

Chickenology

The Art & Science of Keeping Chickens

by the MRH Chickenologists



Can I Even Have Chickens?

Before you consider chickens seriously, check with your city government to see what kind of ordinances they have regarding poultry as pets. In most places, you will have to apply for a permit that allows you to keep farm animals, including chickens. For example, in order to get a permit from the city of Maplewood, MO, you must follow these rules:

"The chickens or ducks must be adequately confined within a yard or other place surrounded by wire netting or other fence as a provision to prevent their escape therefrom. The pen shall be maintained in a safe and sanitary condition. Any manure or other discharges from the chickens or ducks shall be collected and properly removed from the premises or tilled into the soil on the premises promptly and regularly to prevent the spreading of offensive smells or diseases." - Maplewood City (Ord. No. 5525, § 1(6-3), 6-9-2009)

Most cities also prohibit the possession of roosters, and they might have laws restricting the number of chickens. For example, in Maplewood, we had to get special exemption as a school to keep more than six chickens. Many cities also have strict laws to insure chickens don't become a nuisance. If shelters for the chickens become a hazard or a nuisance, the government of your city will issue fines.



Chapter 2
Hatching the Idea



Surveying the Territory

Depending on your location you may need to take precautions against predators. Two steps are crucial for the survival of your awesome little chickens.

1.) Determine your predators.

The main predators of chickens are the following: raccoons, hawks, foxes, coyotes, cats, dogs, snakes, and opossums. Even in the city, these predators can find your chickens, so it is important to talk to neighbors to see if they have seen any of these animals. You could also call your local animal control officer, too, to see if they have had any problems with any of these animals.

2.) Take action: When you have determined your predators, take action.

Digging Animals: When facing animal predators that can dig, start by building a foundation for the

coop with cement. This will stop any animal from coming into the coop from the ground. Another step that you can take to protect your area around your chicken coop is to put chicken wire or some type of metal wall underground a foot deep.

Flying animals: When protecting your chickens from predators that fly, you may want to add a roof to your chicken run. You don't want to encage your chickens but create a small plot of land that is caged and open to light and fresh air.

Small animals: Animals like snakes that can make it through openings in chicken wire also need to be considered. You can put a thinly spaced wire around the base of your coop and chicken run to keep out snakes and other small animals.

Finding a Hatchery

Once you have decided to go for









something you should really appreciate if your community won't let you keep roosters.

Outfitting Your Nursery

If you are interested in starting out with baby chicks, don't be nervous. Taking care of baby chicks is a lot easier than it looks. Chicks don't require much attention except to check their food and water a few times a day. But they do require a very special home. Chicks need to live in a brooder for the first 6 weeks of their life. A brooder is a box/container that the chicks will live in to keep warm. You can find a brooder at any local hatchery near you or you can even make your own. A brooder can simply be a cardboard box (we use a plastic tub), with a 40-60 watt infrared heat lamp, and any type of covering that the chickens can breathe through (window screen, oven rack, insect screen, etc). You can either set the on top of your covering or secure it to the side with a clamp. Make sure the lamp is only in one area, so the chicks can pick the temperature most comfortable to them.



A brooder is necessary for the beginning of a chick's life because the temperature of the area around the chicken is crucial to its health. From birth to one week old they have to stay at a constant air temperature of at least 95 degrees! This is soon followed by 90 degrees at two weeks. From there, you should decrease the temperature each week until it reaches a temperature that is close to the temperature outdoors. Then your chick is ready to live in its coop outdoors.



When you get your chickens, you must make sure to start them on the right diet. Chicks need starter feed. Starter feed is generally smaller than





Start Up Supply List

When shopping for your new babies there are a few essential supplies that you need to have. The items that are needed, and their price as listed by mypetchicken.com, are shown here. We suggest that all containers are lifted off the ground so that the chicks can reach them, but not poop in them.

<u>Item</u>	<u>Price</u>
Non-hanging Chicken Feeder	\$5
Non-hanging Chicken Waterer	\$5.50
Starter Feed, 5 lb. bag	\$7
Grit, 5 lb. bag	\$8
Heating lamp with guard and clamp	\$12
Thermometer	\$7
Straw or newspaper	May vary

regular sized food because the chicks won't be able to fit the regular sized food in their beaks. You can place both food and water in the brooder but make sure to use an appropriate container. We discovered the chicks will knock over light weight containers or use the containers as a toilet. They aren't the cleanest bunch!

