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Download Article Download Article Breeding chickens is a great way to create a sustainable flock, and should be learned by every chicken farmer and enthusiast. Watching the process is a fantastic learning tool as well, thanks to the short amount of time that the eggs need to incubate. Follow this guide to start breeding chickens yourself. 1 Find out if it is legal to keep chickens in your area. Some places have strict laws on keeping chickens whilst other places has ruled on keeping roosters and the amount of chickens you have. To avoid a fine it is best to check your local laws and regulations in your area.[1] 2 Make sure that you can house the new chickens. Many people don’t take into account that when you breed chickens, you will end up with significantly more chickens than you started with. Ensure that your chicken coop is ready for the new additions to your flock. Keep spare coops and equipment around so you're prepared to separate roosters or bullies of the flock. Sometimes you just won't have enough room to keep all chickens in one coop or you might get a few more roosters than hens that are aggressive towards each over. Advertisement 3 Decide if you want to take a chance on more roosters. Breeding chickens will result in about 50% male chicks. Male chickens will not contribute to your egg production, eat larger amounts of food, and will significantly increase the noise level of your flock. Be aware that breeding chickens will always result in having to deal with roosters.[2] 4 Obtain a rooster. In order to fertilize your hen’s eggs, you will need a rooster in prime breeding condition. The rooster does not need to be the same breed as your hens in order to mate.[3] You should have 1 rooster for every 10 hens. Try to find a rooster from a good breeding stock. His eye color should be even, and his feet should be free from deformities. The rooster’s comb should look like a standard comb for his breed. Be prepared for noise. Roosters are loud animals, and many cities and suburban areas have laws against owning roosters due to the noise. Make sure that you can legally own a rooster. If you cannot, you will need to purchase fertilized eggs to hatch. Some breeds can be fairly aggressive. Make sure that you pick a rooster that is even-tempered, especially if you have children. 5 Start breeding in the spring. Although you can breed chickens throughout most of the year, chickens bred in the Spring tend to be stronger. Chickens born in the Spring will begin producing eggs in Autumn. You do not need to do anything special in order to breed your chickens, just introduce the rooster to your flock and let nature take its course.[4] Make sure both your hens and your rooster are eating quality food. This will ensure that their reproductive systems are as strong as possible. If you are breeding second generation or third generation chickens, be very wary of inbreeding issues. Try to tag your chickens so that you know which ones are related to the rooster. You can keep the rooster separate and only allow in the hens that you want to breed. You may also consider getting a new rooster each year. 6 Decide between incubating the eggs yourself, or allowing the hen to raise her chicks. If you rely on your hens for egg-laying, letting the hen raise the egg will result in about 3 months of lost egg production (21 days to set and hatch her clutch, and another 2 months to raise her babies before she starts laying again). You will also need a “broody” hen, which means she is willing to sit on the egg for the entire incubation period.[5] Most chickens have had the broody trait bred out to keep them productive. Some of the broodiest breeds include: Silkies, Serama, Brahma, Jersey Giant, New Hampshire Red, Sussex, and others. If you have a large number of eggs to incubate, or are incubating to sell, it may be worthwhile to invest in an incubator. Advertisement 1 Collect your eggs regularly. Even if you are going to let the hens incubate the eggs, you will want to collect them and choose the best ones to incubate. Collect eggs two to three times a day to make sure that the eggs don’t get dirty or don’t start developing. If it starts getting hot out, collect eggs even more often than normal, up to five times a day. Use a soft basket to hold the eggs while you collect them. This will help keep them from getting damaged. A little straw in a hand basket makes for a perfect egg basket. Handle the eggs delicately to keep from upsetting the membrane and other internal parts. Clean your hands before gathering eggs. This will help prevent you passing on bacteria to the egg. 2 Keep the nest clean. Although you should always be keeping the coop and nest boxes clean, it is especially important when breeding. Mud and droppings can increase the amount of harmful bacteria that can infect the egg, which will hurt the egg’s chances. Make sure the hens always have clean bedding. 