

CHICKEN RAISING

AND CARING



NORMAN NELSON

**A BEGINNER'S GUIDE TO RAISING YOUR
BACKYARD CHICKENS**

Chicken Raising and Caring

A Beginner's Guide to Raising Your Backyard Chickens

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Part I – Raising and Caring for Chickens

Chapter 1 – Advantages of Chicken Raising

A Potted Timeline of Chickens as Livestock

Chickens were domesticated during the Indus Valley civilisation. The Indus Valley civilisation was a bronze-age civilisation that was located in the western region of South Asia that we now know as northwest India, Pakistan and Afghanistan. From this area, the domesticated chicken then spread into Africa and Europe. There is some controversy regarding when domesticated chickens actually arrived in the Americas. There is evidence that suggests that they may have been brought through the Polynesian Islands to Chile around 1350 AD, yet other evidences suggest that they were brought by the Spanish Conquistadors.

These first domesticated chickens are descended from more than one wild species but a significant mutation is from the red jungle fowl.

During the early timeline, chickens were kept primarily for their meat; the eggs were just a by-product to be consumed. Nowadays, chickens are the most domesticated animals in the world. There are in excess of 24 billion of them worldwide being reared domestically. Most modern day breeds come from England, America and the Mediterranean.

Should I Keep My Own Chickens?

Most people decide to keep chickens for the following reasons:

- Chickens as a pet or hobby
- Knowing the food chain for food that are consumed in the household
- Improved poultry welfare standards
- Improved nutritional safety and benefits
- Financial reasons
- Sustainable living

Before reviewing the reasons why you should keep chickens, it is

worthwhile dealing with the reasons why you should not keep chickens at the beginning of this e-book.

Reasons Not To Keep Chickens

One of the first things that you need to do is check with your local government regulator and make sure that you know the legal requirements for keeping poultry. In some countries, there maybe local regulations that prevent you from keeping chickens in certain areas such as city centres or in heavily industrialised regions. Your national government website will be a useful source of information to get to your local regulations and the department that oversees food and environmental issues. Always check this out first it will save you a lot of time and possibly money.

Secondly, you need space to keep chickens. You need space for the chicken coop and also a suitable area for them to move around in and get physical exercise, known as the run. Each chicken does not need a large amount of space but do consider what you have available; especially before deciding on the number of chickens you will keep. Chickens also produce manure and you need to either use it yourself, find a local gardener who can put it to use or dispose of it responsibly in accordance with your local regulations.

Make sure that nobody in your household is afraid of birds. This can be a problem. As once you start asking, you maybe surprised at the number of people who have this phobia. Also, it is really important that you talk to your neighbours. Your decision to keep chickens will affect them in some way. In most instances it is the smell (which you can mitigate and we will talk about this later in the report) and noise. The worst thing you can do is get chickens and not have spoken with your neighbours about it; this will most likely upset them at best or start a destructive relationship at worst. Who knows, your neighbours may want to go into the project with you and you could share the responsibility, both welfare and financial. Also, the lure of fresh eggs a couple of times a week will most probably be too tempting to resist. It is always good to talk first and start your project after that conversation.

Having chickens is like having pets. When you go away from home they need to be fed and given water and you need someone to step into your shoes and do this. Make sure you have this angle sorted before you make the decision

to proceed with your project.

We cannot consider the reasons why not to have chickens without addressing the issue of Avian Flu, also known as Bird Flu. Avian Flu is a contagious disease of birds, caused by the influenza A virus. It can cause a range of symptoms from mild flu with very low mortality to a highly contagious disease with almost 100% fatality rate. The symptoms depend on the strain of Avian Flu that is affecting the poultry. Avian Flu is spread through contaminated bird droppings which remain viable for long periods. Migratory birds are also thought to incubate the virus for long periods without showing symptoms and they are carriers of the virus across the globe. It can spread among birds and from birds to other animals through inhalation or ingestion. Poultry kept domestically is particularly vulnerable to epidemics of a rapid, severe and fatal form of Avian Flu.

In summary, here are the reasons why you should not keep chickens:

1. Local government restrictions
2. Lack of space for a chicken coop and outside space for the birds for their physical activity
3. Suitable disposal of chicken waste, i.e.: manure
4. Anyone in your household that is bird phobic or neighbour disputes
5. Nobody to feed, water and care for your chickens whilst you are away from home
6. If there has been an epidemic of Avian Flu, the timing of your decision to keep chickens needs to be carefully considered

What Are The Advantages Of Keeping Your Own Chickens?

- Chickens as a pet or hobby

Chickens as pets are fairly easy to look after and go through many stages of development. This is particularly the case if you get the chickens from young, you will see them, in the first six months or so going through a variety of changes as they develop their wattles and combs and your hens begin to lay. If

there are children in your household, it is an excellent way to introduce them to nature and sustainable living. You can include the children in the maintenance of the chickens and make it a fun experience for everyone in your household.

Some people really enjoy keeping and breeding fancy breeds of chickens that they can show at their rural or agricultural shows. Some of the breeds are truly spectacular in appearance with brightly coloured plumage. Chickens are appealing and undemanding little creatures.

- Knowing your food chain

In this day and age of mass produced, artificially modified and grown food products, there is a real attraction in knowing where some of the food consumed in your house originates from. If you get the chickens when they are young, you can control what you feed them, the amount of room and exercise that they get during the day so that they are “happy” chickens. You know you will get a superior product because the chickens have not been pumped with water or chemicals to increase their growth artificially or produce more eggs.

- Improved poultry welfare standards

If you love nature and appreciate the importance of the natural cycle of life then one compelling reason for keeping your own chickens is to provide them with a good quality life.

Internationally, the poultry market is notoriously known for pushing the boundaries outside sustainable agricultural standards and much of this is hidden from public view. In many countries there are a handful of companies that control the market and there is no transparent link between the consumer, the producer and between human and animal. This transgression is done in the name of economics. There isn't a large profit margin to be made with keeping your own chickens. The poultry producer is expected to supply to large retail outlets with appropriate packing, labelling and distribution. This squeezes an already small profit margin into a smaller percentage and if you look at where the savings are going to be made, the easiest place is poultry welfare. I am not suggesting that regulations are being broken. However, regulations are the minimum standard of welfare and in the search for profit; poultry welfare will

not be at the top of the list of priorities to improve.

- Improved nutritional safety and benefits

It has been scientifically proven that chickens that have a controlled and varied diet provide better nutritional value so that your eggs will provide you with a healthier diet. Eggs contain folic acid, Vitamin A and Vitamin B12, which are essential for a healthy body. The varied diet that you provide to your home reared chickens will provide you with these essential minerals and vitamins. Producers of battery and free-range poultry can choose to administer hormone and antibiotics to enhance their flock.

- Sustainable living

Keeping your own flock of chickens is one step closer to living a sustainable life. The food that ends up on our plates has an astonishing number of food miles that highlights our dependency and need for food to be imported from around the world. Having eggs that are produced at home reduces the food miles on your plate. You also know that the eggs are of good nutritional value as your chickens have been fed a varied and healthy diet free of chemicals to increase production. On average, home reared chicken eggs are a lot healthier for you as they contain:

1/3 less cholesterol

1/4 less saturated fat

2/3 more vitamin A

7 times more beta-carotene

3 times more vitamin E

2 times more omega 3 fatty acids

- Financial reasons

Keeping your own chickens at home will provide a modest saving on your grocery bill because you do not have to pay high prices for good quality eggs and meat.

Your Responsibilities as a Chicken Keeper

Keeping chickens domestically comes with responsibilities as with any pet. Here is a list of the things that you should do before getting your chickens.

- Any regulations and legal requirements

Find out what the legal requirements are in your country/local area for keeping domesticated chickens. You can be fairly certain that there will either be welfare and/or environmental regulations that you have to abide by locally. The chances are that you will be assessed on a regular basis and there be will fines associated with noncompliance. Finding out what these regulations and requirements before you embark on your project will save you considerable time, aggravation and money.

- Housing the chickens

The chances are that the chicken house (known as the coop) is going to be the most expensive part of your project. Wherever you live in the world, you do need some type of housing for your chickens. It is worth remembering two things with chicken coops, the simpler the design the better it is for your coop occupants, and you do get what you pay for with coops, particularly wooden ones. There are a multitude of designs and several different types of materials that you can choose for your coop.

Wood is the most common, and also you will find a lot of different designs. This is primarily because wood is fairly easy and cheap to source, easier to work with, and an average priced wooden coop will last you about 8 years with regular coats of wood preserver and maintenance. The better the quality of the wood and the craftsmanship in building the coop the longer it will last. However, do remember that with wood, you will always have regular maintenance on it to keep the wood in good condition.

Plastic is becoming more popular simply because it is a lot easier to clean out and also fits in well with urban settings.

You can buy chicken coops on line now at highly competitive prices; therefore, it is worth surfing the net to find the one that suits your needs both in terms of price range, design and construction.

You can also use an existing building, such as a children's playhouse or shed and adapt it to your chicken house. You'll need to make sure that it is cleaned out well before you start to refit the interior for your chickens.

If you choose to build your own coop, there are lots of coop plans available on the Internet for you to purchase and download. You do need to have some basic level carpentry skills to build your own, but the result is very rewarding, and you will know every part of your chicken's house to undertake maintenance or repairs.

- Providing a chicken run

To ensure that your flock remain healthy, they need to be able to get outside. Chickens love to forage, and they need some space to spread their wings, cluck, and fuss around. Letting them run completely free will increase the risk of them being attacked by a predator and have them eating your priced blooms and plants in your garden! A chicken run could be the answer, as they don't need a lot of space, approximately 8 to 10 square feet of run per bird will be quite sufficient. The run can be an extension of the chicken coop, and all you will need to do is lock your flock into their coop at night to keep them safe from predators. The run that you provide them needs to be secure to keep predators out, so it is advisable to bury small holed chicken wire at least 2 feet below ground.

- What you need to feed your chicken

Your flock will need a balanced diet that is high in all the nutrients, vitamins, and minerals that they require to stay healthy and happy. Most domestically reared chickens are fed a combination of “one feeds” which contain everything that they need to be healthy and produce good quality eggs. The one feeds can be put into dispensers that the chickens will peck at to get out what they need. Make sure that there are an adequate number of feed dispensers available for the number in your flock. As part of their diet, you need to throw them some corn, maybe onto the run floor. This is known as “scratch”, which your chickens will love! They also need a regular supply of grit that they need to grind down food (hens don’t have teeth) and oyster shells which give them calcium so that the eggs are strong.

There is some debate whether table scraps are good for your poultry. In days gone by, table scraps were a common feed for domestically reared chickens, but it won’t really be enough to keep them happy and healthy. Do give them table scraps, but always in moderation. There are some types of foods that you must avoid giving your flock as they cannot be digested or can turn toxic as it travels through their system.

- Give them plenty of water

This is essential for your flock and it needs to be fresh. Therefore, depending on the weather conditions, you need to consider changing the water supply a couple of times a day for your chickens. A chicken egg contains over 65% water so you can start to appreciate its importance. You need to have several waterers positioned in the coop and also in the run so that your chickens do not need to go far to access. Put them slightly off ground level so that the water does not become contaminated with droppings or feed. It is worthwhile to add supplements like Apple Cider Vinegar to the water if you have plastic containers, which acts as a mild disinfectant to keep bugs at bay.

- The breed of chicken that you choose

It is quite difficult to choose the breed of chicken if you are new to the

chicken world. There are just so many to pick from and it can be a bit of a daunting task! Before you embark on this aspect of your project, find out if certain breeds are banned from being domestically reared in your country or local area. This is not as uncommon as you may think; the reasons being can range from poultry health related issues to pressure from lobby groups preventing high volume egg producers being kept domestically. Here are a few things that you should consider before selecting the breed that is right for you, your environment, your budget, and your expectations:

- a. What do you want from the birds? Just eggs, meat, or do you want to breed them, or show them at agricultural events?
- b. What amount of space do you have and can allocate to the chicken coop and run? It is mostly advisable not to mix the different types of chicken breeds unless you have plenty of space and different housing. This avoids pecking which can happen when the breeds are mixed
- c. What size of bird do you want? Do you want to have “Standards” or “Bantams”? Bantams are just one to two pounds each and much smaller than the size of the Standards (also known as Large Fowl”). Bantams are really cute and a little flashy; therefore, they make great pets. However, they do lay fewer eggs that are smaller than those of Standards
- d. What is the amount allocated in your project for budget for purchasing the chickens?
- e. What are the climate conditions in your country? Do you need a breed of chicken that is hardy in winter?
- f. How many eggs to you want to have daily?
- g. Do you have any special preference to the colour of the eggs in your basket?

If you do choose to have some of the more fancy breeds, then remember that you may need to spend a reasonable amount of time to source them and then travel to collect them.

