For most of us in the equine world the breeding season is getting a good start. The early foals are here, mares are beginning to breed and theriogenology is on everyone's mind.

The officers and management of your society have been busy trying to expand the Society’s base and provide more services to members. We are exploring ways to widen its influence on the discipline of theriogenology by cooperating with other organizations in both educational and outreach initiatives. By expanding the awareness and understanding of our discipline to lay and professional audiences alike, we will be able to improve the stature and appreciation for what we do.

Members of the board are working diligently to provide new educational opportunities to the animal owner and livestock producer. Dr. Peggy Root has taken on the huge task of planning a day for dog breeders at our August convention, scheduled for the week of August 21 in St Paul, Minnesota. This will be an excellent opportunity for small animal practitioners to showcase the techniques theriogenology can provide to the canine breeder. Hopefully, this will inspire future interaction throughout the society and across all disciplines. I appreciate Dr. Root’s dedication to this effort.

The board is also working in conjunction with species specific groups, such as the American Association of Equine Practitioners, to coordinate combined wet labs and other training. By doing so we can avoid repetitive continuing education for members and have all groups speaking with a united voice. This type of “Co-Branding” can only help in presenting our profession to the animal owner in a more positive light. This will need to be planned carefully so all participating organizations benefit and none lose their individual identity. This particular initiative will provide a process allowing the Society to move ahead in a consistent manner, even with annual leadership changes. A full report will be available to members during the August convention. The board is excited about the many benefits this initiative will provide for our membership, and we hope everyone will be supportive and give the program a chance. There will be more information in the next news letter, so keep an eye out for continuing updates.

May everyone have an enjoyable, safe, and healthy spring. We hope to see everyone in August!
A word from the program chair

The 2006 meeting in beautiful St Paul is shaping up to be one that is especially memorable, useful and enjoyable. The scientific program promises to cater for a wide variety of interests, while providing the cutting edge information we have come to expect. Here, the opportunity to meld our meeting with that of the Association for Applied Animal Andrology will extend opportunities for learning and networking.

Moreover, in addition to the learning stuff, we promise an appropriate balance with enjoyable social events, opportunities for convivial discussions and various excursions (all detailed herein). All of this ensured by the hardworking team of section chairs (Drs Peggy Root Kustritz, Carlos Risco and Juan Samper) as well as the folks at Franz Management.

Now, we just need to make sure that we all put it on our calendar (highlighted!) and attend! See you in St Paul!

Take advantage of Conference Airfare discounts! The Society has negotiated discounts for air travel on Northwest Airlines and Northwest Codeshares into and from Minneapolis-St. Paul. Most discounts range between 5% & 15%. To receive the discount, use code NM97W when booking tickets on-line, by phone, or through a travel agent.
St. Paul, Minnesota is a city reminiscent of the grand European cities. With stately historic buildings and Victorian homes, a renovated river front on the Mississippi River, peaceful parks, and a variety of fine arts programs, St. Paul reflects an image of European sophistication set in a Midwestern location. You won’t want to miss out on the 2006 Family Fun Night, sponsored by Pfizer Animal Health, as we cruise down the Mighty Mississippi on one of Minnesota’s Majestic and Beautiful Riverboats. All members of the family are welcome for this exciting cruise.

Pictures Courtesy of St Paul Convention and Visitors Bureau.
### SMALL ANIMAL
- Collection of Tissues and Culture Samples from the Canine Reproductive Tract, Margaret Root Kustritz
- Canine Brucellosis: Outbreaks and Compliance, Bruce Hollett
- Vaginoscopy in the Dog, Jody Lulich
- A Review of Sample Handling Considerations for Reproductive and Thyroid Hormone Measurement, Rebecca Davies
- Genetic Counseling in the Era of Molecular Diagnostics, Anne Traas
- Use of Topical Medication in Breeding Animals, Fran Smith
- Pyometra in the Bitch, Fran Smith
- Documented & Anecdotal Effects of Certain Pharmaceutical Agents on Semen Characteristics in the Dog, Hess Milan
- Acupuncture in Small Animal Reproduction & in Performance Dogs, Joni Freshman
- Practitioner Tips for the Reproductive Pocket Pet and Rabbit, Marcia Brower