3 Choose the eggs you wish to incubate. Choosing the right eggs will significantly increase your chances of a successful hatch. You will want to avoid eggs that are noticeably larger or smaller. Large eggs have difficulty hatching, and small eggs often produce chicks that are too small to live.[6] Do not choose any eggs that have been cracked. Also avoid eggs with thin shells. Do not choose eggs that are noticeably misshapen. Only keep the clean eggs. Washing or wiping dirty eggs removes protective coating, making it more vulnerable to bacteria. 4 Mark your eggs. If you are hatching a lot of eggs, or are breeding different types of chickens, you may find it useful to mark the eggs with dates or breeds to help you keep track of them all. You can use a pencil, marking pen, or a stamp.[7] 5 Store the eggs. Eggs can be stored up to 7 days after they have been laid and before you start incubating. Eggs should be stored for at least 24 hours before you start incubation, otherwise they may not hatch as well.[8] Try to maintain a temperature of 55 °F (13 °C) and high humidity. Store the eggs with the pointy end down. 6 Turn the eggs daily. While you are storing the eggs, they will need to be turned once a day to keep the membrane from sticking to one side. You can do this by placing a piece of wood underneath one end of the carton and then switching it to the other end the next day.[9] Advertisement 1 Find your broody hen. You can use fake eggs to test for hens that may be more broody than others. If your hen will sit on the fake eggs for 24 hours, then she will most likely successfully incubate eggs for 21 days.[10] 2 Sneak the eggs under the hen. This will be easiest at night, while the hen is sleeping. Depending on the breed, she may be able to incubate up to 12 eggs. Smaller breeds may only be able to fit 6 or so. All the eggs need to be able to be covered when she roosts.[11] 3 Separate the brooding hen and her eggs from the other chickens. If you can, separate the new mother and her eggs from the rest of the flock to prevent them from getting dirty or damaged. If your hen is resistant to moving, then leave them where they are or move the hen and her nest overnight.[12] Warning: Moving any hen while she is setting may cause her to abandon nest, so if these are expensive eggs, have a back up plan in place. If you can’t separate them, try to keep the other chickens from bothering the new mother as much as possible. 4 Keep the mother well fed. Make sure that the mother hen has plenty of fresh water and food. You can switch the hen to chick starter food so that the chicks have the correct food right away. The hen won’t eat as much as normal. Watch her and make sure that she is eating and drinking. You may have to remove her from the nest or set her a food and water dish right beside her nest. Hens will sometimes refuse to leave the nest to eat or drink and starve to death.[13] 5 Let the hen hatch the eggs. When the eggs start hatching, don’t disturb the hen. She will help the chicks hatch. Eggs begin hatching around the 21st day, and the process can take up to 24 hours or more. Most of the eggs should hatch around the same time. After hatching has started, remove any unhatched eggs after about two days.[14] 6 Let the mother raise the chicks. If you opted to have the eggs hatch naturally, the mother will provide all of the necessary warmth and care for the chicks, and you will not need to put them in a brooder. 7 Try to keep them separate. For the first six weeks, try to keep the chicks and the mother separate from the rest of your flock. This will allow them to get their bearings without being picked on by the other chickens. Provide a brooding area that the hen can enter and leave but the chicks can’t leave. This will help keep them out of trouble. 8 Provide plenty of clean water and fresh food. Chicks need specific blends of food to grow up healthy, so make sure that there is plenty available. Different feeds will recommend changing types after a certain amount of time (6 weeks, 3 months, etc.). 9 Introduce the chicks to the flock. After about 6 weeks, the chickens will be ready to be introduced to your flock. Introduce them slowly, and ensure that everyone is getting along before moving them in permanently. The mother hen will help keep other chickens in line during the transition process. Advertisement 1 Obtain an incubator. You can build your own incubator, or you can buy one from a farm supply company. If you are buying one, make sure that it has easy to control temperature and humidity, as well as good egg-turning options.[15] One of the biggest factors when choosing an incubator is the number of eggs you intend to hatch. Usually only about 50-70% of the eggs that you incubate will hatch, and then half of those will turn into roosters. 