- The number of chickens that you should get for your flock

Again, similar to selecting the breed of chicken, this can be quite a daunting aspect of your project. There is no “perfect” number of chickens to start with. It is all about what you want to do, and here too it is worth

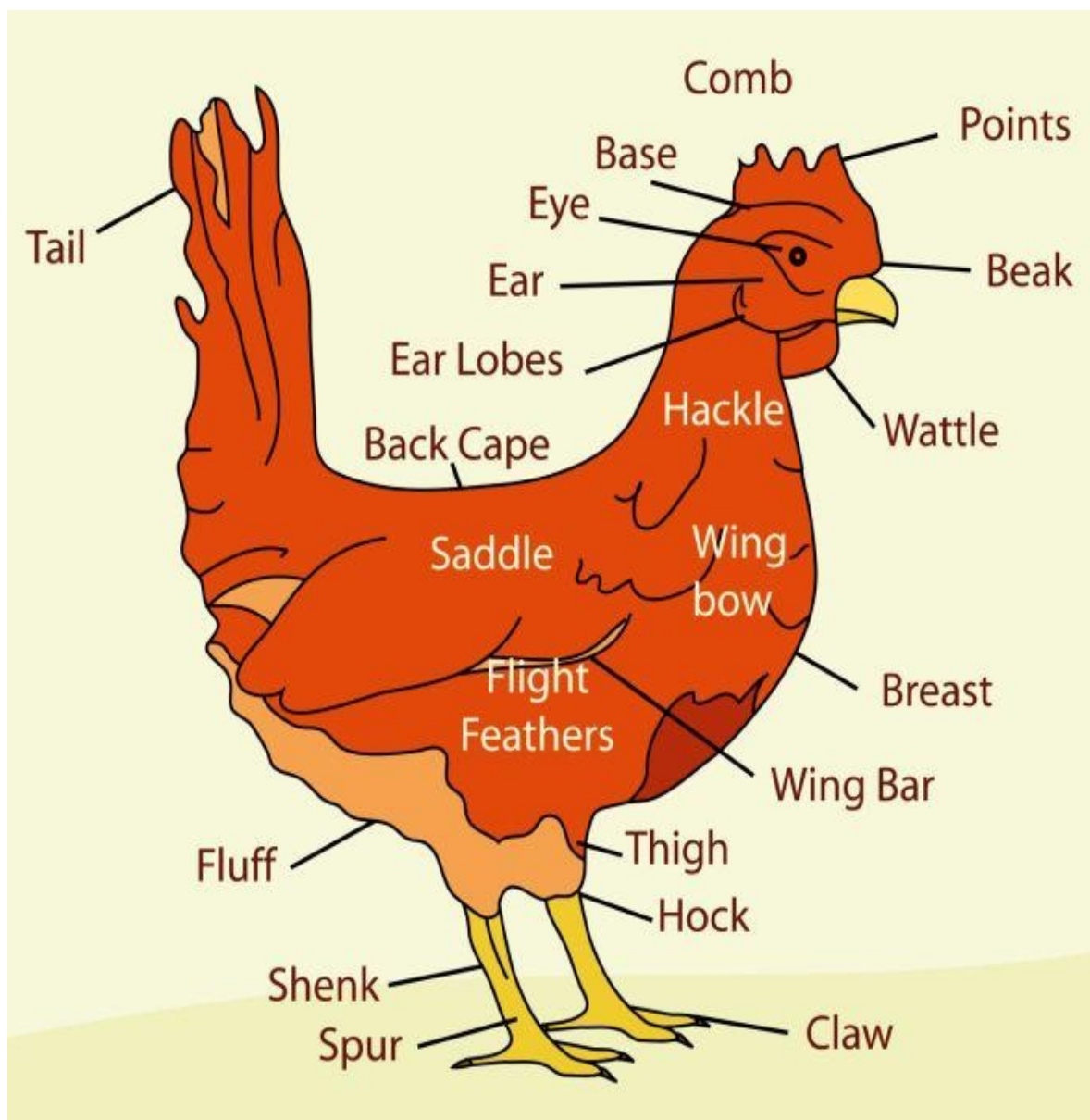
making a checklist of the things that you need to consider before making the final decision on the number of chickens that you have domestically. Also keep in mind that when you looked into the rules and regulations, you may have been restricted to the number of chickens that you can keep at home in some areas. If this is the case, then it will help to shape your decision.

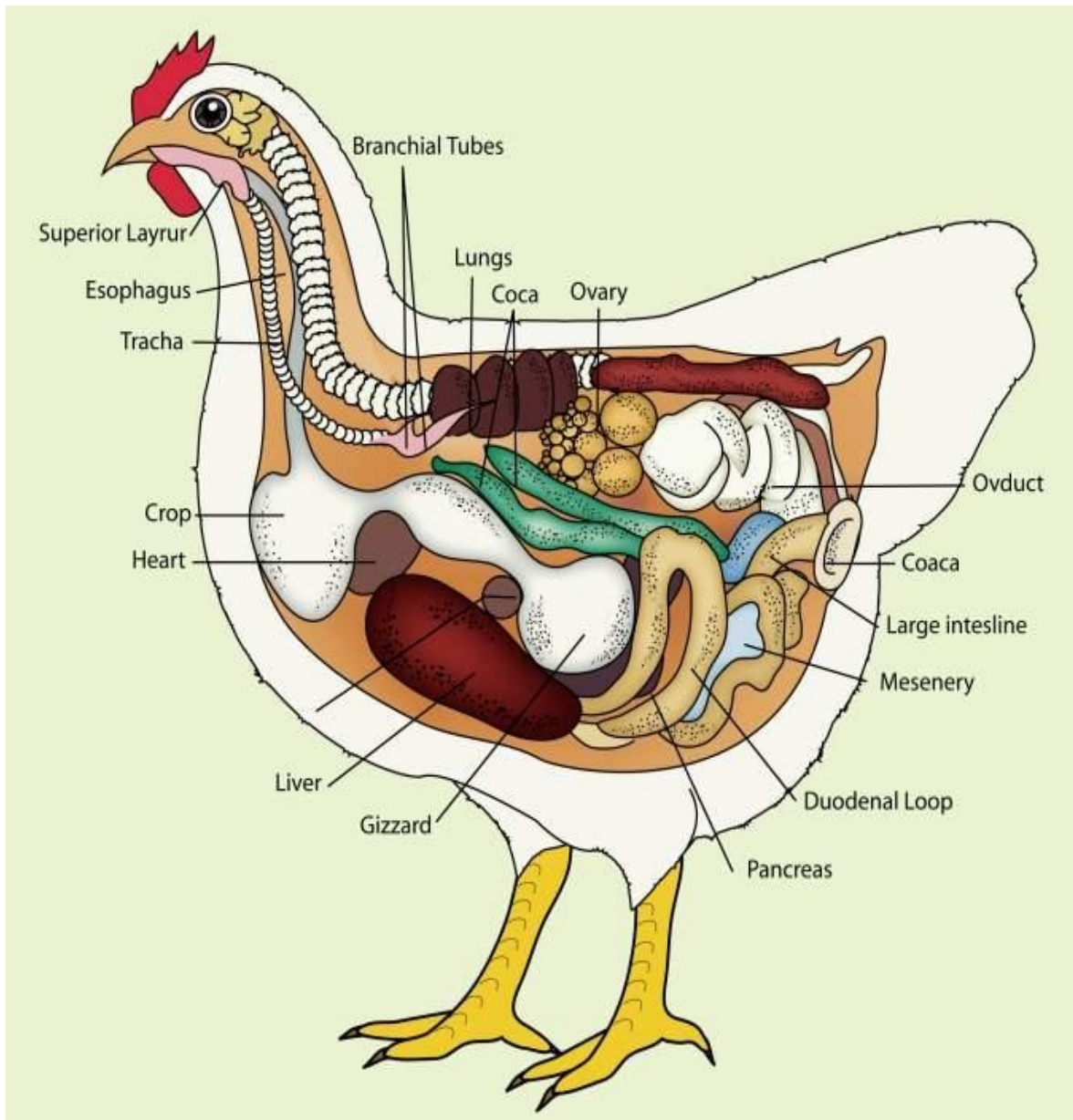
- h. What do you want from the birds? Just eggs, meat, do you want to breed them, or perhaps show them at agricultural shows?
- i. How many eggs do you expect to have each day?
- j. How much space do you have in the coop and the run for the chickens bearing in mind the space recommended earlier in this e-book?
- k. What is your budget for purchasing the chickens?
- l. Do you want to get your flock at 6 weeks or earlier?
- m. How much time can you allocate to looking after and maintaining your flock?

Chickens are social little birds and do not thrive well on their own. If after answering your checklist, you are still not able to come up with the answer to how many chickens you want to keep, there is a rule of thumb that says that 2 chickens will supply the average family with their egg needs. If you really love eggs, then get 3 chickens. Remember though that the best approach is to get all your chickens in one go. Introducing new stock to existing flocks can be challenging and time consuming. Therefore it is advisable to consider this issue when deciding on the final number of chickens that you will rear domestically.

Chapter 2: Chicken “Speak” – Common Terms Use in Chicken Raising

Once you start to talk about keeping chickens at home even on a modest scale, you’ll feel like you have entered another dimension with the different terms and phrases that are used. This section will help you to navigate your way through the terminology of the chicken anatomy that you will see referred to repeatedly in this e-book and other publications. There are two diagrams with the various sections of the chicken and what the chicken anatomy is like externally and internally, again with their names.





Commonly used terms in this e-book are as followed:

- Gizzard: Part of your chickens digestive tract
- Comb: This is the fleshy part of your chicken that protrudes on the top of the head. It is a highly distinguishable characteristic that helps to identify various breeds and varieties of chicken. It is larger in cockerels than in hens and there are several forms/shapes of combs. They are known

as buttercup, cushion, pea, rose, single, strawberry and v-shaped. The comb is also a very good indicator of the health of your chicken. If it is lighter or darker than usual or seems to be shrivelled or lopped, it is usually a sign of illness

- Tail feathers (also known as primary feathers): Clipping the tail feathers is necessary to stop your chickens flying off. Chances are that if they fly around, they will annoy your neighbours and they are more liable to be eaten by a predator. Clip only one of the tail feathers as this is more than enough to keep your chicken off balance and prevent them from flying. Once your chicken has moulted and has a new coat of feathers, remember to clip the re-grown tail feather

Chapter3: Chicken Biology

You may have reached the decision that you want to mate, incubate and hatch chickens as part of your chicken keeping hobby. In most instances, first time poultry keepers are not so adventurous but as you become more confident, you may decide that this is something that you would like to start doing. It does take more time, effort and funding to mate, incubate and hatch your own chickens so these are things that you must be able to commit to before you start.

Mating & Rituals

You need to have a cockerel (also known as a rooster) to mate with your hens. The cockerel will engage in various rituals and courtship processes to impregnate your hen. The breeding season for chickens is mostly during spring and early summer. The main courtship ritual that the cockerel will engage in is to “dance” around the hen. He will also drag his wing in a circle around the hen and then mount her to begin the insemination process. Sometimes, cockerels will lead hens out to where the food is situated and make a high pitch clucking sound. He then allows the hens to feed first and whilst they are doing so, will mount her and begin the insemination process.

Cockerels prefer to keep their own “brood” of hens that they fertilize regularly. As a general rule of thumb, to have a good success rate of fertilized eggs, you should aim to keep about six hens per cockerel.

Insemination & Impregnation

Cockerels do not have reproduction organs that are similar to mammals. Instead they have an opening called “the cloaca”. It is not visible but it is similar to a dollop of sperm. The cockerel moves his cloaca near the hen and deposits his sperm inside the hen’s cloaca. This process of placing the sperm inside the hen’s cloaca fertilizes the egg yolk that sits inside the hen cloaca. A hen will ovulate every 24 to 48 hours. After the sperm has been deposited inside the egg yolk, the shell membrane emerges and begins to harden around the yolk. The hen will then lay the egg within 24 hours after ovulation. The egg will then

emerge. Remember that even if the egg is not fertilized, it will still emerge.

Incubation

There are two options here, you can either allow the incubation process to be done naturally by the hen, or you can intervene and place the eggs in an incubator with the right temperature, humidity, and movement to facilitate hatching.

- **Incubating the natural way**

Using a broody hen is the most natural way to incubate fertilized eggs as she will then hatch and rear the chicks with little intervention from you. However, not all breeds of chickens become broody (many that are bred for meat and eggs have had this bred out of them). If you have a hen that is broody, then it is most likely to be in the spring and summer months. There is no guarantee of success but it is worth a go if you have the time and inclination to allow your hen to brood over the egg. There is no set number of times that one hen will become broody during the year, it just depends on the individual bird and her inclination!

Once you have a few eggs ready for incubation, place them under your hen. If there are too many, she will let you know and a few will start to come out of the sides over the first few hours.

There are plenty of positive reasons to incubate naturally but on the down side you cannot hatch as many chicks under a broody hen as you can with an incubator and you may not have a broody hen when you need one. Indeed it might be vice versa and you may not have eggs that require incubation and hatching when you have a broody hen!

- **Storing eggs**

Your hens will lay their egg in the nest box therefore it is really important that you keep it clean and collect hatching eggs as soon as you can after they have been laid. This prevents them from getting damaged or soiled in anyway.

Try and collect at least 3 times a day and store them in a cool area that is humid but not too dry. Remember to keep them secure from rodents who will be attracted to them if accessible. Always store them with the pointed end downwards to prevent any damage. Also remember to turn your stored eggs regularly, at least twice a day in the egg carton

Fertilized eggs can be stored for up to a week without affecting the hatch rate, but any longer than this and the hatch rate starts to decline rapidly. Take the eggs out and leave them at room temperature for a while before putting them in for incubation.

- Using an incubator

This is a popular way of hatching eggs as it gives you some control over the process. You will need to be willing to outlay the cost of an incubator and this is the factor that tends to decide whether you have an incubator or allow nature to take its course. In the following section, we will look at providing some help in choosing the right incubator for your needs. Before deciding on the type of incubator that will suit your needs, be clear on the following:

1. What is your budget for buying an incubator?
2. How many eggs do you want to hatch?
3. How much time do you got to allocate to support the incubation process?

There are so many different types of incubators from the still air type where you manually turn the eggs 3 times every day to the fully automatic type that can set the right temperature and humidity for the breed that you have with a simple press of a button.

Most hobby incubators hold about 25 standard size hen eggs. There are two main types of incubators, still air and forced air. The difference between these two is the fan.

In a still air incubator, there is no fan. The heat forms layers inside the incubator so that the temperature is different between the top and the bottom of

the machine. You need to take care when you are setting up the incubator, as the temperature at the centre of the egg should be exactly right. The exact temperature for chicken eggs is 37.5 degrees Celsius. The temperature at the height of the top of the hatching egg is what you need to measure with any variations being applied according to the manufacturer's instructions.

