

Livestock Reproduction and Breeding

Time : 4 Weeks

Objectives :

1. To analyze the hormones which affect the reproductive system of animals.
2. To examine the major parts and functions of the female and male reproductive system.
3. To discover the process of the fertilization of two gametes.
4. To learn how to set goals for a successful breeding program.
5. To learn about choosing and weighing traits in a breeding program.
6. To learn how to determine measurements in a breeding program.
7. To learn how to devise a strategy for selecting parents in a breeding program.
8. To analyze the process of reproductive technologies
9. To understand the different techniques associated with each species.
10. To explore the improvements available through artificial insemination, embryo transfer and cloning.

TEKS :

(6) The student applies the principles of reproduction and breeding to livestock improvement.

The student is expected to:

- (A) describe reproductive cycles and relate them to breeding systems;
 - (B) explain the embryo transfer process and how it can impact the livestock industries;
 - (C) recognize the significance of meiosis to sexual reproduction; and
 - (D) evaluate animal behavior and its relationship to livestock management.
- (12) The student recognizes policies and issues in animal science. The student is expected to:
- (A) discuss the impacts of biotechnology on the production of livestock such as cloning, artificial insemination, and freezing of semen and embryos;
 - (B) analyze the issues surrounding animal welfare and the humane treatment of livestock;
 - (C) apply principles of nutrition to maximize feed efficiency for livestock; and
 - (D) design, conduct, and complete research to solve a self-identified problem in scientific animal agriculture.

Notes :

1. Reproductive cycles related to breeding systems
2. Breeding Systems
3. Choosing a Breeding method
4. Embryo Transfer
5. Meiosis and Sexual Reproduction
6. Animal Behavior and Livestock Management related to reproduction and breeding

Videos :

1. Chickens Pecking Order
2. ICEV Videos : Livestock Reproduction 1-8

Assignments :

1. Basic Reproduction of animals vocab
2. Basic Reproduction of animals crossword puzzle
3. Livestock Breeding Vocab
4. Livestock Breeding Crossword Puzzle
5. Livestock Reproduction vocab
6. Livestock Reproduction video notes worksheet
7. Breeding Tables activity
8. Developing a breeding plan project
9. Pros and cons of various breeding methods
10. Cloning Flow Chart
11. Cloning Class Debate

Assessment :

1. Livestock Reproduction and Breeding (PPT, Gateway, ICEV : Basic Reproduction of Animals / Livestock Breeding Systems / Livestock Reproduction)

Resources :

1. [Estrus Detection in Farm Animals](#)
2. [Crossbreeding Systems for Cattle](#)
3. [Steps for Freezing Bovine Semen: From Semen Collection to the Liquid Nitrogen Tank](#)
4. [estrus synchronization](#)