2 Set your incubator up in a temperature-controlled room. A stable room temperature will allow the incubator to keep a stable internal temperature much easier. Avoid placing the incubator next to a heater, or next to a window or door.[16] You will need to check your incubator often, so make sure that you can access it easily. 3 Mark your eggs if you haven’t already. If you didn’t mark your eggs when you collected them, you should mark them before putting them in the incubator. This will help you know if the egg has been turned or not. 4 Preheat your incubator. Allow the incubator to run for a few hours before placing the eggs in. This will allow the incubator to reach the heat and humidity it needs. If your incubator has fans it should maintain a constant temperature of 100 °F (38 °C). If it does not have fans, keep the temperature at 102 °F (39 °C). Humidity for the first 18 days should be around 40%. 5 Place your eggs in the incubator. Eggs should always have the large end facing up, or be lying horizontally with the large end tilted up. The small end should never be facing up, or the eggs will not develop properly and chick will most likely die trying to hatch.[17] 6 Turn the eggs. Eggs need to be turned around 5 times per day. Turn the eggs gently to avoid damaging the embryo. Do not turn the egg in the same direction each time. They do not get turned on the last 3 days before hatching.[18] 7 Candle your eggs. Candling eggs allows you to tell if embryos are actually growing inside or not. You will need a bright flashlight and a dark room to candle the eggs. Hold the egg with the large side upwards, and shine the flashlight through it. You should be able to see blood vessels beginning to develop, as well as the air sac on the top.[19] You should be able to start seeing blood vessels after a few days of incubation. You should see a developed embryo after about 7 days. Throw away any undeveloped eggs between days 10 and 14. Humidity needs to be increased to 60-70% the last 3 days to prevent membranes from drying out. Do not open the incubator in the last 3 days. 8 Allow the eggs to hatch. The hatching process can take the better part of a day. As soon as you notice pipping, increase the amount of oxygen that is entering the incubator by opening vents. The newly hatched chicks will not need to eat or drink for 48-72 hours, so allow the incubator to keep working as later chicks hatch. Avoid helping the chicks hatch. Chicks that cannot hatch on their own will most likely not survive into adulthood. 9 Move the chicks to a brooder. One the hatching process is complete and the chicks are dry, you can transfer the chicks to a brooder where they will be raised. You can either build your own brooder or purchase one from a farm supply store. A 40-watt bulb in a bedside lamp makes for a good source of heat. Use a red bulb to hide injuries so that the other chicks will not pester an injured one. The chicks need a temperature of 99 degrees F the 1st week, dropped by 5° each week until brooder temp is equal to outside temp or chicks are fully feathered. Keep the box in an area that is as draft-free as possible, and use wire to prevent cats from gaining access. 10 Keep a constant supply of fresh water and feed. Your chicks will need to always have an ample supply of food and water. Chicks need a specialized feed formulated for chicks. As they mature, they can graduate to standard chicken feed. Make sure water dishes are shallow, as chicks can easily drown in their own water dish. Add marbles to water to prevent drowning. 11 Introduce the chicks to the flock. After about 6 weeks, the chickens will be ready to be introduced to your flock. Introduce them slowly, and ensure that everyone is getting along before moving them in permanently. Advertisement Add New Question Question I have 2 roosters and 11 hens. Will this be a problem? My roosters are about a year old and my hens are 1-2 years old. The roosters don't fight because they're brothers. It depends. As they get older they may start getting aggressive with each other, even if they are brothers. Typically you want about a dozen hens per rooster to keep the peace (so they each have their own little harem), and even then there's no guarantee. But they may just be low-key fellows and never fight each other. Keep an eye on them; sometimes the first fight is a fatal one. It's also possible to keep two roosters together in their own bachelor pad, because without girls to fight over they are much more likely to stay friendly. Question My hen get up for periods of time while nesting. Will this interfere with the hatching of her eggs, or is this normal? If she gets up to eat, drink, and go to the toilet, it's perfectly normal. As long as she completes the 21 days of incubation, this would not be a problem. Question I put my rooster in with my hens. How long does it take before the breeding process