



# DISCOVER

## 4-H POULTRY SHOWMANSHIP CLUBS



## CLUB MEETING 1 HANDOUTS

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SECTION 1 • PART A  
**PROJECT REPORT FORM**

**PROJECT IDENTIFICATION**

Member's Name: \_\_\_\_\_ Report Year: \_\_\_\_\_

4-H Project/Category: Plants and Animals- Chickens Yrs. in this Project/Category:     

**SIZE AND SCOPE**

Income				Expenses	
Description		Amount	Description		Amount
			Purchase Chicken		
			Feed (29% Protein)		
			Feed (26% Protein)		
			Medication		
<b>Total Income</b>			Equipment		
Beginning Weight			Processing Fee		
Ending Weight			Other		
Gain			<b>Total Expenses</b>		
Average Daily Gain					
<b>Hours Spent</b>				Total Income	
July		October		Subtract Total Expenses	
August		November		<b>Total Profit/Loss</b>	
September		<b>Total</b>			



**UTAH 4-H**

**SECTION 1 • PART B**  
***PROJECT REPORT FORM***

**KNOWLEDGE LEARNED:**

**SKILLS LEARNED:**



# The 4-H Poultry Project:

## AN INTRODUCTION

UNIVERSITY  
OF WYOMING  
Cooperative Extension Service

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2003

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## Introduction

A 4-H poultry project is an exciting and educational opportunity for 4-H members. It requires very little room, expense, or daily chore time. It is also a short-term project, especially when compared to horse, cattle, swine, sheep, and goat projects. Chickens, ducks, geese, and turkeys are also much smaller and easier to control and handle.

## Selecting a Poultry Project

There are two main types of poultry projects: exhibition birds, which are also used for promoting a specific breed or breeds, and market birds, which are used for egg production (layers) and/ or for meat production (broilers). The exhibition project is designed for club members with an avid interest in poultry, production of birds, and the poultry industry as a whole. The layer and/ or broiler projects are designed for club members interested in poultry but to a lesser degree. The broiler project participant purchases chicks, feeds and cares for them, fits and grooms them,

shows them, and finally sells the birds while the layer project participant raises the birds to produce eggs, which are then sold to help finance the project.

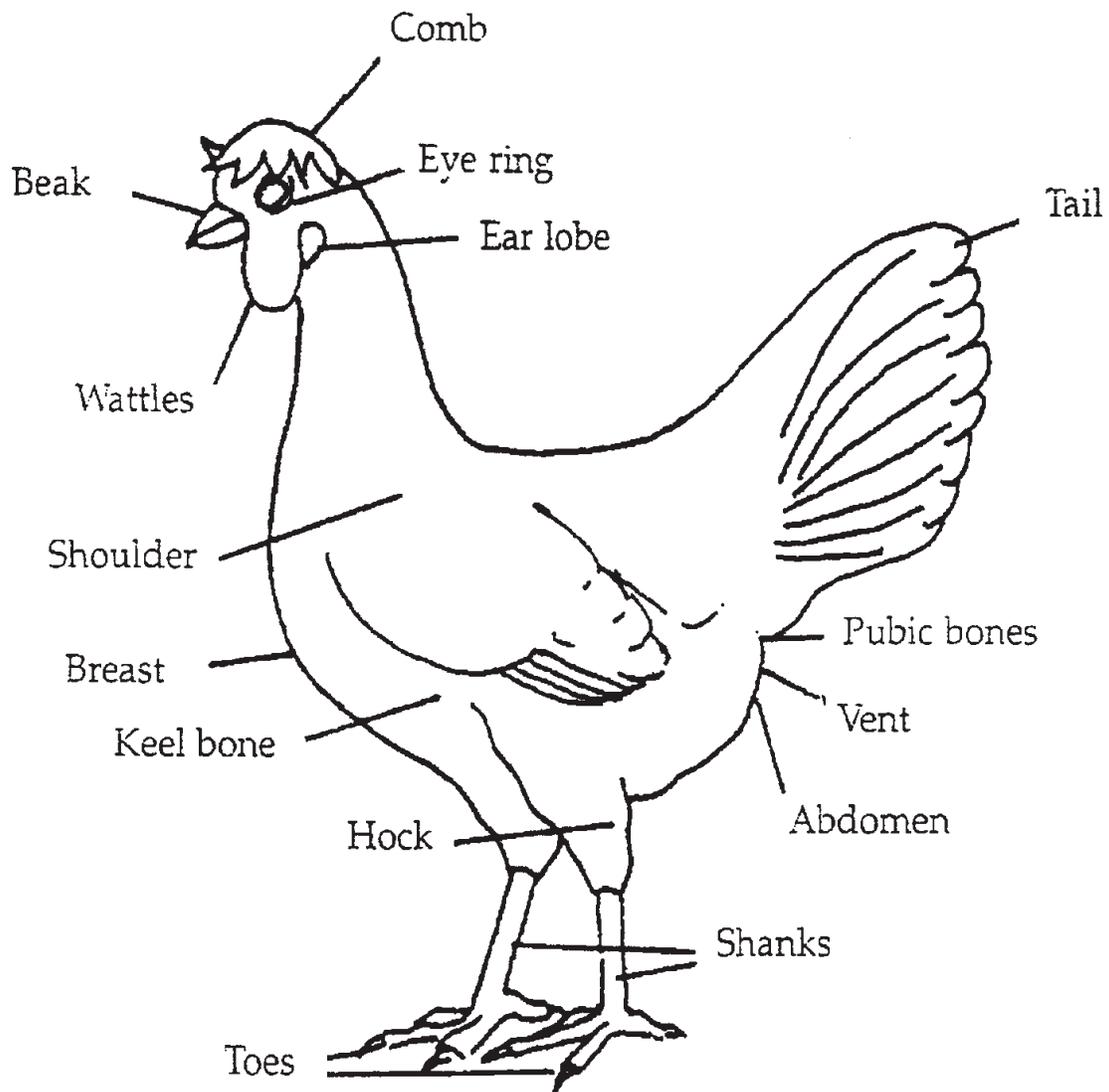
A club member who chooses the exhibition bird project also feeds, cares for, fits, grooms, and shows the birds. However, in contrast to broiler project participants, exhibition bird project participants exhibit breeding birds (chickens, ducks, geese, or turkeys) which are not sold at a county fair youth sale. A club member is able to return home with these birds and to continue to care for them to produce eggs and hatchlings. These eggs and hatchlings are then kept to show, to sell to a market, and/ or to sell to other club members for their projects.

The poultry project is one of the most popular 4-H projects in the United States. Birds grow fast and cost less to raise than most other types of livestock. A poultry project requires less room, less daily chore time, less expense (for both feeding and housing), and is a short-term project (for broilers).

## Parts of a Chicken

Selecting a bird to show is as important as the feed and care given to a bird once it comes home. A poultry project should begin with healthy and high-quality birds.

Before one can identify and select a high-quality bird, it is necessary to know what such a bird looks like. The first step in this process is to learn the important parts of a bird. Chickens are the most popular poultry project; therefore, a chicken will be used to illustrate these parts.



## Poultry Terms

Understanding the vocabulary used by poultry producers, exhibitors, and judges is also a necessary step in learning about poultry selection and production. Knowing the terms listed below will be of great assistance when communicating with people in the poultry business.

avian: a general word that refers to all feathered birds

bantam: small or miniature breeds

beak: the horny mouth part of chickens, turkeys, and other land birds

bill: the horny mouth part of ducks, geese, and other waterfowl

bird: an individual of any avian species

broiler: a chicken that is less than eight weeks old which will be tender whether it is fried or broiled; sometimes it is also called a fryer

breed: a group of animals with common ancestry and with similar characteristics that are passed on from generation to generation

breeder: the owner of birds that are mated

brood: to care for a batch of chicks, ducklings, goslings, etc.

chick: a newly hatched or young chicken of either sex

clutch: a group of eggs in a nest

cockerel: a male chicken less than one year old

comb: a fleshy prominence on top of the head

coop: a place where birds are housed and raised

crossbred: an animal with parents of different breeds

down: very soft and fluffy feathers on young birds

drake: a male duck of any age

duckling: a newly hatched or young duck

embryo: a developing bird prior to hatching

exhibition birds: birds that are shown for breed characteristics such as color, conformation, and other traits

flock: a group of chickens, ducks, or turkeys

fowl: a general word that refers to most domestic birds

hatching: the process of a hatchling coming out of an egg

hen: a female chicken more than one year old, a female duck of any age, or a female turkey of any age

gaggle: a group of geese

gander: a male goose of any age

gosling: a newly hatched or young goose

keel: the lower cartilage portion of a breast bone

layers: poultry (usually chickens) used for egg production

molting: shedding or losing feathers

pigmentation: the color of the shanks, beak, eye ring, and vent

poultry: a general word that is usually used to refer to birds that are typically found on a farm

pullet: a female chicken less than one year old

purebred: an animal with same-breed parents

rooster: a male chicken more than one year old

shank: the part of a leg between the hock and the toes

standard bred: normal or large-size breeds

tom: a male turkey of any age

vent: the opening through which an egg is laid

web: the skin growing between the toes on ducks, geese, and other waterfowl; the skin between the joints of a wing

yolk: the yellow part of an egg

## Poultry Breeds

Tracing the history and development of poultry breeds is an impossible task. However, certain dates and timelines can be established. It is known that when Christopher Columbus landed in America in 1492, he found many types of poultry that were unknown in Europe and Africa.



Records indicate that he took turkeys, which are native to North and Central America, back to Europe. Records also show that when the colonists landed at Jamestown in 1609, they brought certain kinds of poultry and that when the Mayflower landed at Plymouth Rock in 1620, the Pilgrims brought

domestic birds from Europe. Other records reveal that Light Brahmas, Cochins, and Langshans were imported to the United States from China and the East Indies in the early 1800s. Interest in poultry grew, and numerous new breeds were developed, leading to the establishment of poultry shows and a standardization of breed characteristics and descriptions.



Breeds of chickens, ducks, geese, turkeys, and other types of poultry are distinguished by the characteristics that make them look different from other birds of the same species. Another way of saying this is that a breed is a group of birds with common ancestry and with similar characteristics that are passed on from generation to generation. This is why a baby of a certain breed will always look like its parents.

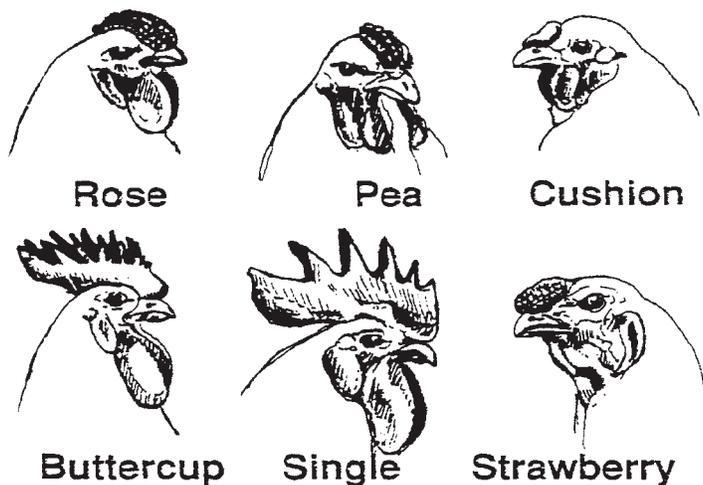
Pekin ducks are white, and the babies of Pekin ducks are always white. Mallard ducks are smaller than Pekin ducks and have a bright green mark on their heads. Babies of Mallard ducks always grow up to be smaller than Pekin ducks and have a bright green mark on their heads. Barred Plymouth Rock chickens always have feathers that are striped with black and white colorings, and the babies of Barred Plymouth Rock chickens will always grow up to have this same color pattern. Broad-Breasted Bronze turkeys are a dark gray to black to brown color, and their babies will always have this same coloring. White

Chinese geese are white, and the babies of White Chinese geese are always white.

Some breeds of birds have yellow beaks or bills, and some have other colors such as brown or black. The shanks and toes of many birds also vary in color. Some are yellow, some are brown, some are black, and some are other colors. As one can tell, there are many things that go together to make up the characteristics that determine the breed of a bird. Therefore, it is important to learn the characteristics and features of a breed to be raised.

Along with the items mentioned in the previous paragraphs, chicken breeds can also be determined by the characteristics of their combs. The comb is a piece of skin that sits atop a chicken's head, and it has six distinguishable shapes. These shapes are used to assess or determine the breed of a chicken. Therefore, it is important to learn the shapes of each type of comb. The names of the six types of combs are rose, pea, cushion, buttercup, single, and strawberry. The following illustrations will help to show the differences between each type of comb.

Why is it important to learn the various breeds of poultry and the characteristics that go into determining a breed? The answer is very simple – one must know what a certain breed looks like in order to buy the correct breed. Also, there are breed characteristics that cannot be seen. Some breeds are raised for egg production (layers), and some breeds are raised for meat (broilers). Either way, it is important to know which breeds are raised for each type of production. Otherwise, someone might purchase a layer breed when he or she really wanted to buy a breed for meat production. Of course, the situation could be reversed and instead of buying the laying



type for egg production, someone could purchase the meat breed. Both cases would result from not knowing the characteristics of the various breeds.

To help individuals learn the characteristics of the various breed of chickens, ducks, geese, and turkeys, a system of classifications, qualities, descriptions, and other distinguishing factors has been established by the American Poultry Association. Due to the fact that this association is the recognized authority and reference for poultry in the United States, it is recommended that all individuals interested in poultry obtain a recent edition of the book entitled *The American Standard of Perfection*.

The book divides chickens into a system of classes, breeds, and varieties. A class is a group of breeds which originated in the same country or area of the world. The name of a class gives an indication of where a breed began. The classes are divided as American, Asiatic, Continental, English, Mediterranean, and all other standard breeds. There are also special classes such as Game Bantam, Bantam, Rose Comb Clean-Legged Bantam, and many others.

Most of the chickens grown in commercial poultry production systems are from the American, English, or Mediterranean classes. Breeds in the American class have yellow skin and unfeathered shanks. They adapt easily to different conditions and are used to produce both eggs and meat. Popular breeds in the American class include Dominique, Jersey Giant, New Hampshire, Plymouth Rock, Rhode Island Red, Wyandotte, and a few others. Breeds in the English class are used mostly for meat production. These breeds include Australorp, Cornish, Dorking, and Orpington. The breeds found in the Mediterranean class are noted for egg production. The breeds that fit into this category include Ancona, Leghorn, and Minorca.

Regardless of the specie of bird (chicken, duck, goose, or turkey) that someone is interested in raising and/ or exhibiting, it is important to know the characteristics of the different breeds. Therefore, it is recommended that those interested visit with exhibitors, producers, judges, and other poultry professionals. It is also recommended to view books like *The American Standard of Perfection*, which contains illustrations and descriptions of various breeds.

### **Housing, Care, and Feeding**

Successful poultry producers have to take care of many details in order to ensure that their animals are comfortable. After all, a comfortable bird is more likely to be healthy and grow efficiently. The better a producer provides for the proper feed, water housing, and health needs of the birds, the healthier they will be. Therefore, they will produce a greater amount of eggs and meat in a shorter period of time.

No matter how old or healthy a bird is, it will not do very well without a proper place to live. A bird needs a proper home (usually called a coop) as well as proper care, feeding, and watering. The basic requirements of poultry housing are very simple:

- space for resting, feeding, water, and movement
- protection and escape from the weather and from predators (dogs, opossums, foxes, coyotes, and many others)
- adequate ventilation to avoid stale air and moisture buildup

Space requirements vary according to the specie and type of bird. The larger the bird, the more space it needs. Smaller birds, such as bantams, only require two to three square feet of floor space, egg production birds require about three square feet of floor space, and larger chicken breeds and ducks require four to five square feet of floor space. Very large birds such as geese and turkeys require even more room.

Brooding relates to the management, care, and feeding of young chicks, ducklings, or goslings. Hatchlings that are raised with good brooding practices and procedures will grow faster and be healthier. Cleaning, disinfecting, and sanitizing a brooding house and equipment should be done before each new set of hatchlings arrives. When using a disinfectant, be sure to follow all of the safety instructions and allow it to completely dry before placing four to six inches of bedding in the brooder. The bedding material should be dry, clean, and absorbent. Materials such as wood shavings, sawdust, chopped straw, or similar materials are recommended.

Heat is easily provided by hanging a heat lamp 15 to 18 inches above the bedding. The heat lamp should be a 250-watt infrared bulb, and it should be turned on the day before the hatchlings arrive to allow time for adjustments. Do not hang a heat lamp by its electrical cord. Use a rope or a chain.