### FOOD ANIMAL
- Bovine Viral Diarrhea Virus: Alter Ego As A Reproductive Pathogen, Dan Grooms
- Review Of And Diagnosis Of Reproductive Losses Caused By Leptospirosis, Dan Grooms
- Neosporosis in Dairy Cattle: An Update from the Epidemiology Perspective, John Gay
- A Clinical, Evidence Based Approach to Infectious Causes of Infertility in Beef Cattle, Dan Givens
- Porcine Reproductive and Respiratory Syndrome, Scott Dee
- Diagnosing and Controlling Abortions in Sheep, Cindy Wolf

### EQUINE
- Late Gestational Pregnancy Loss in the Mare, Margo Macpherson
- Embryonic Loss in the Mare: A Review and Update, James Brendemuehl
- Stallion Fertility: The Role of Record Evaluation, Charles Love
- Insemination Doses: How Low Can We Go? Steve Brinsko
- Disease Transmission in Stallions, Juan Samper
- Pathogenesis and Treatment for Endometritis, John Hurtgen
- Interactive Case Presentations, Dr. Samper & Panel
- Clinical Aspects of Equine Reproduction, Dr. Samper & Panel

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St. Paul skyline.
ANNUAL SYMPOSIA
August 22-23, 2006

BOVINE SYMPOSIUM
AUGUST 22-23, 2006

ANALYSIS AND INTERPRETATION OF REPRODUCTIVE PERFORMANCE IN DAIRY HERDS
How do you determine the reproductive performance level on a dairy? This Symposium will present a cutting-edge look at the evaluation and interpretation of reproductive performance in commercial dairy herds. A systematic process that identifies management and cow factors that influence reproduction on dairies will be taught. In this way performance problems can be identified early and corrected on a timely basis.

Reproductive Strategies & Current Performance in a Commercial Diary Operation Utilizing a specialized Transition Management Facility, Paul Rapnicki

Pregnancy Wastage, Mike Overton

Consideration for Early Detection of Open Cows, Steven Stewart

Sire Selection, (Bulleye/GES) Steve Eicker

Pregnancy Risk Calculations, Team Teach

Reproductive Data Screens, Steve Stewart

Monitoring Approaches, Steve Eicker

How To Incorporate Ultrasound Into The Reproductive management of Dairy Cattle to Maximize Pregnancy Rates, Kevin McSweeney

Bull Programs, Carlos Risco & Mike Overton

Milk Production & Reproduction, Steve Eicker

Repro Program Economics, Mike Overton

Q & A Session, Panel

SMALL ANIMAL SYMPOSIUM
WEDNESDAY, AUGUST 23, 2006

Learn the latest regarding immunologic, pharmacologic, and surgical methods of population control in dogs, and cats. Lecture topics to be covered include: Surgical options beyond ovariohysterectomy, latest information about early spay-neuter in dogs and cats, pros and cons of progestogens for estrus suppression in queens and bitches, and an update on “spay vaccines.” An associated Wet Lab is available, at which participants will have an opportunity to perform ovariohysterectomy or castration of puppies or kittens aged 16 weeks or less, under the guidance of veterinarians experienced in these surgeries.

“NIP AND TUCK!” – SURGICAL METHODS OF CONTRACEPTION AND STERILIZATION, LISA HOWE

The surgical methods of contraception for the female and male domestic dog and cat will be described and discussed. Procedures to be discussed will include the traditional midline ovariohysterectomy, the flank ovariohysterectomy, early age gonadectomy, laparoscopic ovariohysterectomy, ovarectomy, castration, and vasectomy. Advantages and disadvantages of each technique will be discussed, as will relevant current literature.

