

# I'm Dreaming of ... **SOME CHICKENS ??**

Small scale pastured poultry production on organic farms

## **ORDERING CHICKS**

Most Important Decision #1 - when do you want to receive your day-old chicks? For most people in the Northeast, it is easiest to wait until May or June so the weather will be reliably mild. There are high-quality hatcheries that sell chickens in lots of 50 or 100 to small-scale operators. Your birds will probably come in the mail, so be sure you have your brooder all ready, with equipment in place, feed on hand, and the temperature well-tested a few days before you expect the birds to arrive, because the Post Office is likely to call at 6AM - be prepared! I order my chicks online - most hatcheries have really interesting websites with pretty pictures and information, so be prepared to be seriously tempted!

Choose breeds well suited for your intended purpose. Cornish Rock or Cornish Cross (or proprietary versions with names like Barbeque Special or Meat King) are the industry standard for meat and with a little extra care, can be successfully raised on pasture. These breeds are very fast growing and tend to be more delicate than older breeds, demanding more 'ideal' temperature and feeding conditions. These breeds 'finish' in 7-9 weeks with a carcass weight of 4-5 lbs.

Dual purpose heritage breeds, such as Rhode Island Reds and Australorps can provide both meat and eggs. A little slower to mature, they finish smaller with less white meat, but they forage well and are more hardy. For laying hens, there are modern breeds, like Red Sex Link, that lay heavily for a one or two cycles, but for many small-scale operators, the Rhode Island Reds, Barred Rocks and other similar older breeds are sturdy, reliable, and produce a more manageable number of eggs. For variety, the Auracana breed produces beautiful pale blue to greenish eggs - a carton of a dozen mixed shades of brown eggs and Auracana eggs is indeed something really special to behold.

## **BROODING**

Brooding young chicks isn't complicated, but it's much easier and safer with the right equipment. You also should have them where it is convenient to keep a frequent eye and ear on the chicks. It is always a good idea to spend time each day watching your chicks in the brooder, noting how they move around, where they are clustering, whether they are eating and drinking, and whether any seem to have health or physical problems.

**Brooder** – The point of brooding is to keep the baby chicks dry and warm, with adequate space to move and eat, while minimizing the problems. You will need a container of about 6 square feet for 50 chicks, 7-8 square feet for 100 chicks. Avoid containers with corners – if using a cardboard box, put a ring of cardboard inside so they can't pile up in a corner. Make sure the sides are at least 24 inches high to reduce drafts. A discarded oval cattle water tank ('stock tank') makes a fine brooder - a 300 gallon tank (3'w x 8'l x 2'h) is exactly the right size, shape and height to comfortably brood 100 Cornish Cross chicks, pin holes in the bottom won't matter, and it is much more fire resistant than a cardboard box. An old screen door or several chicken crates on top of the brooder will help keep out predators. I like to keep the tank in the garage where I can easily monitor the chicks and the lights - the garage is also more protected against predators and weather than the barn. Some people like to brood in the house where they can watch the chicks, and while that is fun, remember that meat birds take on a rather unpleasant smell after a few days and make a considerable amount of irritating 'dust'.

**Temperature** – Brooder temperature should be a uniform 90-95 degrees for the first few days, declining gradually as the chicks get older. Overhead heat lamps provide enough warmth for baby chicks. Red heat lights seem to reduce stress and possible cannibalism better than white heat lamps. Adding additional lights if extra heat is needed is safer than putting the lights closer to the chicks, both for chick health and fire safety. A thermometer is your cheapest investment when brooding chicks – check the temperature in several locations in the brooder frequently during the first few days. You can tell a lot about chick comfort by watching and listening to them. If they clump under the lamps, they may be too cool, and if they avoid the area under the lamps, they may be too hot. Listen to the peeping. Comfortable chicks make a soft,

gentle peeping, while more shrill or insistent peeping can indicate temperature problems. As the chicks get older, raise the heat lamps or remove extra lamps to lower the temperature.

**Water**– Water must be available from the very start. You will need 2-3 four quart chick waterers in the brooder for 100 meat birds. Before unloading the chicks from their shipping box, fill the waterers with warm water, to which 3 Tbsp/quart of sugar has been added. Dip each beak in the water as you unpack the box. This gives you a good opportunity to observe each chick for problems and to count them. Use sugar water for the first couple days to encourage the chicks to drink adequately. Keep fresh water available at all time, changing it every 12 hours. From weeks 2-4, 1/4 cup cider vinegar per 2 gallons to the water will help avoid certain metabolic and parasite problems. After the first couple days, I place the waterer on bricks to avoid the chicks kicking the bedding into the water. Remove and replace bedding around the waterers as it becomes soggy.