**Safety note:** To avoid a possible fire hazard, an adult should set up heat lamps.

Waterers and feeders should also be placed in a brooder after the disinfectant has completely dried. It is recommended that they be alternately placed around the edge of the brooder and not placed directly under a heat lamp. Also, fill the feeders and waterers the day before the hatchlings arrive. Figure A provides an illustration of these procedures and recommendations.

During the first few days, it is extremely important to watch the birds very closely. Change the water and feed each morning and each evening because it is very important to always have clean feed and fresh water available for birds. It is also very important to adjust the temperature. The recommended temperature for the first few days is about 90 degrees. However, by observing the hatchlings, it can be determined if they are or are not comfortable. If they crowd under the heat lamp, they are cold. If they move away from the heat lamp, they are hot. If they are scattered and dispersed in the brooder, they are comfortable. By watching the hatchlings, one will know whether to move the heat lamp closer to the birds (which increases the temperature) or to move the heat lamp away from them (which decreases the temperature). Figures B, C, and D illustrate each of these situations when viewed from above.



Figure A – Brooder set-up recommendation

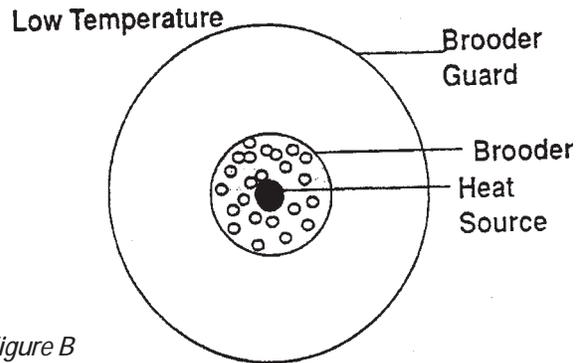


Figure B

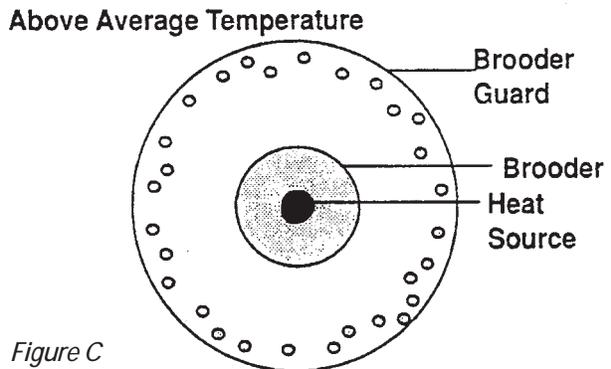


Figure C

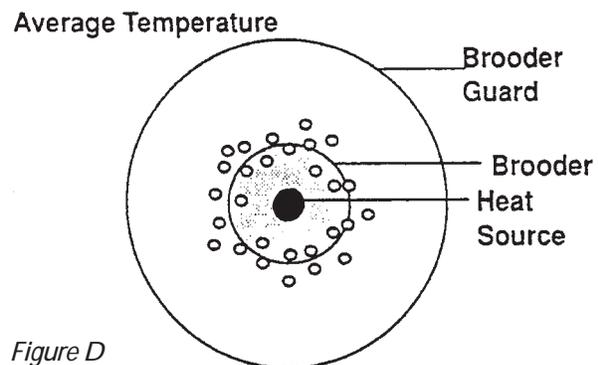


Figure D

The nutrition requirements are different for each species or type of bird. It is important that layers be given feed designed specifically for them, and it is important that broilers be given feed designed for them. It is equally important that ducks, geese, turkeys, quail, guineas, etc. are provided with feed designed specifically for them. Many types of feed are available. Therefore, be sure to doublecheck the feed tags to make sure that the correct type of feed is being purchased.

It is recommended that broilers receive feed with a protein content of at least 24 percent. Twenty percent is recommended for younger pullets (under 8 weeks old), and the guideline for older pullets (8 to 20 weeks old) is 16 percent. The recommendation for laying hens is 15 percent. However, regardless of the type of bird being raised or the feed recommendation, it is extremely important to always provide clean and fresh feed and water.

Providing the proper brooding environment is the most important starting point regardless of whether one is interested in raising birds for meat production or for egg production. Therefore, it will be assumed that the chicks were given a good start in a brooder. If the chicks were in a brooder for two to three weeks, then there



are another four to six weeks of growing time needed to achieve the final broiler weight of seven to eight pounds (live weight). This time period will vary according to the care that the birds are given and according to the breed or cross breeding of the chicks.

However, regardless of the care provided, there are certain guidelines that should be followed. The temperature should be regulated according to the comfort of the chicks. The temperature at the beginning of the project should be about 90 degrees. After the first week, decrease the temperature by five degrees, and then decrease the temperature by two to three degrees every third or fourth day until the temperature is between 70 and 75 degrees. Also, be sure to change the bedding in order to keep it clean and fresh and to provide artificial light 24 hours a day.

Hens and pullets lay more eggs as the number of hours of light increases on a daily basis. Therefore, under natural daylight conditions, they will lay the most eggs in the spring and summer of each year. Making the chickens think it is spring or summer will assure the production of more eggs for a longer period of time. This can be accomplished by using electric lights. It has been found that layers need about 15 hours of light per day (do not allow the light period to decrease), and a 40-watt lightbulb will provide enough light for approximately 100 layers.

Other than controlling the lighting, layers require about the same management, care, and feeding as is needed for raising broilers. This includes keeping the bedding clean, dry, and fresh as well as providing plenty of fresh feed and clean water. The



amount of egg production achieved is a direct result of the care and management provided. However, under normal conditions, pullets will start laying eggs at about 22 weeks old, and hens will average laying approximately 260 eggs per year.

By feeding according to the guidelines discussed on the previous pages, by following the recommendations listed below, and by providing light 24 hours a day to help the hatchlings grow faster (a 40-watt bulb will supply enough light for brooders up to 20 square feet), one should have very few feeding problems and a more successful and enjoyable poultry project. For questions or concerns regarding the care or feeding of poultry, contact a county Cooperative Extension Service office for assistance and advice.

- Finish preparing a brooder at least one day before the arrival of hatchlings.
- Provide clean and fresh feed.
- Provide clean, clear, cool, and fresh water.
- Provide vitamins in the water.
- Provide medications as needed. These are usually best given by adding them to water. Be sure to remove medications in time for the withdrawal time that is stated on every package of medication.

- Rinse feeders and waterers on a daily basis and wash them at least twice a week.
- Adjust the temperature as indicated by the behavior of the birds. The temperature may have to be changed several times each day.
- Provide adequate ventilation.
- Keep bedding clean and dry. Remove and replace wet and/ or dirty bedding.
- Gradually change from one ration to another. Mix them together (first more of the original and then more of the new one) and make the change over 3 to 4 days.
- As much as possible, control rats and mice since they can spread disease.
- Isolate a flock, limit visitors, and keep dogs, cats, and pets away from a coop.
- Only keep birds of a similar age together.

### Health care

In order to have a successful poultry project, it is extremely important to start with healthy hatchlings and to maintain the health of the birds throughout the project. Therefore, one must be able to identify the difference between a healthy bird and an unhealthy bird.

A healthy bird will be alert, bright eyed, full breasted, have erect posture, have clean feathers, have a bright and full comb and wattles, and have clean nostrils. A healthy bird will drink plenty of water and eat with frequent eagerness. The stool (manure) will be moist with grayish droppings and a white cap.

An unhealthy bird will have a decreased appetite and will not drink as much. It will also appear listless, depressed, shrunken, and dull eyed. Furthermore, such a bird may have a droopy tail and wings, ruffled or stained feathers, and an off color on the comb and wattles. The stool may be very dry and hard (constipation) or just the opposite – very watery and loose (diarrhea) – and it may also be a different color such as white, green, or yellow.

If a bird appears to be sick, there are two very important steps to follow: tell an adult and separate the sick animal from the other birds. After getting advice from a veterinarian or other professional, follow that advice very carefully.

Many diseases and health problems can affect poultry. Most of these are fairly easy to control once the problem is identified and proper treatment is provided. Furthermore, most health problems can be avoided or kept to a minimum by following these six simple steps:

- Buy only healthy birds from healthy flocks.
- Keep vaccinations up to date.
- Clean coops at least once a week.
- Clean feeders and waterers at least once a week; twice a week is much better.
- Remove and replace bedding that is wet and/ or dirty immediately.
- Watch birds closely and on a daily basis for signs of sickness. Inform an adult if a bird appears to be sick.



## Fitting and Grooming

Fitting and grooming does not start at a show or even during the week of a show; it starts the day a bird comes home. Fitting a bird means feeding, watering, and otherwise caring for it so that it achieves and maintains proper condition. Proper condition means that a bird is neither too fat nor too thin. It also means that a bird is healthy, growing, and alert.

Grooming a bird for exhibition is a simple and easy process. However, grooming, like fitting, does not start at a show or even during the week of a show; it starts the day a bird comes home. It is important to have the required supplies and equipment ready for use when they are needed, so prepare and plan for the day when they will be utilized.

Items needed to wash a bird include a tub or something similar to bathe a bird in, a garden hose or some other method for providing water for the tub, warm to hot water (not cold or cool), a mild soap or detergent such as baby shampoo, rags for rubbing (not scrubbing) a bird, and a towel or hand-held hairdryer for drying a bird.

The first step in grooming a bird is to completely wet it. Next, apply the soap and gently (but firmly) rub the dirty and

stained areas of the bird. For the other areas, simply let the bird soak in the warm to hot water. The bird greatly enjoys this process. However, make sure not to get soap in its eyes as it will cause irritation. After a good soaking and the rubbing of dirty or stained spots, completely rinse off the soap and then dry the bird either with a towel or with a hairdryer. Surprising as it may seem, most birds will greatly enjoy a hairdryer. A hairdryer will also provide added fluff and flair to the feathers, which gives a fuller and plumper appearance to the bird. This is something that most judges prefer.

Washing a bird the day before a show or the morning of a show for an afternoon exhibit is recommended. Blow drying against the feathers is recommended only on loosely feathered breeds such as Cochins, Frizzles, Silkies, etc. Using a blowdryer is not recommended on the Mediterranean breeds such as Andalusians, Anconas, Leghorns, Minorcas, etc.

Grooming note: No amount of grooming can correct or make up for a poor job of feeding, care, and management of a bird.

## Showing Poultry

Showing poultry, like fitting and grooming, does not start at a show; it also starts at home. It begins with the feeding, watering, washing, and other tasks that should be done from the very first day that a bird arrives at its new home. Proper feeding gets a bird to its desired show weight. Proper care gets it in show condition (lean, not fat). Washing, drying, and other grooming techniques make the bird neat, clean, and otherwise presentable to a judge.

Training a bird begins by earning its trust and confidence and by making friends with it. This is accomplished by playing with it, petting it, lifting it, and otherwise spending time with it. The exhibitor must know what is expected of himself or herself and the bird. He or she must also possess some basic knowledge about poultry such as terms, breeds, feeding, and showing. After all, showmanship is an activity in which an exhibitor gets to show that he or she knows how to handle a bird and gets to demonstrate his or her knowledge of poultry and poultry care.

Showmanship tip: Each exhibitor should know the parts of his or her bird, what breed it is, its sex, how much it is being fed, and the protein percentage of the feed being provided to the bird.

The first thing for an exhibitor to learn about poultry showmanship is what will be expected of him or her and the bird. The second thing is for an exhibitor to learn the basic information (breed of bird, amount being fed, parts of the bird, etc.) that will be requested by a judge. The third item is for an exhibitor to practice showmanship procedures with the bird. This allows the bird to have some idea of what is expected of it because it will have been shown (several times is recommended) before a contest. Birds may not be the smartest creatures in the world, but practice does make a big difference in their behavior during a contest.

Training hint: Placing a bird in its carrying crate a couple of times before show day is a good way to train it to be calm when it is in its crate.

## Poultry Showmanship Score Card\*

Name \_\_\_\_\_ Age \_\_\_\_\_

**1. Exhibitor's Appearance and Introduction**      **10 possible points**  
 Well groomed and proper attire      5 pts  
 Shares name, age, etc., with judge      5 pts      Score \_\_\_\_\_

**2. Quality and Condition of Bird**      **10 possible points**  
 Pleasing appearance      2 pts  
 Good, smooth plumage      2 pts  
 Breed and variety characteristics      2 pts  
 Free from diseases and parasites      2 pts  
 Gentle and not flighty      2 pts      Score \_\_\_\_\_

**3. Exhibitor's Poultry Knowledge**      **20 possible points**  
**a. Poultry Parts**      10 pts  
 Holding bird, identifies the following parts—beak, comb, wattles, eyes, earlobe, ear, hackle feathers (male), neck feathers (female), breast, back—saddle (male), back—cushion (female), tail, tail feathers, wing, flight feathers, covert feathers, thigh, leg hock joint, shank on male, note spur, toes  
 Score \_\_\_\_\_

**b. General Poultry Knowledge**      10 pts  
 The judge will often ask additional questions to test overall knowledge of poultry. These questions are often very helpful to help break a possible tie.  
 Score \_\_\_\_\_

**4. Examination and Handling of Bird**      **35 possible points**  
 A routine showing these aspects may be in any order and should be smooth:  
 Proper carrying and handling of bird      5 pts  
 Examination of head, wattle, etc.      5 pts  
 Wing color pattern, condition of feathers, check for lice or mite damage      5 pts  
 Show width of back, undercolor      5 pts  
 Check keel bone, breast, feather color, undercolor      5 pts  
 Feet, toes, shank      5 pts  
 Tail, proper carriage, condition      5 pts      Score \_\_\_\_\_

**5. Placing Bird in a Cage**      **10 possible points**  
 Hold bird in basic hand position      4 pts  
 Open the cage door, turn the bird, put into cage head first      3 pts  
 Place bird gently on the cage floor and close cage door      3 pts      Score \_\_\_\_\_

**6. Showing Bird in a Cage**      **5 possible points**  
 Stand at relaxed attention facing the judge. Allow the judge to have full view of bird at all times. Listen and follow the judge's directions carefully. The object of this section is to get your bird to "show" or stand alertly and in proper station for its breed. The use of a judging stick is helpful.  
 Score \_\_\_\_\_

**7. Removing Bird from a Cage**      **10 possible points**  
 Open the cage door. Reach across the bird's back, grasp the far wing, turn the bird so it faces the cage door.      4 pts  
 Slide second hand beneath bird's body, placing one or more fingers between bird's legs and grasping them so the bird, when lifted, can be balanced on the palm of that hand.      3 pts  
 Place first hand on bird's back and remove bird from cage, head first. Come to attention and watch judge for further direction.      3 pts      Score \_\_\_\_\_

**100 Possible Points—Total Score: \_\_\_\_\_**

\* Your local showmanship score card may be different.

The first step in a showmanship contest is getting a bird out of its cage. This is accomplished by opening the door and smoothly putting a hand in the cage and under the bird. Lift the bird and slowly remove it head first from the cage and then close the cage door. It is important to remove it head first so that its feathers do not catch on the cage. The second step is to carry the bird to the judging table. The bird should be carried with it resting on the arm and hand of the exhibitor and against the exhibitor. The exhibitor's other hand should rest on the back of the bird.

The third and fourth steps involve putting the bird gently on the judging table and posing it. The bird should be shown on the table in an alert position with its tail fluffed, head and beak raised, feathers in a smooth and normal stance, and wings in a normal position. Also, during this time exhibitors will be asked to give the judge a front view and rear view as well as right and left side views of the bird. All of these movements will usually be at the direction of the judge or ring master and should be performed smoothly, quickly, quietly, and effortlessly.

The fifth step, which many shows divide into separate steps, includes showing the judge the head of the bird, the wings, the undercolor, the width of the body, the length and width of the breast, the depth of the abdomen, the width of the pubic bones, and the feet and legs of the bird. During each of these steps, the birds can be shown while being held by the exhibitor in the proper position or while being posed in the proper position on the judging table.

The head of a bird is shown by posing the bird and moving its head from side to side

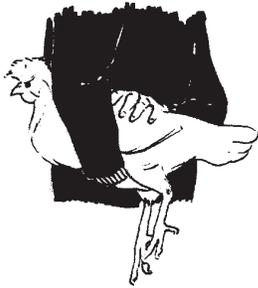
by placing a finger under the beak and guiding the movement of the head. The wings are examined by spreading them so that all of the feathers are exposed for the judge to view. When showing the undercolor, the exhibitor's fingertips should be used to gently pull the tops of the feathers against the direction in which they normally lie. To demonstrate the width of the body of the bird, the exhibitor simply places a thumb and index finger across the back of the bird (directly behind the base of the wings), and the distance between the fingers indicates the width of the body.