IMMUNOLOGIC CONTRACEPTION, BEVERLY PURSWELL

Dr. Purswell will cover the broad area of immunocontraception as it applies to dogs and cats. She will cover the recent advances, the various approaches and the challenges faced in this area of immunocontraception.

PHARMACOLOGIC METHODS OF CONTRACEPTION AND STERILIZATION, MICHELLE KUTZLER

Although many veterinarians within the U.S. recommend surgical sterilization for population control in dogs and cats, non-surgical methods exist. Pharmacologic methods of contraception and sterilization can be reliable and reversible.
2006 Report of the AVMA House of Delegates (HOD)

Dr. Carla Carleton

The Informational Assembly (IA) of the AVMA HOD met January 13-15, 2006. Within the recent past, the effectiveness of the IA has continued to grow and it serves to prepare all Delegates for the issues coming before the formal sessions held prior to the July annual conference. Discussions this year raised questions regarding the cost and feasibility of making the January gathering a formal session in which business of the AVMA could be conducted. As funds have been expended to bring together the legislative body, for some Delegates it seems a natural off-shoot to make best use of that time. Other Delegates oppose the move fearing it will stifle the free-flowing discussion that is part & parcel of the informal session. Stay tuned for progress on that front.

Regardless of future changes that are possible, items addressed in the January Reference Committees and District meetings allow for more in-depth discussion than is usually possible on the floor in July. The continued overlap between the IA of the HOD and the AVMA Veterinary Leadership Conference remains a valuable tool and better informs leadership of national issues facing veterinary medicine. SFT identified and supported attendance by a recent graduate, Dr Charles F. Scoggin of Lexington, KY.

Comments & topics for your consideration from the combined sessions:

- Dr. Henry Childers, AVMA President, spoke during the opening session on his platform of Unity and Diversity.
- Individuals from DACLAM and the USPHS (Dr. Bill Stokes) and representing the VMATs (Dr. Cindy Lovern) recapped some of AVMA’s efforts in the wake of Hurricane Katrina and the damage done to the Gulf Coast areas, as well as requesting any additional aid donations be in the form of cash. Equipment, feed stuffs, etc. became difficult to deliver where needed, while cash allowed a more rapid response to on-site needs. For those interested, the AVMA is in the forefront of the 2006 National Disaster Summit to be held May 5-6, 2006 in Washington, D.C. For additional information, call the AVMA (847-925-8070), extension 6632.
- Regarding State Advocacy committees: software tools are becoming more effective in tracking important state legislative and regulatory affairs that have either direct or indirect impact on the practice of veterinary medicine. Additional sources of information are available as www.avma.org by following the link to “Advocacy”. This site will provide you with valuable tips regarding advocacy & PR efforts, as well as legislative updates. What you don’t know really can hurt you and veterinary medicine. Most larger professions and public advocacy groups are much better organized than are we. For example, between March and December 2005, approximately one thousand bills were introduced. The AVMA system is currently tracking 230 that are “of interest.”
- The National Veterinary Medicine Service Act has been passed by Congress. This is the bill that provides debt set-asides for new graduates who agree to begin their careers in under-served areas. Initial funding requested was $20 million. Unfortunately, funding for fiscal year 2006 is only $500,000.
- Candidates for AVMA president-elect each had five minutes to address the HOD. The 2006 candidates are Dr. Greg Hammer (Dover, Delaware) and Dr. Charles Stoltenow (Great Bend, North Dakota).
- There is again a need to identify qualified nominations for candidates to serve on Councils and Committees. The open positions are available for your review on both the AVMA web-site, as well as listed in JAVMA. Nominations can also be submitted as a pdf file. Please remember, it is important for candidates to discuss his/her interest with the SFT office and Dr. Charles Franz, as many positions require evidence of support from the group represented in the HOD, in this instance, your SFT.
- Dr. Rawson and I attended sessions of the Allied Caucus and our Reference Committees during the January meeting. We as participants in the Allied Caucus continue to work to strengthen the voices of our constituencies, including the SFT. I shall be chairperson of the Allied Group Caucus again from January 2006 through the July 2007 AVMA Conference. The Allied Group Caucus represents sixteen entities in the HOD and seeks to increase the awareness of State delegations of the valuable resources we bring to the table. *The 16 are: Uniformed Services of the U.S., AAHA, AAAP, AABP, AAEP, AAFP, AAFHV, AAIV, AASRP, AASV, AAVC, ASLAP, AAV, NAFV, SFT, and SAIVMA. Full names of its constituent alphabet soup can be found in your AVMA directory.

