

? Problem 6.3.3 Synchronizing Estrus for Profit**Purpose**

Producers manage the reproductive cycle of their animals for several reasons. In the racehorse industry, cycles are managed to better control birth dates because foals born in a calendar year are considered to be the same age. Thus, a foal born in December would have to compete with foals born the previous January – nearly a full year older. In market animals, producers manipulate estrus to breed most of the herd at the same time to sell larger lots of similar aged animals.

Depending upon the type of breeding system used and the reason for manipulating estrous, producers can increase profitability in their industry by controlling their species breeding. Several challenges face breeders when synchronizing estrous. Some animals are seasonally polyestrous and only breed during certain times of the year. Some estrous cycles are dependent on photoperiod or length of day so artificial daylight must be provided. How do producers manipulate estrous in the dairy or beef cattle industry? What reasons would meat goat producers have to manipulate estrous?

Materials**Per pair of students:**

- Computer with Internet access
- *Modern Livestock and Poultry Production* textbook
- Agriscience Library
- Pencil
- *Agriscience Notebook*

Procedure

You and your partner will choose an industry that synchronizes estrous for profitability. You will determine protocols of synchronizing estrous for your chosen industry. You have these primary concerns taking on this venture.

- What purpose does estrous synchronization serve in your chosen industry?
- What type of breeding system are you using?
- What are the protocols for synchronizing estrous for your animal?
- How to prepare the herd for breeding.
- When will you have to begin your manipulation protocols?
- What challenges you will face as a breeder?

You and your partner are to determine a breeding timeline and best management practices to manipulate the reproductive cycle of your herd.

When completed, follow your teacher's directions for submission of your solution.

Conclusion

1. What problems may arise by manipulating estrous in animals?

2. Based on what you know, is manipulation of the estrous cycle worthwhile? Why or why not?