

The Value of Artificial Insemination in Beef Cattle

Artificial insemination (AI) is one of the most effective tools available to cattle producers to improve productivity and profitability of their cattle operation. Artificial insemination has been commercially available for more than 65 years and utilized very effectively in the dairy industry. However, it is underutilized in the U.S. beef herds. Less than 10 percent of the nation's beef cows are bred using AI, with the majority of these breedings taking place in the seedstock and club calf sectors.

AI is not just for purebred breeders, but it has many benefits for the commercial cattle producer. The advantages of using AI are numerous and well documented. Some of them include:

- the ability to use sires of superior genetic merit (the best bulls of the breed);
- improving production traits in cattle operation;
- the ability to mate specific sires to individual cows;
- reducing the number of herd bulls needed in cattle operation;
- increased genetics for replacement heifers; and
- when combined with estrous synchronization, a shorter calving season can be achieved, resulting in a more consistent, uniform calf crop.

For the commercial cattleman, this could mean increased weaning weights, improved post-weaning performance, enhanced carcass value and more productive replacement heifers.

Producers have several arguments against AI programs. They are a lack of time, additional labor and the cost of implementing a program. Typically, an AI program would require more intensive management of the cowherd. To be successful, a producer should have a sound nutrition program (cows in good body condition), good records, an effective herd health program, adequate working facilities, accurate estrus detection and a well-trained AI technician. Poor management in one or more of these areas could result in lower success rates.

In the past, the greatest demand on time and labor came from "heat" detection. However, new estrous synchronization protocols allow producers to successfully inseminate cows at a predetermined, fixed time, resulting in pregnancy rates similar to those achieved with estrus detection. This eliminates the need to "heat" detect.

The cost of implementing an AI program can be variable, depending on the method of estrous synchronization used, cost of semen and whether an AI technician is hired or the producer performs the inseminations. Recent studies indicate that several estrous synchronization/AI programs cost less than natural service, especially with the increased costs of bull replacement and bull maintenance.

If you are ready to take the next step in improving the quality of your herd, I want to encourage you to consider implementing an AI program in your cowherd. For those producers that are interested in learning how to artificially inseminate cattle, an AI school will be held at Kingsville

Livestock Auction (Kingsville, MO) on May 3-5, 2012. The AI school will provide you and opportunity to learn the technique to inseminate cows, properly handle semen and learn about the many different estrous synchronization protocols. For more information, contact David Hoffman, MU Extension livestock Specialist at 816-380-8460 or hoffmand@missouri.edu.