I & Dr. Rawson are happy to address any questions you may have about the topics presented in this report. See you in Honolulu, HI for the AVMA, July 15-19, and/or in St. Paul, MN August 22-26, 2006 for the SFT Conference and Symposia!

Respectfully submitted,
Carla L. Carleton, SFT Delegate to the HOD
This past January, I traveled to Chicago, IL to attend the 2006 American Veterinary Medical Association’s Leadership Conference. The mission of this meeting is, “To develop leaders for the benefit of the individual and the veterinary profession.” The profundity of this mission statement was cause enough to attend the conference, but I felt even more honored to have been chosen to serve as the Society for Theriogenology’s Recent Graduate Representative. As such, I was looking forward to the opportunity to interact with veterinarians from all over North America.

At the same time, I could not help but feel somewhat uncertain about attending the meeting. Having never participated in this meeting before, I had no idea what to expect. Moreover, and after looking over the program, I had a difficult time figuring out how some of the lecture topics pertained to the practice of veterinary medicine. For example, instead of discussing topics like assisted reproductive techniques or neonatal intensive care, we would instead be contemplating topics such as “Mobilizing People for a Change” and “Legislation and Regulation.”

As a 2005 graduate of Colorado State University’s Professional Veterinary Medicine Program and a current intern at Hagyard Equine Medical Institute, I have been focused on the clinical and practical aspects of veterinary medicine. I thus found myself wondering what was in store for me as I headed out to Chicago. Fortunately, my feelings of uncertainty quickly dissipated. Upon listening to Dr. Wesley Jamison give a provocative lecture on animal welfare and rights during the opening session, I felt that his discussion was a sign of things to come. Indeed, and as it turned out, the entire weekend was filled with stimulating and inspiring discussions about topics I had seldom contemplated, such as the veterinary community’s role in legislative affairs and its responsibility for diversification of the profession. During the conference, I came to the realization that veterinary medicine encompasses a much broader range of ideals and perspectives than simply applying scientific and clinical knowledge to treat and care for animals. Instead, we, as veterinarians, are in a privileged position to shape and mold public policy, serve as an authoritative advocate for animals, and enhance the current perception of our profession in the North American workforce. Without question, this conference heightened my awareness regarding the obligations veterinarians must honor to serve as worthy and respectable leaders in the world’s society.

These insights would not have been possible without the generosity of the AVMA, Bayer, and the SFT who subsidized my expenses to attend this conference. I would thus like to send out and great big “THANK YOU!” to all the members of the SFT for providing me with a tremendous and invigorating experience. Your support meant a great deal to me, and I look forward to becoming a proactive member of the SFT throughout the remainder of my career.

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**Call for Board Candidates**

The Society for Theriogenology is seeking members interested in serving on the SFT Board of Directors. If you are interested, please provide us with the following information. This will help your peers get to know you and acquire some insight why you would be a good board member/officer of the SFT. Please restrict your comments to 350 words or less.

1) Name
2) School (Country) and year of graduation from veterinary college
3) Species emphasis and main focus of work (practice, academia, industry)
4) Qualifications specific to the post for which you are running, including educational background, personal experience, visionary abilities and any other pertinent information

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**Call for Articles/Stories From Students**

If you have news from your SFT Student Chapter, or College of Veterinary Medicine you feel would be of interest to fellow SFT members, please send it to Charles@franzmgmt.com. It is important you put “SFT Newsletter Article” in the subject line of your message.

