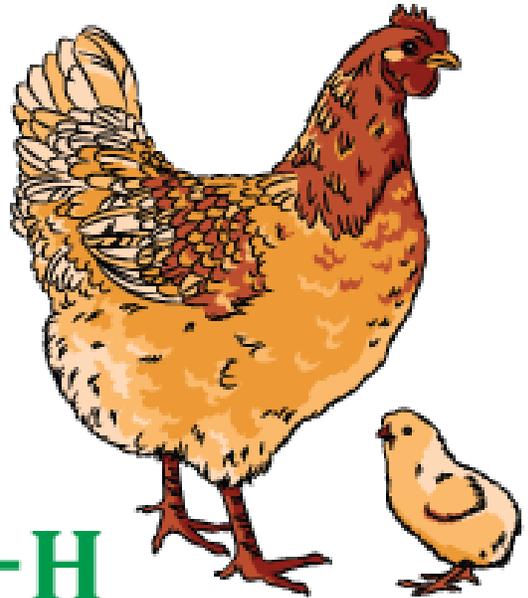


2017 Project Manual



FLORIDA 4-H



Chick Chain

What is the 4-H Chick Chain Project?

The 4-H Chick Chain Project teaches you how to raise and care for chickens using research based methods and practices.

How does the 4-H Chick Chain Project work?

- You'll select two different breeds of chicks to raise.
- The breeds you can select from include:
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- Chicks will come from a reliable hatchery and will already be vaccinated.
- In the spring, you'll take delivery of six 1-2 day old chicks from each of the two breeds you chose for a total of 12 chicks.
- You'll raise and care for your 12 chicks for about 21 weeks.
- At the end of 21 weeks, you'll participate in the 4-H Chick Chain Show, Showmanship and Auction with your three best pullets from one breed.
- You can choose not to participate in the auction if you want to keep all of your birds.
- By participating in the auction, you'll have the opportunity earn auction money.

What will I learn?

- Learn poultry nutrition and care and how to produce healthy chickens
- Develop communication skills
- Begin developing basic business practices
- Develop record keeping skills

How can I participate?

- You must be at least 5 years old as of September 1 of the current 4-H year.
- You must be or become a 4-H member in your county.
- Complete the registration form. Take it and your \$50 fee to your 4-H Agent.
- Attend the mandatory youth and parent/guardian meeting.
- Pick up your chicks.
- Participate in the Poultry Perfection Care and Showmanship Workshop.
- Participate in the 4-H Show and Showmanship.
- Your family can also share one project.
- If you share your project, each youth must complete his/her own record book and will participate in the show, showmanship and auction separately. If you participated in the 4-H Chick Chain the previous year, you may participate in the show and showmanship production class with three birds of the same breed.

Before your chicks arrive:

Baby chicks require special care and will need to be placed in a brooder for at least eight weeks. Set up your brooder and test it out for a couple of days before your chicks arrive. If you are using a used brooder, be sure to clean and disinfect it before placing your chicks inside. Brooders can be purchased commercially, or you can construct one at home.

Gather your supplies:

- Shelter
 - brooder for weeks 1-8
 - coop for weeks 9+
- Feeders
- Waterers
- Thermometer
- Heat lamp
- Bedding material
- Light



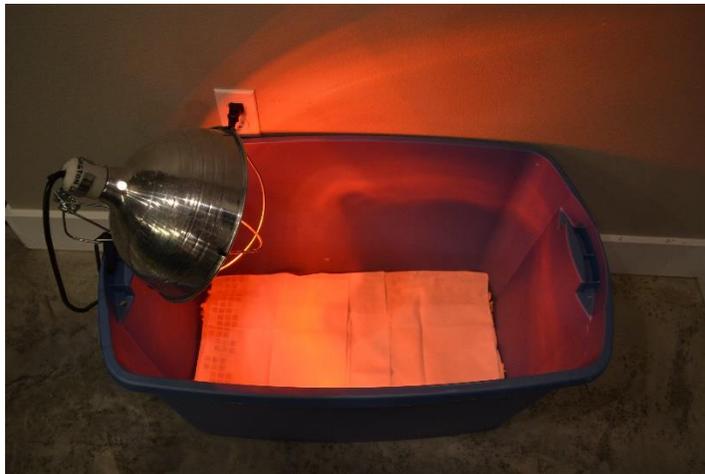
Basic Poultry Care and Management

Over the next 21 weeks, you'll care for your chicks. How well you care for your chicks will determine how well they grow and do at the 4-H Chick Chain Show and Auction. By following these proven practices, your chickens will thrive.