All of these procedures can be performed with the bird being posed on the judging table or being held by the exhibitor. Regardless of the method used by the exhibitor, the bird must be posed in the appropriate position for each of the judging aspects.

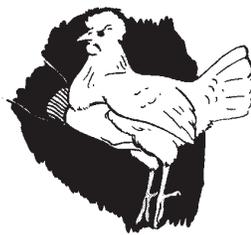
When measuring the breast of the bird, the bird should be held by the exhibitor. Some judges and show officials prefer that the bird be held upside down, and some prefer that it be held upright. This is something that each exhibitor will have to determine from the respective show officials. Regardless of the position, the breast needs to be exposed to the judge so that he or she can check for straightness, thickness, blisters, indentations, or other defects.

In order to accomplish the next two steps, the judge must have a view of the rear of the bird. Therefore, the first part of preparing for these steps involves turning the bird so the judge has the necessary view. This may be done with the bird on the table or being held by the exhibitor. Once the bird

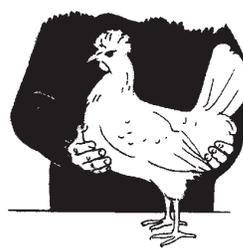
1. Proper Carry



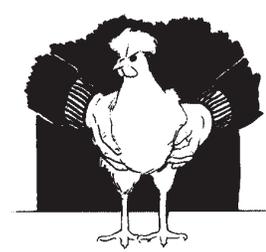
2. Holding Pose



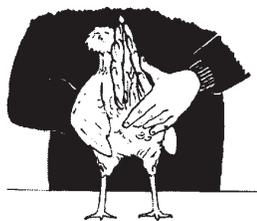
3. Table Pose



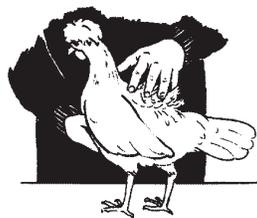
4. Front Pose



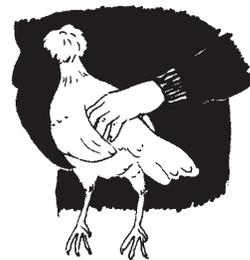
5. Pubic Pose on the table



6. Undercolor/Width-of-Back Pose on the table



7. Width-of-Back Pose holding the bird



8. Inverted Breast Pose



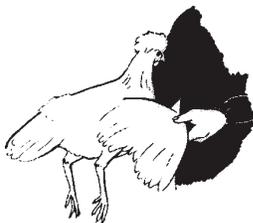
9. Upright Breast Pose



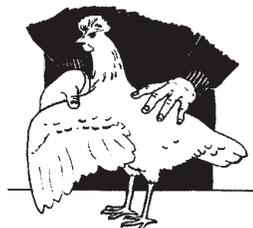
10. Feet and Shanks Pose



11. Wing Pose holding bird



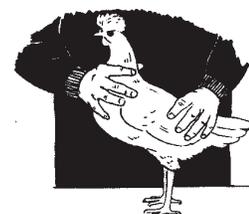
12. Wing Pose on the table



13. Head Pose holding bird



14. Head Pose on the table



is in the correct position, the vent and pubic bones can be shown. To show the vent, simply place as many fingers as possible between the tip of the keel and the pubic bones. To show and demonstrate the width of the pubic bones, place as many fingers as possible between the tips of the two pubic bones.

The next judging step in showmanship is an examination of the feet and legs. This may be accomplished with a front view or a rear view of the bird if the bird is on the table. If the bird is held, it should be positioned with its back against the exhibitor and its head up, thus allowing its feet and legs to be available for inspection by the judge. Either method is acceptable, but the important aspect of this step is that the exhibitor controls the bird and provides the judge with a good view of the feet and legs. Once this step is complete, return the bird to the judging table and pose it in whatever view the judge or ringmaster has requested. For some shows, this step may be incorporated with the step that involves showing the breast. For other shows, this may be the final showmanship step. Other shows might require one additional step of returning the bird to the coop. This is accomplished by holding the bird in the basic hand position and opening the door with the free hand. Place the bird through the door in the same manner that it was removed—slowly, smoothly, and head first—and then set it on the floor of the cage. The final step is to close the coop door.

**Showing tip:** Attending showmanship clinics and workshops is a good way to learn more about recommendations and techniques. However, do not just attend – go home and practice what has been learned.

Training and practicing for showmanship involves preparing oneself as well as teaching the bird. An exhibitor must know what to do and how to do it. To assist in these efforts, a poultry showmanship score card and showmanship illustrations by Tracy duCharme have been provided for review and study. Be mentally prepared. If an exhibitor lacks poise and self-confidence in the show ring, the bird will sense that something isn't right and will become confused and uncomfortable. Consequently, the bird will become excited and hard to control. This will lead to further frustration, and the result is a cycle of confusion and frustration between the exhibitor and the bird.

**Showing hint:** Remember, showing involves the appearance and attitude of the exhibitor, the appearance of the bird, and the showing or showmanship of the bird. Also, be on time for the class and be courteous not only to the judge and ringmaster but also to fellow exhibitors.

To prepare for a show ring:

- Wear clean, neat, and appropriate clothing.
- Wear boots or hard shoes, not soft shoes.
- Carry a small rag in a pocket to clean the bird or clean up messes caused by it.
- Arrive on time for the appropriate class.
- Know the bird's number (if it has one), weight, breed, sex, and age (hatching date).
- Know other relevant information such as the amount of feed being provided, the protein percentage of the feed, etc.

- Know what the judge looks like and/ or is wearing.
- Know what the ringmaster looks like and/ or is wearing.

To prepare a bird for a show ring:

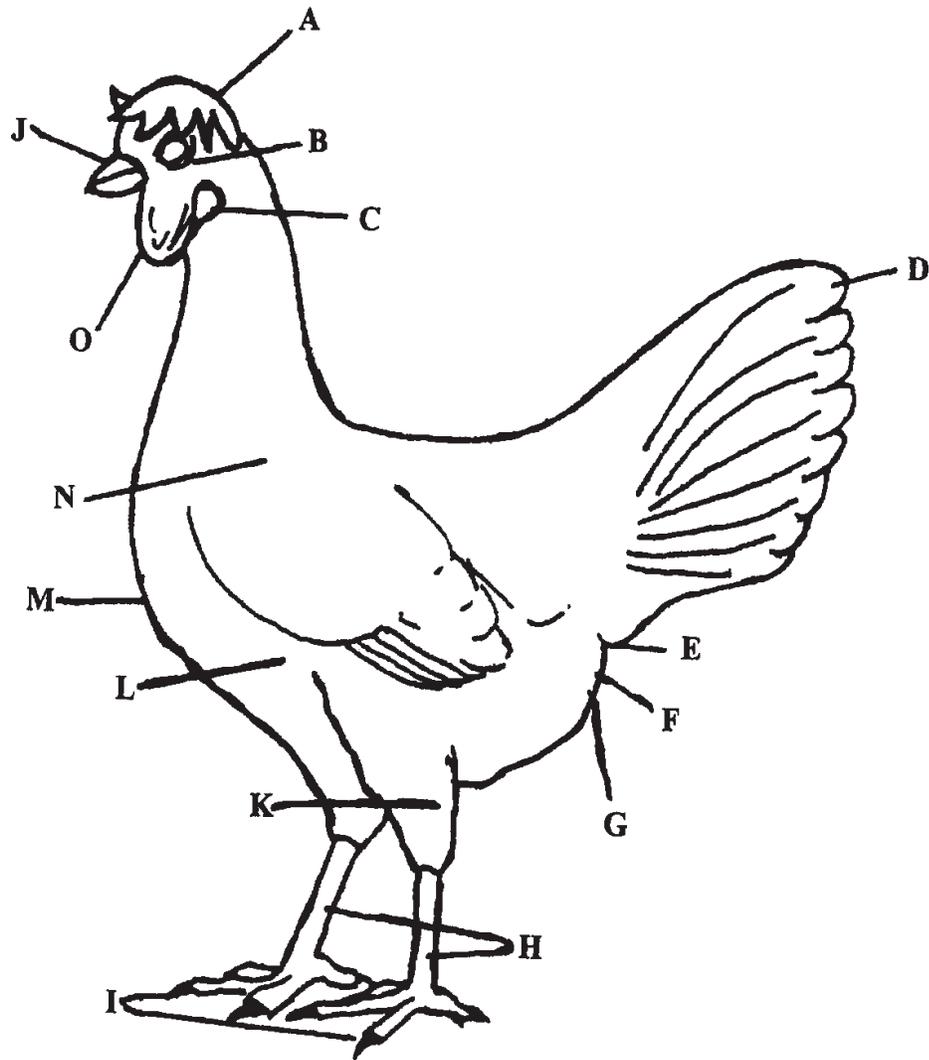
- Wash the bird either the day before the show or the morning of the show if exhibiting in the afternoon.
- On show day, feed the bird at least two hours before show time but only feed approximately half of the usual amount. This keeps the bird attentive and alert.
- On show day, give about half the amount of water usually provided. This prevents the bird from looking overly full and helps keep it active and alert.
- Groom the bird at least twice before show time. This brings out the natural oils as well as removing dust and dirt, resulting in cleaner feathers.
- Before leaving the pen for the show ring, give the bird a drink of water and a final grooming.
- Be calm and gentle with the bird while on the way to the show ring and while in the show ring.



To work as a team in a show ring:

- Be aware of the location of both the judge and the ringmaster as well as any instructions they may give.
- Be courteous to the judge, ringmaster, and other exhibitors. Be sure to say “yes sir” or “no sir,” “excuse me,” and “thank you.”
- Know the bird’s location at all times, especially in relation to oneself, other birds, and the judge.
- Maintain the proper distance between oneself and the bird. This distance will change depending on the showmanship step and how one chooses to show the bird (holding it or letting it stand on the table).
- Keep one hand free to open or close doors and to work the latches. Always latch all doors after use.
- Keep a small rag in a pocket; use it to clean the bird if it happens to get dirty.
- Maintain eye contact with the judge.
- Smile, relax, and enjoy the competition.
- Keep cool, calm, and collected; this helps to keep the bird under control.
- Be humble when winning and gracious when losing.
- Remember to thank the judge and congratulate the winners after the final placing.

## Identifying Chicken Parts



- |          |          |          |
|----------|----------|----------|
| A. _____ | F. _____ | K. _____ |
| B. _____ | G. _____ | L. _____ |
| C. _____ | H. _____ | M. _____ |
| D. _____ | I. _____ | N. _____ |
| E. _____ | J. _____ | O. _____ |

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# Ideas for Splitting Up Into Groups

Sometimes it is necessary to split a large group into smaller groups. It is okay to count off but sometimes it is more to use less traditional methods such as those suggested below. If you use the ideas in the follow list, you may have to adjust players after the initial splits assemble.

- Have everyone fold their arms, clasp their hands together or – if sitting – cross their legs or ankles. Those whose left arm, left thumb, left leg or left ankle is on top comprise one group. The second group is made up of those whose right arm, thumb, leg or ankle is on top.
- Have everyone hold up one or two fingers (or up to however many groups you are forming). Those with the same number of fingers up are in the same group.

- Have everyone with the same shoe size get into a group. Combine groups to get the number and size of groups desired.
- Give everyone a penny. Have them flip the coin. Those who coins landed on heads are one group. Tails are the other.
- Hold up a glass that is filled halfway with water. Those who think the glass is half full form one group. Those who think the glass is half empty form another group.
- Split months of the year up into the number of groups desired. Everyone born in those months form the group.

If four groups are desired, you may split into two groups using one technique and then split each of those groups again using another technique.

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# Get-Acquainted Activities

## Make Name Tags

Provide index cards, markers, wallpaper sample books, scissors and safety pins. Have everyone make a personalized name tag (or name placard) as they arrive.

## Toss-a-Name Game

Have everyone make a circle. Toss a ball around the circle, person by person, with everyone saying their own name. When the ball comes back to you, say someone's name across the circle and toss them the ball. The person you tossed the ball to says someone's name across the circle and tosses the ball to them. (Make sure that no one is left out.) After everyone is fairly familiar with names, add a second ball and then another. **Note:** Balls must be tossed and not "zinged."

## Imaginary Ball Toss

This is similar to the "Toss-a-Name" game except that the ball is imaginary. Therefore, the ball can change weight and shape while it is tossed around.

The person with the ball explains what kind of ball (e.g., helium balloon, bowling ball, football, a square ball, one that weighs 25 pounds) it is when he or she says someone's name and "tosses" it. Everyone must use imagination and accept each person's interpretation of how the "ball" tosses or is caught.

## 5-Minute Interview

Have each member and group leader pair up with someone they don't know. One member of the pair interviews the other for 2½ minutes and then the interviewer and interviewee switch. Have each pair take turns introducing one another to the rest of the group.

## Introductions

Pretend you are hosting a party where no one knows anyone else. Have everyone standing in no particular order. In a party spirit, walk up to one of your "guests" and introduce yourself by name. For example:

- “Hi, I’m Karly. What’s your name? Gabrielle? Hi, Gabrielle, glad to meet you. Come on, there’s someone I want you to meet.” You then take Gabrielle to meet another “guest.”
- “Hi, what’s your name? Paul? Hi, Paul; this is Gabrielle. Gabrielle, this is Paul.” Gabrielle and Paul play it up. They smile, shake hands and say “Glad to meet you.”
- Try to “introduce” everyone in three minutes.

## Name Roulette

Divide those present into two equal groups. Have each group form a circle, facing in. Move the two circles so they are close together. Tell one circle that at the word “go,” they will rotate clockwise, and tell the other circle to rotate counterclockwise. Tell each group that they are to stop rotating when you say “stop.” Start the groups rotating and when you say stop, say “look” to the two people who are standing back to back. Those two people spin around and the first to say the proper name of the other wins that person for their circle. (You may use a quick on-and-off boom box and turn the music on and off for the “go” and “stop” commands. Keep playing until there’s only one circle.

## Get With the Beat

Assemble the group into a big circle. Say your name with a motion for each syllable. The entire group then says your name with the motions. The next person says their name with a motion for each syllable. The entire group says your name with the motions, then the second person’s name with the motions. Continue around the circle.

## Backwards Introductions

Standing or sitting in a big circle, announce yourself by saying your first and last names backwards. Then ask each person, when ready, to introduce himself or herself to the group. Don’t analyze anyone’s interpretation of their backwards name pronunciations. Some people may need a paper and pencil to visualize their name backwards.

## Introductory Adjectives

Sit or stand in a circle. Each person introduces himself or herself with two adjectives that de-

scribe them with the same first letters as their first and last names. For example, “Hi, my name is Caitlin North and I am creative and nice.”

## Bumpity Bump Bump

You need to know that saying “bumpity bump bump” rapidly takes between .6 seconds and .645 seconds (the average is .623).

Assemble the group in a big circle with yourself in the middle. Point decisively to one of the people in the circle and say that person’s first name with conviction. Follow the statement of their name immediately with the exclamation “bumpity bump bump.” The person you pointed to and named must respond by saying the first name of the person to their left before you finish saying “bumpity bump bump.” If the person named flubs the name or completely forgets, his or she will take your place in the center and try to trap someone else.

If the person in the center says “right” before pointing to someone and saying his or her name, then the person who is pointed to must name the person to his or her right.

## Peek-a-Who

Split the group into two teams. Have two people hold up a blanket between the two groups so that neither group can see the other. Each group quietly picks one person who scoots to the center of the blanket. On the count of three, the holders drop the blanket and the two people in the center try to be the first to identify the other person. Whichever of the two people says the other’s name first gets that person to their side. The process is repeated until there is only one group. Be sure to rotate blanket holders or else use leaders as holders.

## Name Tag

With the group standing in no particular order, have each person close their eyes and put up their hands to protect their faces. Have them slowly mill around until you say “stop” but keep their eyes shut. You will say someone’s name and tap them on the shoulder. That person will open his or her eyes, say someone else’s name and tap that per-

son on the shoulder. Each player sits down after tapping and identifying the next person. Before you begin, tell the group that you will time them. (Time stops when the last person is identified.) The game may be replayed right away or it may be replayed at the next meeting. Either way, the group should attempt to better their time when they play again.

## Name by Name

Assemble the group in a big circle. Everyone says their name once, loudly. Then without talking or using props or signals, the group is to arrange itself around the circle in alphabetical order, starting with "A" at your space and going clockwise. Once the group has moved and the circle is reformed, round one ends. Test the group by having all the names said again. If people are out of sequence and corrections need to be made, allow people to move a second time – again with no speaking. Another test ends round two. The challenge is to form the alphabetical circle in the fewest number of rounds.