**Feed** – Start feeding chick starter feed after the chicks have been in the brooder for about 4 hours. Continue starter feed for 2 weeks, then switch to broiler/grower feed. You will need approximately 2 ft of feeder space for every 25 chicks. Chick feeders with tops or spinning rods discourage the chicks from sitting in the feed and fouling it. For 100 meat birds, you will need 3 chick feeders to start, and may want to add a 4th one in the week before they move to pasture.

**Bedding** – it is important that chicks stay dry and that the bedding surface is not slippery, so you will need to use bedding that is absorbent and somewhat rough. Wood shavings or fine wood chips work well, especially if placed on top of a thick mat of newspaper, but avoid dusty sawdust or treated lumber waste. Newspaper alone is too slick and can cause leg problems if the chicks can't get adequate 'footing'. Add more wood shavings as the bedding becomes wet and soiled.

**Health concerns during brooding** - you will probably lose a few chicks during the brooding period. Perhaps they will get wet and chilled, get buried in a pile-up, come weak, are runts and don't grow, or have leg deformities upon arrival, or perhaps they will just die. It happens, but unless there are brooder problems, your brooder loss should not exceed 8%.

From about day 3 – day 7, it is a good idea to closely observe all your chicks for 'paste up', when fecal material sticks to the back end and actually can seal it shut, causing chick death. This can occur especially if chicks have been stressed during shipping or early brooding. It is easy to peel off the paste if you catch it earlier enough.

**How long in the brooder?** Chicks should stay in the brooder for 2-3 weeks, depending on the weather. They will get crowded, the bedding soiled, and will start to smell bad if you leave them any longer than that. If you are brooding 100 or more, it may help to split the group after 2 weeks into 2 brooders if you have the space.

## **GROWING TO MATURITY**

**Moving outside** – If possible, have your outside pen built and ready to use before the chicks arrive. Open bottom, movable 'Salatin' pens work well on pasture because they provide access to fresh clean grass and air daily, but also protect the chickens against predators. Owls, hawks, raccoons, foxes, weasels, possums, and dogs can and will kill unprotected chickens on pasture - keep that in mind as you build the pen. Enclosures without good air flow, like a calf hutch, can heat up too much in the sun and kill the chickens. If you are reusing last year's pen, check it carefully for holes, broken parts, moveability, tightness of the bottom edges to the ground, and other repair before putting the chicks in and then check again a few hours to see if any chicks have escaped. Depending on the temperature and conditions, it is a good idea to move your chickens into their outdoor pen or enclosure when they are 3-4 weeks old. Sometimes, if the weather is marginal at that time, locating the pen initially in a place that will allow you to continue to use the heat lamp at night can be helpful. To minimize stress, move the chicks outside early in the day to allow them to get settled before night

**Feed on pasture** – there are many types of simple feeders that work for pastured poultry, but you need something that is adequate size for your number of birds (3 linear inches/bird), and is light and easily moved. A piece of 4 inch PVC pipe, cut in half lengthwise and fastened to a 'cradle' of wood with an over-the-top handle is easy to fill, move, and discourages chickens from standing on the feed. Old sections of

house eavestrough gutters also make great pasture feeders. On pasture, chickens will need to be fed twice a day but they do not need to constantly have feed available.

**How much feed?** You will need approximately 2.5 lb/bird of starter feed in the brooder and 10-15 lb/bird of broiler/grower feed to finish a meat bird in 7-8 weeks. At \$24/50# for organic chicken broiler/grower feed, that means you will spend almost \$8.50 for feed alone per bird before you are done, or, for a 5 lb bird, about \$1.70/lb. In addition to the ground feed, you may want to throw in some whole oats – chickens love them and their slower digestion seems to help avoid some common metabolic problems.

Layer breeds will consume somewhat less feed, especially the heritage breeds. You will want to feed young layers the broiler/grower feed until they are about 20 weeks, at which time you should switch to layer feed to begin building up body calcium prior to egg production. Though it is somewhat breed-dependent, a good rule-of-thumb for young laying hens (first laying cycle) is that it takes about 3.5 lb of feed to produce 1 dozen eggs, or, at current layer feed prices, about \$1.60 for the feed.

**Water on pasture** – during the summer, chickens can drink an amazing amount of water, especially when the weather is hot - they should NEVER run out of water. You need to have a waterer that is large enough for your number of chicken and easy to handle. The standard 4-5 gallon fountain type waterers are adequate and can be easily filled with a 5 gallon pail, though you will find some innovative ideas for waterers in the available pastured poultry references.

