

2-1-2003

Cowboy Obstetrics--A Calving Primer

James N. Hawkins

University of Idaho Cooperative Extension System, jhawkins@uidaho.edu

William A. Zollinger

Oregon State University Cooperative Extension System, zollingw@ccmail.orst.edu

Shannon K. Williams

University of Idaho Cooperative Extension System, shannonw@uidaho.edu



This work is licensed under a [Creative Commons Attribution-Noncommercial-Share Alike 4.0 License](https://creativecommons.org/licenses/by-nc-sa/4.0/).

Recommended Citation

Hawkins, J. N., Zollinger, W. A., & Williams, S. K. (2003). Cowboy Obstetrics--A Calving Primer. *The Journal of Extension*, 41(1), Article 25. <https://tigerprints.clemson.edu/joe/vol41/iss1/25>

This Tools of the Trade is brought to you for free and open access by the Conferences at TigerPrints. It has been accepted for inclusion in The Journal of Extension by an authorized editor of TigerPrints. For more information, please contact kokeefe@clemson.edu.



February 2003 // Volume 41 // Number 1 // Tools of the Trade // 1TOT6



PREVIOUS
ARTICLE



ISSUE
CONTENTS

Cowboy Obstetrics--A Calving Primer

Abstract

Dystocia plagues cattle producers throughout Idaho. A team of Extension educators and specialists designed a curriculum and conducted calving schools to teach dystocia management principles and demonstrate methods to reduce stress during birth and enhance the potential for calf survival. Over 300 ranchers and ranch employees attended the intensive, 1-day schools. Pre- and post-tests showed a 47 to 58% increase in attendees' knowledge about dystocia and dystocia management practices. Follow-up telephone surveys conducted 9 months later indicated attendees retained at least a portion of the information taught and saved an average of 1.6 calves per ranch.

James N. Hawkins

Custer County Agricultural Extension Agent
University of Idaho Cooperative Extension System
Challis, Idaho
Internet Address: jhawkins@uidaho.edu

William A. Zollinger

Extension Beef Specialist
Oregon State University Cooperative Extension System Corvallis, Oregon
Internet Address: zollingw@cmail.orst.edu

Shannon K. Williams

Lemhi County Agricultural Extension Agent
University of Idaho Cooperative Extension System
Salmon, Idaho
Internet Address: shannonw@uidaho.edu

Background and Educational Objectives

Dystocia or difficult births continues to plague cattle producers in central Idaho. Replacement heifers account for the majority of the difficult births, but older cows are not immune. Producers are buying low birth weight bulls, and some are developing replacement heifers to achieve 85% of their mature weight before calving (Zollinger & Carr, 2000). These practices can help alleviate dystocia--but will not eliminate it.

The death of the calf at birth costs dollars that are easy to measure. Difficult births that delay the time to birth are "hidden" costs (Doornbos, Bellows, Burfening, & Knapp, 1984). Difficult births produce calves with a lower immune system response (Bulgin, Lune, & Anderson, 2000), making them more susceptible to disease. Sick calves cost dollars in medical expenses and losses in productivity and may even die.

In addition, the cow is slower to return to estrus (up to 14% longer in one study). The chances for uterine infections are higher, conception rate can be reduced by 16% or more (Funston & Geary, 1999), or the cow can be open. Combined or separately, these factors lengthen future calving seasons and lower weaning weights, and "new" genetics can be lost to the herd. Lighter calves and/or less uniformity in the calf crop can lower gross income. These are some of the "hidden" costs that a producer cannot measure readily.

Through a calving school, producers, even experienced calvers, could learn more about recognizing when labor has started, plus how and when to help with the birthing process. As a result, producers could minimize the hidden costs of dystocia and thus improve their bottom line.

Activities

Four calving schools, Cowboy Obstetrics--A Calving Primer, were held in 2000 and one in 2001. These schools were designed to achieve the following goals:

1. Reduce the stress of birth such that a live, viable calf is born, and
2. Demonstrate skills and management principles that enhance the survival of all calves, whether born naturally or with assistance.