## Hustle Bustle

Assemble the group in a big circle. Explain that you will say your own name so that everyone can hear. Then the person to your left will say their own name, continuing around the circle. Repeat the sequence but this time, use a stopwatch. Repeat the sequence again, trying to beat the previous time. Give the group a few minutes to discuss among themselves what techniques could be used to bring down their time. After their discussion, ask the group to suggest realistic goals for their ultimate lowest time.

Repeat the "name your own name" sequence clockwise three or four times to get the group's lowest time. Divide the group into two groups. Go around the two circles in the same manner with Group A going in a clockwise direction and Group B in a counterclockwise direction. Then pit

clockwise "Group A" against counterclockwise "Group B" to try to beat the established record. Do the "name your own name" sequence counterclockwise (to your right) several times to see if Group B can meet or beat Group A's record time.

## That's My Name

Divide the group into equal teams. Line the teams up across the room from a table on which there is a stack of blank papers and a marker for each team.

On "go," the first player on each team runs to the table, prints his or her name on a piece of paper and runs back to their team holding the piece of paper. The player holds up the paper and the team shouts out all of the letters in the name. The named player jumps up for every consonant shouted and squats for each vowel shouted. When the team is finished shouting the person's name, he or she moves to the back of the line and the next player repeats the sequence. When the last player for a team has jumped and squatted to accompany their shouted name, all of the team members, at the same time, shout out their own names and then they sit down.

## Name Bingo

Give each person a slip of paper, and a pen or pencil. Have them write their name on the paper and drop the paper, unfolded, into a basket. Have them keep their writing instruments. Give each player two blank bingo cards. Have them write their names in the center squares. Players circulate and have other members and leaders write their names in other squares and vice versa. No one may have their name in more than one square. Play bingo with the top card. When a name is drawn, that player waves and says, "Hi, I'm (name)."

Players cross out names on the cards as they are called and stand up after bingo. Play until everyone is standing. Sit down and repeat with the bottom card.

Avian	A general word that refers to all feathered birds
Bantam	Small or miniature breeds.
Beak	The horny mouth part of chickens, turkeys, and other land birds.
Bill	The horny mouth part of ducks, geese, and other waterfowl.
Bird	An individual of any avian species.

Broiler	A chicken that is less than eight weeks old which will be tender whether it is fried or broiled; sometimes it is also called a fryer.
Breed	A group of animals with common ancestry and with similar characteristics that are passed on from generation to generation.
Breeder	The owner of birds that are mated.
Brood	To care for a batch of chicks, ducklings, goslings, etc.
Chick	A newly hatched or young chicken of either sex.

Clutch	A group of eggs in a nest.
Cockerel	A male chicken less than one year old.
Comb	A fleshy prominence on the top of the head.
Coop	A place where birds are housed and raised.
Crossbred	An animal with parents of different breeds.

Down	Very soft and fluffy feathers on young birds.
Drake	A male duck of any age.
Duckling	A newly hatched or young duck.
Embryo	A developing bird prior to hatching.
Exhibition Birds	Birds that are shown for breed characteristics such as color, conformation, and other traits.

Flock	A group of chickens, ducks, or turkeys.
Fowl	A general word that refers to most domestic birds.
Hatching	The process of a hatchling coming out of an egg.
Hen	A female chicken more than one year old, a female duck of any age, or a female turkey of any age.
Gaggle	A group of geese.

Gander	A male goose of any age.
Gosling	A newly hatched or young goose.
Keel	The lower cartilage portion of a breast bone.
Layers	Poultry (usually chickens) used for egg production.
Molting	Shedding or losing feathers.

Pigmentation

The color of the shanks, beak, eye ring, and vent.

Poultry

A general word that is usually used to refer to birds that typically found on a farm.

Pullet

A female chicken less than one year old.

Purebred

An animal with same-breed parents.

Rooster

A male chicken more than one year old.

Shank	The part of a leg between the hock and the toes.
Standard Bred	Normal or large-sized breeds.
Tom	A male turkey of any age.
Vent	The opening through which an egg is laid.
Web	The skin growing between the toes on ducks, geese, and other waterfowl; the skin between the joints of a wing.

Yolk

The yellow part of an egg.



# DISCOVER

## 4-H POULTRY SHOWMANSHIP CLUBS



## CLUB MEETING 2 HANDOUTS

Introduction to the 4-H Poultry Project ..... 2



**Introduction  
to the  
4-H Poultry  
Project**



# Introduction

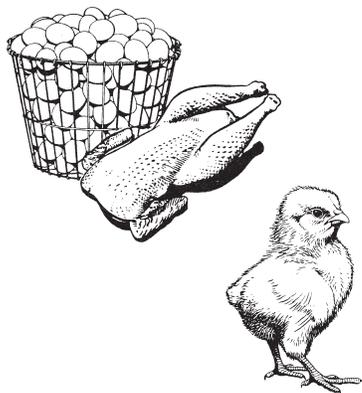
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The 4-H poultry project is for boys and girls who want to learn to raise and grow chickens. If you complete this project, you will learn **(1) to identify different varieties of poultry, (2) to feed and manage poultry, (3) to exhibit poultry and (4) to record your activities.**

The 4-H poultry project includes three kinds of project work. You may do one, two or all three.

## Poultry Projects

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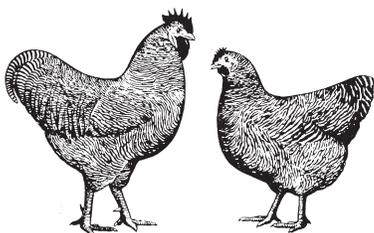


- 1. Broiler Production Project.** Club member raises 25 or more chickens (broilers) to produce meat. This short-term project lasts only seven to nine weeks. Broilers raised for this project are bought as 1-day-old chicks.
- 2. Egg Production Project.** Club member raises a flock of chickens (20 to 25 hens) for their eggs. This long-term project generally lasts six months or longer. Hens used for this project may be bought as pullets (young females) or raised from chicks. The eggs produced can be for home use or sold to a local market.
- 3. Exhibition Birds Project.** Club member raises a small flock of chickens (15 or more birds) to exhibit at parish and state poultry shows. All birds exhibited must have been raised from 1-day-old chicks. Exhibition birds must be purebred and may be standard bred or bantams. Standard bred are normal-size chickens. Bantams are miniatures. Club member may exhibit both standard and bantams.

## Breeds of Poultry

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A system of classes, breeds and varieties has been established to identify and classify chickens.



A class is a group of breeds that originated in the same country or region of the world. The name indicates the region where the breed began, such as English, Mediterranean or American.

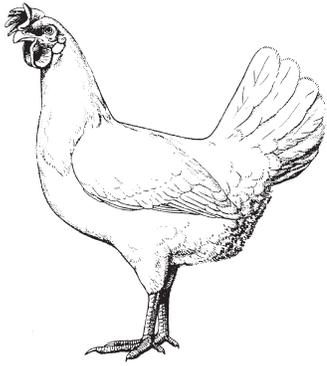
Most chickens grown by today's commercial poultry industry are from the American, English or Mediterranean classes. Breeds in the American class have yellow skin and unfeathered shanks. They adapt easily to different conditions and are used to produce both meat and eggs. Popular breeds in the American class include the Plymouth Rock, Dominique, Rhode Island Red, New Hampshire, Wyandotte, Jersey Giant and others.

Breeds in the English class excel in producing meat. Popular English breeds include the Cornish, Australorp, Orpington and Dorking.

The Mediterranean class includes breeds that produce eggs, not meat. They are small and lay white eggs. Popular breeds include the Leghorn, Minorca, Blue Andalusian and Ancona.

Breed refers to a group of fowl, each having the same physical features such as body shape, skin color, number of toes and feathered or unfeathered shanks. For example, Plymouth Rock has a long body. It has a broad, prominent breast and a deep body. Wyandotte has a round body. Its feathering makes it look like it has a short back.

A variety is a subdivision of a breed. Color patterns, comb type and a beard or muff are used to divide a breed into various varieties. Examples of the varieties of the Plymouth Rock breed are White, Barred, Buff, Columbian, Blue Partridge and Silver Penciled. In each case, the body shape is identical. Feather color is the only difference.



The main purpose of growing poultry is to produce meat and eggs. Chicks grown for meat are called broilers. Broilers are crosses of White Plymouth Rock, White Cornish and other breeds. They convert feeds into meat more efficiently than any other type of livestock. With good growing conditions, broilers can convert 1 pounds of feed into 1 pound of weight gain.

Club members beginning an egg production project should select one of the White Leghorn strains. These birds can produce eggs on a small amount of feed.

Any of the purebred breeds can be grown to exhibit. You may also want to consider raising bantams. Bantams are the miniatures of the poultry world. Most large fowl have a miniature likeness called a bantam. They have the same requirements for shape, color and physical features as do large fowl. Bantams are raised for their beauty, as pets or for companion animals. Often they can be kept in areas too small for large fowl. They are excellent birds to grow for exhibition.

## Activity 1: Understanding Breeds

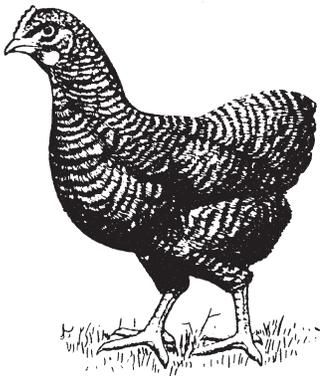
**Instructions:** Match the breed with purpose. Circle A, B or C for the purpose that matches the breed.

### Purpose

- A. Egg Production
- B. Meat Production
- C. Both Egg & Meat Production

### Breeds

- |                     |   |   |   |
|---------------------|---|---|---|
| 1. Plymouth Rock    | A | B | C |
| 2. Rhode Island Red | A | B | C |
| 3. Jersey Giant     | A | B | C |
| 4. Leghorn          | A | B | C |
| 5. Cornish          | A | B | C |
| 6. Minorca          | A | B | C |
| 7. Orpington        | A | B | C |
| 8. Blue Ancona      | A | B | C |
| 9. Astralorp        | A | B | C |
| 10. Broilers        | A | B | C |



# Selecting a Breed

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You must first determine whether you wish to produce broilers for meat or grow out pullets for egg production or exhibition. The poultry industry has developed “cross-breeds” of poultry specifically for meat production. These birds grow and feather fast and are ready for market at six weeks of age or less. All birds of this type should be used for meat. Do not retain these pullets for egg production.

Leghorn breeds are the ones kept for egg production. These birds live well, grow fast and begin laying eggs at 5 to 5 ½ months. You can choose from many excellent breeds and strains.

You also have many breeds and varieties to choose from if you raise birds for show. The American Poultry Association and the American Bantam Association issue books called the Standard of Perfection. These books include descriptions and illustrations of each recognized breed and variety. You can select a breed by studying the American Standard of Perfection. Your 4-H agent should have a copy.

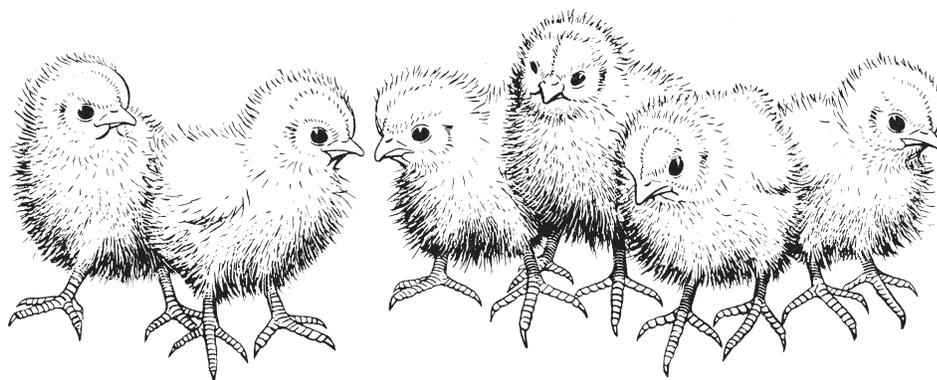
# Purchasing Chicks

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Buy chicks from a reliable hatchery. The hatchery you choose should belong to the National Poultry Improvement Plan (NPIP) or should practice a blood-testing program to purchase chicks that are pullorum and typhoid clean. These diseases can be passed from the hen through the egg to the baby chick if the hatchery does not follow a continuous testing program.

Chicks purchased for egg production or exhibition should be started in January, February, March or April. Chicks started in these months will be grown and ready for the usually higher egg prices in August, September, October and November. They also will be in peak condition for showing at the Louisiana State Fair in October.

Chicks purchased for meat production can be started at any time. They should be grown, however, to be eligible for the Parish Broiler Show, State Fair or the LSU AgCenter Livestock Show. Your 4-H agent will be able to tell you these dates each year.



# Poultry Talk

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Many special terms are used in poultry production and selection. You need to become familiar with them to develop your selected poultry project. These terms will also help you talk to poultry producers to select your breed of poultry.

**Broiler** – a chicken less than eight weeks old, which will cook tender by broiling or frying.

**Flock** – three or more birds kept in one place.

**Hen** – a female chicken over 1 year of age for exhibition purposes.

**Pullet** – a female chicken under 1 year of age for exhibition purposes.

**Cockerel** – a male chicken under 1 year of age for exhibition purposes.

**Cock** – a male chicken over 1 year of age for exhibition purposes.

**Exhibition** – birds shown for their outward genetic expression (color patterns, body type and other characteristics).

**Standard bred** – large fowl that weigh more than 3 lb at maturity.

**Bantam** – small fowl (or miniature) that weigh less than 2 lb at maturity.

**Crossbred** – the offspring of parent stock of different genetic makeup.

**Fowl** – refers to chickens mostly, but also refers to most avian species.

**Nutrients** – the individual components of a feed or ingredients required by an animal.

**Protein** – any of a large group of complete organic components essential for tissue growth and repair.

**Ration** – a combination of ingredients (feed stuffs) that supply all of an animal's dietary needs.

# General Management and Care of Poultry

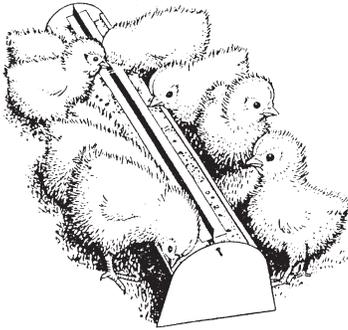
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Raising poultry successfully for meat, eggs or exhibition depends on your ability to provide the proper management and care for the birds.

## Housing and Equipment

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The basic requirements of a poultry house are that it provide enough space, protection from weather and predators (dogs, possums, foxes, etc.) and allow for movement of air. Space requirements depend on the type of chicken such as for egg production, exhibition or meat production.



Egg-production birds require about 3 square feet of floor space per bird. Larger breeds grown for exhibition need more space. Space also should be provided for separating males and females for exhibition. Bantams need 2 to 3 square feet of floor space per bird. For both standards and bantams, individual cages are required for the adult males.

Poultry house windows should be covered with 1-inch mesh poultry netting. During cold weather, the windows can be covered with plastic film if needed. Be sure to provide adequate ventilation.

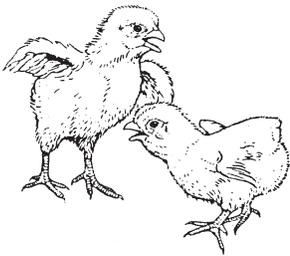
All young chicks require a heat source. Heat can best be supplied by an electric heat lamp. A 125-watt lamp is suitable for cool and warm weather and a 250-watt lamp or cold weather.

Chicks will need a trough or tube feeder. A trough 2 feet long is adequate for 12-15 chickens. One tube feeder will provide enough feeder space for 25 chickens. A 1-gallon waterer is adequate for 25 to 30 chicks. Use larger waterers for older chickens.

## Brooding Management

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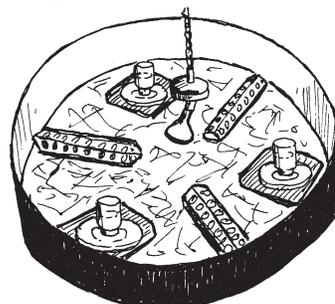
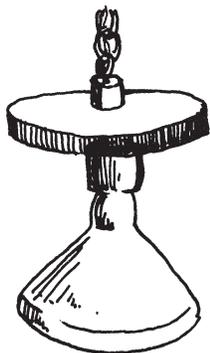
Brooding refers to the care of young chicks during the first 2 to 3 weeks of life. Good brooding practices bring out good qualities in chicks.