In forced air incubators, a fan circulates the air around the device that keeps the temperature constant everywhere inside.

You also need to decide whether you will make do with a manual, semi or fully automatic control incubator. The general rule of thumb is that the less you pay for your incubator, the more that you will need to do. Humidity and temperature are key to successful hatching as well as regular turning of the eggs to prevent the embryos from sticking to the inside of the egg shell. Eggs need to be turned at least 3 times a day and if you are not at home to do this you will need to spend more on your incubator. Humidity is another difficult thing to get exactly right in the incubator and having one that does this automatically for you will increase your success rate of hatching eggs into chicks.

After eggs have hatched, the incubator will be a mess and require cleaning. Therefore, to make your life a little easier buy an incubator that is easier to clean. You need to clean and sanitize your incubator after each hatch to ensure that no bacteria will contaminate your next batch of eggs. The temperature inside your incubator is a breeding ground for infection, and sloppy cleaning will mean that your hatching rate diminishes and the health of your chicks is affected.

Ultimately, there is no "perfect" way to incubate and hatch your eggs. There is a lot to be said for nature being allowed to take its course, but you may want to consider a combination of both so that you are not stuck with the situation where you have eggs to hatch and no broody hen. On the other hand, if you have a broody hen, use her and don't involve the incubator in the process. This will save you time and money in electricity costs.

The following section provides answers to some commonly asked questions on the biology, mating and life of chickens.

- At what age do chickens start to lay eggs?

Most hens will start to lay eggs when they are about 6 months of age. There are some environmental factors that could affect this average. For example, if your hen matures during the winter when it is cold and dark, she may start to lay later than 6 months. Also the size of the breed is another factor that affects the start of egg laying. The larger breeds will generally start to lay later.

- How long do chickens live?

The general rule of thumb is that most breeds of chicken will live for 5 years, but there are some breeds that will make it to between 8 to 10 years. There are many environmental factors that affect the life span of your chickens such as their general health and well-being. The number of eggs that are produced reduces, as your chicken gets older. The general reduction is about a 10% decrease for every year of life.

- When do chickens start to mate?

Most breeds of chicken will start to mate between 8 to 10 months; however, there are some that mate as early as 5 months. The cockerel (also known as the rooster) is required to fertilize the egg. An egg will not hatch into a baby chick unless the cockerel mates with the hen.

- How long does an egg grow inside the hen before she lays it?

It takes about 26 hours for the hen to make an egg and then lay it.

- How long do you have to wait before an egg hatches?

Eggs should take approximately 21 days to hatch after you have started to incubate them or the hen has begun to “set.”

- Do you need a cockerel for a hen to lay eggs?

The simple answer is no. A cockerel will provide you with a fertilised egg, but this is not a requirement for your hen to lay eggs. Unless you are planning on breeding chickens you do not need to have a cockerel to get a good supply of eggs.

- How many eggs will your chicken lay in a day?

The key issue here is the breed. You can find some breeds that are prolific egg layers and will lay as many as 300 eggs each year.

- How many years will your chicken be an active egg layer?
All of her life, but for each year, her egg laying will reduce by 10% on average.

- How do you know the difference between an egg that has been fertilized and one that has not been?

Firstly, you need to have a cockerel to have the possibility of fertilized eggs. You can tell a fertilized chicken egg by holding the egg up to candlelight so you can point out the blood spots and embryo. Eggs that are opaque are fertilized eggs. If you crack the egg, a white circle that is more defined in the egg yolk is a fertilized egg. Be careful not to mistake the white stringy material (called the chalazae) in the yolk to be an embryo

- Is it safe to consume an egg that is fertilized?
Yes, it is safe.

- Why do chickens have fewer eggs during the winter?
Chickens need around 16 hours of daylight per day in order to lay and over the winter months they usually stop laying altogether. You can artificially trick your chickens into thinking that there is more daylight by putting in some lighting into the coop. However, if at all possible, give them some time to rest and allow nature to take its natural course.

- When will your hens “brood”?

Going broody is quite a natural event for most chickens. However, most breeds that are kept for egg production would have had this gene removed through the selection process. The other thing to bear in mind is that you don't need to have a cockerel around for your hen to go broody. If you have a hen that decides she wants to hatch some of her eggs and she is a determined little bird then she will sit and brood. Hens usually become broody during the spring and summer months (although in some it can be at other times of the year). If your hen does become broody, she can stay in the state for approximately 12 weeks unless you intervene and try and make her forget her condition!

- Is there such a thing as “pecking order”?

Yes there is. All flocks of chickens will have a well-defined order and yours will be no exception. The chicken at the top of the pecking order will get food, water and access to the dust bath before the others. The pecking order is inherited from their ancestors and goes back to their basic instinct to survive, which is that the strongest survives.

- When will your chickens start to “molt”?

Moulting is a natural process by which your chickens renew their feathers. Moulting tends to start in autumn when the amount of daylight reduces. You will notice that egg production declines markedly. This is a natural way in which the reproductive system of your chicken has a complete rest from laying and she rebuilds her reserves of minerals and nutrients. Most adult hens will moult once a year but there are some that will moult twice. There are a few breeds that will moult once every two years.

- Do roosters need to be separated when they are with the pullets?

If you have roosters that have grown up together then they should be used to each other and get along. This is even if one is a bantam and the other a standard. However, it is important that you keep an eye on them, as they may need separating, as they get older.

Chapter 4: Choosing the Right Breed for You

There are over 400 breeds of chickens and in all fairness; this number makes it difficult to decide which one to keep domestically! Listed below is an alphabetical list of the most common breeds in the world that are reasonable easy to source. However, please note that this is not a complete list of all the different chicken breeds that exist.

Before listing the breeds, you need to know the difference between a “standard” and “bantam” chicken. The main difference between these two is the size of the bird and the number of eggs that they produce. An egg laid by a bantam (also known as a miniature) is around half to a third smaller than an egg laid by a standard. Bantams also produce fewer eggs each year than standards. Most breeds of chicken will come in both standard and bantam but there are some exceptions to this rule.

Breed name & origin	Potted history of breed & Utility	Characteristics			
		Annual egg lay	Colour	Weight	
				Standard	Bantam
Ancona <i>Italy</i>	Takes its name from the Italian city of Ancona. Many differing views about the origin of this breed and that it may just be a member of the Leghorn variety, but it does still remain a distinct breed Eggs & Exhibition	200 to 270 which are white/cream	Beetle green ground tipped with white	Cock: 2.7 to 2.95kg Hen: 2.25 to 2.5kg	Cock: 570 to 680g Hen: 510 to 620g
Useful information: A good laying breed that loves to forage. You need to be careful of its large comb as this can suffer from frostbite in cold climates. It is also a breed that can be exhibited.					

Breed name & origin	Potted history of breed & Utility	Characteristics			
		Annual egg lay	Colour	Weight	
				Standard	Bantam
Andalusian <i>Mediterranean</i>	Imported originally from Spain and it spread throughout Europe and America during the 1800's. This is a rare breed chicken and is often shown at shows Exhibition	160 to 200 which are large and white	Blue with black lacing	Cock: 3.2 to 3.6kg Hen: 2.25 to 2.7kg	Cock: 680 to 790 g Hen: 570 to 680 g
Useful information: A rare breed but also a good layer of large white eggs. Similar to all blue birds, there is wastage in getting blue plumage since black and splash birds will also be produced when you breed. As a breeder it can be challenging to get the right ground colour for this bird for exhibition purposes.					

Breed name & origin	Potted history of breed & Utility	Characteristics			
		Annual egg lay	Colour	Weight	
				Standard	Bantam
Appenzeller Barthuhner <i>Switzerland</i>	Originally bred in north-eastern Appenzeller canton of Switzerland to withstand hard winters and lay high volumes on little additional feeding. Now considered a rare breed since the collapse of the original breeding club in 2001	190 to 220 white/cream eggs	Black, blue, laced and black-red	Cock: 2.26 to 2.94kg Hen: 1.36 to 1.82kg	None
Useful information: Very active breed that loves to forage so it is well suited to be free-range. The males can be aggressive during the breeding season but otherwise a fairly calm breed of chicken. Can be exhibited in the rare breeds category.					

Breed name & origin	Potted history of breed & Utility	Characteristics			
		Annual egg lay	Colour	Weight	
				Standard	Bantam
Appenzeller Spitzauben <i>Switzerland</i>	Believed to have been originally developed in the local monasteries in the north-eastern Appenzell Canton in Switzerland. Spread throughout the rest of Europe between the 1950's and 1970's Eggs and exhibition	230 to 280 white eggs	Black, silver spangled, gold spangled, barred, black-mottled, blue, chamois spangled	Cock: 1.6 to 2kg Hen: 1.35 to 1.6kg	None
Useful information: Best suited for free range as this is a brilliant forager. Is bred by many for exhibition purposes, has a reputation for being flighty but with gentle handling this can be overcome.					

Breed name & origin	Potted history of breed & Utility	Characteristics			
		Annual egg lay	Colour	Weight	
				Standard	Bantam
Araucana <i>Chile, South America</i>	Named after the Araucano tribe of Native South Americans. They are rumples birds with pea combs and tufts of feathers growing near their ears. There are differing rules around the world for exhibition of these birds so breeders need to be careful of where they source stock Eggs & Exhibition	170 to 200 green/blue eggs	Black, black-red, blue, blue-red, crele, cuckoo, golden and silver duckwing, lavender, pile, spangled white	Cock: 2.7 to 3.2kg Hen: 2.25 to 2.7kg	Cock: 740 to 850g Hen: 680 to 790 g
Useful information: If these birds are crossed with any other breed of chicken, their dominant gene results in the offspring laying a green/blue egg.					

Breed name & origin	Potted history of breed & Utility	Characteristics			
		Annual egg lay	Colour	Weight	
				Standard	Bantam
Asian Hard Feather <i>Asia</i>	Bred in Asia for cock fighting. There are many varieties of Asian Hard Feather. The "Malay" is one of the tallest breeds in this class and can reach up to 90cm tall Eggs & Exhibition	80 to 100 white/tinted eggs	Light or dark red, black, white, spangled and pile	0.5 kg to 5 kg	-
Useful information: Many of these breeds have an in-bred desire to fight in view of their heritage. The males are very aggressive during the breeding season. If you get these birds for showing there are special rules which you can access from the breed society.					

Breed name & origin	Potted history of breed & Utility	Characteristics			
		Annual egg lay	Colour	Weight	
				Standard	Bantam
Australorp <i>UK</i>	Large, soft feathered birds that have either glossy black feathers with a green sheen or slate blue with skate lacing. Initially the breed was developed in Australia and then finally fully bred in the UK Eggs & Meat	200 to 250 tinted brown eggs	Black, blue, and white	Cock: 3.85 to 4.55kg Hen: 2.95 to 3.6kg	Cock: 1.02kg max Hen: 2.95 to 3.6kg
Useful information: A hardy bird that is happy to free range but docile enough to have around children. It is a really good egg laying breed as well as being a reasonable size white skinned meat bird. They are also fast growers.					

Breed name & origin	Potted history of breed & Utility	Characteristics			
		Annual egg lay	Colour	Weight	
				Standard	Bantam
Belgium Bantams <i>Belgian</i>	One of the oldest breeds of bantams with many different colours and varieties Eggs & Exhibition	200 to 250 tinted/brown eggs	Various	-	Cock: 680 to 790g Hen: 570 to 680g
Useful information: This is a true bantam; therefore, they have no large counterpart. Not a difficult breed to keep or rear, the varieties with feathered feet must be kept mud free.					

Breed name & origin	Potted history of breed & Utility	Characteristics			
		Annual egg lay	Colour	Weight	
				Standard	Bantam
Booted bantam <i>Germany, The Netherlands & UK</i>	Developed between 3 nations it remains a very popular breed. Should have a short and compact body with prominent breast, large, long wings that should be carried at and almost resting on the vulture hocks. The tail should be full and held upright Eggs and Exhibition	150 to 180 tinted eggs	Various	-	Cock: 850g Hen: 750g
Useful information: Small and easy to handle they are great backyard chickens to have if there are children around. They are also easy to tame. If you are exhibiting them, it is best to keep them indoors if you can to preserve their 6 inch long foot feathers in the best condition.					

Breed name & origin	Potted history of breed & Utility	Characteristics			
		Annual egg lay	Colour	Weight	
				Standard	Bantam
Campine <i>Belgium</i>	Originates from Antwerp in the northern part of Belgium close to The Netherlands and France. Originally developed as just a "village hen", it was taken to the UK and refined for exhibition Eggs and Exhibition	140 to 170 white eggs	Silver, gold	Cock: 2.7kg Hen: 2.25kg	Cock: 680g Hen: 570g
Useful information: The name of this bird is pronounced "kam-peen". It is a rare breed not found often and in some parts of the world the bantam is not available as a standard.					

Breed name & origin	Potted history of breed & Utility	Characteristics			
		Annual egg lay	Colour	Weight	
				Standard	Bantam
Cochin <i>China</i>	Originates from present day Vietnam in the 1840's. They are large birds with feathered feet Eggs & Exhibition	150 to 200 small tinted eggs	Black, blue, buff, cuckoo, partridge and white	Cock: 4.5 to 5.1kg Hen: 4.1 to 5kg	
Useful information: The bantams of this breed are called Pekin Bantams. They are large, friendly and docile birds that are slow to mature. A good layer of small eggs. Also worth bearing in mind that this breed can become broody.					

Breed name & origin	Potted history of breed & Utility	Characteristics			
		Annual egg lay	Colour	Weight	
				Standard	Bantam
Dominique <i>America</i>	One of the oldest recorded breed of chicken in the US to become established. A very popular breed of chicken that was claimed to be established in the 1820's Meat & Eggs	160 to 200 brown eggs	Barred, slate and white	Cock: 2.72 to 3.1kg Hen: 1.81 to 2.26kg	Cock: 793g Hen: 566g
Useful information: A good all round bird that is still very popular but in some countries (such as the UK) this chicken is classified as a very rare breed.					

