



History of Chicken Flocks in the US

Early 1920's to late 1950's we had large chicken farms. Before that chickens were not considered a necessary livestock to produce and were considered a luxury food. This was because they didn't do very well in the winter. In 1922, Vitamin D was discovered and that made it possible to keep chickens year round.

By the 1950's because of so many eggs being produced prices fell. The response by growers was to increase the flock. This resulted in more saturation of the market which drove prices down even more. Many producers went out of business and operations mostly in excess of 25,000 birds became the norm. In the mean time people had become accustomed to buying cheap eggs instead of raising their own backyard flocks. The rest is history.

The scientific name for chicken is *Gallus gallus*. The current chicken population worldwide is estimated to be in excess of 24 billion. The species as a whole used to be called fowl.

Chicken terms

“Roosters” are one year or older

“Cockerels” are less than one year

“Capon” is castrated

“Hens” females one year or older

“Pullets” female less than one year

Meat is called chicken

They live from 5-11 years

They will eat just about anything including insects, lizards, mice, and anything else that moves. They are omnivores.

They are not capable of long distance flight although they have one kidney and one ovary on each side for balance just like all other birds.

They are gregarious and practice communal incubation which is why only a few nest boxes are used and you often find another hen on top of one already in the box.

They don't like new comers to the flock and segregation is common. Introduction must be done at night and you should watch for severe picking.

Roosters crow anytime of day or night if disturbed, crowing is also a territorial response.

After 12 months egg laying ability is said to decline and commercial producers slaughter them and replace the flock. That meat is used for dog food, baby food, pies and other processed foods.

Housing and management practices

You will need 3 square feet of space for each bird. See the fact sheet UNHCE Housing and Spacing Requirements for livestock at www.extension.unh.edu/resources/representation/Resource000471_Rep493.pdf

How many eggs a day do you eat? Add one more and that is how many chickens you need. One hen can produce as many as 300 eggs a year but can only lay one egg a day.

You need one nest box for every 4 hens approx 14" high x 12" wide x 16" deep.

You don't need a rooster to get eggs.

You do need to check local ordinances to make sure chickens are allowed. This is true even in a rural setting because of protective covenants.

See the web site www.backyardchickens.com/raising-chickens-basics.php

For some really cool chicken coop ideas and instructions.

Suitable housing, fresh air, sunshine, sanitation and proper nutrition are the key to a healthy problem free flock.

- Hang feeders and waterers so they can't be soiled.
- Keep waterer clean and full. 1 cup of water per day per bird is required.
- Keep bedding and nest boxes clean and dry.
- Provide a dusting site.
- Don't overcrowd birds.
- Provide green feeds to confined birds. (A cabbage or a bunch of kale on a rope head high).
- Close the chicken house door at night or when no one is around to discourage predation.
- Garbage is garbage and shouldn't be confused with food scraps from the kitchen. If its bad don't feed it to the chickens!
- Keep grains dry and don't feed more wet grains than can be consumed by the flock in an hour. (Rule of thumb; two handfuls of grain per bird per feeding). If it smells sour throw it out.
- Heat process legumes before feeding them to chickens.

Care of Eggs

A freshly laid egg loses quality rapidly if it is not handled properly. The eggs should be gathered daily in mild weather and at least two times daily in hot or cold weather. They should be placed in a cooler immediately after gathering and stored at 50 to 55 degrees F. Do not store eggs with foods or products that give off pungent odors since eggs may absorb the odors.

Eggs saved for hatching purposes **should not be washed**. Only clean and slightly soiled eggs should be saved for hatching. Dirty eggs should not be incubated. Eggs should be stored in a cool place with the large ends up. It is not advisable to store the eggs longer than one week before starting the incubation process.

Plenty of clean litter in the nests reduces the number of dirty or cracked eggs.

Broody hens are rare in purebred stock. It was bred out of them so egg laying would not be interrupted. Once a hen gets broody she stops laying to sit on a clutch which usually consists of about 12 eggs.

Incubation triggers development which is why all eggs hatch within 2 days of each other even though the clutch has twelve days of eggs in it.

Brooding (hatching eggs) takes 21 days. The hen will turn them (and so should you if using an incubator) **for two weeks** and then will stop the third week. If not turned during that time, the embryo may stick to the shell and can result in deformed chicks. On the third week the chick orients itself so that its head is in the blunt end of the egg for hatching, turning the egg then may disorient them.

Chicks talk to mom from inside the eggs. No one knows why.

Pipping is the pecking of a breathing hole at the blunt end of the egg. Once that has been done the chick rests and absorbs the yolk and blood from the membranes. This is used for energy to hatch and sustain them for a couple of days after hatching while they wait for their siblings to hatch. The hen takes them out into the world on day 2 or 3.