Use a disinfectant to sanitize the house and equipment before the chicks arrive. A solution of chlorine, iodine or quaternary ammonia can be used. When using any disinfectant, carefully follow the instructions on the label and get an adult to help you. Cleaning and disinfecting help to control diseases and parasites.

Once the brooding area has dried, place 4-6 inches of dry litter on the floor. Materials such as dry pine shavings, rice hulls or chopped straw make good litter.

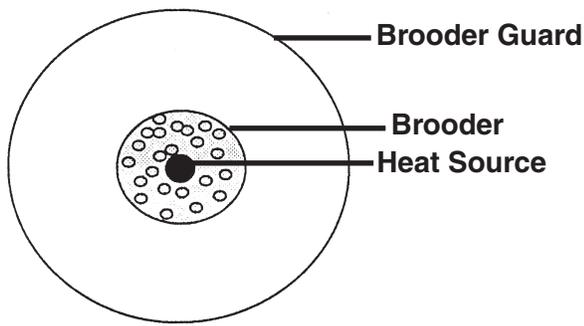
The brooder lamp should be suspended about 15-18 inches above the litter and turned on the day before the chicks arrive. The lamp should be an infrared lamp, generally a 250-watt lamp bulb. Do not hang it by the electrical cord (see diagram). Secure the lamp at the proper height with a rope or chain. Heat lamps get very hot and are a fire hazard. They should not come near or touch the litter.



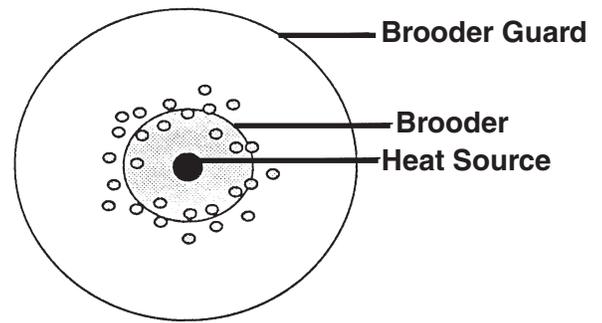
Place waterers and feeders inside the brooder area near the heat source. Do not crowd them under the light. The diagram will help you place equipment.

Place feed in shallow, flat pans for the first two or three days. This makes it easy for chicks to find food. After day three, replace the feed pan with a trough or hanging feeder. Hanging tube feeders are best for small flocks. Height of hanging feeders can easily be adjusted as the birds grow.

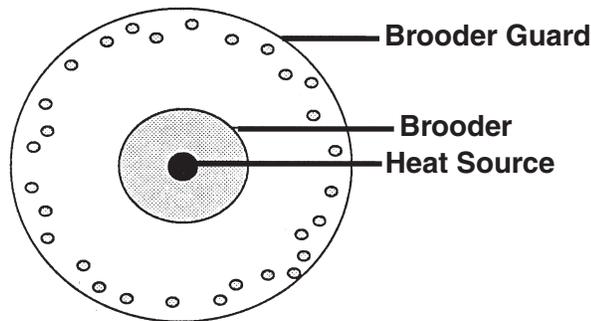
### Low Temperature



### Average Temperature



### Above Average Temperature



The day before the chicks arrive, turn on the brooder lamp. Fill waterers and feeder pans. Turning the lamp on early allows litter and equipment to warm. This helps make the chicks comfortable.

When the chicks arrive, place them under the heat source. The temperature should be at 85-90 degrees for the first three or four days. The best guide to adjusting the temperature should be the chicks themselves. Their actions will tell you whether they are comfortable or not. The diagram shows you how to do this.

For the first few days, it will be necessary to watch the birds closely. Adjust the brooding temperature as necessary. The temperature can be increased by lowering the heat lamp. It can be decreased by raising the heat lamp. Supply fresh feed and water daily. Artificial light should be provided 24 hours a day. One 40-watt bulb provides adequate light for pens up to 20 feet square.

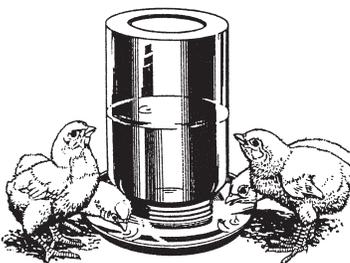
## Growout Management

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The growout period for broilers includes the time after brooding until market size is reached. You must provide the proper conditions, feed and care during the growing period. Keep the house at a comfortable temperature (about 72 degrees). Provide a good supply of fresh air. It is important that the litter remain dry. Remove wet spots and add fresh litter. Wet litter provides an ideal condition for parasites to grow.

Provide fresh feed daily. Do not fill troughs more than two-thirds full, or you'll waste feed. Chickens must have fresh, clean water at all times. Remove waters daily, wash them and fill with clean water.

Birds need light to locate feed and water. They also need light to grow and develop. Broilers and layers need different light schedules. Chicks grown for broilers should receive light 24 hours a day. This encourages them to eat more feed and grow rapidly. Birds grown for egg production or for exhibition should receive about 12 hours of light a

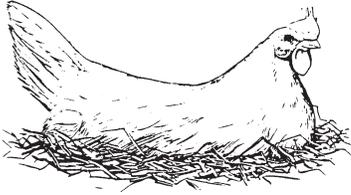


day up to 22 weeks of age. A 40-watt bulb will furnish enough light for 25-50 broilers or pullets.

## Management for Egg Production and Exhibition

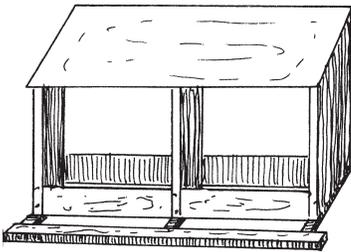
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Pullets normally start laying eggs about 22 weeks of age. The average hen lays 260 eggs in one year.



Under natural daylight conditions, chickens lay most of their eggs in the spring as days lengthen. You can use electric lights to make hens think that the days are long. This makes them lay more eggs. A useful rule for lighting laying hens is never to allow day length to decrease. Laying hens require 15 hours of light per day. One 40-watt light bulb provided enough light for up to 100 hens.

Except for controlling day length, hens require about the same management as do broilers and pullets during the growout period. Hens need a comfortable environment, dry litter, fresh feed and water and daily attention.

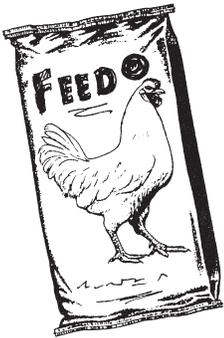


Laying hens need nests, which can easily be constructed. They should be about 1 foot square and 1 foot high. A small board at the bottom front will help retain nesting material. A perch located below the opening will provide easy access. You should provide one individual nest for every four to five layers.

## Feeding

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Chickens have simple stomachs. The nutritional requirements are different for each group of birds. It is important to feed chickens a feed designed specifically for them.



Many types of poultry feeds are available from local feed dealers. It is important to select the correct feed. For example, if you are feeding broilers, select a feed designed specifically for growing broilers. Broiler feed should contain 23-24 percent protein. It may be necessary to mix several feeds together to get a 24 percent protein level. To do this, get a feed formula and directions for mixing from your agent or extension specialist. They can calculate the correction combination of feeds for you.

A ration that contains no more than 20 percent protein is good for day-old pullets. Pullets do not need to grow as rapidly as broilers. They need less protein. Older pullets (8 to 20 weeks old) need even less protein. A diet containing 16 percent protein is satisfactory. During egg production, a 15 percent protein diet will support a good rate of lay and keep hens healthy.

## Health

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Prevention is the best way to deal with poultry disease and parasites. Prevention is better than treatment. Good sanitation and good management help prevent disease.

Follow these important sanitation and management practices:

1. Clean and disinfect house before chicks arrive.
2. Wash and clean waterer daily.
3. Keep litter dry. Remove and replace wet litter.
4. Remove and incinerate or bury all dead birds.
5. Provide adequate ventilation.
6. Isolate flock, limit visitors and keep dogs, cats, etc. away.
7. Control rats and mice.
8. If possible, keep birds of only one age on the farm.



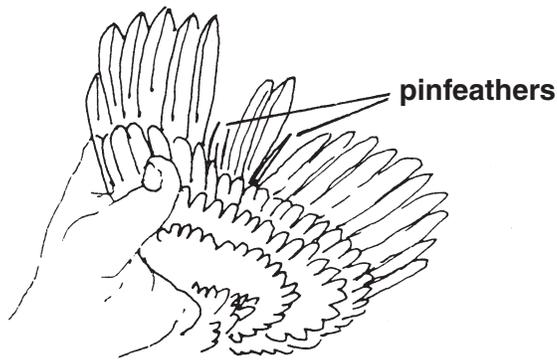
# Selection and Fitting for Show

The objective of growing broilers is to produce birds of top marker quality. The five factors that determine quality are fleshing, conformation, finish, feathering and freedom from defects.

Well-fleshed birds are more attractive. Breast, drumsticks and thighs carry most of the flesh. They should be examined thoroughly. Breast should be long and thick. The breast bones should be completely covered with flesh. Thighs and drumsticks should be thick and meaty. The degree of fleshing can be easily determined by feeling with your hand.

Conformation refers to the overall shape. The ideal shape of a broiler approaches that of a rectangle. This type of bird has good fleshing and fat covering.

Finish refers to the amount and distribution of fat. Well-finished birds have a uniform layer of fat. The birds will have a creamy or yellowish color. On poorly finished birds, the muscle and blood vessels will show through the skin. This gives the bird a reddish color. To determine finish, examine the underside of the wing. On a well-finished bird, the wing web will appear creamy or yellowish and feel waxy.



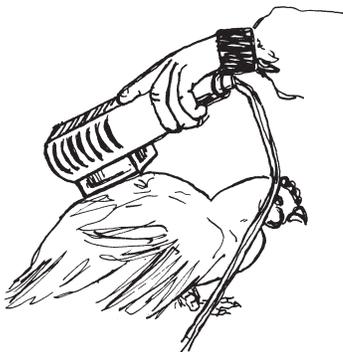
Ideally, the birds should be well-covered with mature feathers. Pin feathers (feather tips coming through the skin) are difficult to remove and lower quality. In checking for pinfeathers, examine these four areas: (1) underside of wing, (2) breast, (3) legs and thighs and (4) back.

High-quality birds are free of defects. Birds should have no broken bones, bruises, cuts or tears. Bruises are a common defect. They are usually caused by rough handling. Be careful when boxing or crating the birds for transport. Breast blisters are also a common defect. Birds with a watery breast blister or heavy calluses on the breast are not desirable.

If you are selecting birds for show, examine every bird in the flock for quality. Don't consider birds of undesirable quality. From the desirable birds, select the most uniform possible.

In selecting exhibition birds for breeding or for exhibit, you should choose the bird that closely represents the description given in the Standard of Perfection. The Standard of Perfection gives a complete and detailed description of all breeds and varieties. Defects that may lead to disqualification are discussed and illustrated.

Place birds that you have selected to show in individual cages. Provide plenty of good clean bedding, fresh feed and water. Birds may be washed two or three days before the show. Wash birds in a tub of warm water containing a mild soap (not detergent). Rinse in a tub of warm water. Place birds in a warm place so they can dry properly. A hairdryer may be used to speed drying. At the show, birds may be wiped off and the face, comb and wattles cleaned with a mixture of 50 percent water and 50 percent rubbing alcohol. For more information on poultry, refer to Standard of Perfection/American Poultry Association, "G. D. Raising Poultry Flocks," Louisiana Cooperative Extension Service publication 2250, "Small Poultry Flocks," and libraries.



# Activity 2: Management and Care of Poultry \_\_\_\_\_

1. List three predators of poultry.

\_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_ refers to the care of young chicks during the first two to three weeks of life.

3. The brooder lamp does not need to be turned on until chicks arrive.

True                  False

4. Chicks grown for broilers should receive light 24 hours a day.

True                  False

5. Pullets normally start laying eggs at \_\_\_\_\_ weeks of age.

6. The average hen lays \_\_\_\_\_ eggs in one year.

7. Broiler feed should contain a \_\_\_\_\_% protein level.

8. Name the three poultry projects offered in 4-H.

\_\_\_\_\_

\_\_\_\_\_

9. Good \_\_\_\_\_ and good \_\_\_\_\_ help prevent diseases.

10. Name the five factors that determine the quality of broilers.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

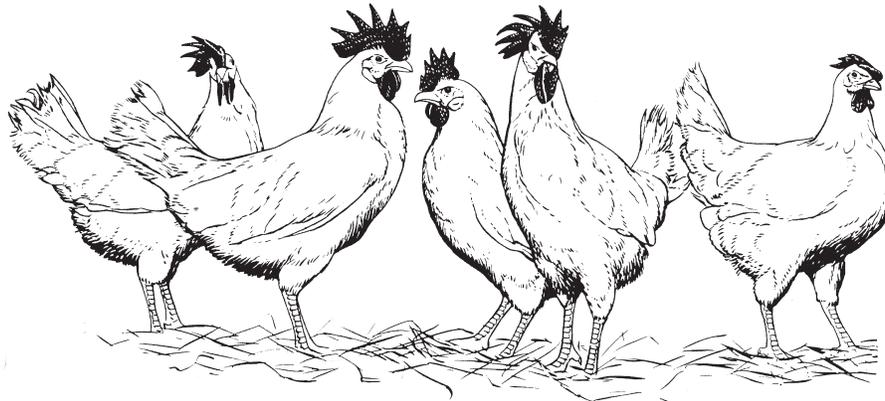




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# DISCOVER

## 4-H POULTRY SHOWMANSHIP CLUBS



### CLUB MEETING 3 HANDOUTS

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# Basics for Raising Backyard Chickens

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 Utah State University Extension Poultry Specialist

This fact sheet is constructed to be used by local municipalities for training or as an evaluation tool in the permitting process for allowing poultry keeping in population-dense settings. It also serves as a condensed review of basic poultry keeping practices.

Backyard chicken keeping is increasing in popularity. There are many reasons for this. Perhaps it is to have a ready source of eggs and meat, or as a backyard help in pest control, or perhaps it is just because they are fun to watch. Whatever the reason, chickens can be a great source of enjoyment if properly managed and given appropriate care.



Figure 1. Hens enjoy the spring breeze.

## Get Your Chicks Off to a Good Start

Baby poultry cannot generate enough heat to sustain themselves. That is the reason the mother hen keeps the young under her wings. The process of getting chicks off to a good start is called *brooding*. The brooding period is roughly the first 3 to 4 weeks of a chick's life. By then, most breeds are fully feathered and can generate enough heat on their own to get by.

Basic needs for brooding chicks are:

- Heat source, such as a 250 watt infrared light. Keep a temperature gradient from 110°F under the heat source to 84°F at edge of brooder ring. Decrease temperature about 5°F each week. However, if chicks appear too cold or hot, adjust accordingly.
- Clean water.
- Good quality chick starter feed.
- Clean litter (pine or cedar shavings are recommended).
- A circular confined area to keep the chicks from wandering away from the heat source.



Figure 2. Example of a brooder ring.

## Housing

Chickens are very adaptable and no single best way exists to house them. Creative architectural construction may even be considered in building a “designer” chicken house in order to enhance the backyard landscape. Regardless of ultimate design, the

following practical considerations should be observed. The building must:

- Be large enough for proper air circulation (i.e., ventilation), but small enough to keep from getting too cold and drafty in winter;
- Allow 1.5 to 2.0 ft<sup>2</sup> (0.14 to 0.19 m<sup>2</sup>) floor space per adult chicken;
- Provide easy access to feed and water; and
- Provide nesting areas for hens in egg production.

## Perches

Although not mandatory, it is usually a good idea to provide perches for the chickens. Perches will allow birds to stay off the floor – particularly as they roost at night. Most breeds seem to enjoy spending time on perches. Manure will tend to accumulate in greatest concentration under the roost area, thereby helping to keep the rest of the bedding material in the house cleaner. A good rule of thumb is to allow 6 to 10 inches (15 to 25 cm) of linear perch space for each chicken housed.

## Nest Boxes

Nest boxes are essential furnishings of any hen house because she will seek a secluded place to lay her eggs. Properly constructed and maintained, nest boxes provide a clean environment for laid eggs and facilitate gathering them. Again, there are no hard and fast rules for nest box construction. Commercial boxes are available from various retail sources, or you may construct your own.

- Nest box height and width should be 12 to 15 inches (30 to 38 cm); depth should be at least 12 inches (30 cm).
- One nest box is required for each four to five hens. Place nest boxes no less than 18 inches (46 cm) above the floor.
- A front panel, 4 to 6 inches (10 to 15 cm) high, is necessary to provide seclusion and keep eggs from rolling out of the nest.
- Maintain at least 2 to 3 inches of clean dry shavings in each nest box to reduce egg breakage and to minimize number of soiled eggs.
- A perch may be attached to each box to facilitate access, running parallel to the front of the box and located 6 to 8 inches out.

