President's Message

Darrel DeGroff, D.V.M.

Since our last newsletter, the holidays have come and gone (I hope all enjoyed family and friends). Many stock shows have produced winners and losers (I trust most of your clients were winners with their ET offspring) and Spring is just around the corner, ready to produce green grass and freshly calved “open” cows (don’t you just hate pregnant donor cows?) that are in need of our “armed services.”

Speaking of seasonal changes, those of us who attended the IETS meeting in January certainly enjoyed the warm summer weather, green grass and great Brazilian hospitality during the well-attended conference. A few notes of interest for our association are listed below.

Forms and Certification
- Labeling of cane top is only practitioner ID and cane number with donor ID optional
- Continue to label both goblets as some companies only use bottom goblet
- Handwriting on straws and goblets remains allowable due to necessity by some international companies
- Stage and quality of embryo is optional on the straw as is the stud name of the sire
- Initial problems being encountered with labeling of open-pulled straws (OPS) were discussed without solution as were the plans for future forms concerning clones and trangenics.

Health and Safety Advisory Committee (HASAC)
- The majority of the discussion centered around the current EU ban on North American embryos. In January the Wrathall paper was in peer review and Dr. Thibier was to discuss the matter with OIE on January 26, 2002. After the paper is pub-

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Effective Immediately

New e-mail address for the office of the American Embryo Transfer Association:

gmo@inebraska.com

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2002 Convention – October 9-12

Albuquerque, New Mexico

Have you marked your calendars for the 2002 Convention of the American Embryo Transfer Association? The Convention will be held October 9-12 at the Hilton Hotel in Albuquerque, New Mexico.

Albuquerque is a city full of exciting attractions and events, from Historic Old Town, where the Villa of Albuquerque was founded in 1706, to the Kodak Albuquerque International Balloon Fiesta, the most popular ballooning event in the world. The **2002 Balloon Fiesta will be held the weekend the AETA is in Albuquerque!**

The city blends America’s prehistory with its future. Called the most culturally diverse city in the country, Albuquerque can offer you poetry, science, history – and a whole lot of fun.

Chairman Randall Hinshaw is busy planning the educational sessions and information will be sent shortly.

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The colorful hot air balloons that dot Albuquerque’s clear blue skies almost every weekend and many weekdays throughout the year have been a great source of identity and attraction for Albuquerque. Albuquerque’s climate and terrain make it ideal for this colorful sport. Every October, Albuquerque is the site of the Albuquerque International Balloon Fiesta. *Photos by Terry Moore.*
President’s Message (continued)

lished, OIE would act on the subject at their May 2002 meeting and would act quickly with the EU. The IETS will also state that the ban to export embryos from the EU to North America should be dropped for the same scientific reasons. It was pointed out that it was unknown if the change would be retroactive to embryos collected prior to October 1, 2001.

- Dr. Whittaker has found that the legislation now in effect for the ban is temporary and that permanent legislation will be enacted in June or July of 2002 and many livestock industry representatives are currently working with APIHS on necessary changes to hopefully lift the ban at that time. Dr. Whittaker met with APIHS on February 21 on behalf of the AETA.
- As of February 8, 2002, I was informed by Dr. Delver of CETA that the Wrathall paper is now in press and should appear shortly in the Vet Record. Also, the IETS has submitted wording to the OIE to delete all mention of feeding mammalian derived protein to donor cows. It appears this problem is on the “fast track” and moving as well as can be expected at the present time.
- In a general sense, we have been asked for the AETA immediate past president, who will attend each year’s IETS meeting, to participate in planning the annual practitioners forum. Exciting presentations at this year’s meeting were informative about estrus synchrony studies, possible new semen freezing technologies and continuing donor cow research.

The board of directors meeting held in early February completed the plans for collecting, shipping and transferring the embryos in China in September of this year. Hopefully, you all have received the information from Dr. Rowe and can participate if you have interested clients. Also of note, the board recommended limiting the length of terms for committee chairman and members, a list for mass email capabilities from the AETA office will be developed for future member communications, and Dr. Hinshaw reported on the developing plans for our Albuquerque meeting with a list of very interesting speakers and exciting extracurricular activities – mark your October calendar early!