starts? There is no set time period for when a flock starts to breed. Usually when the weather gets warmer and the chickens have nesting boxes, they will be encouraged to have baby chicks. See more answers Ask a Question Advertisement Thanks Helpful 64 Not Helpful 11 Thanks Helpful 69 Not Helpful 17 Thanks Helpful 57 Not Helpful 16 Thanks Helpful 54 Not Helpful 17 Advertisement Thanks for reading our article! If you’d like to learn more about chickens, check out our in-depth interview with Alexandra Doss. Co-authored by: Poultry & Livestock Expert This article was co-authored by Alexandra Doss. Alexandra Doss is a Poultry & Livestock Expert expert based in Ruskin, Florida. She owns and manages Stellar Game Birds, Poultry, Waterfowl LLC, a selective breeding operation with game birds, poultry, and waterfowl. With over 14 years of experience, she produces strong genetics and health in her hatching eggs, eating eggs, and live birds. The farm is FWC game farm licensed, FDAC licensed for quail, chicken, and duck eating eggs and meat, and NPIP certified. She is known as the Quail Lady and has published several books on raising Coturnix. Her work has been featured in Mother Earth News, Backyard Poultry, Grit, The Chicken Whisperer Magazine, and Community Chickens. She also has a career as a Workforce Management Supervisor and has a certificate in project management. She received a BS from Oregon State in Animal Sciences. This article has been viewed 552,864 times. Co-authors: 61 Updated: April 11, 2025 Views: 552,864 Categories: Chicken Health Print Send fan mail to authors Thanks to all authors for creating a page that has been read 552,864 times. "Thank you. I will be a first time breeder this spring. The article was very helpful to me. I currently have 4 mature hens approx. 2 years old who are still providing good eggs for the table. I wanted to raise chicks and this article is precise and easy to understand."..." more Share your story Technology Agriculture & Agricultural Technology poultry farming, raising of birds domestically or commercially, primarily for meat and eggs but also for feathers. Chickens, turkeys, ducks, and geese are of primary importance, while guinea fowl and squabs (young pigeons) are chiefly of local interest. This article treats the principles and practices of poultry farming. For a discussion of the food value and processing of poultry products, see egg and poultry processing. Commercial poultry feeding is a highly perfected science that ensures a maximum intake of energy for growth and fat production. High-quality and well-balanced protein sources produce a maximum amount of muscle, organ, skin, and feather growth. The essential minerals produce bones and eggs, with about 3 to 4 percent of the live bird being composed of minerals and 10 percent of the egg. Calcium, phosphorus, sodium, chlorine, potassium, sulfur, manganese, iron, copper, cobalt, magnesium, and zinc are all required. Vitamins A, C, D, E, and K and all of the B vitamins are also required. Antibiotics are widely used to stimulate appetite, control harmful bacteria, and prevent disease. For chickens, modern rations produce about 0.5 kg (1 pound) of broiler on about 0.9 kg (2 pounds) of feed and a dozen eggs from 2 kg (4.5 pounds) of feed. Egg productionSingle-comb White Leghorn hens housed for egg production in a multitiered layer house.A carefully controlled environment that avoids crowding, chilling, overheating, or frightening is almost universal in poultry farming. Cannibalism, which expresses itself as toe picking, feather picking, and tail picking, is controlled by debeaking at one day of age and by other management practices. The feeding, watering, egg gathering, and cleaning operations are highly mechanized. Birds are usually housed in wire cages with two or three animals per cage, depending on the species and breed, and three or four tiers of cages superposed to save space. Cages for egg-laying birds have been found to increase production, lower mortality, reduce cannibalism, lower feeding requirements, reduce diseases and parasites, improve culling, and reduce both space and labour requirements. Poultry breeding is an outstanding example of the application of basic genetic principles of inbreeding and crossbreeding as well as of intensive mass selection to effect faster and cheaper gains in meat and maximum egg production for the egg-laying strains. Maximum use of heterosis, or hybrid vigour, through incrosses and crossbreeding has been made. Rapid and efficient weight gains and high-quality, plump, meaty carcasses have been achieved thereby. Among the world’s agricultural industries, chicken breeding in the U.S. is one of the most advanced. Intensive nutritional research and application, highly improved breeding stock, intelligent management, and scientific disease control have gone into the effort to give a modern