**LET US HEAR FROM YOU!**
PRESIDENT’S MESSAGE...

Spring is not far away and for those of us involved in equine practice, the “busy” season is just about upon us.

As I mentioned in the last newsletter, I attended the Executive Board meeting of the European College of Animal Reproduction (ECAR) in Ghent, Belgium as your representative in November 2005. The ECAR certification examination was given on November 10 – 11, 2005 to 17 individuals. Unlike our procedures, the Candidates will not know the outcome of the examination for about 30 days. A large concern for the Examination Committee is the diversity of candidates with regard to their country of origin. The examination is only given in English and this can be a problem for some of the candidates.

The recertification issue that is required of ECAR diplomates was also a topic of discussion. This was particularly enlightening for me since this may become an issue for us in the future. A substantial number of diplomates had not yet completed their recertification process as of the meeting, even though the deadline for this process had been reached. Since ECAR has only about 180 diplomates, this was a topic of concern for them.

In our desire for cooperation with ECAR, the ECAR Board has an interest in helping the ACT and SFT update the handbooks that we are in the process of doing. In my opinion, I think a different perspective on the various topics would be a great help.

Lastly, I have sent an invitation to Dr. Joerg Aurich, the Secretary of ECAR, to send a representative to our board meeting in August which is held in conjunction with the SFT Annual Meeting. I would encourage you to say hello and chat with the ECAR representative and learn more about our colleagues in Europe.

The annual winter board meeting of the ACT was just held in “balmy” St. Paul, Minnesota, January 20 – 21, 2006 (literally warmer than usual). The meeting was held at the site of the SFT Annual Meeting. It is a wonderful venue and I would encourage you all to make plans to attend (August 21 – 26, 2006).

The college is solvent and moving ahead on a variety of issues. The nominating committee is assembling a slate of candidates for our annual election.

continued on next page

Terry Blanchard Selected
Theriogenologist Of The Year

Terry L. Blanchard, D.V.M., MS, has been honored with the annual “Theriogenologist Of The Year” award for 2006, according to an announcement by Dr. John Steiner. Dr. Blanchard is the 8th recipient since the award was established in 1999.

Dr. Blanchard was recognized for his contributions to the field of Theriogenology as an educator, mentor, clinician and scientist. Following his clinical residency at the University of Pennsylvania, Dr. Blanchard held faculty positions at the University of Missouri, Pennsylvania and Texas A&M. His excellence as a clinician and teacher have been recognized with prestigious Distinguished Service Teaching Awards conferred to him while at Texas A&M. Dr. Blanchard has authored and co-authored over 100 peer-reviewed publications, served as author and editor for 4 textbooks, and author of 12 book chapters.

In 2005, Dr. Blanchard elected to leave the academic field and enter private reproductive practice and is currently associated with Hill n’ Dale Farm in Lexington, KY as a resident veterinarian. Make plans to attend the Society for Theriogenology (SFT) and ACT conference scheduled for August in St. Paul, Minnesota, at which time Dr. Blanchard will be presented with a plaque and honorarium.

Congratulations Dr. Blanchard!
tion. This year we will be electing a Vice President. This is actually a 4 year commitment to the college since the Vice President moves up in following years on the board to President Elect, President and then Past President. We will also be electing a Director to sit on the Board for a term of three years. Please watch for your ballot in the upcoming newsletter. The Examination Committee is gearing up for this year’s examination. Thirteen new applicants have been approved to sit for the exam. Twenty three individuals were previously approved for the examination with eligibility remaining. Therefore, there are 36 potential examinees for this year’s examination. In addition, both the Board and Examination Committee continue to work on securing new software for the exam.

I know we all get busy this time of year and we are going in several directions at once but please take a moment to reflect on your ACT and provide thoughts, and ideas as input to the direction you want the college to take. I am sure we all have “issues” that may be very relevant to the college. Take a few moments to contact me or any other Board Member, or our Executive Director, Charles Franz, with your ideas.