Selecting Your Chickens

We have compiled a chart to show you some of our favorite breeds of chickens. It is important for you to know what kind of chickens you are looking for because egg laying and personalities can vary dramatically from breed to breed. Also, the physical characteristics of certain breeds may lead you to take extra precautions when considering predators.

Caring for New Chicks

We love baby chick day! We celebrate the arrival of our new chickens with a chicken birthday



party that includes cupcakes and ice cream. This is a very important ritual to welcoming your new babies because it is exciting and helps everyone feel involved. Invite all your friends who are chicken-doubters to the party and they will be convinced that chickens and cupcakes make for all kinds of fun. We ordered our cupcakes from The Cakery. They will decorate your cupcakes with

buttercream chickens. Uhm mmm.

There are several important things to know about caring for chicks.

1. We know you are going to want to hold them because they are so adorable, but we caution you not to pick up your chicks much during their first few days. Their legs and wings are especially fragile and can break.

If you can't resist, follow our technique. Slide one hand underneath them and use the other hand to cup them on top firmly. It is important to keep their wings next to their body. Don't squish them!!

2. Line the bottom of their brooder with dry leaves, wood shavings, or straw. We really like aspen wood shavings at this stage, but use

what works for you.

3. Keep it warm! As we mentioned earlier, baby chicks need to be kept very warm, so you will need a heating lamp and a thermometer to measure the heat.

4. From the very beginning, chicks will need starter food and grit that is small enough for their little beaks. Remember you cannot substitute oyster shell for grit and baby chicks don't need oyster shell yet. If you don't have starter food yet, you can use instant oatmeal or other whole grain cereals, but you might have to put the grains in the blender for a moment to make them small enough for your chicks' beaks.

5. Water is absolutely essential to the health of chickens. Make sure they always have plenty and that it is clean. This will take a little effort because they make a mess of the water regularly. Clean water is

important!

6. After a couple of weeks play with the chickens regularly to insure they are socialized. Chickens love to cuddle, chase ribbons, and play with you. They are sort of like cats, but chickens can be trained to come when you call.

7. Move your chicks into the coop when they are around five weeks old.



Did you know?

To produce one dozen eggs, a hen has to eat 4 lbs. of feed.

<http://www.funshun.com>





I came home from school one day and didn't hear any chirping. I went into my basement and the giant box that housed my chickens was gone. It was the day that the 25 baby chickens my family and I had taken care of for 6 weeks had to go out to the farm to live a life of laying eggs. I missed my little babies immediately. We had bonded! Thankfully, though, the farm that they were going to is owned by my dad's boss and is only an hour away, so I could go visit them any time I wanted...which is exactly what I did two weekends later. I was so excited to see them when we pulled up to the coop! I walked in and at first it seemed like they didn't remember who I was. They just walked around me like I was some random person. But then I called out "Ronnie!"(the name of the only rooster and the chicken I had the best relationship with). Right then, every single chicken perked up and started walking over to me! It seemed like not only Ronnie, but all the rest of the chickens remembered my voice. I now have 25 children living happily at that farm that will always be a part of me.

Kelsey





Chapter 3

All My Chickens

Day-to-Day Life with Your Chickens

Think of your flock as your personal posse. They are there to make you happy. When you're depressed, they will definitely put you in a good mood. Dr. Henke says she can't be cranky around Leonard, her pet rooster. You should plan on spending some time every day with your flock. Our chickens get constant personal attention. Some of us have favorites. Noah, for example, loves Spark, our bantam frizzled cochin. Many of us think Daisy is a lot like a pet dog. She follows us everywhere and is definitely the alpha chicken. Making sure your flock is healthy and happy isn't difficult... but there are some important routines you have to follow. In our school, a chicken steward will lose his or her job if s/he misses chicken care duties. We take these responsibilities seriously.

Every day around 7:00 am we let our chickens out of the coop—except on weekends when the gardener gives us permission to sleep in and let them out at 10:00. In the summer though, most chicken stewards like to have the chickens out early because it is hot in the coop. Many days we open the little gate and allow the chickens to leave their run and go into the orchard. They love to play there, taking dust baths and digging in the ground. The time of day chickens lay eggs may vary, but most of ours lay in the morning so we can turn them out into the orchard to free range in the afternoon. This keeps us from searching the orchard on an



egg hunt every day.

Chicken stewards lock the small access door to the run each evening for extra protection even though the run is locked.