broiler (meat chicken) of uniformly high quality produced at ever-lower cost. A modern broiler chick can reach a 2.3-kg (5-pound) market weight in five weeks, compared with the four months that were required in the mid-20th century. Additionally, annual egg production per hen has increased from about 100 in 1910 to over 300 in the early 21st century. Poultry are quite susceptible to a number of diseases. Some of the more common are fowl typhoid, pullorum, fowl cholera, chronic respiratory disease, infectious sinusitis, infectious coryza, avian infectious hepatitis, infectious synovitis, bluecomb, Newcastle disease, fowl pox, avian leukosis complex, coccidiosis, blackhead, infectious laryngotracheitis, infectious bronchitis, and erysipelas. Strict sanitary precautions, the intelligent use of antibiotics and vaccines, and the widespread use of cages for layers and confinement rearing for broilers have made it possible to effect satisfactory disease control. Outbreaks of bird flu, or avian influenza, which was first detected in humans in 1997, have led to the culling of millions of poultry animals since the late 20th century. Waterfowl such as wild ducks are thought to be primary hosts for all bird flu subtypes. Though normally resistant to the viruses, the birds carry them in their intestines and distribute them through feces into the environment, where they infect susceptible domestic birds. Sick birds pass the viruses to healthy birds through saliva, nasal secretions, and feces. Within a single region, bird flu is transmitted readily from farm to farm by airborne feces-contaminated dust and soil, by contaminated clothing, feed, and equipment, or by wild animals carrying the virus on their bodies. The disease is spread from region to region by migratory birds and through international trade in live poultry. Humans who are in close contact with sick birds—for example, poultry farmers and slaughterhouse workers—are at the greatest risk of becoming infected. Parasitic diseases of poultry, including hexamitiasis of turkeys, are caused by roundworms, tapeworms, lice, and mites. Again, modern methods of sanitation, prevention, and treatment provide excellent control. Home / Backyard Chicken Learning Center / If you’ve read our Broody Hen Guide (and you really should!), you’ll know that hens have a natural state that makes them want to hatch the eggs they’re sitting on. In some cases, they’ll even steal eggs from other birds when brooding. Of course, with no rooster in the flock, their broodiness will lead to nothing, but if you are utilizing a rooster to fertilize your hen’s eggs, then this is the guide for you! We’ll go through the reasons why people breed chickens, different methods for breeding, nutrition, chick care and more so buckle up! Quick Jump Chapter 1: Why People Breed Chickens People breed chickens for a variety of reasons, but the most common reasons are: Egg production and eating Show them at a competition or a State Fair Fun! Benefits of Breeding Chickens If you’re breeding for one of the aforementioned reasons, it can be very rewarding for a backyard farmer! You can breed specifically for blue eggs to sell or eat or challenge yourself to breed a potential prize-winner, but many people breed chickens so they don’t have to continuously replace their pullets every few years. It can be quite rewarding, of course, to watch a chick grow from an egg all the way through hatching and into a glorious lady, but some backyard farmers either don’t have the equipment or the time to manage that. If you trust your hens to manage the process for you, by all means, do it! You don’t necessarily have to use incubators and artificial breeding techniques. Your ladies are smart and can take care of it for you, but we’ll get into that later! Chapter 2: Before you start to breed your chickens, you’re going to need a plan of action. What’s the reason behind you breeding your chickens? Will you have enough time to artificially help them along the way? If not, are you confident that your hens can do it all for you? All these questions and more go into the breeding mix but as a rule of thumb, you’re going to want to start the process with a goal in mind, the best birds available to you, and a sheet for notes. You may ask why you need the best chickens available if you’re just breeding for your backyard. Simply put, these birds are much less likely to produce chicks with diseases and defects, meaning you’ll have happy birds more often than not, and it’ll save you time, headaches and potentially some emotional experiences. “Best available,” admittedly, is quite a subjective term and can simply mean healthy and happy, so don’t be too worried about making sure your flock is full of prize winners before you even get started. Chicken Breeding Methods The two most common methods to breed chickens are: Flock breeding Pedigree breeding Flock