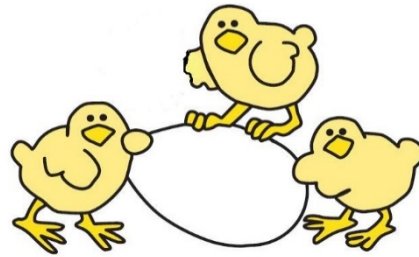


POULTRY

Newton County 4-H



Level 2 – Grades 6-7-8

What you will do in this project:

- Complete the project by answering one of the activities in this activity sheet and record sheet and turn it in by 6pm on the evening prior to the show. Complete a different activity each year.
- Attend County 4-H Poultry workshops when offered.
- Refer to the Newton County Periscope for a complete listing of all regulations concerning this project.
- Each exhibitor may enter four birds in each class and may exhibit in more than one class for Poultry. In Turkeys, a member may exhibit 1 Young Tom, 1 Mature Tom, 1 Young Hen, and 1 Mature Hen in the same breed. In Geese, you may exhibit one each in Heavy, Medium, and Light: 1 Young Goose, 1 Young Gander, 1 Mature Goose, and 1 Mature Gander. For Waterfowl, a member may exhibit one of each in Heavy, Medium, and Light: 1 Young Hen, 1 Young Drake, 1 Mature Hen, and 1 Mature Drake.
- All birds must be in your possession by May 15 with the exception of broilers that are hatched at the end of May.

Management Tips:

- Provide clean, freshwater to your birds at all times. In the winter, warm (but not hot) water will be needed. Birds on average will drink 1-2 cups a day. Check their water at least twice a day – more often on hot days.
- One chicken eats about 2 pounds of feed each week. 12 chickens eating two pounds a week would eat 24 pounds week. (12 birds x 2 lbs = 24 lbs)
- A feed ration of at least 16% protein for the mature chicken is needed.
- Put at least a 4 inch layer of bedding on the floor for your birds and keep dry. Spread fresh bedding on the top. Clean area completely at least once a year with a solution of 2 table spoons of chlorine bleach into 2 gallons of boiling water. Scrub with a broom. Ventilate well to dry.
- Birds should be washed before bringing to the fair with a solution of warm water and 2 table spoons of chlorine bleach in a five gallon bucket.

4-H Member: _____ 4-H Club: _____

Grade in School (Jan. 1.): _____ Years in this project: _____

Signature of 4-H Member verifying that you have completed these activities:

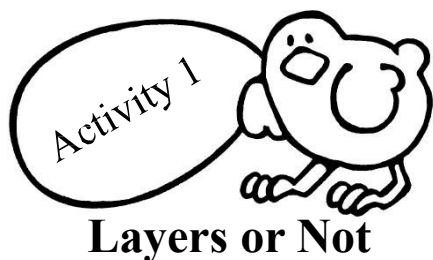
Signature of Parent that you have reviewed this information:

4-H Animal Care:

The Indiana 4-H program strongly supports positive animal care and strongly opposes animal abuse. 4-H is also dedicated to the mission of developing youth and volunteers through "Learning by Doing" programs.

4-H livestock projects teach life skills such as acquiring knowledge, making decisions, and applying leadership skills.

- When working and caring for animals, it is important to insure that appropriate safety measures are in place for both the animals and the persons who care for them. Therefore, there is no substitute for knowledge, common sense, and experience.
- Animal handlers should study and learn to anticipate an animal's reaction and try and avoid problem situations. It is most important that 4-H members understand an animal's behavior so one can "outsmart" not "out-muscle" an animal. Foremost in the 4-H'er mind should always be safety of the handler and the animal. Moving animals is more of an art than a science. Movement of animals requires planning and knowledge to accomplish it with the least amount of time, effort and stress to the animal.
- An animal's good health is often directly related to the environmental factors associated with its living space. The presence of predators, dust, odors, pests, temperature, and humidity has a direct effect on an animal's well-being.
- Animals react favorably to daily care and comfortable housing. Consideration should also be given to specific animal needs such as size of their housing space, lighting, and ventilation. The best facilities and equipment cannot and should not be a substitute for daily observation and careful attention to signs of illness, injury, and/or unusual behavior.
- Frequent consultation with your veterinarian is a must. Reasonable attention must always be given to the use of drugs and their approved withdrawal times.