Breed name & origin	Potted history of breed & Utility	Characteristics			
		Annual egg lay	Colour	Weight	
				Standard	Bantam
Dorking <i>UK</i>	One of the oldest chicken breeds to come from the UK. It is distinctive for having an extra hind toe Meat & Eggs	120 to 170 large cream/white eggs	Cuckoo, dark red, silver grey and white	Cock: 4.55 to 6.35kg Hen: 3.6 to 4.55kg	Cock: 1130 to 1360g Hen: 910 to 1130g
Useful information: This breed produces a very fine white meat. They are fairly calm and docile, good foragers and don't tend to scratch as much as other breeds. The hens do go broody very easily and make good mothers. The male combs are large and in cold climates, you need to take care to prevent them from freezing.					

Breed name & origin	Potted history of breed & Utility	Characteristics			
		Annual egg lay	Colour	Weight	
				Standard	Bantam
Dutch Bantam <i>Holland</i>	First developed in Holland during the 1880's after the bird was imported from the Dutch East Indies Exhibition	80 to 160 tinted eggs	Gold, silver, yellow, blue, red and cuckoo partridge. Cuckoo, black white, blue and lavender	-	Cock: 500 to 550 g Hen: 400 to 450g
Useful information: This is true bantam with an easy temperament and quite friendly. They only lay a small number of eggs but can make a good broody.					

Breed name & origin	Potted history of breed & Utility	Characteristics			
		Annual egg lay	Colour	Weight	
				Standard	Bantam
Faverolles <i>France</i>	Takes its name from a village found to the west of Paris in France Eggs	160 to 200 tinted eggs	Black, laced blue, buff, cuckoo, ermine, salmon and white	Cock: 4.08 to 4.98kg Hen: 3.4 to 4.3kg	Cock: 1130 to 1360g Hen: 907 to 1133g
Useful information: A large bird with feathered feet.					

Breed name & origin	Potted history of breed & Utility	Characteristics			
		Annual egg lay	Colour	Weight	
				Standard	Bantam
Frizzle <i>Japan</i>	The origins of this bird are hard to confirm but Japan is thought the most likely place in Asia. References to this bird have been made as far back as the 1800's Exhibition	160 white or tinted eggs	Buff, black, black-red, brown-red, blue, Columbian, cuckoo, duckwing, pile, red, spangles and white	Cock: 3.6kg Hen: 2.7kg	Cock: 680 to 790g Hen: 570 to 680g
Useful information: This bird has unique feathers and is highly popular as an exhibition bird.					

Breed name & origin	Potted history of breed & Utility	Characteristics			
		Annual egg lay	Colour	Weight	
				Standard	Bantam
German Langshan <i>Germany</i>	Thought to come from Germany but very little is known about the origination of this bird Exhibition	150 to 200 brown eggs	Black, blue, white, birchen, barred, brown-red, silver-blue, lemon-blue and red	Cock: 3 to 4.5kg Hen: 2.5 to 3.5kg	Cock: 1kg Hen: 900g
Useful information: This bird has a wine glass shape in profile and is classed as a rare breed.					

Breed name & origin	Potted history of breed & Utility	Characteristics			
		Annual egg lay	Colour	Weight	
				Standard	Bantam
Houdan <i>France</i>	One of the oldest French breeds. Thought to have been crossed between 3 other types of birds. Originally a bird bred for its beautifully tender white meat Exhibition & Meat & Eggs	180 to 240 white eggs	Green-black with white mottles, white, cuckoo	Cock: 3.2 to 3.6kg Hen: 2.7 to 3.2kg	Cock: 680 to 790g Hen: 620 to 740g
Useful information: Another breed with 5 toes and the males have a V-shaped comb. Makes an excellent table bird.					

Breed name & origin	Potted history of breed & Utility	Characteristics			
		Annual egg lay	Colour	Weight	
				Standard	Bantam
Hybrid Chickens <i>Various</i>	The hybrid chicken is created by crossing two or more different pure breeds, and sometimes crossing further after this. Eggs & Meat & Egg Colour	Depending on the pure breed chosen for the cross, they will lay more eggs. Can be as many as 300 eggs	Varies depending on pure breeds used in the cross		
Useful information: This is an ideal bird if you are a new poultry keeper. They are cheaper than the pure breeds, available in quantity, come vaccinated, fit and healthy, are easy to tame and have a good character.					

Breed name & origin	Potted history of breed & Utility	Characteristics			
		Annual egg lay	Colour	Weight	
				Standard	Bantam
Indian Game <i>UK</i>	Comes from Cornwall in the UK and is believed to have first originated from the birds bred for cock fighting in Asia Meat	60 to 90 tinted eggs	Dark, jubilee, double laced blue	Cock: 3.6kg Hen: 2.7kg	Cock: 2kg Hen: 2kg
Useful information: Exercise and diet is very important for this breed and you must avoid too much corn/treats to prevent excess body fat. Grass in their diet helps to keep their feet a rich yellow-orange colour					

Breed name & origin	Potted history of breed & Utility	Characteristics			
		Annual egg lay	Colour	Weight	
				Standard	Bantam
Ixworth <i>UK</i>	Originates from the Suffolk village in the UK called Ixworth Meat & Eggs	160 to 200 tinted eggs	White	Cock: 4.1kg Hen: 3.2kg	Cock: 1.02kg Hen: 790g
Useful information: A large bird that is now a rare breed. It is an alert and active bird and has become popular with small to medium scale breeders as a table bird which lays a good quantity of eggs.					

Breed name & origin	Potted history of breed & Utility	Characteristics			
		Annual egg lay	Colour	Weight	
				Standard	Bantam
Japanese Bantam <i>Japan</i>	These are real show birds and date back to the early 1600's when they appeared in Japanese paintings Exhibition	80 to 160 white, cream or brown eggs	Various	-	Cock: 510 to 600g Hen: 400 to 510g
Useful information: This is a true bantam but suffers from a lethal gene combination that causes approx 25% of chicks unable to hatch. They are not hardy birds so you need to consider the climate conditions before getting them. Japanese bantams are not really suited as a bird for new poultry keepers.					

Breed name & origin	Potted history of breed & Utility	Characteristics			
		Annual egg lay	Colour	Weight	
				Standard	Bantam
Kraienkoppe <i>The Netherlands & Germany</i>	Bred on the border of the two countries, these birds have been crossed between Malays, Leghoms and local farm fowl Exhibition & Eggs	150 to 180 off white eggs	Sliver, golden and black breasted red	Cock: 2.5 to 2.95kg Hen: 1.8 to 2.5kg	Cock: 850g Hen: 740g
Useful information: This bird is an active forager and hardy so best kept in a free-range setting so it can thrive. They will also lay eggs in cold weather.					

Breed name & origin	Potted history of breed & Utility	Characteristics			
		Annual egg lay	Colour	Weight	
				Standard	Bantam
La Fleche <i>France</i>	Originates from the Loire region in France as a tender white table bird. Exhibition & Eggs	150 to 180 tinted eggs	Glossy black with green reflections	Cock: 3.6kg to 4.1kg Hen: 2.7 to 3.2kg	Cock: 1020g Hen: 790g

Useful information: The comb on this bird has two spikes that look like a devils horn!

Breed name & origin	Potted history of breed & Utility	Characteristics			
		Annual egg lay	Colour	Weight	
				Standard	Bantam
Leghorn <i>Italy</i>	This breed was refined in the US when it was shipped over in the 1830's from Italy Eggs	180 to 250 large white eggs	Various	Cock: 3.4kg Hen: 2.5kg	Cock: 1.02kg Hen: 910g

Useful information: This is a prolific egg layer that is a hardy bird that matures early.

Breed name & origin	Potted history of breed & Utility	Characteristics			
		Annual egg lay	Colour	Weight	
				Standard	Bantam
Lincolnshire Buff <i>UK</i>	Bred specifically as a table bird and originates from the 1850's Meat & Eggs	120 to 130 tinted eggs	Buff	Cock: 4.0 to 5.0kg Hen: 3.10 to 4.9kg	Cock: 1.0 To 1.3kg Hen: 980g

Useful information: A hardy bird that is a very popular table bird as its meat was white and the carcass is left clean after plucking

Breed name & origin	Potted history of breed & Utility	Characteristics			
		Annual egg lay	Colour	Weight	
				Standard	Bantam
New Hampshire Red <i>USA</i>	Bred in the USA during the 1920's to start to meet the growing broiler industry Eggs & Meat	160 to 240 tinted/brown eggs	Red, blue tailed and white	Cock: 3.85kg Hen: 2.95kg	Cock: 980g Hen: 737g

Useful information: This is fast to mature and good sized bird that is popular as a table bird.

Breed name & origin	Potted history of breed & Utility	Characteristics			
		Annual egg lay	Colour	Weight	
				Standard	Bantam
Orpington <i>UK</i>	These birds were first developed in the late 1880's in the UK for eggs and meat Exhibition	100 to 180 white/tinted eggs	Various	Cock: 4.5kg Hen: 3.6kg	Cock: 2kg Hen: 1.6kg

Useful information: If you have children around, this is a great bird to have as it is docile and friendly.

Breed name & origin	Potted history of breed & Utility	Characteristics			
		Annual egg lay	Colour	Weight	
				Standard	Bantam
Plymouth Rock <i>USA</i>	These birds are named after the "Plymouth Rock", a large granite boulder off the shore of Massachusetts on the eastern seaboard of the USA Meat & Eggs	190 to 240 eggs	Various	Cock: 3.4 kg Hen: 2.95kg	Cock: 1.36kg Hen: 1.13kg

Useful information: These birds mature early and generally have a placid temperament which makes them good for first time chicken keepers.

Breed name & origin	Potted history of breed & Utility	Characteristics			
		Annual egg lay	Colour	Weight	
				Standard	Bantam
Poland <i>Europe</i>	Despite their name, this bird does not originate from Poland. One of the oldest breeds of poultry, this birds origins are through to be from somewhere in Europe Exhibition	100 to 120 white eggs	Various	Cock: 2 to 3kg Hen: 2 to 2.5kg	Cock: 680 to 790g Hen: 510 to 680g

Useful information: Polands are friendly birds but can be high maintenance than other breeds. They have restricted vision due to their head feathers and because of this are very responsive to sound. They are therefore easily spooked and best confined to a safe area with limited opportunity of getting themselves into trouble.

Breed name & origin	Potted history of breed & Utility	Characteristics			
		Annual egg lay	Colour	Weight	
				Standard	Bantam
Rhodebar <i>UK</i>	Originates from the 1940's. This bird has a full breast and a deep broad body with a long back and originally bred for the table Meat & Eggs	180 to 200 brown tinted eggs	Red with fin buff barring	Cock: 3.86kg Hen: 2.9kg	Cock: 1020g Hen: 790g
Useful information: Autosexing breed					

Breed name & origin	Potted history of breed & Utility	Characteristics			
		Annual egg lay	Colour	Weight	
				Standard	Bantam
Sebright Bantams <i>UK</i>	Created in the early 19 th Century, this breed is a true bantam Exhibition	50 to 80 white eggs	Gold and silver	-	Cock: 620g Hen: 510g
Useful information: One of the oldest British breeds, it is a difficult bird to raise.					

Breed name & origin	Potted history of breed & Utility	Characteristics			
		Annual egg lay	Colour	Weight	
				Standard	Bantam
Silkie <i>Asia</i>	Dating back around 2000 years in China, these birds have unusually fluffy feathers, a head crest, very dark skin and 5 toes that are covered with feathers Exhibition	100 to 120 tinted or cream eggs	Black, blue, gold, partridge and white	Cock: 1.8kg Hen: 1.36kg	-
Useful information: A difficult bird to keep, as they do not cope well with very hot, cold or wet/muddy conditions. Not an ideal bird for the first time poultry keeper.					

Breed name & origin	Potted history of breed & Utility	Characteristics			
		Annual egg lay	Colour	Weight	
				Standard	Bantam
Sussex <i>UK</i>	First bred in the 18 th Century and they come in eight colours Meat & Eggs & Exhibition	180 to 200 cream/light brown eggs		Cock: 4 to 4.2kg Hen: 3 to 3.2kg	Cock: 1 to 1.2kg Hen: 780 to 800g
Useful information: Fast maturing, hardy bird that is a good choice if you are a first time poultry keeper. They are also excellent foragers					

Breed name & origin	Potted history of breed & Utility	Characteristics			
		Annual egg lay	Colour	Weight	
				Standard	Bantam
Welsummer <i>Holland</i>	Bred from the 1880 onwards, birds from many other breeds were selected to create this one breed Meat & Eggs	200 to 250 large, deep red-brown eggs		Cock: 3.2kg Hen: 2.7kg	Cock: 1.02kg Hen: 790g
Useful information: This is a very popular breed of poultry to keep and they are hardy, fairly low maintenance.					

Breed name & origin	Potted history of breed & Utility	Characteristics			
		Annual egg lay	Colour	Weight	
				Standard	Bantam
Wyandotte <i>America</i>	Originates from the eastern seaboard area of the USA from the 1880's Meat & Exhibition	80 to 180 tinted eggs		Cock: 4.08kg Hen: 3.17kg	Cock: 1.7kg Hen: 1.36kg
Useful information: This is a docile attractive bird to have around particularly if you have children.					

Tips in Choosing the Right Breed for You

Contained below are some practical tips of helping you choose the right breed of chicken for you.