Breeding This is the most common as it gives your chickens the opportunity to breed at random with a chosen number of hens. Most backyard farms will have just one cock, so this makes things easier for you as a keeper. Pedigree Breeding This emphasizes breeding your chicks to have individual traits. This is best done by individually mating a cock to a specific hen for the characteristics you desire. You’ll need to take meticulous notes during this time if you’re using more than one hen as chances are you’re breeding less for fun and more for show with this method. These notes will give you all the info you need to know about which cock mated with which hen and which chick came from it. Breeding Chickens for Fun The likely reason most of you are interested in breeding your chickens is for the fun of it! This breeding method requires the least amount of work. You just need a cock and a hen. The good thing about breeding your chickens for fun is that you don’t really need any of the equipment that comes with artificially taking care of the eggs. We’ll go into more detail about that later, but if you trust your hen to look after her chicks (and you definitely should) then that’s really all you need! Your hen will take care of pretty much everything for you assuming her eggs are fertilized. If you’ve successfully bred chickens for whatever reason, please share photos with us on our Facebook page. We love to see them! Breeding Chickens for Egg Production Some of you may want to get into the commercial side of backyard farms such as selling the eggs that your chickens produce. Egg production slows down as your ladies age, so breeding for egg production might be the way to go to avoid having to purchase new pullets every three of four years. The best way to do this is through crossbreeding. Purebred birds are generally bred for show competitions and have had their egg-laying abilities stifled through the breeding process. If you have good layers in your flock, you’ll want to make sure they’re first in line for breeding. It’s highly likely that a good layer will pass this trait onto their offspring. Again, taking notes as you breed will ensure you’re successful so you can know which of your chickens are producing the best layers and the most eggs over time. Breeding Chickens for Show Competitions It’s not often that a backyard farmer will be breeding their chickens for show but it definitely happens and can be a very fun and rewarding experience. This is really where the “best available,” analogy from earlier comes into play. Your cock and hen will want to resemble their breed as close as they possibly can before you breed them together. Of course, these chickens aren’t exactly available for a cut-rate price ($5 up to $25 and more per chick is not unheard of). If your plan is to breed for show, you’re going to want to put a lot of time, effort and potentially money into it, and for some keepers, it’s just not worth it. There is a chance, however, that you’ll breed a bird so beautiful you’ll have no idea how you did it, whether you’re breeding for show or not! Sometimes, luck is just in your favor, but your note-keeping skills will help you deduce why your chicken came out so perfect. Chapter 3: What to Feed Your Breeder Chickens Your breeders are a bit different compared to your broodies, but diet and nutrition will change regardless as you try to promote fertility in your cocks and hens. When you’re hoping for a hen’s eggs to become fertilized, you’ll probably want to switch your breeders to a higher protein layer feed. We recommend the 18% Grower Feed found here (duh) as well as using some Oyster Shell to up their protein intake during this time. This is because higher protein means higher fertility and hatchability, and that’s exactly what you’re hoping for! What to Feed Your Broody Hens If you’ve been reading our blogs in chronological order (and you definitely should), you’ll know a little bit about what to feed a broody hen! During her broody period, she will not eat a whole lot, and you shouldn’t be surprised if she doesn’t even leave the nest for the first day or two. Once she does leave the nest, it’ll only be to eat, drink and poop, and then she’ll head back to her eggs. 20 minutes max! As for the food she should have available to her, we recommend you provide a high protein Starter Chicken Feed because of her infrequent trips to the feeder. When her chicks hatch, this will be the food you want to feed them too, so having it on hand isn’t a bad idea anyway! If you’re worried that your broody hen isn’t eating and drinking, you can encourage her by gently lifting her off the nest and placing her close to the feeder. There is a chance however that she’s been eating when you’re not around, so don’t worry too much if she still doesn’t seem interested after you’ve tried this. Supplements The goal is never to go overboard on