As I have said before, those of us on the Board are your representatives. All of our collective voices and ideas can benefit the college in an even greater way. The annual ACT Newsletter will be coming out in April. At that time I will have more specifics from our board meeting that was just held. Enjoy the rest of the winter and welcome (I am sure!) the coming spring.

John V. Steiner, DVM, DACT
President
ABSTRACTS

Comparative Routes of Oxytocin Administration in Crated Farrowing Sows and Its Effects on Fetal and Postnatal Asphyxia

MOTA-ROJAS, D; TRUJILLO, ME; MARTINEZ, J; ROSALES, AM; GOROZCO, H; RAMIREZ, R; SUMANDO, H; ALONSO-SILSBURY, M (2006) ANIM.REPROD.SCI. 92, 123-143

Oxytocin is used to induce and control parturition; nevertheless, an increase in uterine contractions decreases blood flow and gaseous exchange through the uterus predisposing to intra-partum mortality in pigs. The objective of the present study was to evaluate the effect of different oxytocin administration routes on myometrial activity, fetal intrauterine hypoxia and postnatal asphyxia in crated farrowing sows. Yorkshire X Landrace hybrid sows (n = 300) that were approaching the time of parturition were randomly assigned into 6 groups. Each group included 50 sows, 10 for each of the parities from 1 to 5. A 40-IU oxytocin dosage was administered by intramuscular (IM) or intravulvar (IVU) routes, or 20 IU was administered via intravenous (IV) route. Groups 1 (G1), 3 (G3), and 5 (G5) were administered 0.9% saline solution (NaCl) IM, IVU, and IV, respectively, whereas groups 2 (G2), 4 (G4), and 6 (G6) were treated with oxytocin IM, IVU, and IV, respectively. There was a significantly (P < 0.05) greater number of intra-partum stillbirths (IPS) for the oxytocin treatments, as compared with the control groups, especially with the IVU and IV routes; a lesser number of IPS and lesser IPS with broken umbilical cords was observed with the IM administration route. Oxytocin and control IV administration resulted in longer farrowing durations. Administration of IV oxytocin resulted in a greater number (P < 0.05) of intrauterine distressed neonates compared with its corresponding control and interpreted through dips II, a fetal cardiac frequency deceleration which determines acute fetal distress. Independent of the route of oxytocin administration, the treatments resulted in twice as many dips II compared with the respective control groups. The use of the cardiotocograph proved to be an excellent tool for establishing the oxytocin response dose in farrowing sows. A greater number of piglets born alive, which had undergone bradycardia, also showed severe acidosis and greater meconium staining in oxytocin-treated sows, indicating that the administration time (at birth of the first piglet) as well as the dosage used were not adequate treatment regimens in the present study.

Comparison of the Effect of Natural Mating, LH, and GnRH on Interval to Ovulation and Luteal Function in Llamas


