

Repro Strategies

Montana hosts conference focused on applied reproductive strategies.

by Helen Redli

It was standing room only at The Perfect Place, located on the Briarwood Golf Course in Billings, Mont., where the Applied Reproductive Strategies in Beef Cattle conference was hosted Sept. 11-12.

The main objective of the conference was to improve attendees' understanding of the physiological processes of the estrous cycle, to make known the procedures available to synchronize estrus and ovulation, and to teach the proper application of those systems. An additional objective was to improve attendees' understanding of methods to assess male fertility and how it affects the success of artificial insemination (AI) programs.

During the course of two picture-perfect, warm and sunny Montana days, some 277 veterinarians, nutritionists, physiologists, Extension educators, AI specialists, professors, graduate students and cattle producers from around the country got together to hear the very latest ideas about synchronization programs, AI, embryo transfer (ET), bull fertility and more, including best management practices (BMPs) and how health and nutrition affect reproduction.

Where we are today

R.E. "Bob" Short and Robert "Bob" Bellows served as moderators during the first day of the conference. Both men are former physiologists who spent many years conducting research at the U.S. Department of Agriculture (USDA) Fort Keogh Livestock Range and Research Station in Miles City, Mont. Many speakers acknowledged the importance of the research done by "the two Bobs" and how their research has brought reproductive strategies to where they are today.

Conference topics included historical background about the development of reproductive science from the 1950s — when frozen bovine semen was first used for AI — to the present day, as follicular waves are managed, freezing and transferring embryos is commonplace, *in vitro* fertilization (IVF) is not uncommon, and cloning is the new frontier.

Presenters also provided information about the physiology of estrus synchronization, products and protocols for synchronization of cows and heifers, and factors influencing fertility, including nutrition, disease control, heifer development and breeding soundness in bulls. Other presenters talked about the future, including new reproductive

technologies, pregnancy verification and cattle marketing with source verification.

One subject that came up time after time was the importance of achieving heterosis through crossbreeding. While crossbreeding results in carcass traits that are an average of the two breeds, production traits such as weaning and yearling weights trend higher, and maternal and reproductive traits like milk often increase above that of both parents.

The presentations were at times very technical and complex. Fortunately, each presentation concluded with a summary — the bottom line that producers could take away from the conference. Each registrant was provided with a copy of the proceedings in either book or CD format.

Attendees also received an estrus synchronization planner, in the format of a Microsoft Excel spreadsheet program, on CD. A copy of the estrus synchronization planner program can be purchased for \$25, plus \$10 shipping and handling. The order form and more information about the planner are available at www.iowabeefcenter.org/content/EstrusSynchPlannerBrochure.pdf, or you can contact the Iowa Beef Center at beefcenter@iastate.edu or 515-294-2332.

The conference concluded with a producer panel. Each panelist talked about the challenges they face in their operations. After a question-and-answer period with the panel, the conference was adjourned.

Copies of the proceedings can be purchased by sending \$25 to John Paterson, Montana State University, P.O. Box 172820, Bozeman, MT 59717-2820.

Behind the scenes

Attendees ranging in age from 11 years old to "don't ask" benefited from the conference, which offered continuing education (CE) credits.

The conference was sponsored by the Montana State University (MSU) Extension Service and the multi-state Extension activity known as the Beef Reproduction Task Force. The task force is made up of specialists from Iowa State University, Kansas State University, South Dakota State University, the University of Illinois, the University of



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Minnesota, the University of Missouri, the University of Nebraska-Lincoln (UNL), and Virginia Tech, working in cooperation with the North Central Agriculture and Natural Resources Program Leaders Committee, and the Cooperative State Research, Education and Extension Service.

The conference moves around the country to allow producers from different regions to attend. In 2006 the conference was in Rapid City, S.D. When each area conference is planned, the agenda is set to reflect the concerns and conditions of the region.

Rick Funston, UNL assistant professor of animal science and Extension reproductive physiologist, and John Paterson, MSU-Bozeman professor of animal science and beef specialist, led the push to bring the 2007 conference to Montana. Paterson lined up the speakers and assigned the topics for their presentations, and Funston put together the printed version of the conference proceedings.

Funston, Paterson and his "team," consisting of Mo Harbac, Anita Gray, Andy Kellom, Ryan Clark and Lindsey Wallace, started to pull the details of the conference together back in January. During the course of numerous conference calls they identified conference topics, set the agenda and contacted potential sponsors. They found and reserved the venue and arranged the catering for snacks and meals. The team also put together the CD version of the proceedings and handled the registrations. In addition, they worked with the Montana Veterinary Association to qualify the conference to be worth 14 CE credits.

