

Proceedings, Applied Reproductive Strategies in Beef Cattle
December 2 and 3, 2008, Fort Collins, CO

Producer Panel Discussion:

Implementing an AI Program and the Benefits —

Moderator: Willie Altenberg, Genex

Panelists:

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

Hanson Ranches

Carl Hanson

We operate a commercial cow calf ranch based in Livermore Colorado with a summer grass ranch in the Grover Colorado area. Our ranch has been family owned and operated since the early 1940's. Myself and my family along with my mother and father, my brother and sister and their families are all involved in the operation today. We run a mixture of Black Angus and Black Angus/Black Gelbvieh cross cattle. We have a heifer AI program along with our cow AI program. About one half of our herd is bred natural to Black Gelbvieh bulls. We raise all of our own replacement heifers that are selected mainly out of the AI programs. All of our calves, both AI and natural bred are marketed and sold together right off the cow in early October. My presentation will focus on using MGA synchronization in our cow AI program.

Croissant Red Angus AI Program

Kevin Miller

Croissant Red Angus is a family owned and operated purebred Red Angus cattle operation in Briggsdale, Colorado. Our goal is to produce the best possible seedstock in a commercial production environment without excess feeding and pampering. We use proven AI sires, manage our cattle in large single herd contemporary groups, and collect all data from birth to harvest, providing the best described seedstock possible. We manage about 250 head of females, depending on precipitation, on approximately 10,000 acres of pasture land. In addition to the cow operation we also have a small feedyard that we use to develop heifers and bulls, and feed to finish our steers and heifers, plus

additional purchased Red Angus influenced feeder cattle. Yearling bulls and a select set of heifers will be sold in our annual production sale in March each year. Croissant Red Angus has focused on economically relevant traits, such as reproductive traits, maintenance energy, and carcass quality.

Using artificial insemination (AI) coupled with a complementary mating system has allowed us to make more genetic progress than we could using natural service sires only. Finances are a big driving factor in this decision. We would all like to have the number one bull that sold for \$100,000, but that is not a feasible decision in the industry that we operate in. No one bull can make genetic progress in all traits. It takes about four sires to accomplish a complementary mating plan for a herd of cows when all four trait groups are taken into account, maternals, growth, maintenance, and carcass.

Our AI program revolves around three things: labor, nutrition, and economic return. We utilize the 19 day MGA protocol on our yearling heifers and the CIDR protocol on our cows. Heat detection is performed morning, noon, and night, on both groups during the AI protocols. Heat detection on the heifers will continue for 96 hours post prostaglandin. The females are bred according to the AM/PM rule. Historically, we will achieve a 70% first service conception rate. The breeding season for the cows begins during calving season. Labor becomes an issue when you begin the breeding season. To offset lengthening the duration each time the cows are processed, we pair the cows out into 70 head groups. A 45 day post-partum interval is set to allow for the best probability of success to AI. Three groups of cows will be generated by this management criterion. This allows three of us to process cows in a timely manner. The goal is to process cattle in less than two hours. We will record start and finish times at CIDR removal to plan the optimal time for mass mating, those females that did not exhibit estrus, at 72 hours post removal. We have been able to achieve a 62% conception rate with this protocol. Natural service sires are turned out with the females 10 days after each respective AI protocol for 40 days. This will result in a 50 day breeding season. To allow for easier sire identification at calving, each turn out group will only have one natural service sire.

Nutrition is a big contributing factor to the success of our AI program. It is important for the females to be on an increasing plane of nutrition. This may be achieved through green grass or better quality harvested forages. In the Croissant Red Angus program, heifers are in the feedyard on a development ration from December through April. They will be fed a high roughage total mixed ration balanced for targeting a gain of 1.25 to 1.5 lb/hd/d before breeding. The nutrition program allows the heifers to achieve 65% of mature body weight at breeding time. Cows are on pasture with supplemental harvested forages, typically millet, sudex, and alfalfa. A month prior to breeding, cows are provided with Purina's Accuration[®], cows' intake approximately 2 lb/hd/d. This will increase the protein and energy intake levels, which allows us to feed lower quality roughages and increase the forage utilization.

We consider AI as an investment into the future. As we look at the cost associated with each AI pregnancy, heifer or cow pregnancy will cost \$46 and \$71, respectively. These cost will include all the pharmaceutical products, \$20 semen, labor, and misc. items (gloves, sheathes, lube, etc.). Bulls that are sired by high accuracy sires will return \$500 more over the average of all the bulls in our production sale. The genetic value on the female side is difficult to quantify, but the females that have longevity in the herd are mostly AI sired.

Teague Diversified, Inc.

Laura Teague

Laura Teague and her family own approximately 2500 mother cows which are managed on 2 ranches in Valentine and Atkinson, NE, and approximately 500 cows on a Fort Morgan, CO ranch. They also develop approximately 2500 heifers each year for themselves and other producers, as well as breed approximately 5000 heifers by artificial insemination on ranches in Wyoming, Utah, and Montana for producers who have developed their own heifers on their respective ranches. The Colorado cowherd includes a seedstock Angus herd, which is utilized to produce bulls for the commercial herds in Colorado and Nebraska.

The cows in NE are managed on an extensive natural resource management program, which makes the use of artificial insemination a great challenge. The cows and heifers managed in Colorado are managed on a much more intensive basis, which makes artificial insemination a useful and important management tool. In summary, the Teagues incorporate artificial insemination into their production schemes as much as possible without affecting the use of the natural resources of their ranches.