

## Robert E. Taylor Memorial Symposium

Dr. "Bob" Taylor was a member of the Colorado State University Animal Science Faculty for many years. His work at CSU had a great impact on seedstock and commercial cattle producers—as well as the students he influenced. This symposium is held in his honor every other year to provide the industry with current, research-based information for improving profitability in the beef cattle industry.

## Applied Reproductive Strategies in Beef Cattle

The pattern for this program was developed under the direction of the Beef Cattle Reproduction Task Force with the first workshop held in 2002 in Manhattan, Kansas. Since that time there have been nine workshops held in several locations across the United States. The purpose of this program is to provide beef industry professionals the most up-to-date information of cattle reproductive management and to synthesize research findings into application.



Incorporation of high-quality genetic material in commercial beef herds is facilitated by use of artificial insemination.

**Colorado State University**  
*invites you to attend the*  
*Robert E. Taylor*  
*Memorial Symposium 2008*

## **Applied Reproductive Strategies in Beef Cattle**

*Fort Collins, Colorado*  
*December 2-3, 2008*

**Hilton Fort Collins**  
425 West Prospect Avenue  
970-482-2626

**Conference Website**  
[www.CSUBeef.com](http://www.CSUBeef.com)

### **Trade Show Booths**

A tradeshow of industry participants and sponsors will be set up throughout the conference. To register your booth, contact Roger Ellis at Colorado State University, 970-980-9596 or [RWellis@ColoState.Edu](mailto:RWellis@ColoState.Edu)

For more information contact:  
Nancy Weiss: 970-491-7604  
[NWeiss@ColoState.Edu](mailto:NWeiss@ColoState.Edu)  
Jack Whittier: 970-491-6233  
[Jack.Whittier@ColoState.Edu](mailto:Jack.Whittier@ColoState.Edu)

**Colorado  
State  
University**

### **Did You Know....**

- Artificial Insemination (AI) was the first great biotechnology applied to improve reproduction and genetics of farm animals.
- Undocumented tales exist of Arabs obtaining sperm from mated mares belonging to rival groups and using the sperm to inseminate their own mares.
- Leeuwenhoek (1678) and his assistant, Hamm, were the first persons to see sperm, which they called "animalcules."
- The first successful [artificial] insemination was performed by Spallanzani (1784) in a dog, which whelped three pups 62 d later.
- Pioneering efforts to establish AI as a practical procedure were begun in Russia in 1899 by Ivanow.
- Danish veterinarians established the method of rectovaginal fixation of the cervix, allowing semen to be deposited deeply into the cervix or into the body of the uterus. This technique provided a tremendous advantage because fewer sperm were required for insemination of each cow.
- While the geneticists were making breakthroughs on sire selection, an astounding achievement was reported from England (Polge et al., 1949), the successful freezing of chicken sperm by including glycerol.
- The classic rule referred to as the A.M. to P.M. and P.M. to A.M. system for insemination was established by Trimmer (1948). It was based on observation, palpation of the ovaries, and breeding data.
- One of the most dramatic technical advances in recent years is the sexing of sperm by DNA quantification using flow cytometry instrumentation developed at Livermore Laboratories (Gledhill, 1985) and improved since (Johnson and Seidel, 1999).
- The knowledge gained from the AI experience was extremely helpful in stepwise development of each successive reproductive technology, such as frozen semen, superovulation, embryo transfer, and, eventually, cloning.

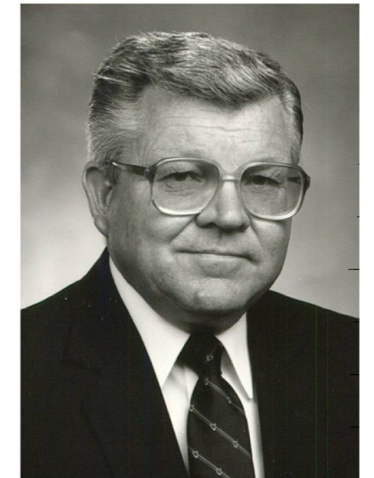
From: R. H. Foote *J Anim Sci* 2002. 80:1-10  
**The History of Artificial Insemination: Selected notes and notables**

*Colorado State University and  
the Beef Cattle Reproduction  
Task Force Present:*

*Robert E. Taylor*  
*Memorial Symposium 2008*

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Dr. Robert E. Taylor

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## Registration Information

Register for the symposium and make lodging reservations Online At:  
[www.CSUSBeef.com](http://www.CSUSBeef.com)

Credit Card Payments Accepted Online Only

### To Pay By Check:

Participant Information (please type or print legibly)

First Name, Last Name: \_\_\_\_\_

First Name, Last Name: \_\_\_\_\_

First Name, Last Name: \_\_\_\_\_

First Name, Last Name: \_\_\_\_\_

Organization: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_

Contact Email: \_\_\_\_\_

ADA Accommodations Required: \_\_\_\_\_

\_\_\_\_\_

**Registration Prior to 11/17/08 \$150 pp**

**Student Registration Prior to 11/17/08 \$75 pp**

**All Registrations After 11/17/08 \$200 pp**

**TOTAL ENCLOSED:** \_\_\_\_\_

All registrants will receive a CD containing the conference proceedings. Hard copy proceedings are available by order for \$25.