## Don't Forget the Water

Remember, the nutrient consumed in the greatest quantity by a chicken is *water*. A direct relationship exists between the amount of water a chicken drinks and the amount of feed consumed. If inadequate water is

available, not only will chickens decrease eating, but there will also be a negative effect on egg production and growth.

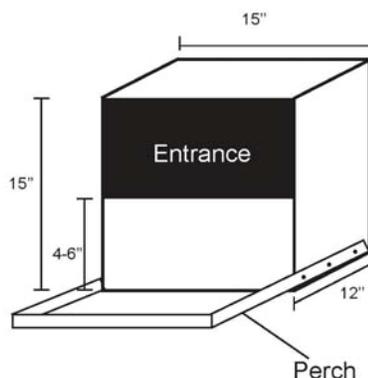


Figure 3. Example of a nest box design.

Although types and designs of drinkers vary, the fact that fresh clean water must be present at all times should never be forgotten. Fountain-type drinkers have the advantage of being affordable and easily moved around; however, because the reservoir holds only a finite quantity of water, it is necessary to watch carefully that they don't become empty.



Figure 4. Chicks shown drinking from a 1 gallon fountain-type waterer.

- Water should be changed frequently in order to prevent bacterial growth, over-warming (in summer), or freezing (in winter).
- A fountain-type drinker commonly available in most feed stores will hold 1 gallon of water. Each drinker will provide enough daily water for 12 to 15 adult chickens during cool weather and 6 to 12 during hot weather.
- Always provide at least two or three additional drinkers in excess of the estimated water

consumption for the number of birds in the chicken house. This provides a buffer for a short term water supply in the event of spillage or leakage. It also offers an opportunity for the more timid birds in the flock to satisfy their water needs without competing with more aggressive individuals for drinker space.

- When planning number of drinkers to place in the chicken house, consider that in cool weather each adult chicken will consume about 0.05 to 0.08 gallon per day; in hot weather, 0.08 to 0.16 gallon per day.

## Feed Quality Is Important

- Feed quality will affect feed consumption. Ensure that the feed is not stale, rancid, or moldy.
- Immediately remove obviously moldy, rancid smelling or any other questionable feed. Such feed will, at best, not be eaten; and at worst, cause disease or nutritional deficiencies if consumed.
- Purchase feed as fresh as possible. Vitamins will start to degrade if finished feed is stored for prolonged periods. Plan your schedule so that new feed is purchased at least every 2 months.
- Always store feed away from heat, moisture, and direct sunlight. Protect from rodents.

## Feeder Styles

Feeders come in a wide array of sizes and designs from egg carton lids for starting newly hatched chicks to sophisticated automatic adult feeding systems. Trough feeders are usually used to start off young chicks. Bucket feeders of various sizes are popular and appropriate for both growing and adult chickens. The advantage of bucket feeders is that they can store a few days' worth of feed, thereby alleviating daily hand feeding; however, care must be taken not to let old feed accumulate in them and become stale and moldy. Clean and brush them out often. Use the appropriate size of bucket feeder for the class of poultry being raised. Using too large of feeders with chicks will prevent them from being able to reach the feed. Also chicks might get inside the lip of the feeder and not be able to get back out. Feeders with too narrow of a lip for adult birds will cause excessive spilling and wasted feed.

- Feeders should be raised off the ground, and generally positioned level with the mid to upper breast region of the chickens being fed.
- A good rule of thumb is to allow 1 linear inch of feeder space per chick and 2 to 3 linear inches per adult chicken.

- Always keep feeders in an area where it is protected from moisture, wild animals, and free flying birds, preferably inside the chicken house.
- Purchase feed from a reliable commercial feed manufacturer.
- It's OK to let your chickens forage around for bugs and greens, but always provide them access to the appropriate type of formulated balanced feed as well. Totally "free-ranged" poultry will rarely be able to consume a proper balance and quantity of nutrients necessary for their maximum rate of meat and egg production.



Figure 5. Example of one type of feeder commonly used to start chicks.

## Feed Consumption Guidelines

There is great variation in feed consumption patterns of chickens depending on breed, feed source and environmental conditions. The following information, however, serves as a guide for feeding large fowl breeds of poultry.

### Meat-type strains (Commercial-type broilers, roasters, "Cornish-Rock" crosses)

0-2 weeks. . . . .	22-24% protein chick starter
2-4 weeks. . . . .	20-21% protein grower
4 weeks to market . . .	18-20% protein finisher*

### Layer strains (Commercial-type leghorns, brown egg layers)

0 to 6 weeks. . . . .	20-21% protein chick starter
6 weeks to prior to egg production . . . . .	16-19% protein pullet grower or developer

At onset of egg production. . . . .	16-18% protein layer diet**
-------------------------------------	-----------------------------

### Dual-purpose breeds (Plymouth Rock, Rhode Island Red, New Hampshire, etc.)

0 to 6 weeks. . . . .	20-21% protein chick starter
-----------------------	------------------------------

6 weeks to prior to egg production. . . . . 15-19% protein pullet grower or developer

At onset of egg production . . . . . 16-18% protein layer diet\*\*

\*These recommendations are based on common protein levels for feeds available in most local feed stores. It is assumed that the finished feed is balanced for energy, vitamins, and minerals in relation to specific protein content.

\*\*Do not feed a layer diet to chickens not in egg production (too high in calcium).

## Varmint Control

Maintain a rodent control program around the poultry house. When building the floor, integrating heavy gauge wire mesh beneath the subflooring is recommended to discourage entrance of predators and other varmints. Cover windows and vent openings with good quality poultry wire to keep out birds. Make sure doors and windows fit tightly. Caulk and seal all cracks and crevices. Small rodents can gain entry through holes the size of a nickel or quarter. Keep the poultry house locked to discourage theft and uninvited visitors.



**Figure 6. House mouse. Average litter size is six and one female can have up to eight litters per year. Average range is 15 to 30 feet. A mouse can last longer without water than a camel. (Photo from KoreanRodent\_pm39-HouseMouse.)**

## Lighting

Laying hens require at least 14 hours of light to maintain good egg production. Most experts recommend 16 hours of light per 24 hour period. Artificial lights wired into a timer will accomplish this during fall and winter, when daylight is decreasing. Decreasing daylight will cause hens to quit laying and go into a molt.

## Egg Production

Hens do not need roosters present to produce eggs. Increasing day length, not the presence of males, is what stimulates egg production. A rule of thumb is that four to five hens will supply two to four eggs per day during their production cycle. Pullets (young females) reach sexual maturity and are capable of laying eggs

when about 5 to 7 months of age; however, this can vary considerably depending on breed and strain of chicken.

## Molting

Molting is a natural process that chickens go through. It is nothing more than a resting part of the physiological cycle of birds. During the molt the hen will go out of egg production and lose feathers. Under natural conditions, this occurs in the fall or winter. However, modern layer strains have been bred to maintain high egg production over a long period. Therefore, you may find your flock laying eggs and losing feathers at the same time. The laying cycle causes the feathers to become worn and broken. After the molt, the hens will have a new covering of feathers. Hens generally produce fewer eggs with each molt. Eggshell strength may also be reduced with each subsequent molt.

## Be a Good Neighbor

- Chickens do not respect property lines. Keep your chickens enclosed and confined to your property.
- Properly dispose of used poultry litter. In many instances, used litter can be incorporated into the garden soil or composted; however, improper composting or storage may create excessive odor and fly problems. Proper composting requires careful management of moisture, aeration, and temperature.
- Although in most circumstances chickens pose a relatively low risk of giving disease to humans, there are a few infections that can be transmitted back and forth. Proper care and handling of eggs and processing of poultry carcasses are critical to avoid problems.
- The commercial poultry industry is a significant and vital part of the agricultural economy of the U.S. It is important that these flocks be protected from serious diseases that would adversely affect each one of us. Small backyard flocks if not properly managed, might significantly increase the probability of disease exposure to the commercial industry.
- Past history has shown that diseases such as exotic Newcastle disease (END) can occur in the small flock poultry community. The discovery of END would have devastating economic consequences from death loss as well as the loss of trade with other countries.



Figure 7. Always think about what you can do to protect your own birds and your neighbor's birds from disease.

## ENJOY!

Poultry raising can be an inexpensive and fulfilling hobby and pastime. Good wishes in embarking on this exciting opportunity!

For additional information contact your county Extension agent or Extension poultry specialist.

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**Feed Consumption Guidelines-** There is great variation in feed consumption patterns of chickens depending on breed, feed source and environmental conditions. The following information, however, serves as a guide for feeding large fowl breeds of poultry.

**Meat-type strains (Commercial-type broilers, roasters, “Cornish-Rock” crosses) -0-2 weeks** . . . . . 22-24% protein chick starter 2-4 weeks . . . . . 20-21% protein grower 4 weeks to market . . . 18-20% protein finisher\*

**Layer strains (Commercial-type leghorns, brown egg layers) - 0 to 6 weeks.** . . . . . 20-21% protein chick starter 6 weeks to prior to egg production . . . . . 16-19% protein pullet grower or developer at onset of egg production. . . . . 16-18% protein layer diet\*\*

**Dual-purpose breeds (Plymouth Rock, Rhode Island Red, New Hampshire, etc.)- 0 to 6 weeks.** . . . . . 20-21% protein chick starter 6 weeks to prior to egg production . . . . . 15-19% protein pullet grower or developer at onset of egg production . . . . . 16-18% protein layer diet\*\* \*these recommendations are based on common protein levels for feeds available in most local feed stores. It is assumed that the finished feed is balanced for energy, vitamins, and minerals in relation to specific protein content. \*\*Do not feed a layer diet to chickens not in egg production (too high in calcium).

<b>Minimum Space Requirements</b>		
<b>Type of Bird</b>	<b>Sq ft/bird inside</b>	<b>Sq ft/bird outside runs</b>
Bantam Chickens	1	4
Laying Hens	1.5	8
Large Chickens	2	10
Quail	1	4
Pheasant	5	25
Ducks	3	15
Geese	6	18

## Small Scale Poultry Housing

*Phillip J. Clauer, Poultry Extension Specialist, Animal and Poultry Sciences*

Small scale poultry coops seem to be built in almost every possible shape and size. Those building a new coop often ask for plans for the perfect chicken coop. However, few plans for small poultry houses are available. Many existing buildings can easily be adapted to accommodate poultry. Poultry housing can be as crude or elaborate as you wish to build as long as you provide the following:

### 1. Protection:

A good poultry house protects the birds from the elements (weather), predators, injury and theft.

Poultry require a dry, draft-free house. This can be accomplished by building a relatively draft free house with windows and/or doors which can be opened for ventilation when necessary. Build the coop on high, well-drained areas. This prevents prolonged dampness and water saturation of the floor of the coop and outside runs. Face the front of the coop, the windows and outside run to the south which allows the sun to warm and dry the coop and soil. Allowing an adequate level of space per bird also helps keep the humidity level in the coop to a minimum.

Keeping poultry totally confined to together with fence and covered runs are your best protection from predators. If you are building a new facility, consider laying a concrete floor, and start the wall with one or two concrete blocks. This prevents rodents, snakes, and predators from digging under the walls and the floors. Windows and doors must be securely covered with heavy-gauge mesh wire or screening when opened.

With outside runs, bury the wire along the pen border at least 12" deep, and toe the fence outward about 6 inches. This stops most predators from digging under the fence. Animals always dig at the base of a fence. By toeing the fence outward and burying it, the predator digs down right into more fencing. Some people run electric fencing around the outside of their pens 4" off the ground about one foot from the main fence to discourage predators. If your outside runs are not predator-proof, you need to lock up your poultry before dark.

To prevent problems with hawks and owls, cover your outside runs with mesh wire or netting. A good ground cover of millet, broomcorn, sorghum or other tall leafy vegetation also provides cover for the birds to hide under. Many times a 3-4 ft. grid over the pen constructed of boiling twine will give excellent protection from flying predators.

To protect the birds from theft, lock your building and pens securely whenever you are not home. Have your neighbors watch for visitors while you are away. Some people actually have burglar alarms in their bird coops. A protective dog kept near your coop usually works well to discourage predators and unwanted visitors.

Build your poultry house to prevent possible injury to your birds. Remove any loose or ragged wire, nails, or other sharp-edged objects from the coop. Eliminate all areas other than perches where the birds could perch more than 4 feet above the floor. Remove perching areas such as window sills, nest box tops, or electric cords whenever possible. These extra measures could eliminate any injury to you or your birds and may prevent damage to the coop, as well.

## 2. Adequate Space:

Birds need adequate space for movement and exercise as well as areas to nest and roost. Space requirements vary with the type of bird you raise.

**Pigeons require** a minimum of 4 square feet per breeding pair. One-eighth inch perch and two 9 inch x 9 inch nests per breeding pair are recommended.

Minimum Space Requirements		
Type of Bird	Sq ft/bird inside	Sq ft/bird outside runs
Bantam Chickens	1	4
Laying Hens	1.5	8
Large Chickens	2	10
Quail	1	4
Pheasant	5	25
Ducks	3	15
Geese	6	18

**Perches:** With chickens, always provide 6 to 10 inches of perch space per bird. Perches are not usually used with meat chickens and waterfowl.

**Nests:** Always provide at least one nest for every 4-5 females in the flock.

## 3. Easy Access to Feed and Water:

Feeders and waters should be placed conveniently throughout the pen for birds' access. Place the bottom of the waterers and top lip of the feeders at the birds' back height. This will keep the feed and water clean and prevent wastage.

Small birds like pigeons, bantams and quail, only require 1 linear inch/bird of feeder and water space and large birds require 2-3 linear inches/bird.

When possible, place the waterer in the outside runs, especially for waterfowl. This helps to keep the humidity level lower inside the coop.

## 4. Source of Light:

If you wish to produce eggs from your flock year-round, you must have a source for electric light. One electric light every 40 feet at ceiling height is appropriate. Most small poultry houses do very well with one light above the feeding and watering area.

Windows placed on the southside of the coop will also be a good source of light and warmth in winter and a good source of ventilation in summer.

## 5. Ventilation:

Ample air movement without a draft is essential. Fresh air brings in oxygen while excess moisture, ammonia or carbon dioxide are removed the stale air moves out of the house. Dampness and ammonia build-up are a sign that there is not enough ventilation. For small coops windows or vents on one side of the house usually provide plenty of ventilation. Well-ventilated houses must also have plenty of

insulation and a good vapor barrier. Failure to insulate or ventilate properly causes moisture to accumulate on the walls and ceiling in cool weather. Poultry can handle cold very well if they are dry. However, cool and humid conditions can create many health problems. Locate openings on the side away from prevailing winds. The south or east side is usually best.

## **6. Appearance:**

The appearance of any poultry house or outside run that is visible to the neighborhood should never detract from the over-all appearance of the surroundings. Exteriors of structures should be kept painted and well-maintained. Weeds and trash should be removed from around all facilities. Proper landscaping can provide screening and also help muffle sounds from the birds. Unsightly structures are not good for the image of bird raising and may lead to new laws restricting the raising of birds in your area.

