

ESTRUS SYNCHRONIZATION AND AI IN BEEF CATTLE

An Advanced Master Cattleman Program

Introduction

Even though most producers would agree that estrus synchronization and AI enables producers to use genetics superior to available natural service sires, less than 5% of the national beef cow herd is artificially inseminated (AI) each year. The widespread use of estrus synchronization and AI (ESAI) has been limited due to the lack of consistent performance of most current estrus synchronization protocols, cost, and additional labor, facilities and management skills. Although not widely used, the potential for ESAI to improve production efficiency and profitability is enormous. Estrus synchronization combined with AI allows producers to use genetically superior sires, increase the proportion of cows that calve earlier in the breeding season, increase uniformity of the calf crop, increase weaning weights, and increase profits. Adoption of ESAI will enable producers to better compete in the market place, especially as the industry moves closer to value-based marketing. The challenge, then, is to identify the economic advantages of ESAI. This class will help producers understand the biology of ES, increase their knowledge of estrus synchronization protocols, enable them to determine and implement a ESAI protocol that will work on their farm, and will introduce the participants to the procedure of AI.

Course Outline

This Advanced Master Cattleman course is designed to coincide with a “Economic Advantages of Estrus Synchronization and AI” demonstration project but is adaptable to a lecture-only format. The course will consist of 3-4 lectures and 5 hands-on laboratories. The course will begin with lectures explaining the biology of the estrous cycle, products used to control the expression of estrus, and current methods to synchronize a fertile estrus. This lecture totals about 6 hours so can be divided into 2 lectures. The course will then move to a farm. Producers will participate in three labs and will learn how to administer an estrus synchronization protocol. The third lab will demonstrate AI. All producers are expected to participate. The fourth lab will occur when pregnancy is determined in the cows. Participants are encouraged to learn the basics of pregnancy diagnosis. The final lab session will occur when the calves born from this system are weaned. Weaning weight will be determined and compared to cows that were not treated. The final lecture session will discuss the results of the course/trial and will compare the results of this trial with the other trials conducted throughout the state. This final lecture could be in a field-day format instead of an organized lecture.

Requirements

- 25 participants
- At least one herd committed to the Economic Advantages of Estrus Synchronization and AI Demonstration Project.
- Agent responsible for organizing ALL local events including the farm visits
- The specialist will likely NOT be at all farm demonstrations and may not participate in weighing the calves.

Specialist Provides

- Lectures
- Synchronization drugs (as per the Demo Project)
- Data analysis and organization
- Other support