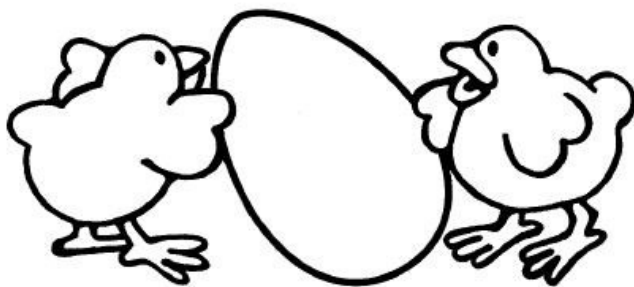


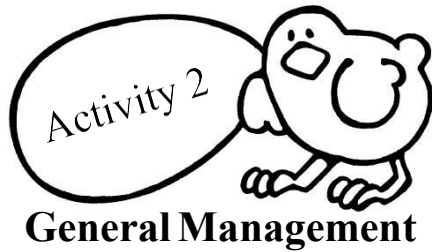
Eggs are fascinating! How are they formed? Will all of them hatch if they are incubated? Why aren't there embryos inside the eggs at the grocery store? How long does it take for an egg to be formed? You will learn the answer to these and other questions as you do this activity. Let's get to work learning the parts of a hen's reproductive tract and how eggs are formed. Last one done is a rotten egg!

FOWL FACTS: Telling Layers from Liars

Breed characteristics are important when selecting hens. Leghorns are a popular breed for maximum egg production. They have small body size which means they will consume less feed. Plymouth Rocks and Rhode Island Reds are two breeds that are raised for meat as well as egg production. They have a larger body size, which means they will consume more feed in order to also put "some meat on their bones." Physical characteristics of a hen reflect her state of productivity. As she prepares for egg production, levels of sex hormones increase in her body. Due to this, there will be enlargement and reddening of the comb and wattles. Your best layers will have large, bright red combs and wattles. The area around her vent will become enlarged and moist. There will be spreading of the pubic bone and softening of the abdominal skin. The abdominal cavity will enlarge to allow for the enlargement of the digestive and reproductive system necessary for egg production.

Pigment. Most breeds of chickens used for egg production have yellow-pigmented skin and shanks (part of the legs). When feed such as yellow corn and grasses containing this pigment are eaten by chickens, the pigment is deposited in the skin, beak, shank and feet of the growing bird. As the pullets start to lay eggs, the pigment is then deposited in the egg yolk instead of the pullet's skin and shanks. As each egg is laid, these areas lose pigment in a definite order from their body. This process is called "bleaching". This definite order is vent, eye ring, ear lobe, beak bottom of the foot, shank, the hock and top of the toes. When a bird stops producing eggs, the pigment will once again return to the skin in the same order that it was bleached. Compared to the rest of your laying flock, your poorest producers will still have yellow skin and shanks after several months of production.





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

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 for 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 waters for older chickens.

Brooding Management

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.

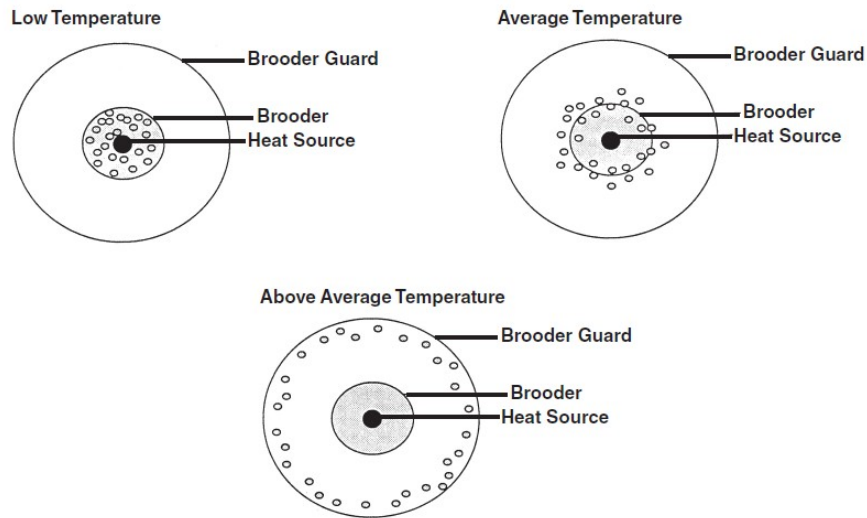
Use a disinfectant to sanitize the house and equipment before the chicks arrive. A solution of chlorine, iodine or quaternary ammonia can be used. When using any disinfectant, carefully follow the instructions on the label and get an adult to help you. Cleaning and disinfecting help to control diseases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

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.



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 Fahrenheit 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

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

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

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 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

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.

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

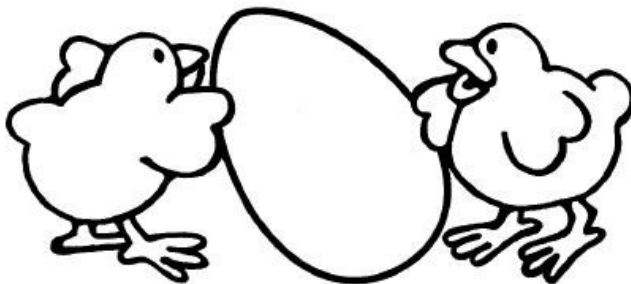
6. The average hen lays _____ eggs in one year.