## **7. Use Common Sense:**

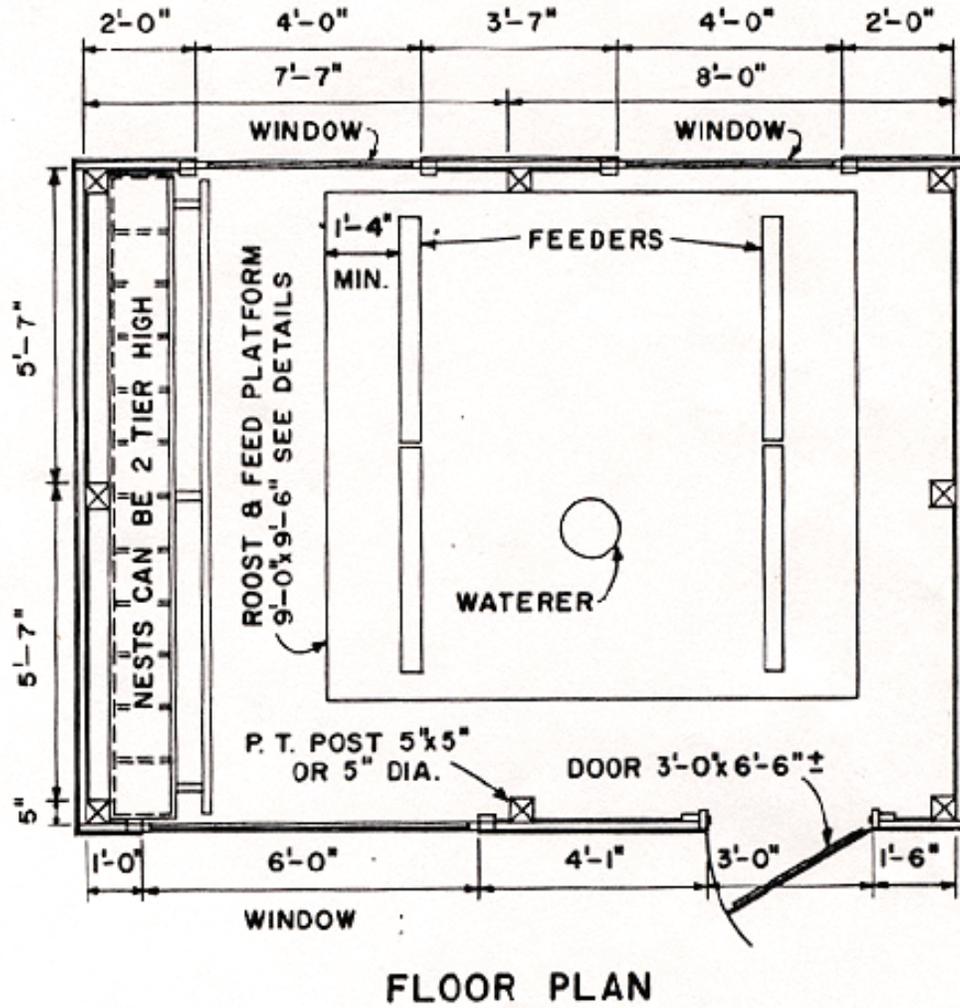
When building a poultry house, use common sense in designing the structure. Build the roof high enough and situate such permanent structures as nests, roosts, and feeders for easy access and to make it easier to clean all areas of the house. Install doors so that they open inward. Using sliding windows so that the birds cannot roost on them rather than windows which swing in or out. Use building materials which will be easy to clean and disinfect. Slightly sloping the floor toward the door can help prevent puddling in the building and will make the building easier to spray out and dry between uses.

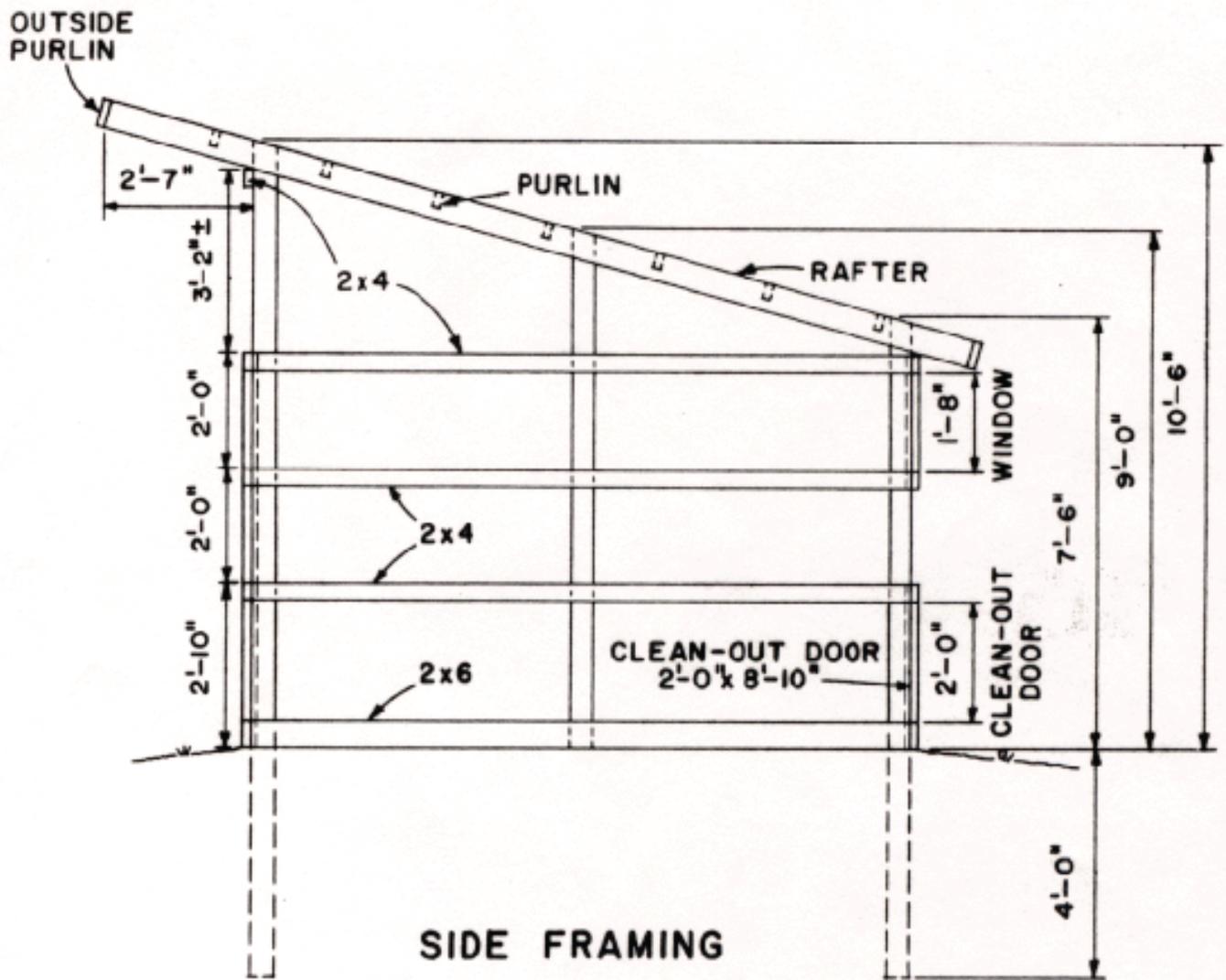
*Reviewed by Audrey McElroy, associate professor, Animal and Poultry Sciences*

# Designs for Small Poultry Structures

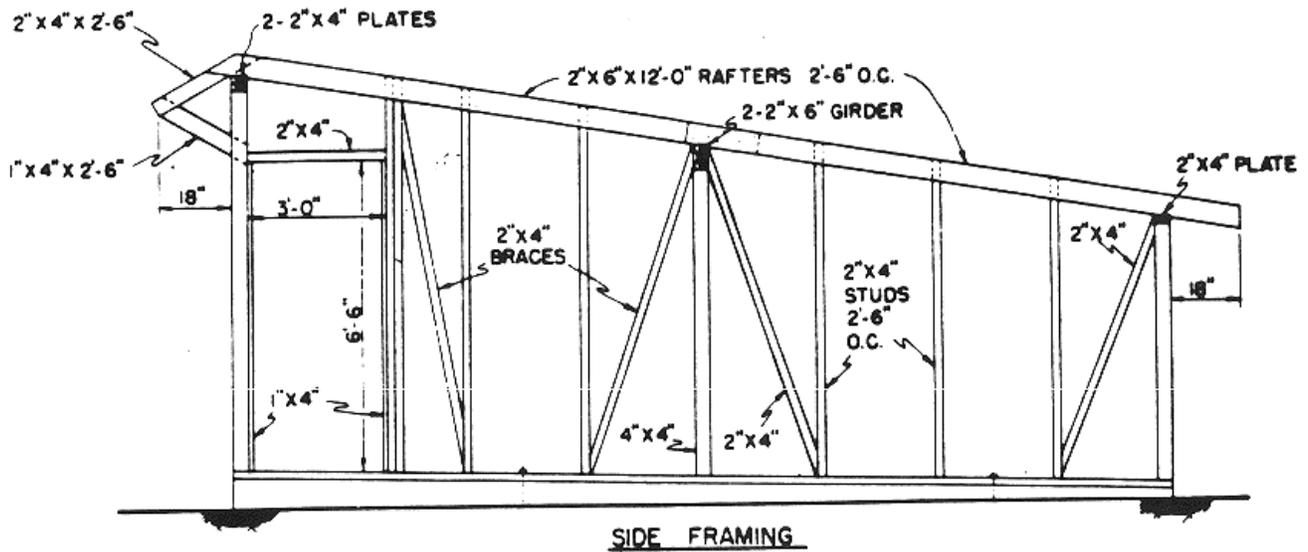
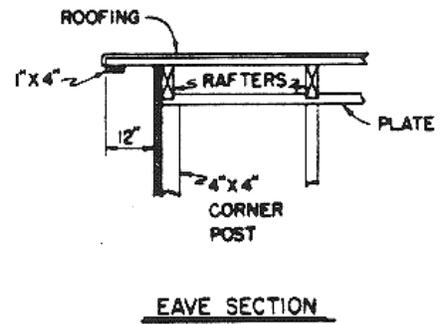
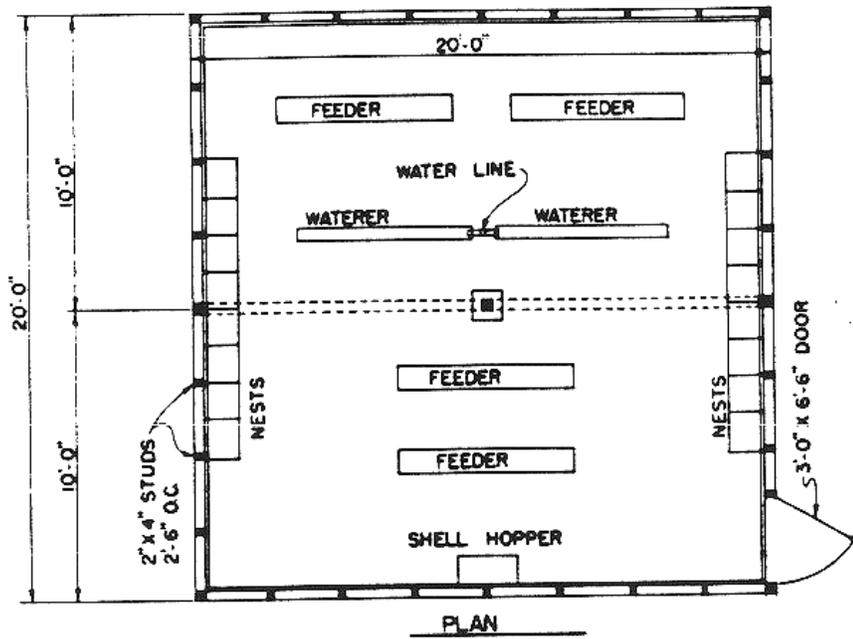
The following are some designs of a few small poultry structures. However, remember, most existing structures can easily be adapted to accommodate a small poultry flock.