1. Try and source your chickens locally to where you live, especially if you are a first time poultry keeper. If you have any questions or something goes wrong, then you have easy access to the place that you bought your chickens.
2. Decide on your primary reason for keeping chickens. Is it for egg production or do you want to keep them for ornamental reasons/exhibition or for the table?
3. Take some time to talk to people who you know that already keep chickens. See if they have any particular recommendations in terms of breeds suitable for the climate and environment that you live in.
4. Talk to your local small animal vet and pick up any tips and leaflets that he or she may have to give you.
5. How much space do you have for the chicken coop and run?
6. Are there any local restrictions on the number of chickens that you are able to keep as “backyard” flock?
7. Decide whether you are going to have your chickens, free range. The decision on this really depends on the scale of the predators where you live and then choosing a breed that is independent and likes to forage.
8. If you have children around, then the temperament of the bird you choose is an important factor. You need to opt for a docile breed.
9. If you have other animals as pets then you may want to avoid some of the breeds that are flighty and easily spooked.
10. How much time can you allocate to your chickens each day in respect of care and maintenance?

The following tables may help you to have a “at a glance” overview of the main characteristics of a few breeds that are very popular.

Docile	Flighty	Aggressive	Exhibition	For the table	Egg Production
Orpington	Poland	Rhode Island Red	Wyandotte	Wyandotte	Leghorn
Cochin	Leghorn	Asian Hard Feather	Sussex	Welsummer	Rhode Island Red
Plymouth Rock	Appenzeller Spitzauben		Silkie	Sussex	Sussex
Dorking			Sebright	Rhodebar	Plymouth Rick
Hybrid Chickens			Poland	Plymouth Rock	Welsummer Holland
			Orpington	New Hampshire	Rhodebar
			Japanese Bantam	Lincolnshire Buff	New Hampshire
			German Langshan	Ixworth	Ixworth
			Frizzle	Indian Game	Hybrid Chickens
			Dutch Bantam	Hybrid Chickens	Houdan

Docile	Flighty	Aggressive	Exhibition	For the table	Egg Production
Hybrid Chickens			Campine	Australorp	Lanshan
			Cochin	Houdan	Faverolles
			Booted Bantam	Dorking	Dominique
			Belgium Bantam	Dominique	Cochin
			Asian Hard Feather		Belgiums
			Araucana		Australorp
					Araucana

Chapter 5: Optimum Coop Conditions

The conditions inside the coop are vitally important if you want to keep happy and healthy chickens that will give me many years of pleasure and good quality eggs. When you are deciding on the design and construction of the coop for your chickens, go for the best that you can. You really do get what you pay for with coops and if you buy or build the best that you can from the onset, then the maintenance and upkeep of the coop will be easier for you in the long run.

The following factors are to be considered for optimum coop conditions:

- Ventilation
- Sunlight
- Lighting
- Insulation
- Position

If you get all these right in your chicken coop then your chickens will be happy and productive. Of all of the above, the most important issue is ventilation. Chickens are hardy little creatures and depending on the breed can withstand extremes of temperature. However, if the ventilation inside the coop is not right, things will start to go wrong with your flock very quickly.

You need to make sure that there is adequate ventilation throughout the year, whatever the climate. Chickens, just like any living, breathing creature can over heat or be exposed to toxic gases and ammonia from their own waste and breath. Chickens generate a great deal of moisture, which in a poorly ventilated coop encourages the growth of mites and lice.

Good ventilation will also keep the coop from getting mould, mildew or any other fungal spores. It removes the dampness and humidity from the coop and stops it from getting too hot in warm weather. Chickens are happiest and best below about 75 degrees Fahrenheit; over 90 degrees Fahrenheit and they start to have all sorts of problems with heat stress.

To help with ventilation, position the doors and windows towards a known breezy direction if at all possible. You can also drill ventilation slots and keep the windows open to increase the flow of natural air through the coop. This form of “passive” ventilation is the easiest and cheapest form to have in your coop. Another option is to fit a “wind turbine” ventilation system into the coop. You use a spinning turbine, about the size of a football that you mount onto the roof of the coop. When the wind blows, it spins the blades that suck air actively out of the coop. You do need to make sure that you position the coop in an area where there is sufficient wind to allow this type of wind turbine ventilation to work well.

The third option could be to fit a mechanical ventilation system into the coop, called an “active” ventilation system. You basically have an electric fan to move the air in and out of the coop. This can be fairly expensive. It also means running electrical systems into the coop or utilising solar powered units. It does allow for a significant amount of air movement through the coop but remember that if the power supply fails, then your coop will get little ventilation.

The type of ventilation you choose depends on the climate, but as a rough guide if you live in an area where heat is not a big issue in the summer, then approximately 1.5 square foot of vent opening per chicken should be adequate. Always opt for more ventilation than less as your chickens are quite able to withstand colder temperatures. Remember that all vents must have doors, flaps or covers so that you can make the coop predator proof when you tuck your chickens in at night.

There is one final note about ventilation. It is ventilation that your chickens need and like, not drafts. Drafts can be very detrimental to the well-being of your poultry and they should be avoided, so do make sure that you use the vents effectively in your chicken coop.

Sunlight is essential to your chickens as it gives your flock lots of vitamins that they need. That is why you must have some sort of run that allows them to come outside the coop if you are not allowing them to forage free range. A run gives them the opportunity to flap their wings, move about and generally make a bit of fuss which they will love. Also, sunlight is a key factor in egg production and moulting. When the number of daylight hours starts to reduce you will notice a decline in egg production. This is very natural and the Nature’s cycle.

It is also during the start of the reduced daylight hours that chickens will start the annual moult. Most moult annually, some twice a year and a few every two years. Again, moulting is a natural way in which the bird replaces old feathers. During this period, egg production will diminish rapidly and in many instances stop altogether.

Hens naturally lay their eggs when days are long with at least 12 -14 hours of daylight per day. This is because daylight stimulates the pituitary gland, which in turn stimulates the hen's ovaries to produce eggs. Once the amount of daylight starts to diminish, the egg production starts to drop off and in some cases may stop completely.

During these months when there is less daylight, you can choose to place artificial lighting in the coop. You will obviously need some power source into the coop and the light bulb will need to be positioned high enough so that the chickens cannot peck at it! A 40-watt bulb will suffice for a 10 square foot by 10 square foot coop (100 square feet in total) but anything more will require a 60-watt bulb. You will also need a timer to make sure that the coop is bathed in light at the same time each day. Consistency of light is really important, so if you decide you will not have a timer, then make sure that you switch the lighting on and off at the same time each day.

Alternatively, you could decide to allow nature to take its course and allow your chickens to rest during the darker months of the year. Egg production will cease but during this period your chickens will revert to what they would do in their natural habitat such as moulting and allowing their reproductive system reserves to replenish. Taking this approach is one step closer to sustainable small-scale farming but don't think that you cannot take a hybrid approach by combining the two options.

Depending on where you live in the world and the climate conditions, you may choose to increase the amount of insulation in your coop.

Chickens are fairly robust little creatures. They can cope with extremes of temperature so long as their coop is the right size. You can also choose to keep chickens that are best suited to your climate. Therefore, if you have used 4 square feet per averaged sized chicken then you can probably go without insulation.

If you do decide to put insulation into the coop, try and avoid using Styrofoam as they peck away at it and it isn't good for them! An option you could consider is putting a heavy tarp over parts of the coop in colder months when you tuck your chickens away for the night. However, you need to remember to get the tarp off early so they don't roast away in their coop. Another natural way to increase the insulation levels inside the coop is to place more bedding on the floor and in the nest boxes for them during the winter months. Normally you would put about 2 inches of bedding, you can double this and it will provide additional warmth inside the coop.

A real hazard during the winter months is frozen water inside the coop and in the run. Chickens need a lot of water, about half a litre each day all throughout the year. Bear in mind that eggs contain 65% water and you will start to see why access to clean, fresh water all year round is vital. The danger of frozen water containers is during the night when you cannot check them. To prevent this from happening, you could opt to include some heater bases from local stores or the Internet. All you need to do is fit the heater bases below the galvanised metal chicken waterers. This will keep the water warm and not frozen.

The bottom line is that chickens don't need insulation, but vitally important is that you increase the amount of ventilation in the coop if you put in any insulation and ensure that they have access to fresh clean water at all times.

Where you decide to position your coop is also important from the perspective of predators, gaining maximum natural ventilation (not draft) and protection from harsh cold in the winter months. In respect of the latter, placing the coop near a high-sided building and protected by trees/foliage will all help to keep the occupants warm during the winter months.

So in summary, to prepare for the colder months of the year for your coop occupants:

1. Add an extra layer of bedding to the floor and nest boxes inside the coop
2. Buy some water heaters and place them under the galvanised waterers to stop the water from freezing
3. Throw a tarp over the coop before you settle your chickens for the night. It is important that you remember to remove the tarp the next

morning

4. Install lighting inside the coop if you want to intervene with the natural cycle of egg production which declines in the months with less daylight
5. Increase the amount of ventilation inside the coop

What Should Be Inside Your Chicken Coop

In this section, we look at the options you have in providing amenities for your chickens that will let them live a long, healthy, productive and happy life.

· Perches

During the dark it is a natural for your chickens to perch and roost as high above ground as possible. This gives them a feeling of safety from predators and they will consider the coop a safe place. It is important that you build the perches as high above the floor of the coop as possible. The perches should be in wood, as chickens cannot grip metal or plastic. Make the wood perch as flat as possible with curved edges, this way their feet will be protected as they grip onto the perch. It also gives them additional warmth as the chickens sit on their feet. When you make the perches inside the coop, try and provide some type of ladder system so that they can move from one perch to another without jumping and injuring themselves. Why not consider tree branches for your perches? You need to take any rough edges off them and make sure that there are no worms or other types of bacteria inside the branch that could pass an infection onto your poultry.

So in summary, your perches should be off the ground, at least one or two feet higher. Preferably not one underneath the other otherwise the chickens on the top perch may poop on the lower ones! The wooden poles should be at least 2 inches wide and try to allocate between 5 to 10 inches of perch space per bird so that they feel comfortable. It is also worth remembering that chickens create over 60% of their daily droppings whilst they are on their perches. If there is room, put a droppings tray under the perches so clean up is easy for you and keep the perches well away from the nesting boxes so droppings do not go near the eggs. Plastic sheeting is also an option and works fairly well if you are short of space to replace a droppings trays under the perches. If you are able to remove your perches to clean them, this is even better as they will last longer

and reduces the risk of any poultry infections or disease.

- Bedding

You need to spread bedding inside the chicken coop floor to absorb moisture, droppings and odour. It is also a nice soft layer for your chickens to walk on and keep warm. A good layer of bedding, about 2 inches thick should suffice. It is a good idea to also place some bedding in the nesting boxes so that your poultry have some comfort and protection when laying eggs.

There are many different types of material that you can use for bedding. Wood chips, bark and shavings, straw and clean shredded paper will all do the trick.

Wood shaving is probably the most popular type of bedding as it is highly absorbent, a great insulator, easy to find and use. It can be expensive in some parts of the world so check this aspect out before you decide on wood shavings as bedding. However, one of the financial and time efficiencies of shavings is that you only need to replace all the bedding every second time you clean as you simply need to turn the shavings with a fork to expose the dry bottom layer. Shavings also keep odours down and reduce the amount of ammonia in the air from the droppings to maintain the health of your coop and its occupants. Finally, make sure that your shavings are not from any hardwoods that can contain fungus and moulds that will bring sanitation and health issues into your coop.

Straw is a very popular bedding option as it is relatively cheap, easy to get hold of and smells great when you first lay it into the coop and nesting boxes. Your chickens will also love foraging for the grains of barley, wheat and oats from the straw plus it has excellent drainage. You can also rot the old straw for garden manure so it is easy to dispose.

Hay is not a great bedding option simply because it has poor drainage, gets damp really quickly and is an excellent breeding ground for fungus and mould. The fungal spores when inhaled by the chickens cause health problems.

Shredded paper is a good bedding option but can be quite difficult and expensive to obtain unless you have a local business that is willing to let you have theirs. Paper provides good quality insulation and the soiled bedding can be burnt, the potash from the burnt remains will be an excellent for your garden.

Avoid heavily printed-paper such as newspaper and magazine brochures even if shredded.

Remember that it is important that the bedding inside your coop is ALWAYS dry as wet bedding very quickly breeds parasites, bacteria and mould which will harm the health of your chickens.

- Nesting boxes

It is essential that you have nesting boxes inside your coop, otherwise your chickens will lay their eggs all over the coop and collecting them will be like a “Easter egg hunt” plus you will have a higher rate of breakages if they walk all over them! By instinct, chickens like a warm, safe, undisturbed and cosy place to lay their eggs.

Your nesting boxes need to be well clear of the roosting perches with plenty of clean bedding inside. The boxes need to be off ground level and secured well enough to hold the weight of several hens as sometimes, the more social ones do tend to nest together in one box to lay their eggs. For an average sized bird, the nesting box needs to be 12 inches wide by 12 inches high. If you have the room, make the boxes a little larger with a little lip on the front of each to give your chicken something to grip onto when she enters the box and also to keep the eggs secure inside without rolling out.

Chickens don’t tend to put droppings in their nesting boxes, but change the bedding regularly and check for any broken eggs which will attract rodents into the coop.

Most nesting boxes are made of wood but you can buy some old vintage ones which are made of metal. These tend to come as a row of nesting boxes that is attached to your coop. Remember that if you do use metal, put in plenty of bedding inside the nesting box to keep it soft and warm. It’s also not a bad idea to allow yourself access to the nesting boxes from the outside of the chicken coop so that you can collect the eggs easily. To enable this type of convenience for yourself, you need to be clear on your design before you start the project of building/sourcing a coop, although some coops that you can buy off the shelf and DIY kits have this option.

- Feeders

Feeders are essential things that you need to consider when setting up your

coop for your chickens. If you are allowing your chickens to roam freely, then the chances are that they will find their own food. However, if you are building a coop with a run and your chickens will not be allowed to run free (due to predators), then you cannot go ahead with your project without feeders.

The type of feeder you install depends on how old your chickens will be when you get them. If they are chicks under six weeks old, then you need a feeder that is made exclusively for them. These feeders can accommodate up to ten chicks per feeder and are designed for food such as sand. The construction of the feeder is that it prevents spillage and they tend to be made from plastic.