Water and Feed

We check to make sure that our chickens have food and water both in the morning and evening. We clean the containers each day and once a week the senior steward washes them with a mixture of water with a little bleach to disinfect it. Then the waterer is thoroughly flushed out with water. We feed our chickens pellets that do not contain any animal protein. We also give them a little bit of cracked corn as a special treat. We mix oyster shell into their food to provide them the necessary calcium to lay eggs and have a separate container for grit. Our chickens really love table scraps, especially fruit, cereal, and greens. Sharing these treats can be fun, but there



are a few things you definitely shouldn't feed your chickens. For example avocado, coriander, elderberries, honeysuckle, lily of the valley, hydrangea, parsley, tobacco, potato shoots, morning glories, and fava or runner beans are considered unsafe foods for chickens.

You can find more resources on safe snacks for chickens online at

www.backyardchickens.com

A Chicken by Any Other Name...

No matter how old a chicken is...it is always a chicken. But female chickens under a year old are called pullets, and male chickens under a year are called cockerels. An older female is called a hen and a male is called a rooster.

The Coop

Like people, chickens have houses, but they're called coops. Here in the MRH community our chicken families have all different kinds of coops. Whether big or small, fancy or farm-like, all quality coops offer a few key features to provide the best care for chickens. The first thing to consider is that size does matter.



Harsh Family Chickens



Bob Harsh and his wife were inspired to get chickens because of their one and a half year old grandson. Bob grew up on a farm himself, surrounded by all kinds of animals, including many chickens. He loves the time that he spent at that farm, and he knows the warm, proud feelings that come with caring for animals. He wants his grandson to have those feelings in the city and to grow up with the experiences that taking care of their chickens will bring.

Bob can already see the impact the chickens are having on the young boy: he isn't afraid of animals anymore! In the future, Bob and his wife hope that their backyard chickens will teach their grandson compassion and responsibility, which are traits that will be practical as he grows up, and not just with the chickens. Having the backyard chickens in the city also creates a sense of community, what with all of the neighborhood kids coming over to look at and play with them!

The size of your coop depends greatly on how many chickens you plan to have in the space. One chicken should have a minimum of four square feet with a run, and ten square feet if it doesn't have a run. You want to make sure your chickens have space to move around.

After sizing up your coop, the next step is to pick a location. You want your coop to be somewhere where the chickens have shade so they don't get too hot in the summertime, but that doesn't mean you should block them from the sun completely. You want your coop to get some sun to dry the soil after it rains. Having your coop on a slightly high and well drained area will keep the coop dry if there is flooding and ensure the least amount of wetness.

The type of flooring in the coop may vary depending on whether you are buying or making your



coop. We have a great wood floor in our coop and it works very well. The wood floor keeps out other animals and helps keep the coop clean. Straw, wood chips, or newspaper are all great cheap bedding.

To help keep the bedding dry, try hanging your water container as well as your food container(s).

These busy little birds will try to perch on anything, which usually results in major spills when food and water containers are set on the floor.

In our coop we have our waterer and food containers hanging from chains that connect up to the ceiling. Hanging the containers also helps to keep the chickens from pooping in them. Of course you



weather. Be sure the run cover is peaked like a roof so any rain water can drain outside of the run rather than in the run, keeping it dry.

We installed fencing a foot underground around the run to prevent predators from digging in.

Cleaning the Coop

When it comes to house keeping, there are several easy steps that can make or break a beautiful coop. If you follow these instructions, on a bi-weekly/monthly basis, your chickens (and your neighbors) will be seriously grateful.

First off, be sure that you are wearing shoes and clothing that can get dirty, and can be easily removed before re-entering your house. We wear aprons and gloves when we clean out our coop. Remember, cleaning the coop equals cleaning up poop. You won't want to track any of

that business back into the house with you when the job is done.

Next, it is important that all of the chickens are out of the coop before you begin cleaning. We lock our chickens into their run so they aren't underfoot.

Once this is done, you will be ready to de-poop your coop!

The first step in cleaning is to remove the food and water containers and clean them. These containers can be easily sanitized with a bleach solution that has one tablespoon of bleach to every gallon of water. But be careful, because too much bleach can result in contaminated food and water.

Next, remove all of the soiled bedding. This could be straw, newspaper, or wood chips. Bedding should really be removed on a weekly basis.





need to make the containers detachable to clean and refill.

An important feature of your coop is the ventilation system. Like humans, chickens need fresh air and oxygen. Having a window and a fan will help air circulation over night when the chickens are locked up. During the day having your chicken door open is also a great idea because it allows the chickens

to go from the run into the coop when desired, and allows air to flow through the coop.