supplements for your chicks and their chicks, but you will need to supply them with the necessary nutrients they need because during breeding and brooding they won’t have as much energy as they usually do. Vitamin A deficiency is all down to an improper diet for chickens. A clear sign of Vitamin A deficiency is stunted growth in your chicks. It can also manifest in different ways, such as dry eyes or a high susceptibility to infection, but stunted growth is the easiest to spot. The best way to avoid a Vitamin A deficiency is to add certain foods to their feed. Foods like broccoli and kale will do the trick! Vitamin D deficiency directly impacts egg production, so if you’re breeding chickens you’ll want to keep on top of this. A deficiency can cause thin-shelled eggs because when a chick is growing, the calcium is pulled from the shell itself, and Vitamin D can provide the necessary calcium.Sunlight for 30+ minutes a day will do the trick, as will cod liver oil, but since this goes hand in hand with calcium deficiency, you can add Oyster Shell as a snack to your chicken’s diets. Share This Image On Your Site Please include attribution to www.milefour.com with this graphic.

When using an incubator, you should check carefully what the running temperature of the model is. Each incubator will vary slightly on temperature and humidity, especially since some models are forced-air incubators, and some are still-air incubators. A forced-air incubator should sit at around 99.5°F while a still-air incubator should run at 102°F. Never exceed temperatures of 103°F for forced-air and 107°F for still-air, as these are lethal temperatures for incubating eggs.[1] As you get used to your incubator and hatch a few different times, you’ll start to notice which temperatures work best for you and can tweak as you go. While humidity control is not as important as temperature control, it should still be managed effectively. This is because there’s a fine line between the perfect amount of moisture and the chicks either not being able to break out of the shell, or suffering from omphalitis. This is when the yolk sac cannot be absorbed, which leads to bacterial infections and death at hatching (and in some cases for up to 14 days afterward). Every incubator you own will have a humidity device that releases moisture at different levels. Some will have to be filled manually, while others will have a device connected to the incubator that releases the moisture into the air periodically. Regardless, you’ll want to always be on top of humidity control by adjusting the vents. Opening the vents decreases humidity by allowing air to escape while closing the vents has the opposite effect. 60% humidity is the golden number for incubators. Each incubator is different, so following the instructions of your model closely will be your best bet, but if you want to be able to measure humidity exactly, you’ll need to purchase a hygrometer. Relatively inexpensive ($30ish), these devices should keep your mind at ease when setting up your incubator to make sure your chicks hatch successfully. Just like temperature control, you’ll want to follow the manufacturer's recommendation for humidity, and make small adjustments for future hatches until you’ve found your sweet spot. Remember, not every egg is going to successfully hatch, so don’t get too down on yourself or make any drastic changes to temperature and humidity the next time. You’ve got this! Cleaning Your Incubator Every incubator should be cleaned after each hatch. If you’re neglecting cleaning an incubator, you’ll see a sharp decline in the success of future hatches, and it will spread bacteria and disease to eggs and a fast rate. Incubators vary in the ease of cleaning, so you’ll want to spend time planning how exactly you’ll clean your specific incubator. Cleaning and disinfecting are the two things you must do to ensure your future hatches are successful. If you’re planning on having eggs incubate while another set hatches, we recommend using two separate incubators. Some incubators come with several different sections so eggs can incubate while others hatch, but contamination, bacteria, and disease are big problems with these, so it would be best to have two or more incubators if this is your plan. Make sure not to use any chemical cleaners on any part of your incubator. The chemicals can be absorbed by the materials of your incubator and will have a negative effect on future hatchings. Warm water with a small amount of mild bleach is the best way to go for cleaning while you scrub with a brush. Once you’ve cleaned your incubator, make sure to dry it thoroughly before storing it (or using it again for a future hatching). If it’s a nice day, leave it out in the backyard to make sure it dries completely, and then store it in a cool, dry place like a storage room or kitchen cabinet if you have room. Chapter 