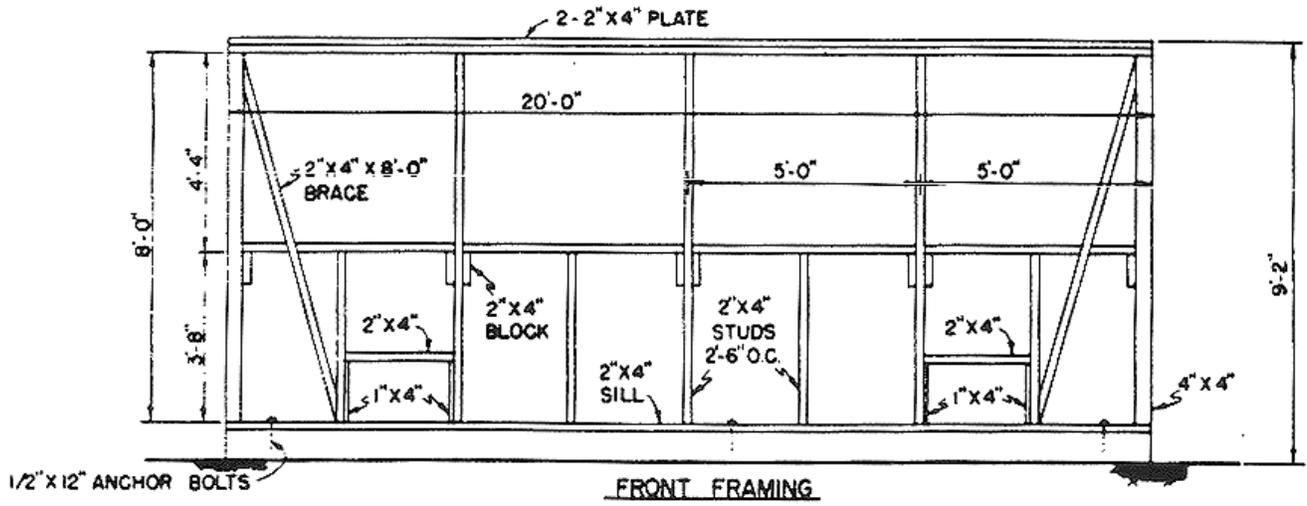
## Plan No. 6188, 50 to 80 Layers



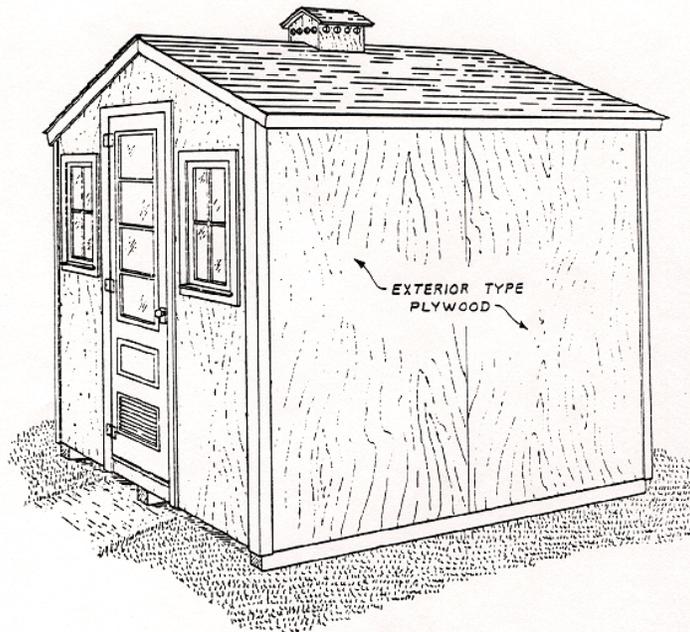


# Plan for a 20' x 20' Layer House

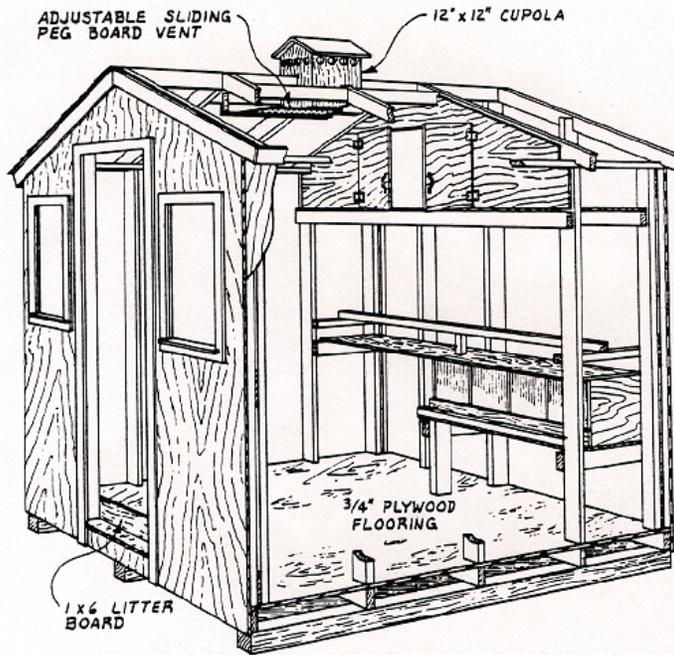




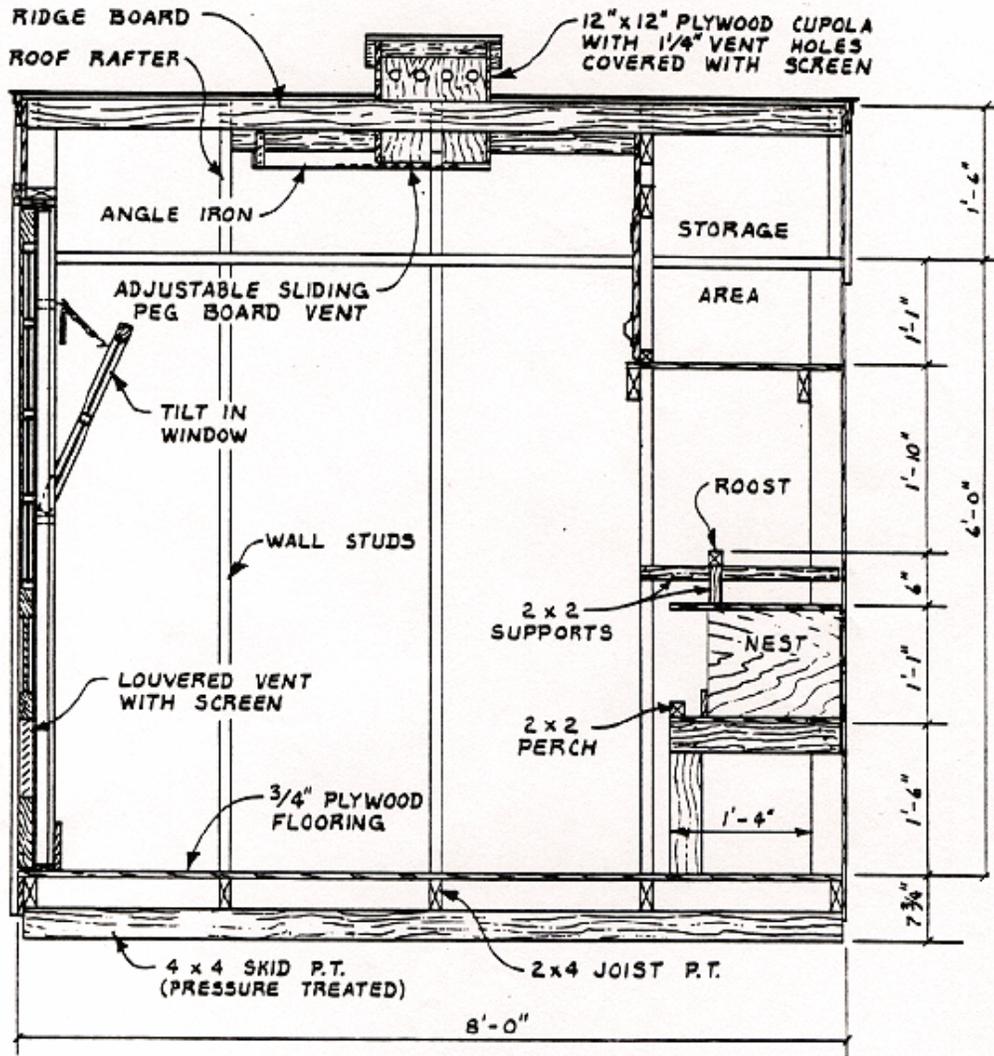
# Plan for an 8' x 8' Layer House - 15 to 20 Hens



PERSPECTIVE



CUTAWAY VIEW



SIDE SECTION VIEW



# DISCOVER

## 4-H POULTRY SHOWMANSHIP CLUBS



## CLUB MEETING 4 HANDOUTS

Preparing Your Bird for the Poultry Showmanship Contest ..... 2



## Preparing Your Bird for the Poultry Showmanship Contest

*Troy D. Cooper*, Extension Associate Professor, Duchesne County  
*David D. Frame*, DVM, DACPV, Extension Poultry Specialist,  
Central Utah Veterinary Diagnostic Laboratory

The first and most important rule of showmanship is kindness to your bird. The more cooperative your bird is, the better success you'll have in the show ring. Careful preparation prior to the show is necessary to be an effective show person. The calmness of the chicken is a reflection of how much the bird has been handled and worked with prior to the show. First of all, you will want to build a bond with your bird. After you have decided which bird you will use in showmanship, you should handle it frequently. The more you handle your chicken, the stronger the bond and the greater the trust becomes.

### Practicing with Your Bird

If you have ever seen a professional poultry showman at work, they make showing their bird look very easy. However, for you to have your bird act good in a show ring, you need to practice. You will want to practice handling your bird as if you were in a show. You should first start by handling and talking to your bird a lot, as well as feeding it tidbits out of your hand. Be careful feeding tidbits to roosters as they can get aggressive. When you and your bird feel comfortable around each other, you can start practicing holding and walking around with the bird the correct way. This is done by placing your left hand beneath body with the index finger between the legs and the remaining three fingers grasping one leg and the thumb the other, with the head under the elbow and the right hand placed on the back. These steps lead to having a calm and docile show bird.

### Training for the Pose

Most judges will ask you to pose your bird. The first thing you must know is what the bird looks like in the *Standard of Perfection* or *Bantam Standard*. You can find pictures of posed chickens on the internet. Imprint that picture into your mental vision. You want your bird to stand just like that: the same head posture, tail angle, and wing position. Use a small non-slick piece of material or a rug on a table to practice posing your bird on. Start your training by holding your bird with the legs between your fingers and the breast resting in your palm. When the bird is calm, lower it until the feet are touching the rug. While still holding the bird, use your other hand to move the head and tail to the positions that are depicted in the *Standard of Perfection*. Some birds will respond quicker to posing by being gently stroked under the beak or given a treat when they are standing still. Slowly remove your hand that is holding the bird. If the bird moves, pick it up and start over. Do this as many times as is necessary to train your bird. Your goal is for the bird to stand for about 30 to 60 seconds after you remove your hands. Never place your hand on the bird's back as this will make it set or squat. Work with your bird for about 10 minutes several times a day. You should see improvement each time.

### Training for the Walk

Once you have trained your bird to pose you can start teaching it to walk down a table under your control. It is recommended that a collapsible pointer be used and adjust it proportionately to the size of your bird. A

dowel or stick could also be used to direct your bird. Set up a 6 foot table and cover it with an old carpet remnant or some other non-slick material. Entice your bird with its favorite treat and lead it around the table. Grab the bird if it looks like it is preparing to fly off. After a few tries, the bird will get the idea. Now begin training your bird to follow your instructions using the pointer. Tapping the inner side of the hackle will make your bird turn, and tapping the outer side of the saddle/cushion will make your bird move forward. Start training your bird to this method by tapping “fairly” hard. Eventually, the bird will become agitated at the tapping and move away from it. Reward your bird at the end of the table. The “hard tapping” technique applies to turning as well. When your bird starts to obey start tapping lighter and lighter. Patience is the key here, and your bird will respond to a positive reward system.



**Figure 1.** Example of pointer.



**Figure 2.** Examples of exhibitors using the pointer.

## Bathing and Grooming

Never take a dirty bird to a show, each bird should have clean feet, legs, and feathers. It is recommended that birds be washed anywhere from 2 to 5 days before the show. Birds should be washed at least 24 hours before the show so they have time to thoroughly dry and preen their feathers. It may take 12 to 18 hours for the washed bird to completely dry. If birds are washed several days before the show, it is extremely important that they are caged in well bedded cages to help them stay clean. Learning to wash birds is not difficult, but it is best to practice on some birds not intended for exhibit first. The area in which the birds are to be washed should be 80°F-90°F and free from drafts. You can wash your bird in the home tub, sink or use the multi tub method. In this article we will discuss the multi tub method. The multi-tub method requires four tubs for white birds and three for all others. The tubs should be large enough to give you plenty of water and room for a good bath. Other items needed are: shampoo, vinegar, hair conditioner, towels, old toothbrush, dog nail clippers, blow dryer, an emery board and a small sponge. The first two tubs should be filled with warm water (95°F) and the third with water at room temperature. The first tub is used for the actual cleaning of the birds. Soap or detergent is added to this tub. Make it sudsy before putting the bird into the water. Grasp the bird with both hands and lower it gently into the water, holding the wings so they cannot be flapped. With the bird standing on the bottom of the tub, release one hand but hold the bird firmly with the other. With the free hand, gently move the feathers on all parts of the body so the soap and water will penetrate to the skin. Then with a small brush, sponge, or your hand, work the soapy water through the feathers. Make sure to rub the feathers from base to tip to prevent feather breakage. Do not put the bird's head under water.



**Figure 3.** Example of bird being washed in first tub.



**Figure 4.** Examples of birds being washed in first tub. (Photo by Katherine Plumer, used with permission.)

While the bird is still in the first tub, take a soft, old toothbrush and scrub legs gently to remove any dirt or molting scales. When the plumage has been thoroughly washed, transfer the birds to the second tub containing a small amount of vinegar and thoroughly rinse out as much of the soap as possible. The vinegar will help remove the soap. It is important to remove all the soap; otherwise the feathers will stick and be streaked. For birds other than white, the third tub should contain plain water and a fourth tub is not required. For white birds, the third rinse tub should contain a small amount of bluing just enough to give the water a slight blue color. It is important not to get the water too blue or it will give the plumage a bluish tinge. The bluing helps whiten, condition, and give the feathers a sheen. Too much bluing may dye the feathers. White birds are then placed in a fourth tub, with plain water, for a final rinsing.



**Figure 5.** Getting soap out of feathers in rinse tub 2.

Wrap the bird in a towel leaving the head out of one end and the feet sticking out of the other. This will help dry the bird and keep it still so you can clean its head, and do additional cleaning of legs and feet. While wrapped, you can wash the face, wattles and comb with the sponge. Using the old toothbrush, give the legs, feet and toenails a scrubbing. Rinse them well under running water. Now trim the top beak so that it is even with the bottom and use the emery

board to smooth the edges and clip the toe nails. It is easier to clip the toe nails once they have softened in the water and are clean. Be careful not to trim too short as they have a vein that runs down through the toe and into the toenail, and clipping into this vein will cause them to bleed.



**Figure 6.** Trimming beak. (Photo by Katherine Plumer, used with permission.)



**Figure 7.** Trimming toenails. (Photo by Katherine Plumer, used with permission.)

When drying the chicken with a towel, press dry, do not rub. Birds should dry slowly for best results; however a hair dryer can be used carefully to hasten drying. Keep your bird in a warm environment until completely dry.

## Just Before the Show

Items you may want to bring to the show besides your bird to have it in the best show shape are: baby oil, antibiotic ointment, old toothbrush, blood stopper, and a silk cloth. Thirty minutes or so before the judging begins, do last minute grooming. Start with the feet and legs by using the tooth brush to clean toenail and bottom of feet, then wipe legs and feet with baby wipes and then put on a little baby oil for a shine. Check the vent area for any manure that might be on the feathers and clean it with a wipe. Check the head and decide if you want to put baby oil or antibiotic ointment on the comb and wattles. Whichever you

choose, rub it in well so it produces a nice shine. Now use your silk cloth and rub your bird from head to tail several times, the more the better. The bird will enjoy this and you will see those feathers begin to really gleam. Gently place the bird back into its cage and be ready when your class is called for judging.

Now that you know the process in preparing your bird for the showmanship contest, go out and pick your best looking bird and go to work.

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Selecting and Preparing Broilers for Show. David D. Frame, DVM, Diplomate ACPV, Utah State University Extension Poultry Specialist.

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Poultry Showmanship Made Easy. UC Davis, Valencia County 4-H and FFA Poultry.

Bathing and Grooming Your Chicken by APA-ABA Youth program, Cindy Kinard, Florida Youth Leader.

Preparing Poultry for Show. F. Ben Mather and Jacqueline P. Jacobs, University of Florida, IFAS Extension, PS34.

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# DISCOVER

## 4-H POULTRY SHOWMANSHIP CLUBS



### CLUB MEETING 5 HANDOUTS

What is Expected of the Poultry Showman ..... 2



## What Is Expected of the Poultry Showman?

*Troy D. Cooper*, Extension Associate Professor, Duchesne County

*David D. Frame*, DVM, DACPV, Extension Poultry Specialist,  
Central Utah Veterinary Diagnostic Laboratory

Showmanship is an exhibitor focused activity. The bird serves as a prop, while the exhibitor does the performing. The young person's attitude, appearance, speaking ability, care and management skills, and willingness to follow instructions are all on stage.

For showman 5th grade and under, instructions given by the judge are usually brief and to the point, covering personal safety and well-being of the bird. Appropriate skills include carrying and posing the bird properly, and placing and removing the bird from the cage. Exhibitors should be able to answer questions about basic management, simple anatomy, and they should know the breed, variety, gender, and class of the bird.

For Showman in grades 6 – 8, instructions can be more detailed. Appropriate skills include all of the skills for 5<sup>th</sup> grade and under plus passing the bird, examining the wings, under-color, feet and head. They should be able to do a physical examination and an oral evaluation of their bird. Exhibitors should be able to answer questions about poultry diseases, parasites, defects, disqualifications, and additional anatomy.

For Showman in grades 9 -12, instructions can be very specific. Appropriate skills include three handling skills and 9 evaluation skills. They should be able to answer any question given to them about the poultry industry.

The novice showman would be expected to show the handling abilities and knowledge of the 5<sup>th</sup> grade and under exhibitors.

Exhibitors should have a positive attitude, the ability to focus attention, and show respect for the judge and

other participants. Exhibitors should be neat in appearance, hair combed, and hands and clothing clean. They should not be in shorts, shirts that advertise, hats, and should not be chewing gum.

If a dress code is used, showmanship attire should provide safety and comfort. Long sleeve shirts and long pants may be required. Exhibitors should be aware of dress codes well in advance of the show. If the exhibitor is a 4-H or FFA member, proper member patches should be worn.



Exhibitors of poultry should know and be able to present their bird following the poultry showmanship steps.

1. **Caging and carrying the bird.** When you cage your bird, always cage it and uncage it head first. Bird should be kept balanced and upright on the palm of the hand. The other hand rests on the bird's back.



**Figure 1.** Examples of well-groomed chickens.

2. **Posing the bird.** Bird should be posed in an alert position with tail fluffed, head and beak raised, feathers smooth, wings in normal position.



**Figure 2a.** White Rosecomb hen.



**Figure 2b.** Wheaten Old English Game cock.

3. **Walking the bird.** This is usually done down a table with on non-slick covering. Exhibitor

will use a collapsible pointer, dowel or stick to help guide the bird.

**Examination steps of the bird for the judge.**

1. **Examining the head.** Bird should be raised to shoulder height with the free hand used to move the head and point to the following parts: comb, beak, wattles, earlobes and head.



**Figure 3.** Examples of two types of heads showing comb, wattles, beak, and earlobes .

2. **Examining wings.** Starting with the bird's right wing, carefully grab at the wrist and the wing will unfold with a gentle tug. Check for all primaries and secondary feathers, check the axial feather, check for wing mites and/or lice, check for proper color and size. Let go of the wing and smooth it out. Repeat for the other wing.



**Figure 4.** Proper way to examine the wing.

3. **Examining undercoat.** Finger tips are used to gently pull tops of feathers against the grain. Check for proper color of skin and fluff, check for lice and mites.
4. **Showing width of body.** Place your thumb and pointer finger in both wing pits and run your hand down the body. Show the judge your measurement.
5. **Checking the breast.** This step requires you to hold the bird upside down or on its side while maintaining complete control. Turn the bird towards you, turn the bird upside down. Carefully grab the hocks with one hand while

supporting the breast with your other hand. When you feel your bird is ready, take your free hand and feel the keel bone. Examine for straightness, breaks and breast blisters. Show the judge the length of the keel using your thumb and index finger.

6. **Checking the vent.** The vent is usually checked on egg production breeds. Slip the bird under your arm so that the vent is facing outward. Lift the tail, blow on the fluff, and check for mites, cleanliness, and signs of illness.
7. **Measuring depth of abdomen.** You are looking for the end of the keel bone and the 2 pubic bones. Place as many fingers as possible between the end of the keel and the pubic bones and show how many figures fit between the bones to the judge.
8. **Measuring width of public bones.** Finding the two pubic bones, fit as many fingers between them as possible. Show the judge your measurement. This is an indicator of the productivity of the bird.
9. **Examining feet and legs.** Check the bottom of the legs first, and then the front. You are checking for cleanliness, absence or presence of stubs, absence or presence of scaly leg mites, condition, appropriate color for the breed/variety, etc.



5a



5b

**Figure 5.** Example of clean healthy legs and Feet (5a) and a foot infested and deformed by scaly leg mites (5b).

Now you know what is expected of the Poultry Showman; practice with your bird the proper way to handle the bird and the steps in bird examination. Study about the poultry industry and how to care for your poultry project. This will help you in preparing for questions that may be asked during the showmanship contest. Remember that poultry showmanship is the opportunity for you as a young exhibitor to demonstrate your abilities as a poultry steward and to communicate your knowledge of the poultry industry.

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Poultry Showmanship. Moody's Bantams by Courtney Moody

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# DISCOVER

## 4-H POULTRY SHOWMANSHIP CLUBS



## CLUB MEETING 6 HANDOUTS

Poultry Showmanship Questions ..... 2



# 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.*

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