Electricity in your coop can be a big advantage, giving you the option of a source of lighting, a ceiling fan, heating lamps, and a water heater during the winter.

A run attached to the chicken coop is optional, but highly suggested.

The run allows the chickens to frolic outside and stretch their wings. Surround your run with mesh or wire fencing to ensure predators can't get to your chickens. Having a cover over your run offers protection from flying predators such as hawks.

On our run we have a canvas cover to protect the chickens when they are outside during harsh



From here, you can move on to the roost. Use a wire brush to remove all of the poop on the roost, and scrape off any remains with a paint chipper.

The nesting boxes should be cleaned using your gloves to remove all of the straw, which can then be composted. We compost all of our chickens' bedding and

poop in our three unit composter.

Finally, replace all bedding with fresh straw and bring in the clean containers of food and water.

Once done, your coop will be sparkling clean! Well, not realistically, but it should be much cleaner than it was before.

In addition regular house keeping,

it is a good idea to give the coop a deep cleaning every couple of months. Twice a year we sanitize the whole coop, scrubbing it with disinfectant and water

Nesting Boxes

Chicken nesting boxes come in a variety of shapes and sizes. The basic idea is to have a dry, clean and relatively dark area where your

hens can lay their eggs. You should have one nesting box for every 2-4 chickens. Here are some of the basics for a good nesting box.

A nesting box should be big enough for your chickens to comfortably stand-- usually 12 x 12 x 12 inches is adequate, but remember that bigger is better.

People usually use either wood shavings or straw to line their nesting boxes.

It's nice to place a roost bar or step to the front of the box. This gives the hens a place to jump before entering the nest box. A "lip" is also useful for keeping bedding material and/or eggs from being pushed out of the box.

You don't want your chickens to sleep (roost) on top of their nesting boxes. That would make a



Did you know?

A mother hen turns her eggs apps. 50 times each day to keep the egg yolk from sticking to the shell of the egg.

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huge mess! To persuade hens not to sleep atop their roost you can angle the top of the nest box. We put wire on top to prevent our hens from roosting there.

Many people like to build their nest boxes raised from the ground. Make sure the boxes aren't too high, or the hens will have a hard time entering and exiting. Most people recommend the nests be about two feet above the ground. When the chicks are too young to lay eggs they're confused about the purpose of a nesting box. They often use it to poop in, like a cat with a litter box. To stop the baby chicks from confusing the use of their nesting box, we separate them until they're old enough to lay. We actually put wire over the boxes when we had only young chicks.

The Roost

The roost (or perch) is where your chickens rest, hang out, and sleep. It's located inside the coop. Some

people make incredibly elaborate roosts, while others use far more simple designs. Your roost design is up to you. We would recommend finding books specifically geared towards the building of chicken coops and roosts, or googling chicken roost designs.

The roost slats should be one to two inches in diameter so that the chickens can grip them easily. The slats should be at least thirteen inches apart, and should be raised at least two feet off the floor, but higher is better. Chickens want to roost on the highest point in the coop. Because chickens naturally poop a lot during their sleep, you will want them to sleep on their roost. If the nesting boxes are higher than the roost, that's where your chickens will sleep. To help with this, you should place your roost higher than the nesting boxes. Just make sure the height of the roost is not leaving the chickens smashed against the





ceiling.

We put a large tray underneath the roost. This is a good idea because it catches the poop from the chickens, so the floor of the coop stays a bit cleaner. The tray is lined with newspaper making it easier to clean when we tidy up. We also block off the under side of the roost with chicken wire, so the chickens can't get into the tray and spread the poop around. You want to do as much as possible to keep your coop clean.

Chickens in Summer

Chickens, like many other animals, are designed to effectively keep warm instead of cool. Chicken's body heat (which is always around 105° Fahrenheit) and their thick feathers make it easy for them to overheat in the summer. When chickens are hot, they pant, hold their wings away from their bodies, and start to act lazier. Don't worry though, there are many things you

can do to help them fight the heat.

Your main priority should be making sure that there is always fresh water in the coop. You should change the water at least once a day. We change our chicken's water at least twice a day and sometimes three when it is very hot.

Making sure your chickens have some nice shady areas outside the coop also helps. Placing their coop next to some bushes or shrubs is a simple and easy way to provide the shade they need. Try planting a tree beside the coop and place a cover over the run for shade.