Brooder Requirements

- Walls 12-18" tall to keep out drafts
- Light bulb or heat lamp to keep a constant temperature
- Bedding
- Unlimited access to water and feed
- Space – ½ square foot per chick for the first two weeks

Here's an example of a homemade brooder made from a large plastic storage container.



Caring for your baby chicks

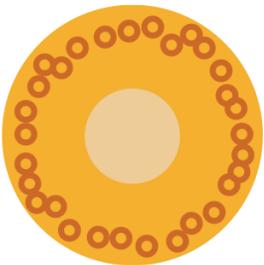
Watch your chicks closely to make sure they are drinking water and eating. Also, watch their behavior to get your brooder temperature right.

Brooder temperature should be 90-95° F at chick level then reduced by 5° each week. Raise the height of the height lamp to lower the temperature.

- *Too cold?* Chicks will huddle directly under the heat source and could chirp loudly.
- *Too warm?* Chicks will move to the edge of the heat source and could chirp loudly.
- *Just right?* Chicks will move freely around the space and chirp softly.

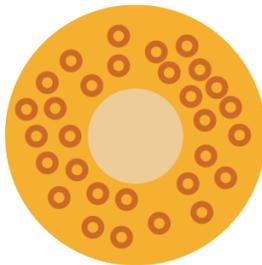
Water: keep clean, fresh water in front of chicks at all times.

Feed weeks 1-6: Use a pre-mixed, medicated commercial feed with at least 20% crude protein.



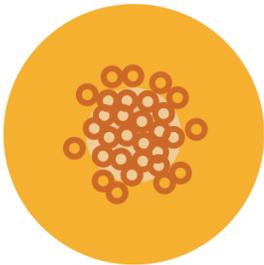
Temperature too high

Chicks make no noise
Chicks pant, head and wings droop
Chicks away from brooder



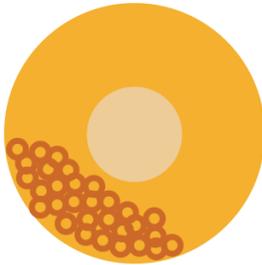
Temperature correct

Chicks evenly spread
Noise level signifies contentment



Temperature too low

Chicks crowd to brooder
Chicks noisy, distress-calling



Draft

This distribution requires investigation
influenced by draft,
uneven light distribution,
external noises

**Image courtesy of CrystalCreekNatural.com*

Caring for your growing chicks

Around 9 weeks of age, you'll need to move your growing chicks to a larger structure. Grown chickens need at least 1.5 square feet of space in a coop.

Water: Keep clean, fresh water in front of chicks at all times.

Feed weeks 7-20: Use a chicken grower feed at least 16-20% protein

Feed weeks 20+: Use a laying feed like crumbles or mash

Around this time, you'll need to move roosters from the pen if you intend to raise only eggs. If you'll be incubating and hatching eggs to increase your brood, one rooster to 10 hens is the rule of thumb.

Your greatest cost (around 70%) in raising chickens will come from feed. Feed is an investment. The better your chickens are fed, the greater your return in eggs will be. The most common mistakes in raising chickens is not feeding the correct feed at the right age. The second most common mistake is not providing enough feed. Fresh feed should be available at all times. When fed from a feeder, chickens will not waste their feed.

Space Requirements for Chicks (Per Bird)

Flooring

- 12 square feet through 6 weeks of age
- 25 square feet through 12 weeks of age
- 50 square feet through 20 weeks of age

Feeders

- 25 linear inches through 2 weeks of age
- 50 linear inches through 6 weeks of age
- 60 linear inches through 20 weeks of age

Waterers

- 5 linear inches or a .05 gallon fountain through 2 weeks of age
- 10 linear inches or a 1.5 gallon fountain through 6 weeks of age
- 24 linear inches or a 4.0 gallon fountain through 10 weeks of age

Litter

- At least 2 inches deep to begin

What is linear measurement? It's the length of your feeder. For example, if your feeder is 4 feet in length, it is 48 linear inches (12" X 4") of feeder space. If your feeder is open on both sides, the feeder space is 96 linear inches (48" X 2").

Keeping Your Poultry Healthy

Vaccinations

- Chick Chain chicks are vaccinated before you get them.
- No additional vaccines are needed.

Internal Parasites

Internal parasites can severely reduce how well your poultry grows, how well they produce eggs and cause death in the most severe cases. Worming your poultry is a simple and cost-effective way to keep them healthy.

