



# 4-H Poultry Showmanship Questions

CIS 1206

by Lance T. Ellis and David D. Frame

**Congratulations!** You have decided to compete in either a county- or state-level 4-H poultry showmanship competition. In a poultry showmanship competition you will be asked questions by the poultry judge as he or she evaluates your knowledge of poultry and your preparation for the competition.

This publication lists general poultry knowledge questions and their answers. The judge will ask you questions from this list. Answering the questions correctly contributes to your points during the competition.

The judge will ask you questions of varying levels of difficulty based on your age division. Level 1 questions are the easiest, and level 3 questions are the hardest. Junior showmen should know the answers to level 1 questions. Intermediate showmen should know the answers to level 1 and level 2 questions. Senior showmen should be prepared to answer all the questions on the list.

## LEVEL 1 QUESTIONS FOR JUNIOR, INTERMEDIATE, AND SENIOR SHOWMEN

**For a female to lay eggs, does she need the presence of a male?**

*No. She needs a male only to produce fertilized eggs.*

**What are the following: pullet, hen, cockerel, rooster, capon?**

*Pullet is a young female less than 1 year old (in other words, hatched this year). Hen is a female more than 1 year old (hatched last year). Cockerel is a male chicken less than 1 year old. Rooster is a male chicken more than 1 year old. Capon is a castrated male chicken.*

**What are the major external parasites of poultry?**

*Lice and mites*

**How many eggs can a hen potentially lay in 1 year?**

*365, one a day*

**What are the most common feed ingredients in poultry diets in the United States?**

*Corn and soybean meal*

**What breed of chicken is used for most commercial egg production?**

*White Leghorn*

**Why do we measure flexibility of the pubic bones?**

*To see if they will open enough for an egg to pass*

**Why should birds be removed from and placed into cages head first?**

*To prevent possible wing and feather damage; to maintain control of them*

**Which of the nutrients, besides oxygen, should poultry have free access to at all times?**

*Water*

**What color eggs do Rhode Island Red, Barred Rock, and Buff Orpington chickens lay?**

*Brown*

**What breeds of chicken lay blue-green eggs?**

*Araucana and Ameraucana*

**At what temperature should most chicken eggs be incubated?**

*99°F*

**What are basic signs of good health in chickens?**

*Alert, active, clear eyes; good manure consistency; no external parasites*

**If the sternum of a chicken it is found to be crooked, what nutritional deficiency disease could be the cause?**

*Rickets—a lack of calcium, phosphorus, or vitamin D in the diet*

**How can you tell an adult male turkey from a female?**

*Adult males have beards and longer snoods and are generally larger than females*

**Where is a chicken's crop located and what is its function?**

*The crop is an enlargement of the esophagus. It is located on the neck just above the junction with the body cavity. It holds the food the bird eats and slowly releases it to the rest of the digestive tract.*

**How many nest boxes should be provided for a flock of laying hens?**

*Usually 1 for each 5 hens*

**How can one tell if baby chicks under a brooder light have the proper temperature?**

*They are spread evenly under the brooder light, not all bunched up under the heat source or all far away from it. If the chicks are all to one side or another, they are feeling a draft of cold air.*

**In general, what air temperature should be provided for growing chicks?**

*About 95°F for the first week, dropping by 5° per week until reaching ambient temperature*

**It has been said that eggs are an almost perfect food; however, they are missing one vitamin. What is it?**

*Vitamin C*

**To keep a flock of laying hens producing eggs year-round, what key environmental factor needs to be controlled and altered to meet the needs of the bird?**

*Light. Maintain 16 hours of light per day year-round.*

**What does depth of body indicate?**

*Size of the abdomen and ability to hold a forming egg*

**Why is it important that the flock's housing be pest free, clean, and without an accumulation of manure?**

*Flocks in unsanitary conditions are prone to diseases and stress. Also, eggs can become contaminated.*

**Name two predators from which you must protect your backyard poultry flock.**

*Foxes, skunks, dogs, raccoons, coyotes, hawks, and owls*

**What does APA stand for? ABA?**

*American Poultry Association and American Bantam Association*

**How can you usually tell what color egg a chicken lays?**

*The color of the earlobe is directly related to the color of the egg shell. For example, a hen with white earlobes will lay eggs with white shells.*

**■ Questions the judge may ask specifically about your bird**

**What is the breed and variety of your bird?**

**Is your bird a male or a female?**

*Cock, hen, cockerel, or pullet*

**Identify the parts of the bird.**

*On the head—comb, wattles, earlobes, and/or muffs. On the body—tail, breast bone or keel bone, vent, back (saddle and length). On the leg—foot, spur, shank, hock joint, and thigh.*

**What do you feed your bird?**

*Know the ingredients of the feed and what the protein percentage is.*

**What kind of comb does your chicken have?**

**What color legs should your bird have?**

**LEVEL 2 QUESTIONS  
FOR INTERMEDIATE AND SENIOR SHOWMEN**

**What is the function of the vent? Is it common to all poultry?**

*It is the urogenital opening of the bird, the external portion of the cloaca. All poultry have one. It is the common opening through which the egg, uric acid, and feces all exit.*