Since your chickens will probably be inside the coop all night and during some of the day, ventilation in the coop is a must. You can install a little fan or windows in the walls of the coop to provide air movement. We did both of these things in our coop. The exhaust



fan helps a lot.

In extreme heat you can mist your chickens using a spray bottle. Spraying the chickens relieves them of the constant heat on their bodies. If you find any of your chickens have collapsed due to heat stress and exhaustion, you can dip them in some water to help them cool off. We've never done this, but we would if we found a chicken struggling with heat stress. Be careful though, chickens can not swim, and can easily drown.

Chickens absolutely love to take dust baths! They dig a little hole in the ground to loosen up the dirt, and cover themselves in the dust. They shake off the dirt later, but the dust bath process helps them cool off. The dust also prevents mites and other parasites from settling into their feathers.

In the summer, make sure your



chickens have lots of space to roam. Our chickens especially enjoy running around in our orchard. The extra freedom and space seems to make them very happy.

Chickens in Winter

Surprisingly, chickens are able to survive in very low temperatures. Their thick feathers do a great job at keeping them insulated and warm, but even though they can

survive, they need some help to do it. You must make sure that they always have fresh water, just like in the other seasons. The only difference is that you have to keep the water from freezing over. The most effective way to do this is to purchase a water heater that you can put your chickens' water container on. Ours is a galvanized water container because plastic ones tend to split when exposed to



really low temperatures. You also need to make sure your little chickens eat a lot during the winter to stay healthy. One way to increase food consumption is to feed them wet mash. This is made by pouring warm water in the feed trough—it is sort of like making them oatmeal.

Making sure the coop is free from drafts is another main priority in

the winter. Chickens are prone to getting frostbite in their combs and wattles, and cold winter winds are the main contributing factor. To help protect the combs and wattles, you can rub Vaseline into them. The longer you massage it in, the more effective it will be, since the massage increases blood flow to the area. Another thing you can do is put an infrared heat lamp in the coop for a couple of

hours (you can use a timer to make it easier) to heat up the inside. You can put plastic over the windows to keep down drafts, but make sure not to restrict ventilation fully. If you cut off all ventilation while trying to warm the coop, the moisture from the chicken's breath and feces can easily lead to frostbite.

The Awesome EGG

Normally, a hen will lay about one egg per day or every other day. You should expect around 260 eggs per year, depending on the breed. Some chickens lay more often than others. It would probably be a good idea to take notes and figure out the laying schedule of your chicken, so that you will know when would be a good time to collect the eggs, instead of running around on a wild goose (or chicken) chase each day.

You would be surprised at how many people ask us if you need a

rooster to lay an egg, and it's usually adults asking the question! Obviously, you don't need rooster for a hen to lay an egg. However, you DO need a rooster to have a fertilized egg—and that's where baby chicks come from. If you need additional information along this line, you should have a talk with your health teacher!

If your major focus is egg-laying, you should choose chickens that are great egg layers. Our chart earlier in the chapter offers some good suggestions. Our hens have great personalities, interesting looks, and they are also good layers.

When you are ready to store your eggs, you can place them in any egg carton. You do not need to wash them right away, though you do want to wash the shells in warm water before you cook and eat the eggs. Chicken eggs are laid with a natural coating that protects

them from bacteria and dirt, and dissolves with water. No need to worry about refrigerating your eggs until you wash that coating away.

Eggs last about four to five weeks, but you will notice a difference in freshness after about two weeks. It's important to remember that most of the factory eggs you get in your supermarket are over a month old.





Being a chickenologist has become more than just a "job" to me; it's now become a lifestyle. Everywhere I go, I to spread the word of my chickens and my new chicken family. I take my job very seriously, which is why I now have the title of "Alpha Chicken." When I first got the call from Debi, I thought I was in trouble. I soon realized I was not in trouble but was about to be asked to take on a huge responsibility. I was thrilled to hear this big news. As an alpha chicken it is my job to look after not only the chickens, but also my chickenologists, as well. As an Alpha Chicken, I make the chickenologists' schedules, check the coop on the weekends to make sure the chickenologists fulfill their duties If they don't, then I take responsibility. Being an Alpha Chicken is a wonderful job that I love. Even though sometimes there are difficulties, being an Alpha, I have to put my job first. Overall as an alpha chicken there is a lot of work to get done. My team of chickenologists makes all the work worth it. I am proud to call myself a chickenologist and even more proud to be called the "Alpha Chicken."

Kaila

