodine had no effect on milk iodine concentration, the same solution applied by spraying greatly increased milk iodine levels. The second study was conducted to determine the effects of udder preparation before milking on milk iodine concentrations. Thirty-two lactating cows were assigned to 4 treatments: no predip (Con); predip with a predip solution containing 0.5% iodine + complete cleaning (Comp); predip with a postdip solution containing 1% iodine + complete cleaning (Post); and predip with a predip solution containing 0.5% iodine + incomplete cleaning (Inc). During the 14-d pre-experimental period and the 19-d experimental period, cows were fed the same diet, and noniodized sanitizers were used for postmilking dipping. During the last week of treatment, milk iodine averaged 164, 189, 218, and 252 ± 9.8 μg/kg for Con, Comp, Post, and Inc, respectively. Preplanned orthogonal contrasts indicated that predipping with a 0.5% iodine predip solution completely wiped off (Comp) tended to increase milk iodine content above that of the control and that the iodine content of Post and Inc were higher than that of the Comp treatment. The results of the first experiment confirm that, to preserve milk safety, iodine should not be fed above requirements. Spraying iodine-based teat-dipping solutions results in large increases in milk iodine content and should be avoided. Predipping teats with an iodine-based sanitizer is an acceptable practice, but must be performed with the appropriate product and completely wiped off before milking.

*Dairy and Swine Research and Development Centre, Agriculture and Agri-Food Canada, 2000 College St., Sherbrooke, QC, Canada J1M 0C8

Technical Note: Development and Testing of a Radio Transmission pH Measurement System for Continuous Monitoring of Ruminal pH in Cows

An indwelling ruminal pH system has been used for the continuous recording of ruminal pH to evaluate subacute ruminal acidosis (SARA) in dairy cows. However this system does not allow the field application. The objective of this study was to develop a new radio transmission pH measurement system, and to assess its performance and usefulness in a continuous evaluation of ruminal pH for use on commercial dairy farms. The radio transmission pH measurement system consists of a wireless pH sensor, a data measurement receiver, a relay unit, and a personal computer installed special software. The pH sensor is housed in a bullet shaped bolus, which also encloses a pH amplifier circuit, a central processing unit (CPU) circuit, a radio frequency (RF) circuit, and a battery. The mean variations of the measurements by the glass pH electrode were ±0.20 (n = 10) after 2 months of continuous recording, compared to the values confirmed by standard pH solutions for pH 4 and pH 7 at the start of the recording. The mean lifetime of the internal battery was 2.5 months (n = 10) when measurements were continuously transmitted every 10 min. Ruminal pH recorded by our new system was compared to that of the spot sampling of ruminal fluid. The mean pH for spot sampling was 6.36 ± 0.55 (n = 96), and the mean pH of continuous recording was 6.22 ± 0.54 (n = 96). There was a good correlation between continuous recording and spot sampling (r = 0.986, P < 0.01). We also examined whether our new pH system was able to detect experimentally induced ruminal acidosis in cows and to record long-term changes in ruminal pH. In the cows fed acidosis-inducing diets, the ruminal pH dropped markedly during the first 2 h following the morning feeding, and decreased moreover following the evening feeding, with many pulse-like pH changes. The pH of the cows showed the lowest values of 5.3–5.2 in the midnight time period and it recovered to the normal value by the next morning feeding. In one healthy periparturient cow, the circadian changes in ruminal pH were observed as a constant pattern in the pre-parturient period, however that pattern became variable in the post-partum period. The
frequency of the ruminal pH lower than 5.5 increased markedly 3 and 4 days after parturition. We demonstrated the possible application of a radio transmission pH measurement system for the assessment and monitoring of the ruminal pH of cows. Our new system might contribute to accurate assessment and prevention of SARA.

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**CONTINUING EDUCATION**

**NIAA 2012 Annual Conference**

The National Institute for Animal Agriculture’s (NIAA) 2012 Annual Conference, “Living in a World of Decreasing Resources and Increasing Regulation: How to Advance Animal Agriculture”, March 27-28, in Denver, CO, will look at how challenges such as tight credit, increased capital requirements, environmental regulations, drought and other weather issues, more demanding animal care standards and misperceptions about how animals are raised are impacting animal agriculture—and what steps can be taken to advance animal agriculture in light on these challenges.

In addition to listening to keynote presentations, attendees are encouraged to participate in the species-specific committee meetings and council meetings: bovine committee, equine committee, poultry committee, small ruminant committee, swine committee, animal health emergency management council, antibiotics council, animal care council, emerging disease council, animal identification and information systems council and global animal health, food security and trade council. Each species-specific committee meeting and council meeting will have highly targeted speakers and attendees will address issues relevant to the species or council. To learn more about NIAA’s Annual Conference, please visit online: http://animalagriculture.org/Solutions/Annual%20Conference/2012/Home.html

**AABP Website Notes**

**Submitting an Online Letter of Recommendation for a Student Funding Opportunity Using the AABP Website**

All of the AABP student funding opportunities (Externships, Student Recognition Awards, Education Grants and Amstutz Scholarships) now feature online application processes. The AABP website also supports the online submission of supporting documents, such as letters of recommendation, faculty assessments and practice or course descriptions. To facilitate application review by the respective committees, to minimize the amount of materials that have to be printed and mailed, and to enhance the ease with which the materials are submitted, the AABP Headquarters and Board of Directors strongly encourage the use of the website for electronic submission of these documents. For access to all of these electronic submissions go to http://www.aabp.org/students/grants.asp and follow the links through the specific program to the letter submission and then to the specific student being supported. Do not hesitate to call (800-269-2227) or e-mail the AABP Headquarters with questions (aabphq@aabp.org).

**Your AABP Foundation**

Your financial support of the AABP Foundation is a solid investment in the future of bovine veterinary practice and the cattle industry.
The AABP Foundation promotes the health and well-being of cattle, advances the education of bovine practitioners and the public, and helps to assure a supply of food animal practitioners for the future. You can contribute to the AABP Foundation at http://foundation.aabp.org/donate.asp. Thank you for supporting the AABP Foundation.