

Poultry

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Educational Topics

General Industry and Terminology

- Define the following terms: animal welfare, animal rights, public perception, animal behavior, nutrient and waste management, air quality.
- Create educational displays to teach younger 4-H'ers about contemporary issues in animal agriculture (i.e., anti-animal agriculture movement, genetically modified organisms, conventional vs. organic production, food insecurity).
- Create a plan to minimize the effects of poultry production on the environment for a specific production facility.
- Deliver an elevator speech about animal agriculture and your poultry project.

Health and Welfare

- Define the following terms: adjuvant, antimicrobial resistance, veterinary-client-patient relationship, veterinary feed directive, over the counter, prescription, zoonotic disease.
- Describe the following diseases/conditions in poultry and identify potential treatments for each: fowl pox, coccidiosis, laryngotracheitis, cholera, Marek's disease, ascites, infectious coryza.
- Document preventative measures for bacterial food-borne illnesses.
- Differentiate between killed and modified-live vaccines.
- Describe the process of *in ovo* vaccination in commercial poultry.
- Create a plan to manage poultry in a low-stress environment.
- Develop a comprehensive biosecurity and vaccination plan for your poultry operation.
- Develop a comprehensive waste management plan for your poultry operation to ensure proper air quality and cleanliness of animal facilities and proper application of waste to land and crops to ensure no nutrient runoff.

Nutrition and Feeding

- Define the following terms: crude protein, metabolizable energy, fatty acids, macrominerals, microminerals, essential amino acids, essential fatty acids.
- Understand the difference between feedstuffs on a dry-matter and as-fed basis and be able to convert between each bases.



- Complete a Pearson-square ration formulation with two feedstuffs.
- Calculate feed conversion and average daily gain for a growing poultry flock.
- Design a feeding and watering plan for your poultry flock through the different stages of production.

Reproduction

- Describe the role of the following hormones in poultry reproduction: estrogen, testosterone, oxytocin, progesterone, prostaglandins, luteinizing hormone, gonadotropin releasing hormone.
- Identify and describe common egg problems: double yolk, soft or missing egg shells, watery egg whites, blood spots, meat spots, bacterial contamination.
- Design and implement a breeding program and hatching protocol for your flock.

Genetics and Selection

- Describe the benefit of cross-breeding in a commercial poultry operation.
- Be able to use production traits and conformation differences in birds to be able to make selection decisions.

Carcass and Poultry Products

- Be able to break down a whole broiler carcass into a standard retail eight-piece cut.
- Develop a marketing strategy for eggs produced by your flock.

Equipment and Record-Keeping

- Develop an equipment inventory you would need to start a commercial broiler or layer operation.
- Maintain health and production records of your flock.

Extra Learning Opportunities

Listed below are contests and other activities where youth have the opportunity to showcase what they have learned in the 4-H Poultry Project.

- Youth for the Quality Care of Animals Certification
- Assist Younger Youth
 - Invite younger members to visit your farm to learn how you manage your poultry.
 - Lead a showmanship clinic.
 - Coach a junior Skillathon team.
- Livestock Skillathon Contest
- Poultry Judging Contest
- Livestock Quiz Bowl
- Poultry Show and Showmanship
- Attend 4-H Roundup in poultry if in appropriate grade.
- Tour other poultry operations in your area and talk to the owner/manager to learn how they manage their poultry flock.

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