

Ideas for Beef Learning Activities

Intermediate Level

Need more ideas for your beef cattle project? There are hundreds of things you can do! This list is organized by topics that match the chapters in the 4-H *117R Beef Resource Handbook*. You are being asked to complete **at least five** activities each year. Use this list and your imagination, and then write your ideas in your Beef Project and Record Book. Have fun!

Selection

- Using a live animal or a picture, describe an ideal market steer, heifer, beef feeder, or dairy beef feeder using judging terms.
- Review and label the parts of the bovine skeletal system found in the *4-H 117R Beef Resource Handbook*.
- Assist a younger member in selecting a project animal.
- Work with your project helper to observe and discuss examples of conformation and structural soundness in your project animal.
- Help a new member learn to correctly identify 15-20 parts of a beef animal.
- Participate in a judging contest.
- Describe “frame score” and how it is used to evaluate animals.
- Prepare and deliver an illustrated talk to your 4-H club on the USDA Feeder Calf Grading System.
- Help club members learn the parts of a beef animal by playing a game: draw a beef heifer on a dry erase board or cardboard, then number the parts. Call out a number ask the 4-Hers in your club to name the numbered part.

Management Practices

- Describe what is meant by a preconditioned calf and why this practice might be beneficial.
- Describe how you could reduce the calf’s stress during weaning.
- Using a model, demonstrate how you would ear tag or tattoo a beef animal.
- Describe five methods used to identify cattle.
- Discuss the various records a beef producer should keep and why each is useful.
- Describe three types of bedding that can be used for cattle and the advantages or disadvantages of each.
- Describe how the space requirements change for your project animal from when you purchase the animal, the mid-point of the project, and the end of the project.
- Design a beef cattle finishing facility for 50-500 steers. Give dimensions of pens, placement of waterers and feed bunks, and provide details of traffic patterns used when loading out animals.



- Teach a calf to lead and to stand tied.
- Observe someone who is trimming feet and explain the technique to your helper.
- Demonstrate to your club the management practices that should be done immediately following the birth of a calf.
- Sketch a picture of your animal's pen and share with your club why you designed it this way.
- Help a new 4-H member update his/her project records.

Working Safely with Livestock

- Give a presentation on flight zone safety to your 4-H club.
- What are five or more safety precautions you plan to use when working with your animal?
- Explain what an animal's territorial instinct is. How would you expect the animal to react if moved from its territory?

Health Maintenance

- Describe how you should manage new animals on your farm to aid in preventing disease.
- Describe some common causes of scours and the best methods to use to prevent the problem.
- Explain the cause of hardware disease and how to treat it.
- Describe the symptoms of the following health problems and give one treatment for each: pneumonia, scours, navel ill, pinkeye, ringworm, lice, and shipping fever.
- Name and describe three common external and three internal parasites that can harm your animal's health.
- Invite a veterinarian to your local 4-H club to speak on some aspect of cattle health.
- Ask different cattle producers about their health programs and what they do to prevent sickness in their cattle. Report your findings to your project helper.
- Observe a herd in the summer and note what types of external parasites are present.
- Visit a feed and supply store and review the products for sale to control parasites. Compare cost, method of application, and length of control. Report your knowledge to others.
- Learn the signs of sick animals and observe your cattle for any of these signs throughout the year. Record your observations.
- Determine the health requirements to exhibit your animal at the county fair or other shows.
- Examine a fecal sample for parasites, using a microscope if available.
- Help a cattle producer vaccinate their herd. Determine what they are vaccinating for and why.
- List and explain five livestock sanitation practices a beef cattle operator should observe.

- Attend a beef health program held by OSU Extension or another group to learn more about beef cattle health.

Reproduction and Genetics

- Why do you use performance data in selection?
- What is a terminal cross and what is its purpose?
- Describe the difference between dominant and recessive genes.
- Visit a bull stud station to learn more about collecting semen, semen sexing, and artificial insemination.
- Name and describe four types of heat detection.
- Discuss with a cattle producer that uses A.I. how heat detection is done in their herd.
- Discuss with a cattle producer the advantages and disadvantages of using embryo transfer and report your findings to your project helper.
- Describe the four traits of economic importance as it relates to reproduction and genetics.
- Observe while a cow is palpated for pregnancy and ask the technician to explain how he/she knows if the animal is pregnant.
- Obtain a copy of the production testing printout on a beef herd. Pick out the top-producing cows and the best calves. Your county Extension Educator, an experienced beef producer, or your project helper can help you review the printout.
- Contact your county Extension Educator to learn more about performance testing programs available for beef cattle.
- Develop a glossary of terms and their definitions. For example, include: heifer, bull, cow, estrus, fertilization, gestation, non-breeders, artificial insemination, breeding season, sperm, ovary, placenta, uterus, vulva, and cervix.