The curriculum included a major section on review and training for handling abnormal and/or difficult births, which was originally developed by Bill Zollinger, Oregon State University Beef Cattle Specialist. Other sections covered disease diagnosis and the proper collection of samples for laboratory diagnosis, expected progeny differences, birth weight effects on calving difficulties, and Beef Quality Assurance.

An integrated team of specialists, veterinarians, and county agents taught the program. Sponsors included the local cattle associations, the Idaho Beef Council, and the University of Idaho Cooperative Extension System.

Methods, Results, Evaluation, and Impact

More than 300 people, representing approximately 175 ranches, attended the 1-day schools. Calving expertise ran the gamut from little or no experience to producers who had calved thousands of cows.

To measure knowledge gained at the calving schools, we gave a pre-test before the school got underway. The test was designed to measure the effectiveness of teaching methods, as well as subject matter knowledge. In 2000, producers answered only 35% of the questions correctly; in 2001, producers did somewhat better, answering 46% of the questions correctly. We found that both years, calving experience did not necessarily equate to knowledge about dystocia and dystocia management.

A post-test was given at the conclusion of the calving school. Although the questions were framed differently, the same information was sought as in the pre-test. Producers in both years answered 93% of the post-test questions correctly. Although no pattern could be found to indicate where program delivery might be strengthened, it was concluded that the teaching methods were appropriate and that the message did indeed get across.

Retention and adoption of practices taught were evaluated by conducting phone interviews with producers 9 months after the calving school. Each producer contacted was asked the same five questions. The questions covered what they had learned, new practices adopted, the number of heifers calved, calves saved as the result of the school, and what else they would like to know more about. Each of the 175 ranches represented at the calving school was called three times, with 105 successful contacts made.

Every producer contacted indicated that he or she had learned something "new" at the calving school. In addition, all producers surveyed could articulate at least one "new" thing they had adopted from the school. No attempt was made to determine the level of experience of those contacted. However, an attempt was made to get a feel for the number of cattle producers owned by asking them how many heifers were calved. The range was 1 to 1500 head. The average number of heifers calved was 65. By inference, our school affected approximately 71,100 cows, if the average replacement rate is 16% for the 175 ranches.

The survey data revealed that producers saved an average of 1.6 additional calves per outfit as a direct result of what they learned at the calving schools. The producers in the survey also indicated that the knowledge gained would help them save more calves in the future.

Economic Impact

The economic benefit of the calving schools can be calculated as follows. The average weaning weight for steer calves is 575 lb. and 550 for heifer calves in Custer and Lemhi Counties. Local producers' calves of this weight brought \$1.12 per pound for steers and \$1.06 for heifers in June on the video auction in both 2000 and 2001. Thus, saving 1.6 calves on each of the 175 ranches participating in the schools potentially generated an additional \$171,780 in revenue. Not bad for a 5 days of training.

References

Bulgin, M.S., Lune, M., & Anderson, B.C. (2000). Prevention of baby calf diseases. (CL648-2) Cow/Calf Management Library.

Doornbos, D.E., Bellows, R.A., Burfening, P.J., & Knapp, B.W. (1984). Effects of dam age, parturition nutrition, and duration of labor on productivity and postpartum reproduction in beef females. *J. Anim. Sci.* 59:1.

Funston, R., & Geary, T. (1999). Rebreeding the first-calf heifer. (CL413-2) Cow/Calf Management Library.

Zollinger, W.A., & Carr, J. (2000). How to select, grow, and manage replacement heifers. (CL745-1-5). Cow/Calf Management Library.

Copyright © by Extension Journal, Inc. ISSN 1077-5315. Articles appearing in the Journal become the property of the Journal. Single copies of articles may be reproduced in electronic or print form for use in educational or training activities. Inclusion of articles in other publications, electronic sources, or systematic large-scale distribution may be done only with prior electronic or written permission of the [Journal Editorial Office](#), joe-ed@joe.org.

If you have difficulties viewing or printing this page, please contact [JOE Technical Support](#)