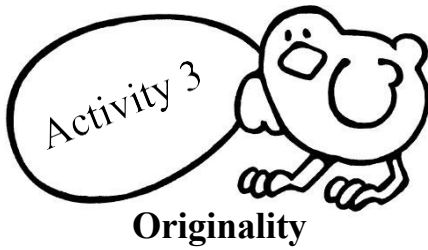
7. Broiler feed should contain a _____ % protein level.

8. Prevention is the best way to keep _____ away.

9. At what age do hens begin to lay?

10. What is a comfortable temperature to keep birds at during growout?





Belgian d'Uccle Bantam: {Belgian Bearded d'Uccle in the United States}

The Belgian d'Uccle Bantam was bred for the first time in the small municipality of Uccle at the southeast border of Brussels, Belgium by Michel Van Gelder, sometime between 1890 and 1900. The 'd' in front of d'Uccle means from or of (Uccle).

Cochins

Cochins came to the US and England for the first time in about 1845, when they were known as Chinese Shanghai fowl. The first ones were a buff color and their size and thick soft feathering created quite a sensation, especially in England. The American Poultry Association recognizes Buff, Partridge, White, Black, Silver-laced, Golden-laced, Blue, Brown and Barred varieties.

Australorp

The Australorp is a breed of Australian origin. It is a large, soft-feathered bird, with white toenails, black legs and beak, and a moderately large and upright single comb, with five distinct points. The Australorp is a hardy, docile, and a good egg-layer as well as meat bird.

Ancona

The Ancona is a breed of chicken originating in the Marches Italy. Called the Marchegiana in Italy they were exported to England in the mid-19th century and named after the sea port of Ancona. It is noted for its ability to produce large white eggs. It is an excellent, economical layer, as it lays an average of 250 - 300 eggs per year. Anconas are hardy fowls that thrive in high & low temperatures.

Orpington

The Orpington is a breed of chicken named after Orpington, England, which was made famous in part by this breed. Belonging to the English class of chickens, it was bred to be an excellent layer with good meat quality. Their large size and soft appearance together with their rich color and gentle contours make them very attractive, and as such its popularity has grown as a show bird rather than a utility breed. They go broody very often, and make great mothers. Although being rather heavy, they are able to fly small distances but rarely do, so they work well as backyard birds. Due to their build they do well in very cold climates. The fluff of their feathers allows rain water to penetrate, so they must be kept out of the rain

Houdan

The Houdan is a breed of chicken native to France. Named after the city of Houdan, near Paris, it is an old breed.

Polish

The Polish is a European breed of chicken known for its crest of feathers. The English language name of these birds is a misnomer, as they do not originate in the country of Poland. Instead, the oldest accounts of crested chickens come from the Netherlands. In addition to combs, their heads are adorned with large crests due to a cone (called a protuberance) on the top of their skull. The crests cover almost their entire heads. They are normally tame chickens, but can be easily timid or frightened because the crests on their heads limit their vision.

Indian Game

The Cornish, known as the Indian Game in its native county of Cornwall in England, United Kingdom, is a breed of chicken. Cornish chickens, as well as crosses of Cornishes, are the most-used breed in the chicken meat industry. They are heavy, muscular birds that lay brown eggs and require little feed if allowed free range.

Malay Game

The Malay is a breed of chicken originating in Asia, most likely in northern Pakistan. These birds are cousins of Asil. It is unknown why they were called Malay, but perhaps because of a mistake by the former East India Company, when they introduced that exotic new breed around 1570. In Asia, the Malay chicken is usually found only in rural areas and villages. It is sometimes referred to as "kampung" chicken (*kampung* means "village" in Malay). In the Borneo region of Sabah, Sarawak and Brunei, the Malay chicken is called Sigun. In north West Pakistan these are called Sadalay meaning big docile or gentle giants. The Malay Chicken is sometimes used as fighting cocks in cockfighting.

Old English Game

The English Game Fowl is one of the oldest strains of poultry breeds that have been used for fighting purposes. Through the Middle Ages the breed was developed by the English Nobility into many varying colors, traits desirable for cockfighting were chosen by breeders. Cockfighting became illegal in Britain and Australia in the 1850s and English game fowl are usually kept just by poultry enthusiasts. Today the breeds are used at poultry exhibitions and breeders try to develop stock that will win prizes. Exhibition bred cocks can fetch amounts over US\$ 600. Breeders aim to preserve the present strains of this species, as many have already died out.