Nutrition and Feeding

- Visit a local slaughter house and study the digestive tract from a ruminant animal. Look at the differences in the four compartments of the stomach.
- Correctly explain the meaning of the following terms: carbohydrate, roughage, legume, protein, TDN, and ADG.
- Explain how the ruminant stomach is different from the stomach of a nonruminant (monogastric) and how this affects the kinds of feed that the ruminant animal eats.
- Name all the nutrient groups and explain their function in the animal's diet.
- Describe what you would feed to a newly weaned calf.
- Explain how your feed records might help you in determining a feed ration for next year's steer projects.
- Explain the benefits and the cautions of using growth-promoting feed additives or implants.
- Select and compare four feed tags and describe how they are different.

- Explain how and why antibiotics may be added to feed.
- Name and discuss the eight general rules for feeding cattle.
- Name five nutrients high in energy and five high in protein.
- What is body condition scoring and how does it help you determine what you feed your animal?
- Determine three ways beef producers provide mineral to their herd and report this to your project helper or 4-H club.
- Visit a local feed store and collect two samples of each of the following: protein supplement, roughages, and minerals. At your 4-H club meeting, describe how these samples are used in a ration.
- Check the prices of various feeds from a mill to compare the cost of each ration.

Carcass Evaluation

- Using a live animal, show where at least six cuts of meat come from.
- Participate in a carcass contest or a meat judging contest.
- Describe how different breeds of beef cattle finish differently, and identify which breeds are known for leaner meat and which are known for better marbling.
- Name 10 beef by-products.
- What are quality grades? Name all 8 of them in order from the most desirable to the least desirable.
- What are yield grades?

Getting Ready for the Show

- What pieces of equipment will you need when showing your animal in the showing?
- Demonstrate how to clip your animal to prepare for exhibition.
- Demonstrate correct showmanship techniques for younger members in your club.
- Name 10 or more essential pieces of equipment needed when getting ready for a show.
- Ask someone to video tape you practicing showmanship. Study the tape and work with a helper to find ways to improve your showing skills.

Marketing

- Participate in a local beef promotion activity.
- Talk to local dairy producers about how they market their bull calves. Compare the ways and the reasons why these producers market the way they do.
- Visit a cattle sale, a feeder calf sale, and a weekly auction. Observe differences in prices paid for: (1) heifers vs steers and (2) dairy beef feeders vs beef feeders.
- Visit a local grocery store and compare the cost of different cuts of beef and compare beef prices to other meats.

- Name three ways that you can minimize dark cutting.
- Visit a livestock auction and observe how the cattle prices are determined. Record the differences in prices and your thought on what influenced these differences.
- Send a thank you note to award donors and anyone who helped you with your project (i.e., advisors, older members, parents).

Dairy Beef Feeder

- How does a dairy beef feeder's diet differ from a beef feeder's diet?
- What diseases are dairy beef feeders especially vulnerable too?
- Describe what you look for when purchasing your dairy beef feeder?
- Discuss how you should treat your animal if it gets scours?
- Select and compare feed tags from three different milk replacers. Describe how they are different.
- Describe the space requirements for a dairy beef feeder at 150 pounds, 300 pounds, and at 500 pounds.

Caring for Animals

- How do you ensure that your animal's well-being is properly taken care of?
- What is quality assurance and how do you ensure you are practicing it?
- Demonstrate to your club how to read a medication label and insert.
- Explain the importance of keeping a treatment record.
- Explain good show ring ethics to your project helper.
- Visit a veterinary clinic and learn about their large animal care program.
- Explain the differences between SQ, IV, IM, O, and MF.
- Explain the six pillars of character.
- Explain a VCPR.

Environmental Assurance

- Name four or more reasons why it is important to handle livestock waste properly.
- Livestock manure is beneficial to our soil. What three nutrients is it high in?
- How can manure impact water quality?
- How can you create a positive relationship with your neighbor in regards to environmental assurance?

Public Relations

- Discuss with your parents or project helper how you should react to questions from people, activists or protestors, or from the media about your project animal.

- Research current issues in the media concerning animal welfare and report your findings.
- What agriculture issues are currently being reported in the media that would impact the cattle industry? Write a short report about your finding.

Careers in Animal Science

- Briefly describe five careers associated with the beef industry.
- Travel with a professional in the beef cattle industry, such as a veterinarian, and observe what tasks they do in their job.
- What are the four major areas of animal science careers?
- Name 10 animal sciences careers and briefly describe them.
- How do you prepare for an animal science career?