

## Program Focuses on Genetic Benefits of Artificial Insemination and Improved Pregnancy Rates

- In breeding cattle, the choice of livestock—or semen for artificial insemination (AI)—is one of the most important decisions a cow-calf producer makes in producing quality calves.
- Following the breeding season, proper pregnancy determination methods allow producers to implement reproductive management options in their herds, including culling sterile and/or subfertile females, managing the calving season, creating uniform calf crops, and managing the herd during drought.

## AgriLife Extension's Response

- The Texas A&M AgriLife Extension Service's four-day Artificial Insemination and Pregnancy Determination Schools train individuals to properly handle and use artificial insemination (AI) equipment and frozen semen. They also teach practical artificial insemination techniques and methods for determining pregnancy via palpation on live cattle.
- Each clinic also provides education and hands-on training for many core management practices, including (1) anatomy

and physiology of reproduction, (2) estrus detection and synchronization, (3) proper equipment and semen handling, (4) reproductive management and herd health, and (5) sire evaluation, selection, and expected progeny differences (EPDs).

- Since the program began, the AI and pregnancy determination schools have trained more than 3,000 cow-calf producers and other industry personnel.

## Economic Impacts

- The economic benefits of the Artificial Insemination and Pregnancy Determination Schools were measured in terms of the potential increase in net returns resulting from the adoption and implementation of selected beef cattle management practices.
- Program evaluation results indicate an estimated increase in net returns of \$67.32 per head of cattle associated with using AI practices. For the 18,170 head of cattle managed by 224 participants in 2019, the economic benefit for those adopting AI practices was \$540,500.
- For the 300,000 head of cattle managed by all program participants since the program's inception, the total increase in net returns is an estimated \$7.3 million.