Nutrition requirements

Grit is a must for confined birds.

1 cup of water per day per bird is required. If not supplied hens will stop laying.

To be properly fed, it is best to purchase poultry feed formulated for the type and age of bird kept (i.e. broiler starter, grower and finishing rations for meat birds and Pullet/layer diets for egg producers). A well balanced poultry feed formulated for appropriate age and type of bird will assure that the flock is receiving the necessary nutrients to maintain feather growth and maintenance.

Broiler chicks: A good, commercial, chick starter ration containing 23 percent protein can be fed for the first five to six weeks. This is followed by a finisher feed with 20 percent protein until the broilers reach the desired slaughter weight. A recommended feeding schedule and the nutrient levels of the ration are shown. The chicks should have access to the feed and water at all times.

Layer replacements: 20% protein for 0 – 6wks 16% protein for 6-14wks, 12% protein for 14-22wks.

Layers: 16% protein feed.

Disease and parasite control

One day old chicks are vaccinated at the hatchery before shipment.

Deep **dry** bedding discourages coccidiosis and salmonella as long as it is cleaned out regularly and composted.

Coccidiosis is caused by protozoans that like warm, moist conditions. The pathogens “eggs” (oocytes) are destroyed by frost. To prevent outbreaks of coccidiosis, pullets should be provided a ration containing an effective coccidiostat until they reach 14-20 weeks of age. Coccidiosis is the most common disease found in young, **unmedicated** flocks. This protozoan disease, characterized by diarrhea, unthrift-

ness, and some mortality, is transmitted by the hens eating coccidia oocysts from contaminated droppings. The disease can be prevented by feeding rations containing a coccidiostat. A good coccidiostat is designed to prevent outbreaks of coccidiosis while allowing the birds to develop a natural immunity. If feeds containing a coccidiostat are not fed then chicks should be vaccinated in the hatchery against the disease.

Laying hens will not require a feed that contains a coccidiostat. However, layers especially young layers on dirty floors may experience coccidiosis outbreaks. If coccidiosis is diagnosed, treatment is normally given through the drinking water. In case of an outbreak, treatment measures should be started immediately.

Diarrhea can be caused by digestive upset, inflamed intestines (enteritis), worms, and diseases.

Marek's disease is essentially cancer of chickens. It is caused by a virus and can show up any time after 2 months of age. There is no cure. Some symptoms can include frailness "unthrifty" appearance, paralysis, and the birds may go off their feed. Internally the liver may enlarge, and tumors will develop. Any of the other organs can be affected. Prevention is the best medicine; vaccinations at the hatchery are generally done or available.

It should be noted that under the Organic Standards Rules and Regulations,, animals that are vaccinated can be certified, but animals fed medicated feeds cannot.

Several other diseases may be seen, such as aspergillosis, infectious bronchitis, Newcastle, fowl pox, epidemic tremors, Gumboro, necrotic enteritis, fatty liver syndrome, and blackhead. A flock well managed does not usually experience disease outbreaks. A best management practice, which translates into prevention, is the best tool to use to combat disease outbreaks.

Watch for external and internal parasites such as intestinal roundworms, mites, ticks and lice. Your local feed store can provide you with products to treat these problems. Practice a rigid sanitation and pasture rotation program to break the life cycle. Medications alone are not the best solution to worm problems. This approach to control may result in the worms becoming resistant to the medications.

Neem oil on the roosts will combat mites, ticks and lice. It can also be sprayed in the nest boxes. Using cedar shavings in nest boxes will also combat the problem. Daily access to dust/fine sand for bathing will take care of these pests on the birds. The insect's waxy cuticle will be scored by the sand and then they will dehydrate.

Chick sources

Stromberg's - poultry, gamebirds & livestock at: www.strombergschickens.com/

Murray McMurray Hatchery at: www.mcmurrayhatchery.com

Hall Brothers Hatchery
PO Box 1026
Norwich, CT 06360
860-886-2421

More chicken information on the web

Backyard Chickens website at: www.backyardchickens.com/raising-chickens-basics.php

The Poultry Site at: www.thepoultrysite.com

The University of Connecticut Cooperative Extension at: web.uconn.edu/poultry/poultrypages/

Virginia Cooperative Extension at: www.ext.vt.edu/pubs/poultry/factsheets/10.html

Backyard Poultry at: www.backyardpoultrymag.com

UNH Cooperative Extension www.extension.unh.edu

Good books about poultry

Backyard Poultry Naturally-A complete guide to raising chickens and ducks naturally.

By Alanna Moore, Acres USA

The book can be ordered at: www.acresusa.com

*Fact sheet by Dot Perkins, UNH Cooperative Extension Agricultural Resources Educator .
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