As we are all very well aware, the many ramifications of September 11 are certainly becoming integrated into our daily lives but one in particular has been in the forefront of me recently. I know our government officials, working closely with USDA/APRHS, are certainly emphasizing biosecurity for our nation. But, during the past few months, I, along with family members and friends, have personally experienced six return trips to the USA from four different countries and have only been asked once to visit USDA Veterinary Control even after admitting having been on a farm! In one instance, a friend from Europe arrived with gifts that included two packages of non-inspected specialty meats and in another, my son was questioned about his European souvenir hockey puck (suspected C explosive!) but denied USDA inspection as he requested. Enough of my “soap box,” but possibly it behooves all of us to occasionally remind clients and friends to make responsible decisions when returning from international destinations in order to do their part in keeping our livestock industry free of potentially devastating diseases.

To close with an optimistic point of view, those of us in the beef industry are seeing exceptionally good bull sales the past few weeks with averages ranging from $2,700 to $4,400 for top quality sires purchased by purebred and commercial cattle producers. Often, this is an indicator of a healthy purebred beef business that directly correlates to an increased demand for our industry’s services during the upcoming Spring and Summer — let’s hope the situation is mirrored for our members who are primarily involved in the dairy industry.

Have a great spring!

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2002 Canadian Embryo Transfer Association Convention
August 23-25, 2002
Loews Le Concorde Hotel • Quebec City, Quebec, Canada

For information on the meeting:

Canadian Embryo Transfer Association
Box 2000 • Kemptville, Ontario, Canada K0G 1J0
Telephone: (613) 258-5944 • Fax: (613) 258-3719
Email: ceta@efta.ca
The AETA was invited to attend an informational meeting with APHIS in Riverdale, Maryland. The meeting was organized by Oscar Kennedy, LEA president and was held on February 21, 2002. AETA was well represented with three out of four Government Liaison Committee members attending: Jim Cooper, Boyd Henderson, Steve Mower (guest) and Richard Whitaker.

We discussed APHIS’ notification policy. Many voiced complaints about inaccurate information on APHIS web-site regarding the most current regulations. APHIS agreed to mark regulations under negotiation and to post new regs as soon as they are finalized. Then we will at least be aware of the possibility of a future change.

We also discussed the current China protocols, APHIS is planning a trip to China this spring. These protocols will be discussed with the hope that some of the requirements can be standardized with the rest of the world (IETS Protocols, Accepting CSS certification, etc.) Ted Williams is the contact person for this. He invited suggestions from the industry on these protocols. His email is Ted.Williams@aphis.usda.gov

We spent a long time on the Organizational Chart of APHIS...particularly that of the Veterinary Services division. Summary: APHIS is terribly understaffed! Of the six veterinary positions in Import Export, one is vacant and three are filled with new-comers to the office. And as you look up the organizational structure there are holes everywhere, I counted six key leadership positions that are either vacant or filled with temporary staff.

We did get some direction for seeking help. The Sanitary Trade Issues Team is responsible for protocols. Najam Faizi and Lisa Ferguson were on this team. Current contacts are Bob Bokma (Americas), Kelly Preston (Asia/Pacific), vacant (Europe, Africa, Australia, New Zealand). Phone number for this office is 301-734-4856. The Technical Trade Services Team handles shipping problems. Contacts are Osmond Castilla (Americas), Ted Williams (Asia/Pacific), and Roger Perkins (Europe, etc.) 301-734-8634. These distinctions are not clear and each side supports the other.

We finished with a discussion of the current EU ban on embryo shipment. Regrettably, the APHIS staff was not well informed on this issue, pointing out that they were just moving crisis to crisis. I pointed out that this was a crisis. I made two requests of APHIS: 1. That the U.S. drop our restriction on EU embryos coming into the U.S. as soon as Wrathall’s article is published in Vet Record (this spring). 2. That when the EU ban is lifted, that we be certain it is retroactive to October 1, 2001.

Meeting was adjourned.

My conclusion after this meeting is that the present staff at APHIS is overwhelmed. They are chronically understaffed and do not have resources to help us. I suspect that this has been the case for some time, but that many of us have developed relationships with staff that helped us to get through the maze. Many of those people have left and so the problem is now very apparent. And there is a leadership void so this may not change for some time.