Send this form and check to:

Office of Conference Services  
Colorado State University  
Attn: Applied Repro Strategies 2008  
8037 Campus Delivery  
Fort Collins, CO 80523-8037  
Phone: 970-491-7501

Cancellations or changes resulting in a refund must be received by 11/17/2008 and are subject to a \$30 administrative fee. After 11/17/2008 registration fees are non-refundable. Refunds will be processed after the event. No refunds will be made for no-shows. Substitutions are permitted. A returned check fee of \$17 will be assessed for all returned checks.

**A block of rooms is being held at the Hilton Fort Collins at special symposium rates until October 23, 2008. Contact the Hilton at 970-482-2626 or online at CSUSBeef.Com and ask for the Applied Reproductive Strategies block.**

## Symposium Program

### Tuesday, December 2, 2008

7:00 Exhibitor Hall Open (and throughout program)

#### Estrus Synchronization

**Moderator: Jim Lauderdale, Lauderdale Enterprises**

8:00 Welcome – Dr. Lance Perryman, Dean, College of Veterinary Medicine, Colorado State University

8:10 Setting the stage: Where we've been and where we are today  
Jim Lauderdale, Lauderdale Enterprises

8:30 Physiological principals of the estrous cycle  
Mike Smith, University of Missouri

9:10 Understanding postpartum anestrus and puberty  
Jack Whittier, Colorado State University

9:45 Break

10:15 Synchronization protocols for heifers  
Dave Patterson, University of Missouri

10:45 Synchronization protocols for cows  
Cliff Lamb, University of Florida

11:15 Protocol sheets / Estrus synchronization planner  
Sandy Johnson, Kansas State University  
Research and Extension

11:45 **Remembering Roy Wallace's impact on our business** – Jim Lauderdale

11:50 Questions and Answers

12:15 Lunch

#### Management and Nutrition

**Moderator-Larry Rowden ABS**

1:15 **Bob Taylor- A Legacy to Remember** - Tom Field, NCBA

1:30 **Keynote Address:** Reality Check: If AI is so good, why are we challenged with its use in commercial beef operations?  
Ivan Rush, University of Nebraska

2:20 Management factors influencing fertility in synchronized and natural breeding programs  
George Perry, South Dakota State University

2:50 Break

3:20 Nutritional influences on reproduction  
Rick Funston, University of Nebraska

4:00 Questions and Answers

4:15 Producer Panel discussion:  
**Moderator: Willie Altenberg, Genex**

How we are implementing an AI program on our operation and what are the benefits?

- Carl Hansen, Hansen Ranch, Livermore, Colorado
- Kevin Miller, Croissant Red Angus, Briggsdale, Colorado
- Laura Teague, Teague Diversified, Fort Morgan, Colorado

5:30 Reception and informal speaker discussion in Trade Show Area with light hors d'vours.

6:30 Dinner on your own

### Wednesday, December 3, 2008

7:00 Exhibitor Hall Open

#### Fertility Related Factors

**Moderator: Aaron Arnett, Select Sires**

8:00 Genetic selection for fertility and performance  
Denny Crews, Colorado State University

8:40 Insemination related factors affecting fertilization in estrus-synchronized cattle  
Richard Saacke, Professor Emeritus, Virginia Polytechnic Institute

9:20 Industry application of technology in male reproduction  
Jim Graham, Colorado State University

9:55 Break

10:25 Using Natural Service: Bull management considerations  
Roger Ellis, Colorado State University

11:05 Marketing advantages for calves with performance and source information  
Casey Gabel, Analyst, CattleFax

11:40 Questions and Answers

12:00 Lunch

#### Advances and Health Related Issues

**Moderator: Don Trimmer, Accelerated Genetics**

1:00 New advancements in technology  
George Seidel, Colorado State University

1:35 Diseases of concern in reproduction: BVD and trichomoniasis  
Bob Mortimer, Colorado State University

2:10 High Mountain Disease: Why are we concerned about it with AI programs?  
Tim Holt, Colorado State University

2:40 What does the future look like for application of reproductive technology?  
Ronnie Green, Pfizer Animal Genetics

3:05 Remaining Questions

Adjourn

## Colorado State University

### *Continuing Education*

This symposium qualifies for Continuing Education Credit for veterinarians and professional animal scientists.

For More Details:  
Contact Dr. Roger Ellis,  
Colorado State University  
970-980-9596  
RWEllis@ColoState.Edu