Once your chickens are over six weeks, there are different types of feeders that you can select. Most feeders are made either of plastic or metal. The most commonly used feeder is made out of plastic, cone shaped and can be hung anywhere inside the coop or the run. The feed is placed on top of the cone then it fills up the tray that is under the cone.

Treadle feeders are made of metal and when the chicken goes to the treadle, it opens and feed comes out. When the chicken leaves the treadle, it closes automatically. Grit hoppers are also made of metal with a sloping lid that opens like a door. The feeder opens and closes automatically when the chicken enters and leaves. These feeders that open and close are a great way of keeping out bugs and rodents that eat the feed inside.

Top Tips to Sanitizing Your Chicken Coop

A clean coop is absolutely essential to ensure that your chickens are kept in good health and they are happy. Poultry are known for being susceptible to some pests, parasites, and bugs. These creatures will easily call your coop home if you do not follow some basic steps to keep it clean.

You need to thoroughly disinfect your coop at regular intervals. A good span would be every 6 months. This is on top of the weekly cleaning of food trays, waterers, dust baths and dropping trays that you complete and the two weekly complete refresh of bedding on the floor and in the nest boxes. Here are some basic tips that you should have as a regular regime to sanitize your coop.

1. This one is fairly obvious but keeps your chicken coop clean. Make sure that you are cleaning the food trays, waterers, dust baths and dropping trays once a week. Also refresh the bedding on the floor and in the nesting boxes every two weeks. If you have a large flock of chickens you need to do this more frequently
2. When you are going to do a complete disinfection of your coop, try to do it on a dry day. This will allow your chicken forage in the run and leave you enough space to do the job without getting underfoot.
3. Take everything out of the coop. All the bedding, the feed trays, waterers, dust bath, nesting boxes, perches, dropping trays. Dispose of the nesting material that you remove, do not try to reuse any of it once you have sanitized your coop
4. Scrub the inside of the coop well. Use a jet or power wash if you have one as this will make the job a bit easier. Use soapy water and scrub the floor, roof and walls. Do the same with the nesting boxes, perches and other accessories you have removed from the coop
5. Once you have hosed down the scrubbed coop and accessories, you need to disinfect. You can buy a good quality disinfectant either on line or from your local pet or livestock store. You get disinfectants that are specially developed for use on chicken coops. Whichever disinfectant you buy, carefully follow the manufactures guidelines to make sure that the dilution is correct.
6. Disinfect everywhere inside the coop and all the accessories that you have taken out. Focus on the floor, perches and nesting boxes as these are the places that your chickens spend the most amount of time. If at all possible, allow the coop and the accessories to air dry before putting everything back together for your flock
7. Always use fresh new bedding and nesting materials inside the coop following a deep clean such as this, as well as new feed and fresh water. If you have made a dust bath in a tray for them, then also make sure that this is freshly made up.

Apple cider vinegar is a great antibacterial agent that you can spray inside the coop and onto all the accessories before you put them back together. Keeping your coop clean is essential but that is different from a deep clean sanitation like the one detailed above. Having a clean coop will make this process easier and more pleasant for you.

A nuisance that can become a problem with keeping chickens in the backyard is fly infestations. You will find them in both the coop and the run. It is hard to eradicate them completely but there are some steps that you can take to stop them from becoming a reoccurring problem and nuisance to you and your chickens. If you follow these basic steps, you will be able to manage any fly problem without having to resort to chemical insecticides that are expensive, not good for your chickens or the environment.

1. When you buy/build your chicken coop, make sure that it is well-constructed, so it doesn't become a haven of crevices for flies
2. Situate your coop off the ground so that it is well-ventilated. Also properly ventilate the inside of your coop. Not only is ventilation of the highest importance to your chickens it will not become a breeding ground for adult flies, larval or eggs
3. The floor of the coop needs to be flat with no holes.
4. Clean the dropping tray every day.
5. Refresh and replace the nesting material so that it does not become too wet and moist. These are optimum breeding conditions for flies.
6. Clean and replace the feed and water trays regularly and make sure that you pick up any food that has fallen around the immediate area
7. Introduce your chickens to eating bugs when you first get them. They naturally love eating bugs in all stages, adult, larval and egg

If you do find any fly populations inside the coop and run, there are a few steps that you can take to eradicate them.

1. Find the fly nests. You will need to look in every nook and cranny of the coop, run, nest boxes and perches. Also check the base of the run if the grass has started to grow over the fencing
2. Place sticky flytraps around the coop where the chickens cannot interfere with them. Hanging sticky traps act as a place for flies to land mid-air and sticky cards can be placed where your chickens cannot peck or step on them
3. Another good deterrent is to feed your chickens an insect growth regulator mixed in with their normal food. This acts to control any manure breeding flies

Many people have worries that a chicken coop smells. The thing that you need to remember with a smelly chicken coop is that it is the ammonia that is causing a problem. Ammonia is a natural by-product of chicken droppings and that is why it is essential to keep your coop clean. Simply put a clean coop will smell better. You can also make some choices when it comes to the nesting and bedding material that will reduce smell. Try not to use straw as it is not absorbent and rots down very quickly. This means that it is not the best nesting or bedding material inside your coop.

The trick with keeping any smells down is to have good ventilation inside the coop and run. Make sure you undertake regular maintenance and a twice-yearly deep clean.

Some chicken keepers use “diatomaceous earth” to help keep the coop dry in humid or wet weather. You need to use it sensibly inside the coop as whilst it will keep the coop dry, the excessive amount of dust can cause problems of its own. Diatomaceous earth is 100% natural, safe and non-toxic. It is an abrasive, fine white powder made of tiny fossilized remains of diatoms that are a type of algae. You can also add it into the feed trays if diluted as it will help to prevent worms, mites and lice in your chickens.

If you live in a country that has very humid conditions, you could consider using a barn odour destroyer. Using this treatment can break down the elements in the droppings that are causing the odour. Remember it is not a substitute for a clean coop and run but if the problem is caused by heat and humidity and you cannot ventilate more, then go down this route.

Chapter 6: Coop Safety

Once you decide that you are going to keep chickens you are now entering the world of predators. Chickens are like any other pet and most people get really attached to them and a loss is similar to the loss of a dear pet so you need to prepare well in advance to keep your coop occupants safe.

One of the first things you need to do is research the types of predators that exist where you live and where the coop will be situated. This section will deal with a variety of more common predators and how to keep them out. However, do your homework and do it well. It means that you can plan your coop and run (in its construction and location) to be as safe as possible before getting your chickens.

There are some basic precautions that you can take to ward off predators from your coop and run:

1. Make sure that the coop and run are built well. It needs to be strong and sturdy. The best time to do this is when preparing the design.
2. Use the right type of fencing to make your coop run and put some form of netting over the top to avoid flying predators.
3. Put a solid barrier under the base of the coop. A solid base is best and then small holed chicken wire and then raise the coop floor. You could have the coop on stilts.
4. Dig around the perimeter of the run and bury small holed chicken wire.
5. Tuck your chickens into their coop before nightfall so that they are safely tucked away. Most predators hunt by night, out of sight is out of mind.
6. If you have a family dog, he can be a useful deterrent so long as he cannot get inside the coop or run. A family dog that leaves his scent in the area close to the perimeter of the coop and run will discourage other predators.
7. Don't store the chicken feed anywhere near the coop and run.
8. You could install a heat sensitive flood light or an electronic pest

repellent which will keep the large predators away

- Family pet

Have a good and a bad side when you choose to keep chickens. On the good, their scent can be a powerful deterrent to other predators and they can be a great alarm call. On the bad side, if they can get into the coop or run, they will eat your chickens, so fence up wisely and make sure if you have a dog that likes to dig deep that you put enough chicken wire and a solid floor either under the coop or as the coop floor. Do not take the family pet into the run when your chickens are tucked into their coop as they will recognise their scent and try to get inside at all costs.

- Rodents

At times rodents will get inside the coop even if you leave your door slightly open and unattended. Rodents are attracted to the coop and run, by the food in the feeders and even placing them at height will not make a huge difference to their ability to get at the content. You just need to be super vigilant and make sure that you do a check for rodents when you do your daily maintenance. Also a clean coop and run will not be as attractive a proposition as a dirty one so keep the sanitary condition high as outlined in the previous chapter.

Finally, do not keep the feedbags anywhere near the coop and run. Also, keep them in a closed metal cupboard so that rodents cannot burrow into the feedbags and enter the coop and run when you put feed out for your poultry.

- Foxes and racoons

The fox and racoons are wily creature and once they know you have chickens will visit time and time again to see if they can get food on tap. They are persistent predators and you need to be one step ahead. The chances are that at some point you will lose a chicken or two to foxes or racoons but using chicken wire wisely will keep your loss rate low. Also following the other basic predator proofing such as putting your poultry away at night will all help you to keep the chickens alive and well.

- Reptiles

This is a hard predator to manage as reptiles are not always seen during daylight. They will burrow somewhere in the coop or run and attack once your chickens are inside their coop. One thing that you can do is make sure that there are no snake nests where you place your coop and run. If they are in residence already, then you need to find elsewhere to place your coop and run. The reptiles won't move just because you place the coop and run where their nest is. They will just keep coming back because ultimately they were there first! Also, keep feed well away, they attract rodents and snakes will be more likely to come along for the rodents than the chickens. Finding chickens will then be a bonus!

Small holed chicken wire will also deter snakes, as the ones large enough to eat your chickens or eggs will not be able to get through. The chickens will probably peck at the really small ones but if they are venomous then its game over for the chickens.

Sulphur does a good job of keeping snakes away, but don't put it anywhere your chickens can get at it or your family pet.

If you do find a snake in your coop then the best way to get rid of it is to call in a professional. Once you know the snake is out, clear the area around the coop of obstructions that snakes can hide in. Old wood piles (which do have their uses against some predators) will need to be thrown away or moved from near the coop. Mow any vegetation near the coop as snakes find it easier to travel in long grass between their nest and the coop. You could also fill in any cracks in the solid base (if you have used bricks or slabs of concrete) with insulation foam. The foam will expand and closes the gaps that snakes use to access your chicken coop. Finally, close the coop and run door behind you.

Try to avoid placing your coop under trees or large overhanging branches as snakes get into trees. The reptile will get a pretty good vantage point if it is looking down at the coop residents from high above.

- Birds of prey

If you live in a country where birds of prey are present then the best way to avoid them getting at your chickens is to cover the run with chicken wire. Also, don't leave your chickens out at night when they love to hunt, particularly owls. Keeping rodents away by securing the feedbags is another way of avoiding the

perils of birds of prey on your poultry. Similar to reptiles, birds of prey will be more attracted to the small rodents that come and feed near or in your coop.

If you try to adhere to some of these practical and basic tips you should have no problem in keeping your coop occupants safe and well. Also, just spending a few minutes each day to look around the coop, run, surrounding area and examining your chickens will go a long way in making sure that you are aware early of anything that could be starting to go wrong.

Chapter 7: Different Types of Feeds for Your Chickens

Chickens will eat a mixture of things but you must provide them with a staple diet that is the source of food that has everything they need to thrive. All-in-one chicken feeds tend to have everything that your chickens will need.

Basically, they are two categories of chicken feed:

1. Grower feed is what you need to give to your chicks for the first 4-6 months of their lives. This feed is concentrated with ingredient that allows them to grow and develop.
2. Layer feed is given after this period. This feed has all the ingredients that your chickens will need to help them to lay eggs

Try and give your chickens organic feed if you can and also try to buy locally to save you money and time. Corn is the main base of food in most chicken feed and if you can find one that is milled from local grains and seeds, this will work better for the health of your chickens.

The table below may help you to see the type of feed you need to give your chickens based on their utility.

Chicken utility	Age	Feed	Protein ratio
Pet, exhibition and layer chicks	0 to 6 weeks	Chick starter	18 to 20%
Pet and exhibition only chicks	6 weeks on	Chicken feed	12 to 14%
Laying hens	6 weeks until they start to lay	Layer finisher or grower	12%
Laying hens	Throughout laying years	Layer feed	16% + other calcium and mineral balance
Meat birds	0 to 6 weeks	Broiler or meat bird starter	23 to 24%
Meat birds	6 weeks to butchering	Broiler grower-finisher or meat bird grower-finisher	18 to 20%

The amount of feed to give your chickens is an imprecise science as there are many things that affect the decision. The chicken utility, the breed, the stage that they are at, how active they are, the types of feeders that you have, the weather, the predators that may get into the coop and eat the chicken feed and finally, how tidy you are as a chicken keeper.

For laying eggs, once the process has started a feed that is formulated for them and containing all the vitamins and minerals will be more than adequate. It takes about four pounds of this type of feed to produce a dozen eggs. Your chickens will be very efficient at converting feed to eggs if they are given this type of feed. If you are keeping chickens for both egg laying and meat, then you will need to give them a higher ration as they have more body mass to support.

On chickens that you keep for meat, it will take about two pounds of feed especially for them to convert into one pound of body mass. Therefore, typically, a meat bird that weighs six pounds at ten weeks would have consumed at least twelve pounds of feed.

Also, remember that if you live in a cold climate, your flock will eat more than during hot weather. With laying chickens, you can feed your chickens either at certain times of the day or just leave food in their feeders and they will help themselves. Chickens are not like dogs or cats; they won't overeat and become ill. It is also how they would eat in nature if they were foraging, small amounts frequently.

However, with chickens that you keep for meat, the feed regime needs to be more structured because of their heavy growth rate. If you are keeping chickens for meat, then make sure that they have access to food all the time, day and night. Meat birds are not like laying or exhibition birds, without access to this all day feed they will not grow at the rate that they need to.