Now, for an update of the EU ban, Wrathall’s article has passed peer review and is slated for publication in Vet Record sometime this spring. Once this is published, the science would not support continuation of the ban and I expect that it will be lifted soon thereafter. I understand that representatives from IETS will be pushing for this resolution as well. Aside from urging APHIS to take the high road and drop the U.S. Ban at publication, there is little to be done on this site. That’s the way I see it.
Synopsis of the 2002 IETS Annual Conference

John F. Hasler

I am pleased to be chairing the AETA Newsletter Committee. The very able members of this committee, specifically, John Broadway, Larry Horstman, Larry Kennel, Jeanne Reyher and Roger Thompson, will make each issue of 'A Closer Look' worth reading.

I have had the good fortune of attending each annual meeting of the International Embryo Transfer Society since 1975. The 2002 meeting, held in January near the magnificent Iguassu waterfalls in Brazil, was one of the best ever and had the largest attendance ever, with 890 registrants. Likewise, the number of abstracts and accompanying posters (430) was a record. Perhaps the best part of the meeting was the sincere hospitality and warmth provided by the Brazilian organizers and attendees. The people, countryside and climate all combined to create quite a wonderful atmosphere. The change in seasons, from the cold of January in Colorado to the warmth of southern Brazil, was remarkable.

The level of the science at the meeting was quite high. The pre-conference symposium, entitled 'Methods for manipulating the embryonic genome in vitro', was published in the final 2001 issue of Cloning and Stem Cells. This program included a live video demonstration of nuclear transfer techniques. Although there were no presentations that dealt specifically with the current commercial status of cloning and transgenic technology, there were a number of fine papers dealing with advances in the technologies. George Seidel closed the program with a thought provoking analysis of some possible directions in which the technology of cloning and transgenics may head.

The main program was divided into the following sections: Manipulation of Follicle Development; Similarities/Differences: bovine and human in vitro embryo production; Genetic manipulation of the embryo; Use of assisted reproduction technologies in germplasm preservation and livestock embryo production; Advances in cryobiology. As has been the case since 1978, the invited papers and all the abstracts were published in the current year's January issue of Theriogenology. One of the more provocative presentations dealt with the production of microfluidic devices for the in vitro culture of embryos. A result of collaborative efforts involving faculty at the Universities of Illinois and Wisconsin, these devices allow embryos to be cultured in tiny volumes of media in microchannels, so that medium composition can be changed without moving or disturbing the embryos.

Immediately following the main program, there was a one day Satellite Symposium entitled 'Practical considerations in dealing with embryos' that was specifically directed to practitioners. The invited papers in this program were published in the December 2001 issue of Theriogenology. Among the presentations was a survey by Larry and Cheryl Nelson of the types of media used by American embryo transfer practitioners. The Nelsons reported that there is a surprising degree of variation among practitioners in the types of media used for flushing, holding and freezing cattle embryos. I presented a paper on frozen embryos that included many of the data I reported at the recent AETA conference. Other subjects that were covered included embryo biopsy and sexing in the field, uterine conceptus interactions, disease risks related to embryo transfer and embryo transfer problems in Bos indicus cattle.

I encourage all AETA members to take a look at these three journals and read in detail what interests you. I will review some abstracts that have practical applications to commercial embryo transfer in the next issue of 'A Closer Look'.

AETA Board of Directors
Met February 2, 2002

The Officers and Board of Directors of the American Embryo Transfer Association met on February 2, 2002 in Dallas, Texas with President Darrel DeGrooff presiding.

Included on the agenda were the following:

- Approval of previous minutes.
- Approval of the December financial statement.
- Review of the 2001 Convention report.
- Reviewed Committee Chairmen for 2002.
- Reviewed and discussed the 2002 Convention to be held in Albuquerque, New Mexico.
- Reviewed the 2003 Convention which will be held in Calgary, Alberta, Canada with the Canadian Embryo Transfer Association.
- Discussed possible sites for the 2004 Convention.
- Heard a report from the Certification Committee.
- Received a report on the Cooperator Committee.
- Approved the 2002 budget and GMO contract.
- Discussed life membership in the AETA.
- Approved a mailing to Regular AETA members to obtain a list of all individuals at each company who would qualify as members in addition to the main contact person.