Gonadotropins and GnRH have been used to effectively induce ovulation in llamas and alpacas, but critical evaluation of the natural interval to ovulation after mating has not been performed nor has a direct comparison of the effects of natural mating versus hormone treatments on this interval and subsequent luteal development. The objectives of this study were to compare the effects of hormonal treatments and natural mating on ovulation induction, interval to ovulation, and luteal development in llamas. The ovaries of llamas were examined by transrectal ultrasonography once daily. Llamas with a large follicle were assigned randomly to be: (1) mated with an intact male (mated; n = 10); (2) given 5 mg of LH im (LH; n = 11); or (3) 50 ?g of GnRH im (GnRH; n = 10). Ultrasound examinations were performed every 4 hours from treatment (day 0) to ovulation and thereafter once daily for 15 consecutive days to monitor CL growth and regression (progesterone concentrations were measured at days 0, 3, 6, 9, and 12 after treatment to evaluate CL function. The size of the largest preovulatory follicle at the time of treatment did not differ among groups (11 ± 0.6, 10.5 ± 0.8, 11.8 ± 0.9 mm, for mated, LH, and GnRH groups, respectively; P = 0.6). No differences were detected among groups (mated, LH, and GnRH) in ovulation rate (80%, 91%, 80%, respectively; P = 0.6), or interval from treatment to ovulation (30.0 ± 0.5, 29.3 ± 0.6, 29.3 ± 0.7 hours, respectively; P = 0.9). Similarly, no differences were detected among groups (mated, LH, and GnRH) in maximum CL diameter (14.2 ± 0.3, 13.2 ± 0.5, and 13.0 ± 0.7 mm, respectively; P = 0.5), the day of maximum CL diameter (7.6 ± 0.2, 7.6 ± 0.2, and 7.4 ± 0.4 mm, respectively; P = 0.6), or the day on which the CL began to regress (12.3 ± 0.3 [non-pregnant; n = 3], 11.8 ± 0.6, 12.2 ± 0.4, respectively; P = 0.4). The diameter of the CL and plasma progesterone concentrations changed over days (P < 0.0001) but the profiles did not differ among groups. In summary, ovulation rate, interval to ovulation, and luteal development were similar among llamas that were mated naturally or treated with LH or GnRH. We conclude that both hormonal preparations are equally reliable for inducing ovulation and suitable for synchronization for artificial insemination or embryo transfer program.

The Prevalence of Vesivirus in a Laboratory-Based Set of Serum Samples Obtained From Daily and Beef Cattle

KURTH, A; EVERMANN, JF; SKILLING, DE; MATSON, DO; SMITH, AW (2006) AM.J.VET.RES. 67, 114-119

A study was conducted to examine sera obtained from dairy and beef cattle to detect antibodies against vesivirus and compare seroprevalence among cattle within the sample population. Cattle sera from 8 western states and Maryland submitted to the Washington Animal Disease Diagnostic Laboratory during 1999 and 2000 were tested. Sera were analyzed for vesivirus-specific antibodies by use of a recombinant vesivirus–San Miguel sea lion virus serotype 5–capsid peptide antigen in an indirect ELISA. Overall, 693 sera were tested and 105 (15.2%) had positive results. Seropositive cattle were from 7 states (all cattle from Montana and Maryland [10 and 4, respectively] were seronegative). Overall seroprevalence for antivesivirus antibody in herds ranged between 0% and 80% (median, 14%). Higher antibody prevalence was significantly associated with older age, dairy rather than beef cattle, and reasons for submission. Logistic regression of factors (abortion, respiratory tract disease or other reasons for submission) revealed that older age and other reasons were independently associated with higher seroprevalence. Higher seropositive optical density values for the ELISA were observed among older cattle and cattle that aborted, compared with values for cattle with respiratory tract disease or other reasons for submission. This laboratory-based surveillance sample provided a point estimate of seroprevalence against vesivirus among cattle in 9 US states. This suggests that vesivirus infection is widespread with high prevalence in some herds. Risk factors associated with vesivirus seroprevalence in beef and dairy cattle should be confirmed in population-based studies.
A study was conducted to evaluate the effect of intratesticular administration of lidocaine on cardiovascular responses and cremaster muscle tension during castration of isoflurane-anesthetized stallions. Twenty-eight healthy stallions (mean ± SD age, 4.2 ± 2.8 years) with no testicular abnormalities that were scheduled for castration were included in the study. Each horse was medicated with acepromazine (20 µg/kg, IM), romifidine (50 µg/kg, IV), and butorphanol (20 µg/kg, IV). Anesthesia was induced with ketamine (2.5 mg/kg, IV) and midazolam (50 µg/kg, IV) and maintained with isoflurane (1.7% end-tidal concentration). After 10 minutes at a stable anesthetic plane, a needle was placed in each testis and either no fluid or 15 mL of 2% lidocaine was injected; 10 minutes after needle placement, surgery was commenced. Pulse rate and arterial blood pressures were measured invasively at intervals from 5 minutes prior to castration (baseline) until 5 minutes after the left spermatic cord was clamped. The surgeon subjectively scored the degree of cremaster muscle tension. In 2 horses, lidocaine labeled with radioactive carbon (C14) was used and testicular autoradiograms were obtained. Compared with baseline values, castration significantly increased blood pressure measurements; intratesticular injection of lidocaine decreased this blood pressure response and cremaster muscle tension. In 2 horses, autoradiography revealed diffuse distribution of lidocaine into the spermatic cord but poor distribution into the cremaster muscle.

