

# Factors Affecting Breeding Success

8:30 a.m. session, Wednesday, Dec. 7, 2005

Presenter: George Perry, South Dakota State University

RAPID CITY, SOUTH DAKOTA (Dec. 7, 2005) — At the 2005 Range Beef Cow Symposium, George Perry from South Dakota State University (SDSU) discussed management factors affecting breeding success.

“Reproductive failure costs the beef and dairy industries over \$1 billion annually,” Perry said. The major place for error, he explained, is in cows not getting pregnant — fertility problems. Perry spent time discussing the advantages and disadvantages of artificial insemination (AI) and natural service, as well as management tips and possible problems for each.

Aling cows is a popular choice, he said, partly because there is a reliable source of quality semen. “The limitation is, you have to get out and detect estrus,” he noted. One solution for that problem is estrus synchronization.

Perry compared the benefits of synchronizing to not synchronizing, and pointed out that some benefits only appear within certain time windows. In most cases, he said, if calves are bringing 50¢ per pound (lb.), 41 lb. will pay for synchronization protocols, and everything else is profit. He also emphasized the importance of following protocols exactly — not just regarding synchronization, but also regarding all other management decisions.

Perry then discussed the pros and cons of using natural service. He began by noting that a study of cows bred AI and natural service showed no difference in pregnancy rates between the two measures — if the bull used in natural service was healthy and fertile. To judge a bull’s fertility, Perry said a breeding soundness exam (also referred to as a BSE) is an absolute necessity.

A breeding soundness exam measures three main things about the bull in question: physical health, scrotal circumference and semen quality. Perry emphasized the importance of a bull’s physical health in breeding cows. “Especially in range situations, vision is very important,” he said, since many bulls detect cows in estrus by watching cows mount one another.

Structure is also crucial, he noted. “That bull needs to be physically able ... to mount the cow.”



SDSU’s George Perry discussed the pros and cons of natural vs. AI breeding. [PHOTO BY LYNN GORDON]

Semen quality, measured through both volume and semen motility, is also a necessity. “Just collecting the semen is not enough to know how well that bull can breed,” Perry said. If sperm are not moving forward, they can’t get the job done.

Other issues producers should consider when deciding which bull to use include service capacity and social dominance. How many cows will that bull be able to breed? Perry suggested producers carefully consider bull-to-cow ratios. If running several bulls in one pasture, does one bull dominate the others? In a multi-sire pasture, up to 90% of the cows can be bred by only one bull (if running several bulls) if that bull is dominant, Perry said. If the dominant bull is not fertile, pregnancy rates can drop dramatically.

Perry closed by noting the huge amount of information available on the topic of factors affecting breeding management, and encouraged listeners to seek further information.

— by Brooke Byrd, assistant editor, Angus Productions Inc.  
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