AETA Surveys
Economic Survey

The Board of Directors would like to thank all who returned the recent Economic Survey to the AETA office. The results are being compiled and the results will be published shortly.

2002 Roster

Regular members of the AETA were asked to send to the AETA office the names, addresses, phone numbers, etc. of all veterinarians or Ph.Ds employed by their company, in addition to the individual already designated as the representative, so these additional names can be included in the 2002 AETA roster.

Statistical Survey

The questionnaire on the E.T. activities of each regular member of the American Embryo Transfer Association for the year 2001 was recently mailed. The completed form is to be returned to the AETA office by April 1, 2002.

All Certified ETBs are required to return this information.

Embryos Wanted for Christian Veterinary Mission

Dairy embryos from Holstein, Jersey or Brown Swiss needed soon for E.T. project in Romania. Christian Veterinary Mission will issue a donation certificate for all donated embryos.

E.T. Equipment is also needed if you have some good used equipment that you no longer need. The purpose is to establish an E.T. lab at four veterinary schools in Romania.

Contact Dr. Edwin Robertson
P.O. Box 1, Harrogate, TN 37752
Phone (423) 869-3152, fax (423) 869-5546
e-mail: edwinrobertson@hotmail.com.
American Embryo Transfer Assoc.,
2272W, 2nd, P.O. Box 218
Huntington, NE 68902

President elect, Dr. Darrel DeGroff,
Past president, Dr. Charles Was
Board of directors of the AETA
General Membership of the AETA

Greetings to you all.

I would like to thank all of you for your part in the honor that you bestowed upon me at the 2003 convention. It was especially rewarding to receive this achievement award at a joint meeting of the two Associations because I have known so many of the members of the AETA throughout my career in E.T. To receive this recognition from your peers is such a humbling and emotional experience and I will cherish it for the rest of my life.

The joint meeting seemed to be a great success and was enjoyed by all the participants that I talked to anyway. We are a unique group in this profession that we call E.T. and to be able to share ideas, success and of course the odd failure, is a real career refreshing experience.

Once again may I thank you all for making this such a special time in my life and I will be forever endeared to the AETA and to all of you individually.

Yours truly,

Murray M. Jacobson D.V.M.

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Paving the Livestock Genetics Export Path to China
U.S. Efforts Well Timed with WTO Entry

ST. LOUIS, MO - If the complexity of servicing the Chinese livestock genetics industry in the past can be likened to the Great Wall, then China’s recent entry into the World Trade Organization (WTO) represents new passages.

In fact, the WTO agreement could not have come at a better time. U.S. Livestock Genetics Export, Inc. (ULSGE) recently paved the way for livestock, semen and embryo exporters to more efficiently market genetics into China.

“We have worked for the last several years to remove obstacles from the pathway of U.S. exporters by helping to gain Chinese approval of U.S. artificial insemination (AI) and embryo transfer (ET) centers,” says Cam Foreman, USLGE chairman and executive director, shows and regional services for the American Quarter Horse Association. “As a result of our efforts last summer to educate them about our system, we were able to obtain the approval of 32 centers in 12 states by the Chinese for handling genetics exports.”

ULSGE, along with member organizations that include the National Association of Animal Breeders (NAAB), the American Embryo Transfer Association (AETA) and the National Swine Registry (NSR), obtained federal funding to finance a nationwide center inspections process for Chinese authorities. Working with USDA’s Animal and Plant Health Inspection Service (APHIS), USLGE set up a month-long site inspection trip. Approved centers will not need to be revisited by Chinese inspectors now for two years.

“The approval of these centers really provides U.S. producers and companies that have livestock genetics interests the opportunity to make inroads into one of the largest potential markets in the world,” says Dr. Najam Faizi, senior staff veterinarian for APHIS’ National Center for Import and Export in Washington, D.C. “ULSGE’s pursuit of the approvals was instrumental to the effort.”