The objective of this study was to investigate whether monitoring progesterone concentrations in milk and blood plasma can be used to predict time of ovulation in dairy cattle. Whole milk was sampled twice daily and blood samples were collected once a day before the morning milking. Ovulation was assessed by trans-rectal ultrasonography at 4-hour intervals beginning from the end of estrus. For a parameter to be useful as predictor for time of ovulation, it should be precise (i.e. variation between animals should not exceed 12 hours). In milk, progesterone concentration dropped to < 15 ng/mL at 97.7 ± 17.8 hours (range: 54–126 hours) before ovulation, to < 5 ng/mL at 79.7 ± 11.2 hours (range: 54–98 hours) before ovulation to decline further to < 2 ng/mL at 70.7 ± 16.8 hours (range: 38–90 hours) before ovulation (n = 20). In plasma, progesterone concentration dropped to < 4 ng/mL 90.5 ± 19.6 hours (range: 66–138 hours) before ovulation and to < 2 ng/mL at 75.0 ± 12.2 hours (range: 50–98 hours) before ovulation. These intervals were not influenced by parity, milk production, or days in milk. In conclusion, monitoring of progesterone alone is not sufficient to predict ovulation because of the large variation in timing of decrease of progesterone concentrations relative to ovulation between animals. At best, the range is about 2 days.

It was hypothesized that gonadotropin-releasing hormone (GnRH) treatment at the time of insemination and 12 days later increases conception rates. The aim of the present study was to evaluate the effects of GnRH treatment at the time of insemination or at the time of insemination and 12 days later on reproductive performance during the warm season in high-producing dairy cows. The effect of GnRH treatment on the incidence of subsequent twin pregnancies and pregnancy losses was also evaluated. Data were analyzed using logistic regression methods. Of the entire series of 1,289 AI, 373 (29%) resulted in pregnancy. Three study groups were established to evaluate the effects of treatment on the conception rate: control (untreated cows, n = 431), GnRH-0 (cows receiving GnRH at AI, n = 429), or GnRH-0 + 12 (cows receiving GnRH at AI and at AI + 12 days, n = 429). Conception rates were 20.6% (89/431), 30.8% (132/429), and 35.4% (152/429) for animals receiving no treatment, GnRH at AI, and GnRH at AI and 12 days later, respectively. Based on the odds ratio, the probability of pregnancy was 0.80 and 0.46 times less likely for cows receiving treatment GnRH-0 and no treatment, respectively, than for cows receiving treatment GnRH-0 + 12 (reference). Of the 373 pregnant animals, 326 (87.4%) bore singletons and 47 (12.6%) carried twins. The effects of treatment on the dependent variables twin pregnancy, additional corpus luteum, and pregnancy loss were analyzed. Pregnancy loss between 38 and 90 days after insemination was registered in 30 (8%) cows: 17 (5.2%) in single and 13 (27.7%) in twin pregnancies. Fifty-six (15%) cows had an additional corpus luteum. No pregnancy losses were recorded in these cows. Treatment had no effect on the twin pregnancy rate. The treatment GnRH at AI and 12 days later increased the chances of an additional corpus luteum by a factor 3.7 (using the control group as reference). In conclusion, our results support the hypothesis that GnRH treatment at the time of insemination and 12 days later increases the conception rate in high-producing dairy cows during the warm season. Although lower than the double GnRH treatment, strong benefits were also registered following a single GnRH treatment at insemination. Under these conditions, treatment failed to affect the twin pregnancy rate yet increased the incidence of an additional corpus luteum in pregnant cows.
Society for Theriogenology

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