Poultry can be infected by a number of internal parasites:

Roundworm: Adult worms are about 1 ½ to 3 inches long and about the size of an ordinary pencil lead. They can be seen with the naked eye. Heavily infected birds may show signs of droopiness, failure to gain weight, loss of weight and diarrhea.

Cecal Worm: This parasite is found in the ceca of chickens. It apparently does not seriously affect the health of the bird.

Capillary Worm: *Capillaria annulata* and *Capillaria contorta* occur in the bird's crop and esophagus. These may cause thickening and inflammation of the mucosa and occasionally severe losses of birds. *Capillaria obsignata* affects the lower intestinal tract species. Adult worms may be embedded in the lining of the intestine. Worm eggs are laid and passed in the droppings, and other poultry pick them up from there.

Tapeworm: Young birds are more severely affected than older birds. Heavy infections result in slower growth.

Gapeworm: This worm attaches to the trachea of birds and causes the bird to gape – breath with its mouth open. Birds that are heavily infected make a grunting sound, and many die of suffocation.

External parasites

Poultry are also susceptible to a number of external parasites that can greatly affect growth and general health.

The most effective treatment for mites and lice is a regular inspection and spraying program of both the birds and their living areas. A permethrin solution sprayed on the birds will eliminate all mites and lice. Treatment should be repeated every month to 2 months depending on infestation.

Poultry Mites: Poultry mites cause stunted growth, reduced egg production, lowered vitality, damaged plumage and even death in severe cases. Mites can be observed on feathers around the vent and on tail feathers.

Poultry Lice: Lice prefer areas on poultry that are less dense in feathering, such as the area below the vent.

Remember:

- Follow the label on any type of medication or treatment being administered to poultry.
- Treatment is easy to administer via drinking water.
- Check the withdrawal time for eggs and meat. Withdrawal time is the time between when you administer medication and when the eggs or meat are safe to eat.
- Talk to a veterinarian if you have any questions you have concerning the health of your birds.

The 4-H Chick Chain Show

At the end of your project, you'll participate in the show and showmanship. A sample schedule for the day is below but may change:

8-10 am – Check-in – your check-in time will be assigned by county

10-11 am – Poultry Skill-a-Thon and Workshop

10 am-12 pm – Poultry judged – no one allowed in the barn

12-1:30 pm – Showmanship

2 pm – Awards

Awards will include:

- Grand Champion Pen
- Reserve Champion Pen
- Breed Champion Pen
- Breed Reserve Champion Pen
- Poultry placings for your pen of birds
- Showmanship
- Project Book
- Cloverbuds (ages 5-7 years old) will earn participation ribbons only and will not compete for awards.



Frequently Asked Questions

What is showmanship?

Poultry showmanship allows youth to show off the skills and abilities they have learned to take care of poultry. It also allows them to communicate their knowledge of poultry breeds.

Attitude, appearance, speaking ability, care and management skills and willingness to follow instructions are all on stage. This time is dedicated to one-on-one interaction between the exhibitor and an experienced poultry judge.

Showmanship classes are divided by age divisions: Junior, Intermediate and Senior.

How will I learn how to show my birds?

Participate in the Poultry Perfection Workshop. We'll teach you how to wash and show your birds.

What should I wear for showmanship?

Dress nicely and neatly for the show. Wear a 4-H shirt or a white or green shirt tucked in. Wear pants and closed toed shoes.

Bring your showmanship clothes to change into right before showmanship begins.

How will my birds be judged?

Breed characteristics are based on the American Standard of Perfection published by the American Poultry Association. These should be used as guidelines. Perfection is not expected of youth projects.

Birds should be free of defects such as these:

- Deformed beak - beak does not line up or is broken
- Deformed or odd number of toes
- Red eyes
- Crooked neck or back
- Broken or missing feathers
- Intact comb free of scars or blemishes

The production class will be judged based on egg production.

Poultry Terminology You Should Know

Bantam: small (or miniature) fowl that weigh less than 2 pounds at maturity

Cock: a male chicken over 1 year of age for exhibition purposes

Cockerel: a male chicken under 1 year of age for exhibition purposes

Crossbred: the offspring of a parent stock of different genetic makeup

Exhibition: birds shown for their outward genetic expression (color patterns, body types, and other characteristics)

Flock: three or more birds kept in one place

Fowl: a term primarily for chickens but also applied to most avian species

Hen: a female chicken over 1 year of age for exhibition purposes

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

Pullet: a female chicken under 1 year of age for exhibition purposes

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

Standard bred: large fowl that weigh more than three pounds at maturity

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