5: Chick Hatching Process Once you’ve done the hard work of candling your eggs, you should have a decent selection for hatching. You’ll know when a chick is ready to hatch when the egg has a “pip.” The pip is the small hole a chick makes in the egg to indicate it’s showtime. That chick will generally hatch within 24 hours of the pip being made, but there are some exceptions dependant on egg size, temperature, and humidity. Unfortunately, during the process, you’re going to run into some eggs that simply don’t hatch. It’s likely that you’ll find a chick or two that die after they’ve hatched too. For any intact eggs you find two or three days after the first chick hatches, make sure to candle them again to see what’s inside. What to do Once Chicks Have Hatched If you’ve followed our Broody Hen Guide (and fingers crossed you did!) you’ll already be feeding your hen our Starter Feed. You’ll want to continue with the Starter feeding plan for the first few weeks of the chicks' lives. It’s highly unlikely that you’ll be able to separate the hen from her chicks and vice versa with natural hatching, so to make it easier for all involved, stick with the starter feed for now! Keep your once-broody hen separate from the rest of the flock along with her chicks for the first few weeks. Most free-range flocks get along just fine, but some chickens have been known to kill a very young chick just like they would any other small critter than gets up in their business. Once you think they’re old enough to be part of the gang, you can start to introduce them to the flock at night time. This is because everyone should be relaxed and more likely to welcome the newcomers as opposed to being rowdy and rambunctious. Use your discretion, however, and keep your eye on the flock for a little while to make sure everyone is getting along. If you notice any trouble, you can separate the chicks again until they grow a little more. When your chicks have hatched in an incubator, you’ll want to move them to a brooder once they’re dry and fluffy. Moving them while wet will severely lower their temperature and potentially cause premature death. A brooder can be made quite easily with an enclosure, a heat lamp and a food source for the chicks who should have at least a square foot of space each. Pine shavings can be used for bedding on the floor of the brooder, and you’ll also want to make sure they have fresh air. In the brooder, you’ll want to keep the temperature quite high at first. Between 93-95°F will suit them for the first week, and you can start to lower the temperature by 3-5°F per week after that for six weeks total. After this, they can survive on their own outside the brooder. Potential Chick Hatching Issues Most issues surrounding hatching chicks have to do with improper temperature or humidity and can generally be prevented with proper planning and management during incubation. The two most common issues that arise in hatching chicks are: Crooked toes Splayed legs Crooked toes are directly impacted by the temperature of the incubator being too low, while splayed legs is the opposite. Splayed legs can also be caused by having too smooth of an incubation tray. When the chicks hatch, if they aren’t able to get a good enough grip on the tray, their legs can become splayed, so be sure to watch for that when shopping for an incubator. Keeping Records The best way to ensure you can improve your hatching and incubation abilities is by keeping records of the chicks that hatch. This is because if you’re planning on hatching chicks a few times a year or more, you’ll want to avoid the mistakes you may have made previously. The best way to do this is to use a wing band to keep track of who’s who in the flock. Wing banding is relatively easy, but you’ll want to make sure the chicks are at least one day old and starting to toughen up a bit. The cool thing about wing banding is the band will grow as the chicken does, so assuming you keep it on, it’ll stay with the chicken for life. Below we’ve provided a video showing you how to apply a wing band on a newly hatched chick! Once your chicks have been banded, you should start to write down detailed information about them so you can improve your future hatches as you fine-tune temperature, humidity, cleaning techniques and more. Not only will you want to take notes about your chicks (color, gender etc.) you’ll also want to take notes about the hatch itself. When did it start? When did it conclude? How many chicks hatched? How many didn’t? What was the average temperature and humidity? You get the idea. It may seem a little overwhelming right now to take so many notes, but you’ll thank yourself in the future when you can look back and see the progress you’ve made, especially if you use our handy graphic below! Share This Image On Your Site Please include attribution to www.milefour.com with this graphic.