**Identify four dual-purpose breeds that are commonly raised in the Intermountain West for backyard egg production.**

*Plymouth Rock, Rhode Island Red, Orpington, Marans, Australorp, Wyandotte, Red Sex Link, and Black Sex Link*

**What is the importance of calcium in the diets of laying hens?**

*Calcium is needed for producing the egg shell and for developing and maintaining a strong skeletal system.*

**What precautions must be taken when you introduce new birds into your home flock?**

*Before you introduce new birds to your home flock, check them for disease and parasites. Next quarantine them for 3 weeks, and continue to check them for any symptoms. Always take care of the quarantined birds last. If you have to go back to your home flock after caring for the new birds, first change your outerwear, change your footwear, and wash your hands thoroughly with soap.*

**What are the differences between the plumage shapes of most adult male and female chickens?**

*Males have long, sharp hackle feathers; saddle feathers; and sickle feathers on the tail. Females have short, blunt hackle feathers; no saddle feathers; and no sickle feathers on the tail.*

**Other than feather shape, what anatomical features are unique to the male chicken?**

*Males have a larger comb, larger wattles, larger earlobes, different coloring, and spurs on their legs.*

**How do you perform a parasite check on chickens or other poultry?**

*Check around the vent, under the wings, and on the skin under the feathers by the preen gland. Check feather shafts for louse eggs and nits. Look for louse eggs clinging to the feathers under the wattles and the neck area.*

**What are some nutrients that chickens and other poultry require each day?**

*Protein, carbohydrates, fat, minerals, vitamins, water, and oxygen*

**Why is feeding straight wheat to a laying flock of chickens a mistake?**

*Feeding wheat or any other grain as a sole ration does not provide a balanced diet for good health and egg production.*

**What does width of body indicate?**

*The size of the body across the pelvic bones indicates the amount of room available for eggs and vital organs.*

**Why does the judge ask to see the feet and legs of birds?**

*To check for deformities, disease, and parasites*

**What does “molt” mean relative to chickens?**

*When they molt, chickens lose their feathers, stop reproducing, and go through a renewal for another reproduction cycle.*

**Do chickens ever have teeth?**

*Yes. They have an egg tooth at hatch to help break through the shell. This tooth is different from mammalian teeth as it is not composed of enamel.*

**What is a “dual-purpose” chicken?**

*A dual-purpose chicken can be used for both meat and egg production. Examples are Rhode Island Reds and Plymouth Rocks.*

**What needs to be supplied in an artificial incubator to hatch eggs?**

*Heat, humidity, and turning*

**How many feather tracts do chickens have?**

*10: head, neck, shoulder, wings, breast, back, abdomen, rump, thigh, and legs*

**What and where are the covert feathers?**

*Small feathers on the wing that fill in the spaces between larger feathers*

**What is the function of the comb and wattles on chickens?**

*Sex differentiation, identification, and thermoregulation*

**What are some of the methods for verifying that a hen is currently laying eggs?**

*Width between pelvic bones equals the width of three human fingers; the vent is large, soft, and moist rather than small and dry; the comb is larger and redder*

**What gas that can be harmful to chickens can be produced in manure?**

*Ammonia*

**If you see a lot of manure staining on the feathers just below the vent of your bird, what health-related problem should you suspect?**

*Diarrhea*

**What is the main difference between starter feed, grower feed, and layer feed for feeding chicks, pullets, and laying hens, respectively?**

*Crude protein concentrations: starter 18 to 19%, grower 14 to 15%, and layer 16 to 17%*

**What is the difference between a broiler, a roaster, and a capon?**

*Broilers are young meat birds, usually processed at 6 to 8 weeks of age. Roasters are usually 10 to 14 weeks of age. Capons are castrated meat birds grown to about 18 to 20 weeks of age.*

**What is bumble foot?**

*An infection in the foot pad of poultry, usually caused by Staphylococcus aureus in the manure*

**What is the ratio of males to females that will provide the best fertility for a laying flock, without having more males than necessary?**

*About 1 male for every 10 females*

**What is the gizzard and what is its function?**

*The gizzard, also known as the ventriculus, is part of the chicken’s digestive system. It is just behind the proventriculus, the true stomach, and it is where food is ground up to aid in digestion and absorption.*

**What is cannibalism and how can it be prevented or reduced in your flock?**

*Cannibalism is the pecking of one bird by another. It can cause injury and/or death. It can be prevented by beak trimming or decreasing the density of your flock*

**What are two other names for the breast bone of chickens?**

*Sternum and keel*

**In what part of the hen’s reproductive tract is the shell produced?**

*Uterus or shell gland*

**Name a “bantam-only” breed.**

*Silver Sebright, Golden Sebright, Japanese Bantam, others*

**■ Questions the judge may ask specifically about your bird**

**Name other varieties of your breed of chicken.**

**LEVEL 3 QUESTIONS FOR SENIOR SHOWMEN ONLY**

**Describe the damage that results from having lice on chickens.**

*Damage to feathers, stress because of blood loss and irritation that can then lead to vulnerability to disease and death from cold, excessive pecking, infection, and a decrease in laying production*