Foreman shares similar thoughts. “Dr. Faizi has worked tirelessly to help U.S. livestock genetics exporters open new markets over the years,” Foreman says. “He knows the tremendous potential of the Chinese livestock market, especially now that China has officially entered the WTO.”

According to U.S. Department of Agriculture Foreign Agriculture Service (USDA FAS) reports, China’s WTO entry for the U.S. means “locking in and expanding access to a market of more than one billion people. China’s economy is already among the world’s largest, and over the past 20 years has expanded at a rate of nearly 10 percent annually.” At the same time, U.S. total exports to China have grown from virtually nothing to $11 billion per year. Ag exports alone in fiscal 2000 were nearly $1.7 billion.

“China is not the largest market for livestock genetics at this time, but we anticipate the market could really expand over time and become a major outlet for U.S. beef, dairy and swine genetics particularly,” says Mike Phillips, president and CEO, USLGE. “The U.S. agriculture attaché in China last year acknowledged, among other points, that local beef production is constrained by poor genetics. China is unable to meet its domestic needs for beef.”

Department of Commerce figures estimate China imported nearly $1.5 million in purebred breeding swine, along with small quantities of dairy embryos and cattle semen during 2000. In just the first three quarters of 2001, however, China had imported purebred breeding swine and cattle semen and smaller values of purebred male and female dairy cattle and beef breeding bulls and females. Imports in nearly all categories surpass imports of the previous year.

“The Chinese are in dire need of quality livestock genetics, and China has the potential with the WTO to now make import decisions based on sound science rather than whims, non-tariff barriers and antiquated protocols,” says Phillips. “This is an exciting time for U.S. livestock genetics exporters to get involved in what could become one of the largest growing markets for their products.”

Editor’s Note: USLGE is a non-profit, nationwide livestock specific trade association established to better serve world markets with superior livestock genetics from leading, progressive U.S. livestock breeders. Members include those in the dairy, beef, sheep, swine and horse industries, the embryo and semen industries, the livestock export sector and 20 state departments of agriculture.

AETA Committee Chairmen for 2002

Listed below are the AETA Committee Chairmen for 2002 along with their phone numbers. If you would like to serve on one of these committees, contact the chairman or call the AETA office in Hastings, Nebraska.

<table>
<thead>
<tr>
<th>Committee</th>
<th>Chairman</th>
<th>Phone Number</th>
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<tbody>
<tr>
<td>Certification Committee</td>
<td>Dr. Joseph Lineweaver</td>
<td>(540) 953-1038</td>
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<tr>
<td>Exhibit Committee</td>
<td>Dr. Dan Hornickel</td>
<td>(202) 473-6905</td>
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<tr>
<td>Convention Committee</td>
<td>Dr. Randall Hinshaw</td>
<td>(540) 433-0430</td>
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<td>Cooperator Committee</td>
<td>Dr. Robert Rowe</td>
<td>(606) 833-1990</td>
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<td>Government Liaison Committee</td>
<td>Dr. Richard Whitaker</td>
<td>(207) 225-2722</td>
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<td>Manuals &amp; Promotion Committee</td>
<td>Dr. Boyd Bien</td>
<td>(210) 545-7982</td>
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<td>Newsletter Committee</td>
<td>Dr. Roger Thompson</td>
<td>(865) 250-9294</td>
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<td>Nominating Committee</td>
<td>Dr. Charles Wray</td>
<td>(507) 496-3510</td>
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<td>Professional Review Committee</td>
<td>Dr. Darrel DeGroff</td>
<td>(870) 222-1793</td>
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<td>Statistical Information Committee</td>
<td>Dr. Allen Rushmer</td>
<td>(717) 650-0921</td>
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WANTED: Embryo manipulator system for twinning and biopsy of embryos and equipment for embryo sexing. Contact: Dr. Lee Jones (308) 367-5600.
Endometritis in Postparturient Cattle Associated with Bovine Herpesvirus-4 Infection: 15 Cases

Ken Frazier, Mel Pence, Michael J. Manel, Alan Liggett, Murray E. Hines II, Lowel Sangster, Howard D. Lehmkuhl, Debra Miller, Eloise Styer, Joe West, and Charles A. Baldwin