You may also want to get some “scratch” for your chickens. This is a mixture of grains, including corn, rye, wheat and oats. The chickens absolutely love scratch and will be crazy happy at getting it from you. Scratch is generally thrown around on the ground of the run (other feeds are put into the feeders) and your chickens will run around and peck as much as they can of the scratch. Please remember that scratch is not enough for your chickens, it will not provide them with all that they need to be healthy, think of it as a daily treat rather than staple feed.

Calcium is an important requirement for your chickens. Think about it for a moment and you will realise this to be the case, the eggshells themselves are calcium! If your chickens are not getting enough calcium, again you will notice it very quickly. They will lay fewer eggs, those that they lay will be weak and misshaped. Some chickens are also known to peck at the eggshell to get the calcium that they need if they are short. A good way to make sure that your chickens are getting enough calcium is to give them shell feed, such as oyster shells. They are quite cheap to buy and easy to get hold of in most parts of the world.

Grit takes the place of the teeth that your chickens do not have. It is a mixture of small rocks that chickens store in their “crop”. This is the place that they break down the food before it enters their stomach. It is best to keep a container of grit in the coop or run so it is easily accessible to the chickens. Alternatively, you can mix it in with the complete feed that you put into their feeders.

A perennial question is whether it is safe to give your chicken’s table scraps. In most instances it is okay, but not as the only form of food for them. As you can see from above, chickens have a fairly basic requirement in terms of food intake but the following table contains a list of things that are okay in moderation and those that you should avoid at all cost.

Table scraps that are okay in moderation	Table scraps to avoid
Bread that is not mouldy	Anything which has salt
Cooked meats that are cut into small pieces	Any type of processed food such as scraps from TV dinners, pizza or takeaways
Raw, cooked or dried corn	Potato peelings as they are a part of the Nightshade family which is toxic as they contain alkaloid solanine
Fruits such as apples, berries and watermelon rinds	Garlic which transfer to the taste in the eggs
Grains	Onions which transfer to the taste in the eggs

Table scraps that are okay in moderation	Table scraps to avoid
Oatmeal	Ginger which transfer to the taste in the eggs
Peas	Avocado skin, pulp or pits which contain persin, a fungicidal toxin
Vegetables such as broccoli, carrots, cabbage, chard, cucumbers, kale, lettuce, pumpkins, spinach, squash, sweet potatoes and tomatoes	Rotten food which produce toxins
	Soft drinks of any kind
	Coffee (grinds or beans)
	Chocolate which contains theobromine which is toxic to animals
	Greasy food which the chickens will not be able to digest
	Raw meat which can lead to cannibalism in your chickens

Before you start to add table scraps to your chicken's diet, check with your local environmental unit to make sure that you are not breaking any local laws. In some countries, it is forbidden to give table scraps to chickens due to contamination and increased risk to health.

Remember that vitally important for your chickens is a constant, fresh, clean supply of water in the coop and also in their run. Without this water, your chickens will not survive very long and their health will start to go downhill quickly. The waterers need to be about 6 to 8 inches off the ground so that the water does not become contaminated with droppings. Checking and changing the waterers should be part of your daily maintenance for your coop and run. To help with the health of your chickens, you could add a little apple cider vinegar (known as ACV) to the waterers. It has been given to chickens for a long time as it has numerous health benefits and supports their immune system. Apple cider vinegar has vitamins, minerals and trace elements. It helps to lower the pH level in the stomach, help with digestion, detoxifies their blood and helps remove mucous from their bodies. Chickens are particularly prone to respiratory problems if coop conditions are not optimum and there is mould or excessive humidity. The ACV helps to clear the airways of chickens.

Apple cider vinegar is also an antiseptic (hence it is great to clean out the coop with) as well as being an antibiotic.

When you are buying ACV, make sure that you get it from a feed store and not your local supermarket. The latter carries a version that it is pasteurised and the process kills the helpful bacteria.

Chapter 8: Tips on Introducing New Members to Your Existing Flock

The chances are that after your first foray into chicken keeping, you will become more confident and want to add to your flock.

Before you take the steps to source new chicks, make sure that the coop and run that you have is of an adequate size to increase the flock numbers. Having the wrong size coop and run for the number of occupants, makes the integration process a lot harder and also increases the risk of health problems for the entire flock.

Introducing new chicks into your flock will never be an easy task. It is all about the pecking order and chickens always need to have this established when they live communally. The pecking order establishes which chickens get access to food and water first and things such as the dust bath and which roosting poles. Introducing new chickens will be an unpleasant experience, as the established chickens will peck and chase the newcomers to establish a clear pecking order. Part of this pecking and chasing is also keeping the newcomers away from food and water that can lead to their health declining quickly.

You can avoid this tension and experience if you add to your existing flock and provide new housing and foraging space. For most people this is not possible due to limited funds and/or space. Therefore, if you are determined to add to your flock, follow these tips to make the integration as painless as possible for you and your chickens!

- Temporarily put up a partition in your existing coop and run so that your chickens can live next door to the established flock. It is best to use chicken wire so that they can see each other without being able to attack one another. After a couple of weeks of this type of separation and visibility, both the existing flock and newcomers will be more used to each other and you can remove the partition.
- If the coop and run you have is not big enough for your increased stock, then a great way to introduce them to each other is to put them in a new coop and run. The change in housing will cause both the old and new chickens to establish themselves from scratch.

- Introduce new chickens at night onto roosting poles next to the existing chickens. Your chickens will be at their most dormant during their roosting and this gives the newcomers a chance to be with the existing flock and get used to each other.
- Supply additional feeders and waterers so that there are plenty to go around for the entire flock even when the existing flock try to stop the newcomers from gaining access.
- Provide small hiding places for your newcomers to escape to when the more aggressive, established chickens chase them.
- If there is one particular bird that is very aggressive then remove her from the coop and run for a few days. This separation will most likely take her down a few notches in the pecking order and she will calm down. If this still fails, you could always consider having her for dinner!
- Introduce all the new chickens into your existing flock at the same time. Don't do it one at a time as that poor bird will become the focus of the pecking and chase. There is some safety in numbers!
- For the first week or so, make sure that you keep a closer eye on your entire flock. Go out and be with them more frequently to make sure that they know of your presence around them

Most new introductions take about two weeks to complete and for things to start to settle down with your entire flock. Be patient, be brave and be vigilant. All these things will make adding to your flock a little easier.

Chapter 9: Keeping Your Chickens in Good Health

Most chickens kept at home have a reputation of being healthier than those that are commercially farmed. Your chickens need adequate space inside their coop and also in the run to move and cluck about. Try and allow the following for your chickens:

- 4 square feet per bird inside the chicken coop
- 8 to 10 square feet per bird in the chicken run
- Waterers and feeders that are at least 6 to 8 inches off the ground
- 1 nesting box for 4 birds
- 5 to 10 inches of roosting space for each bird

In general, keep an eye out for the following signs of illness in your flock:

- Loss of appetite and your chickens do not drink enough water
- Reduced egg production
- They walk around little, do not roost much and sit excessively on the floor
- They look weak or lazy
- Cloudy, swollen or spots in their eyes
- Tuck their head into their wings and their heads down
- Sores on their skin
- Difficulty breathing or panting
- Green, white, bloody or loose droppings that are watery
- A discharge from their nose or crusty nostrils

The reality of keeping live animals is that even the best looked after ones will occasionally get sick. Some of the more common ailments that chicks and chickens can get are:

Ailment	Symptoms	Prevention
Mites (this is red mite, northern fowl mite, scaly leg mite or lice)	<ul style="list-style-type: none"> • Tiny red or black spots on the body of the chicken • Tiny specs moving on eggs or in a nest • Leg scales that protrude out causing the chicken to walk with stiff legs • Tiny eggs that are bunched together at the base of the chickens feathers • General feather damage 	<ul style="list-style-type: none"> • Keep the coop and run clean • Take out old feathers that have fallen • Make sure that your chickens have a dust bath available • Regularly apply a flea dip • Brush the roosting perches with a mixture of one third kerosene and two thirds of linseed oil • Coat the chickens legs with petroleum jelly monthly
Parasitic worms such as roundworms and flatworms	<ul style="list-style-type: none"> • Weight loss • Weak and droopy chickens • Diarrhoea • Gaspings, coughing or shaking of their 	<ul style="list-style-type: none"> • Avoid having too many birds for the size of the coop and run • Make sure that sanitary conditions are

Ailment	Symptoms	Prevention
	<p>head</p> <ul style="list-style-type: none"> • Death 	<p>kept high</p> <ul style="list-style-type: none"> • Keep stress down to a minimum in your chickens
Egg binding	<ul style="list-style-type: none"> • The chicken has difficulty in laying an egg • Egg may not pass through the chickens vent even though it is visible 	<ul style="list-style-type: none"> • Gently lubricate as much of the inside of the vent as possible with a water based lubricant • Try irrigating the vent with warm soapy water or a warm towel • Place the chicken in a warm (not hot) bath that is deep enough to just cover the vent • Collapse the egg without injuring the chicken (may need a vet to do this if you are new to chicken keeping)
Pasting up (mostly happens to chicks when	<ul style="list-style-type: none"> • Hardened dropping 	<ul style="list-style-type: none"> • Pick the droppings from

Ailment	Symptoms	Prevention
their droppings are pasted to its vent)	accumulate around the vent <ul style="list-style-type: none"> • The chick cannot pass droppings at all 	the chicks vent
Coccidiosis is parasitic and is found in the intestinal tract of the chicken	<ul style="list-style-type: none"> • Watery, loose or bloody droppings • Lack of energy in the chicken • Reduced egg production • Death 	<ul style="list-style-type: none"> • Make sure that the coop and run have good sanitary conditions • Avoid damp and humid conditions in the coop
Respiratory problems in chickens can be any of the following: <ul style="list-style-type: none"> • Aspergillosis which is a fungal infection • Infectious bronchitis is an acute and highly contagious viral infection • Mycoplasma gallisepticum 	<ul style="list-style-type: none"> • Watery or runny eyes • Swollen sinuses • Wheezing • Sneezing • Gurgling • Rattling • Problems breathing 	If you suspect any type of respiratory problem in your chickens then call in a vet and get professional guidance

Here are some basic tips that you can take into account to keep your chickens healthy:

- Avoid the temptation of having too many chickens for the size of the coop and run that you have. Many people are tempted to “top up” the number of chickens from the original that they started with as they become more confident at keeping chickens and enjoying the benefits of having them at home. Enlarge your coop and run if you want a few more chickens
- Make sure that you provide your poultry with clean, fresh drinking water. This needs to be done at least once a day and more frequently depending on where you live and the climate conditions. Also place the

waterers off the ground so that they do not get contaminated with either chicken droppings or other creatures that manage to get inside the coop and run

- Include sanitation as part of your regular maintenance of waterers and feeders
- Try to avoid your chickens coming into contact with other birds, including wild birds
- Keep stress to a minimum for your birds by closing them in at night at the same time every day and not disturbing them whilst they are roosting on their poles
- Check the coop and run for rodents daily that may get in and carry infection and infestations to your birds
- Avoid draughts and wind in icy weather.
- Ensure that your chickens have sunlight and shade. Therefore, the positioning of your coop and run is very important. Exposure to natural sunlight is essential to provide your chickens with vitamin D that they need for health and well-being
- Worm your chickens twice a year
- Ensure that the breeder that you get your chicks from has vaccinated them sufficiently for common poultry problems before you take them home
- Find a vet before your chickens fall ill. Having selected a vet, if anything goes wrong you can get in touch very quickly

Chapter 10: Common Chicken Diseases and How to Treat Them

The list of actual diseases that your chicken could get is long but there are only a few that are common enough to warrant a mention in this eBook. Diseases must be referred to a veterinarian and in some cases reported to your local environmental/agricultural agency.

- **Pneumoencephalitis:** This is sometimes called “Newcastle Disease” and is a serious respiratory disease. It can be passed to humans and other animals and it needs urgent attention if your flock become contaminated. There is no known treatment for this disease but the best way to keep it from spreading is to isolate your flock from the infected birds and increase sanitation to stop it from being transmitted anywhere else. This increased sanitation also applies to you, when you have been with the infected birds, change, wash your clothing and bathe before entering your house or the coop of unaffected birds. Some signs of pneumoencephalitis include nasal discharge, difficulty breathing, swelling to the face, paralysis, trembling and a twisted head or neck. This disease has a very high mortality rate, as it is air-borne. Your vet needs to be kept updated of the health of your flock. He may decide to administer antibiotics to prevent secondary illness in healthy birds.
- **Botulism:** This happens when your chicken’s feed off spoilt or rotten/mouldy food. The first symptom of the disease is usually paralysis that starts in the legs and wings, which make them, appear uncoordinated. This rapidly moves to the head, neck and respiratory system. A chicken with botulism can be dead within 12 hours; it is a fast and relentless killer. It is important that if you have a case of botulism that you remove all dead/decaying carcasses quickly to prevent other flock members from pecking at the body. You can treat this disease with an antitoxin from your vet but it is expensive. If you notice that your chicken has this disease early, you could try dissolving one teaspoon of Epsom salts in one ounce of water and using a dipper, drip it into the chicken’s crop several times a day.
- **Crop impaction:** It is caused by build-up of food in the crop.

Chickens have no teeth therefore they use a bag in the lower section of their neck to hold gritty substances to break up the food before passing it to the gizzard. You can help with this disease by soaking small pieces of bread in olive oil and feeding it to your chickens. The oil will lubricate the lump in the crop. Massage the crop to loosen up the broken material. Do this routine at least twice a day until you cannot feel a lump in the crop. You can prevent crop impaction from happening by providing plenty of grit for your chickens to eat.