**What is the function of the uropygial (preen) gland?**

*The preen gland produces an oily substance the bird wipes onto its feathers with its beak, called “preening.” In ducks and waterfowl preening helps to waterproof their feathers.*

**What is meant by “bleaching” in chickens?**

*It refers to the loss of skin color in laying hens, particularly in Leghorns and other yellow-skinned breeds. The yellow pigment in the skin, xanthophyll, fades to white as the pigment is used to color the yolk. Bleaching occurs in this order: vent, eye ring and earlobes, beak, bottom of feet, front of shanks, back of shanks, tops of toes, hock joints. When birds stop laying eggs, they will replace the skin pigment in reverse order.*

**Where does the yellow color of the skin, beak, and shanks of chickens come from?**

*Xanthophyll in the corn and grass they eat*

**How long (in days) is the incubation period for chickens, turkeys, ducks, and geese?**

*21, 28, 28, and 32, respectively*

**What is the purpose of turning eggs in an incubator?**

*To keep the embryo from sticking to the membranes and becoming malformed*

**Why should incubators be fumigated or disinfected prior to use?**

*To remove any bacteria, virus, or mold organisms that might infect the eggs*

**How many eyelids does a chicken have? Why?**

*Three: upper, lower, and the nictitating membrane, which moves from the front to the rear of the eye and is clear. Eyelids are for keeping foreign substances from entering the eye.*

**How many primary and secondary flight feathers do most chickens have?**

*10 primary and 14 to 18 secondary*

**Where are the axial feathers found, and how many do chickens have?**

*One on each wing, between the primary and secondary flight feathers*

**How is *Salmonella Pullorum* spread or transmitted?**

*Through the egg, either by organisms from the hen’s ovary or from manure in the nest box that contaminates the shell*

**Small flock owners should be particularly aware of which two poultry diseases that can cause high mortality and are of great concern to commercial poultry growers?**

*Avian influenza and exotic Newcastle disease*

**Why is diarrhea a concern and how can it be treated?**

*Diarrhea can lead to dehydration and possibly to death. One needs to rehydrate the bird by providing electrolytes and water and then determine why the bird had diarrhea in the*

*first place and treat that cause. A high load of worms, coccidiosis, or bacterial infection of the gut can often lead to diarrhea. A flock with diarrhea can also cause bad litter conditions—excess moisture and ammonia production—leading to foot and leg problems.*

**Some females in breeding flocks sometimes lose feathers on their lower back and on the back of the head. What is the cause of this?**

*When breeding, the male stands on the back of the female and holds onto the feathers on the back of the head with his beak, causing feather loss.*

**Many starter feeds for chickens are labeled “medicated.” What is the medication and why is it in the feed?**

*The medication is amprolium. It helps the bird build immunity to coccidiosis, a protozoal disease of the digestive tract of birds. There are nine different types of coccidiosis, so medicated feed is a good preventative measure.*

**How much floor space should be provided for standard and bantam adult laying hens reared on the floor?**

*About 1.5 to 2 square feet for standards and 0.75 to 1.5 square feet for bantams*

**What is “biosecurity” and why is it important for your flock of birds?**

*Biosecurity means preventing infectious or disease-causing organisms and other pests like insects, rodents, etc., from coming in contact with your birds. It means keeping human traffic to a minimum, not allowing your birds to have contact with any sick birds, and not visiting infected flocks.*

*Biosecurity also means keeping disease in. Be a good neighbor and don’t visit other people’s flocks without changing your clothes and footwear and thoroughly washing your hands. In other words, treat your own flock as if it were infected with something even if it isn’t. Keep a foot dip pan filled with disinfectant near the door to your coop and dip your shoes or boots prior to entering your facility. It will prevent disease transmission to your birds and is very important.*

**REFERENCES**

University of Connecticut 4-H Poultry Website. University of Connecticut Extension. <http://web2.uconn.edu/poultry/4-H%20Poultry/> (accessed January 3, 2011).

International Center for Poultry. <http://www.centerforpoultry.com/> (accessed April 12, 2011).

**The authors**—Lance T. Ellis, Extension Educator, University of Idaho Extension, Fremont County, and David D. Frame, DVM, Extension Poultry Specialist, Utah Veterinary Diagnostic Laboratory, Nephi, Utah

Issued in furtherance of cooperative extension work in agriculture and home economics, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Charlotte V. Eberlein, Director of University of Idaho Extension, University of Idaho, Moscow, Idaho 83844. The University of Idaho provides equal opportunity in education and employment on the basis of race, color, national origin, religion, sex, sexual orientation, age, disability, or status as a disabled veteran or Vietnam-era veteran, as required by state and federal laws.