**Moving the pen** – you will want to move your birds at least once a day to provide clean grass. Chickens can get crushed and even killed by the moving pen edges if you aren't careful. It helps to have a second person watching the back side of the pen and freeing up the chickens that get their legs caught under the pen edge. If moving the pen is difficult, you can hook a chain to the front end and pull it slowly and smoothly with a lawnmower tractor, but ONLY if you have someone watching the back.

**What kind of a pen?** There are many designs for pasture chicken pens that have an open bottom, a covered area and a screened area. Building or choosing the right one depends on (1) how many chickens, (2) how large a pasture area, and (3) how will you move it. I have 2 pens – wonderful 12' diameter old trampoline that I have retrofitted with chicken wire and wooden slats around the side, and a tarp over the bouncy top. This comfortably fits 100 birds and could accommodate more. I also have an older pen we built from salvaged lumber and siding that is 10' x 12' and fits 100 birds. While the trampoline is larger, it is much easier to move because it is lighter. It also has much better airflow, sunlight exposure, and no corners in which they can pile up.

**What about the pasture?** You need enough pasture to effectively supplement the feed each day, but when the grass is too long, it will become soiled by excrement, the chickens will make poorer use of the grass and dragging the pen will be more difficult. Shorter grass also cuts down on predators. It may be useful to mow high or coarse grass a little before moving the chickens onto it. A mixed grass and legume pasture provides the most feed value, but a decent 'lawn' of grass will still add significantly to the diet and health of the chickens. "Chickening" a piece of land before plowing is a great way to prepare for next year's garden or strawberry patch!

**What about "No Soy"?** Adherents of the Weston Price Institute's program often come looking for animal feed that does not contain soybeans, which they feel is harmful to animal and human health. Always willing to serve a good customer, we have worked with nutritionists at Crystal Creek and Fertrell to formulate a line of nutritionally adequate custom feeds that use peas, flaxmeal, sunflower meal, alfalfa meal and fishmeal as protein sources. In general, people using this feed were fairly satisfied by animal performance on no-soy feed, though it should be expected that the meat birds will to grow a bit slower.

**When do I butcher meat birds?** The fast growing Cornish Cross meat breeds should reach a 4-6 lb carcass weight in about 8 weeks. Slower growing meat and dual purpose birds will finish in 10-12 weeks and have better flavor and probably make better use of the pasture. In any case, unless you are doing the butchering yourself, it is a wise idea to call your butcher early to reserve a date - 8 weeks pass amazing quickly. With Cornish Cross type birds, you can fit (and carry) about 10 birds in a standard chicken crate, so plan to have enough crate/box space available before the morning of the 'senior trip'!

**When will my hens start laying eggs?** Depending on the breed, hens will begin laying between 4-6 months of age. Modern breeds will begin laying a little sooner than heritage breeds. Be sure you start feeding layer mash for about a month before you anticipate laying to build up body calcium. It may be inconvenient if your hens begin to lay eggs on pasture in a typical grower/broiler 'Salatin' pen – the eggs can be difficult to retrieve and will be dirty. You may wish to change housing arrangements and provide laying boxes a few weeks before you anticipate eggs.

**What about other types of birds?** I am always reminded of the line from the song, "Do Re Mi" when people ask this question - "when you know the notes to sing, you can sing most anything!" Once you get a system down for chickens that works for you, it is fun to add on other types of birds, tweaking a little for specific needs. We have also raised turkeys and ducks, and while their feeding and housing needs are slightly different, they did very well and tasted wonderful.

**What about hatching my own eggs?** If you have a rooster in with your hens, you should have fertile eggs. Hatching eggs in an incubator is the world's best Science Fair Project, a really great thing to do with children. But maintaining the right temperature and humidity is challenging. Using my inexpensive incubator, I usually only get about half the eggs to develop and too often the chicks are weak. Incubating is definitely worth it for the sheer experience, but for your 'main crop' chickens, the professional hatcheries probably will probably provide more reliable service.

#### **FOR MORE INFORMATION –**

Pastured Poultry Profits, Joel Salatin, 1993, Polyface Publications, Swoope, VA

Chicken Tractor, Andy Lee, 1994, Good Earth Publications, P.O. Box 898, Shelburne, VT

Raising Poultry on Pasture, American Pastured Poultry Producers Association, (APPPA) 2006

Many useful websites and info sheets online, plus APPPA has a great website and newsletter