Suppurative, ulcerative endometritis associated with bovine herpesvirus-4 (BHV-4) infection was identified in 15 postparturient dairy cows from 5 separate dairies. Characteristic casiphophilic intranuclear viral inclusion bodies were identified within degenerate endometrial lining epithelium and endothelial cells. Bovine herpesvirus-4 was confirmed as the causative agent by a combination of fluorescent antibody assays, viral isolation, hemi-nested PCR, ultrastructural examination of the uterus and inoculated tissue culture cells, and negative-stain electron microscopy of tissue culture supernatant. Viral particles measuring 70 to 95 nm were detected in uterine epithelial and endothelial cells by electron microscopy. Bacteria including Arcanobacterium pyogenes, Escherichia coli, and an α-Streptococcus isolate were cultured from all uteri. Bovine herpesvirus-4-associated endometritis has been reported sporadically in Europe but has not been previously reported in the United States. Endometritis associated with BHV-4 appears to be an emerging syndrome in dairy herds in Georgia.

Submitted by Dr. Craig Smith
Journal of Veterinary Diagnostic Investigation

Bovine Embryo Transfer Workshop for Veterinarians
April 5-7, 2002

The objective is to provide the veterinarian with practical, hands-on exposure to the application of embryo transfer in cattle. A brief review of the physiology and endocrinology of the bovine estrous cycle will precede the discussion of superovulation and synchronization of ovulation of donor and recipient animals. Nonsurgical embryo recovery techniques, as well as nonsurgical transfer methods, including direct transfer, will be illustrated and demonstrated. Freezing and thawing of embryos will be discussed and demonstrated.

Two-thirds of the workshop will be devoted to laboratory time where participants will practice recovery techniques on live dairy cows, manipulate ova and embryos under the microscope and practice freezing and thawing embryos. Participants will be provided with a training manual which contains a set of exercises, list of equipment and supplies needed, as well as treatment schedules. Enrollment will be limited to 20 veterinarians.

Workshop coordinator: Maarten Drosten, DVM
To be held at: The University of Florida Veterinary Teaching Hospital

Fee: $500
E-mail: drosten@ufl.edu

For further information on registration contact:
Theresa Moody
Bovine Embryo Transfer Workshop
College of Veterinary Medicine
PO Box 100136
Gainesville, FL 32610-0136
Phone (352) 392-4700, ext. 5609
Fax (352) 392-8289
E-mail: moodyt@mail.vetmed.ufl.edu

Embryocentral.com is Up and Running

BLOOMFIELD, NY - A new web site of interest to dairy producers is now online. Effective immediately dairy producers can buy and sell embryos online, www.embryocentral.com is a searchable database of Holstein embryos. Dairy producers looking to add high genetic potential offspring to their herd now have an online source to acquire reasonably priced embryos.

There currently are over 500 embryos available and this number will increase significantly as more breeders post embryos. Visitors are able to sort the databases by sire or breeder/seller. After they select the sire or breeder, they will be taken to a page with a summary listing of all embryo lots that meet the criteria. They will then be able to link to a page with details providing production, genetic indexes and classification information of the donor. Quality level and freezing method is also listed. Complete contact information of the seller, address, phone number, e-mail address and links to the seller's website if they have one is provided.

Embryos are ideal for selling on the internet due to the ease of shipping them worldwide. Countries dealing with hoof and mouth disease will need to repopulate their cattle population and will be looking for embryos to buy. Domestically, dairy producers concerned with bio-security can add new genetics to their herds. Embryocentral.com will be the web site that these producers can turn to source embryos.

Breeders with embryos available should consider listing their embryos for sale. There is a special introductory fee for listing embryos of $25 for the first six months. After paying this fee, the breeder can list as many embryos as he wishes.

Embryocentral.com is a subsidiary of www.holsteincentral.com, a company that provides website design, construction, maintenance and hosting along with bulk e-mail services.

Thank You

The following letter was received from Dean Lance E. Perryman, DVM, PhD, Colorado State University, College of Veterinary Medicine and Biomedical Sciences, Fort Collins, Colorado.

Dear Sir or Madam:

I want you to know how much your support means to the people, programs and research at Colorado State University. Without private donations much of what we do would not be possible.

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