185 Equine Reproduction and Genetics  Advanced Level

This advanced-level project is designed to be taken over a 3-year period. Members should build upon their knowledge, completing additional Interest Areas each time they take this project.

Members do not need to purchase a new book each year. Instead, they will need to complete additional interest areas. Keep all of these activities in a notebook.

Members must have access to a horse to complete this project.

General Guidelines
   a. Explore Interest Areas as outlined below, completing at least 2 Things to Do for each Lesson. Those with a check mark in front of them are mandatory. Note, county recommendations for completing Interest Areas and Things to Do (listed on the reverse) vary slightly from those printed in the project.
   b. Document all completed Things to Do in your project notebook (3 ring binder). This notebook should be cumulative and contain documentation of all completed Things to Do for each year of the project.
   c. Take part in at least two (2) Learning Experiences.
   d. Become involved in at least two (2) Leadership/Citizenship Activities.
   e. Write a one page report telling about what you have done and learned in this project.

2. Complete the Equine Record Book (R190).

3. Bring to Interview Judging:
   b. Project notebook.
   c. One page report.
   d. Equine Record Book.

4. Fair exhibit:
   a. For completion of this project, your horse may be exhibited at the Tuscarawas County Fair. If your horse is not exhibited, an educational display or 14” W x 22” H poster illustrating and describing some aspect of your project must be present in your club’s fair booth.
Equine Reproduction and Genetics Year One
- Complete the Equine Reproduction Section (pages 21-45)
  o The Mare
    ▪ Parts of the Ovary and related structures
    ▪ The Estrous Cycle
    ▪ Reproductive organs of the mare
  o The Stallion
    ▪ Reproductive tracts of the stallion
    ▪ Parts of the testicles
    ▪ Factors affecting sperm output
  o Breeding Recommendations
    ▪ Artificial insemination
    ▪ Preparation for breeding and breeding procedures
    ▪ Miscellaneous mare breeding problems

Equine Reproduction and Genetics Year Two
- Review all areas from Year One
- Complete the Mare and Foal Management Section (pages 45-55)
  o Brood mare management prior to foaling
  o The three stages of foaling
  o Post foaling mare problems
  o Post foaling foal problems
  o Lactation in mares
  o Foal growth and miscellaneous care

Equine Reproduction and Genetics Year Three
- Review all areas from Year One and Two
- Complete the Genetics Section (pages 56-70)
  o How genetics work
  o Terms
  o Qualitative traits
  o Quantitative traits
  o Factors that affect the rate of genetic progress
  o Interpreting pedigrees
  o Coat color inheritance