- Avian/fowl pox: Comes in two different forms, “dry form” and “wet form”. The dry form looks similar to warts on featherless areas of the bird such as the legs. It takes a couple of weeks for the lesions to scab up and heal but during this time your chicken will become thin and may die from dehydration and lack of eating. The wet form appears in the mucous membranes of the mouth and throat. The lesions are canker sore types and the greatest concern is the chicken’s airways may become block until the lesions disappear. This can take a couple of weeks and during this time your chicken will be unable to eat properly due to sores in the mouth and throat. Fowl pox is contracted through infected chickens or from mosquitoes. Always keep infected chickens isolated and water areas clean and dry to prevent mosquitoes being attracted to the spot. Also, make sure that your chickens have warm dry quarters and soft food. If you provide this supportive care, your chickens will most likely survive.

- Fowl cholera: It is a bacterial disease that is transmitted from wild birds, racoons and rodents. It can also be carried on contaminated soil, food, water, equipment, shoes and clothing. Your chickens will have greenish yellow diarrhoea, with breathing difficulties, swollen joints, darkened head and wattles. Death comes quickly to the bird with fowl cholera. There is no known treatment and you must destroy all the infected birds. There is a vaccine available but internationally, this is only administered by government sanctioned departments.

- Infectious coryza: is a bacterial disease that swells the head, combs and wattles of the chicken. The eyes swell so much that they shut, there is a sticky discharge from the nose and eyes, a moist area under the wings and you will find that egg laying stops completely. It is transmitted through

carrier birds, contaminated surfaces and water. Chickens that contract infectious coryza need to be destroyed as they remain carriers for life and there is no vaccine available.

- Thrush: is a white cheesy substance in the crop, ruffled feathers, droopy looking birds that lay poorly with an inflamed vent area that has a white crust. It is a fungal disease that is contracted from mouldy in food, water or surfaces and contaminated birds. It can also happen if antibiotics are given for another disease. You can use an antifungal treatment and remove all mouldy food, water and surfaces.

Chapter 11: Checklist of Daily Chores as a Poultry Keeper

On a daily basis, they are not demanding little creatures. There are 10 simple tasks that you will need to undertake daily to keep your chickens healthy and happy and at most should only take a short time each day.

DAILY CHICKEN CHECKLIST	
1	Let your chickens out in the morning from their coop into the run. This is important as they like to be able to move around, stretch their wings and generally cluck about the place
2	Make sure that you put clean, fresh drinking water in their waterers
3	Check their feed trays if they are uncontaminated and have clean food
4	Check the boxes for any lay and take the eggs away for consumption or storing in a cool place. Remember to put the blunt end of the egg up!
5	Check the state of the bedding and note when you need to clean/replace it. If the bedding is damp or wet, you need to replace it or top up
6	Spend a few minutes observing your chickens to make sure they are fussing, clucking, eating and drinking normally
7	Take a look around the coop and run for any damage or attempts by predators to get in during the night. If you find any damage, repair it immediately and don't leave it for later as the predator may come back and have a second go at getting your chickens!
8	Chickens will naturally go inside their coop as night falls but check that they are all safely tucked in
9	Lock the coop at night
10	If you are using an artificial light to keep up egg production, make sure that you switch it on and off at the same time each day

Remember that at different times of the year, the daily tasks may vary.

In winter (depending on how cold it gets) you may consider additional insulation. However, it is vital that if you add extra insulation, then you need to increase the ventilation. Your chickens are more likely to get ill from poor or

reduced ventilation than cold. If you think about it, humans have kept chickens for over 500 years. People did not heat their chicken coops back then, yet chickens survived and also thrived! Most birds can tolerate very, very cold weather; it is damp, humid conditions with poor ventilation that affects their well-being. You will need to make sure that they have enough drinking water and their waterers have not frozen into solid blocks. Try and check them at least twice during the day, in the morning and as it starts to get dark. In winter, they may also be susceptible to frostbite to their comb and wattle. You can avoid this by applying a little amount of petroleum jelly to these areas every few days.

In the summer or a very warm climate, they will need more water and also some shade in their run. Watch out for signs of dehydration and heat exhaustion. If egg production decreases during the summer then you need to establish the reasons quickly and take measures to keep your chickens cool.

Try to establish a daily routine with your chickens and they will stay healthy and happy providing you with a good supply of eggs.

Chapter 12: To Free-Range, Go Organic or Not?

Hopefully, by this stage of reading this eBook, you will have a fairly good idea of what you are taking on in deciding to keep chickens at home. A great appeal of chicken keeping is that it is one step closer to living a sustainable life and we couldn't complete this discussion without debating the issue of free-range and going organic or not.

Free-Range

Firstly, what do these terms mean? Free-range means that your chicken has access to the outdoors rather than spending its entire life in a coop. The definition of outdoors varies from country to country, the governing body giving the certification and person to person. To some it simply means that the chicken has access to a slab of concrete that the coop sits on and is not compelled to live wholly inside the nesting section of the coop.

As indicated earlier this is not a good way of life for your chicken as she needs fresh air, sunlight and the ability to move around flapping her wings and clucking. To others it means a lot more. You have to decide what you regard as free-range of your poultry.

Everything that you have read here indicates that you need to give your chickens access to daylight, fresh air and some type of open space. It isn't realistic for most people who keep chickens at home to let them roam around in their gardens/paddocks or pastures. The chickens are highly likely to get themselves into trouble with predators and peck their way through your prized flowers and vegetables. However, you do need to have a run that is adequately sized for the number of chickens that you decide to keep.

They will be classified as free-range in most countries if you do this. There is very little regulation when it comes to the legal definition of free-range. It is worth spending a bit of time on-line on your government website to find out the definitions and regulations with regard to free-range. Be realistic, your home reared chickens and their eggs are going to fair much better than the poultry in conventional mass-production farms. Take heart in the fact that you are taking a step nearer to improving poultry welfare in your country.

Organic

The term organic does have more substance and regulation behind it in most countries; however, there is no international standard and it does vary from country to country. This is surprising when you consider the number of “food miles” that the average meal takes before it arrives on your plate.

In general, the term organic is if something is completely and truly natural. Organic food is completely natural and has not been treated with any un-natural pesticides or chemicals. It is not genetically altered or modified and is not cloned food.

Normally, it is a government agency that oversees the environment, farming and habitat that will provide the definition of organic.

As a rule of thumb, to be able to claim and be certified that your chickens are organic, and therefore the eggs they produce, you need to be able to prove the following:

- Your chicken is not given any hormones
- No antibiotics have been given to the chicken
- No pesticides or other chemicals are used in the living environment of the chicken
- The chicken is fed only organic feeds from a certified supplier
- No pesticides are used anywhere
- No genetically modified organisms (GMO's)
- No chemical fertilizers
- No animal by-products
- Chicks are managed organically by the breeder who supplies your poultry
- Any roaming areas/runs are certified as organic if you allow your chickens to be in it
- The bedding used for your chickens must be organic and from a certified supplier
- Your chickens must be allowed outdoors into the fresh air everyday
- The coop and run cannot be built with any wood that is treated and it needs to be bought from a certified supplier

This is a fairly stringent test of being organic. As you can read, the chances of you as a small scale keeper of making the grade as an organic egg producer is

far greater than a mass production outlet.

Is It Right For You?

So the big question is which is right for you, having free-range or organic chickens and eggs?

With fairly little effort you will be classed as free-range. You will be a small to moderate scale chicken keeper and if you follow the recommendations in this eBook you will be free-range by definition in most countries. You are providing better poultry welfare, enjoying the benefits of knowing your food source and having the pleasure of keeping these undemanding and entertaining little creatures. For most people that is a rewarding package to embark upon this project.

If you feel strongly about being organic, then go for it. Remember that gaining “organic” labelling and status is highly dependent on the processes adopted by others who you rely upon to get such things as feed, bedding and materials. This all adds to the cost of your project. Be realistic with your project budget and make sure that you give yourself plenty of time to research where you can buy your produce from for your chickens. You will need to also accommodate more time for interaction with regulatory bodies that can be bureaucratic and time consuming in some countries. This objective of organic status is not at all about making money; chicken keeping breaks even with a modest profit if you are classed as free-range. Being organic will likely erode your modest profit margin; however, on the positive, you are actively contributing to improving the quality of the food your household consumes. The welfare of your chickens will be as close to their natural habitat as possible and joining the growing group of people who believe that organic is essential for human well-being.

Part II – Building Your Chicken Coop

Chapter 13: Top Tips for Chicken Coop Design

In building your chicken coop, the first thing you need to do is decide on the number of chickens that you will be keeping. This will determine the size, location and type of chicken coop that you build, buy or commission for building. It has to be said that functionality does come before form with chicken coops. Your chickens will need enough room for nesting, roosting and exercise. You also need to make life as easy for you as possible and here are some suggestions on how to do this.

1. The type of material you use for your chicken coop largely depends on your preferences but most are made of wood. If you use pressure treated wood make sure that the treatment is not toxic. Many pressure treated woods have chemicals used that will harm your chickens. The types of wood that are most commonly used for chicken coops and runs are pine that is sealed, cedar or redwood. Most chicken coops that you buy tend to be made of sealed pine. It is cheap, effective and a readily available wood.
2. Build a solid coop with solid walls, roof and doors for the roosting area. If at all possible raise the coop off the ground and perhaps build a run that is around the coop. Put in place a solid floor, as previously suggested, 2 feet deep, all round the coop and the run. Also put some aviary netting on the top of the coop roof. All these deterrents will help to keep predators at bay.
3. Have enough nesting boxes either side by side or on top of one another in stacks, to save space. Position the nesting boxes higher than the roosting poles. The nesting boxes should be out of the way of traffic coming in and out of the coop to satisfy the chickens instinct to lay her eggs in a safe, quiet place. It is a good idea to have one nest box for every four chickens.
4. It is also quite a good idea to pile plenty of logs and rocks around the coop itself to make it harder for predators to burrow under and get to the solid floor that you have installed 2 feet down.
5. Consider the climate in which you live carefully and choose a design that can withstand variations in weather. There are many funky designs for

chicken coops but it will add cost and problems to your project if you need to be replacing items in it at a later date. The tractor and house design are great layouts and has been around for many years and stood the test of time. Later in this eBook you can read more about the different shapes, designs and layout of chicken coops that are available.

6. The location of your chicken coop is super important from the perspective of safety for your poultry and your own convenience. If at all possible position the chicken coop near your house so that you can see it from a window. Having your chicken coop within sight will act as a reminder to put them away at night, make it easier for you to collect the eggs and discourage predators as the coop is near a house with activity and lights at night.

7. You need a chicken coop and a chicken run. If you leave chickens in a closed coop, they will not thrive and it also takes away much of the pleasure of keeping these little creatures at home. The run which you provide them does not need to be very large, but enough for them to wonder around, get plenty of exercise and forage. It is generally accepted that the run should have between 8 to 10 square feet per chicken.

8. Use good quality chicken wire on all sides of the coop and run. Normal chicken wire has quite large holes and predators can quite easily get through or put their paws and claws in. You would be well placed to use chicken wire that is 1 inch or narrower. This really does help to keep the predators out.

9. As well as making sure that the chicken run is large enough for the number of chickens you keep, give yourself enough room. You don't need to build a cathedral for your poultry but it can be really annoying if you need to crawl, squat or bend around in the run for maintenance purposes. Having a run that you can walk into will also give you a chance to interact with the chickens.

10. Think about whether a mobile chicken coop and run will work for you. If you live in an area with a lot of predators, mobile chicken coops are not a great idea as whilst they are mobile for you, they are also easier for foxes and the like to get into! Also, the decision on whether you have a mobile chicken coop and run depends on the number of chickens you decide to

keep. If you keep two then a mobile may work (depending on the predator situation). Anything more than that and it can be a waste of time and money for you.

11. The best types of waterers are suspended about 6 to 8 inches off the ground. This prevents the water from being knocked down and being contaminated with faeces or food.

12. Think about having an automatic waterer installed into your chicken coop if you are not going to be at home several times a day to refill the drinkers. If you live in a very hot country where water can easily heat up or evaporate quickly your chickens will do much better for a constant supply of fresh water. Installing an automatic waterer will add cost to your project but one that is well worth considering and paying out for at the start.

13. There should be plenty of feeders for the chickens and again these should be positioned so that they are off the ground so that the food does not get contaminated in any way. Feeders tend to be put 6 to 8 inches off the ground, similar to the waterers

14. Bedding is an important part of making sure that your chickens stay happy and healthy. Inside the coop floor the bedding will provide a soft surface for your chickens to walk on and will absorb their droppings and odour. You should decide on a type of bedding that is easy to source, reasonably priced and does the job of keeping the coop interior as dry as possible. The bedding in the coop should be about 2 inches thick.

15. Put a lock on the chicken coop door. It isn't a bad idea to fortify it even more with a couple of good quality magnets. The decision of whether you make an automatic door is up for debate. It adds extra cost to your project so this is something that you have to consider along with the frequency of nobody being at home to lock the chickens safely inside their coop at night.

16. Inside the chicken coop you should provide enough roosting spots for them to sleep on. Poles are a good idea and they should be about 2 inches wide, with rounded edges. Try and allocate 5 to 10 inches per bird side by side.

17. Under the roosting spots, include a droppings tray to capture and easily dispose of their waste.

18. Dust baths are a great addition to your chicken run. For one thing, your chickens will love them. They dig a shallow hole, loosen up all the dirt and get themselves as dirty as they possibly can! Dust baths are also effective in preventing parasites such as lice and mites from finding a home in your chickens' feathers and legs. A dust bath can easily be dug into the run or you can provide an artificial one with a box on the floor filled with about 6 inches of dusting powder. This is 1 part fireplace ash, 1 part road dust, 1 part sand and 1 part earth.

Remember, the coop will be your chicken's castle; proper housing and amenities are the key to happy and healthy birds that give you many years of wonderful eggs. In summary, the numbers to keep in mind for an average sized bird should be as followed:

- 4 square feet per bird inside the chicken coop
- 8 to 10 square feet per bird in the chicken run
- Waterers and feeders that are at least 6 to 8 inches off the ground
- 1 nesting box for 4 birds
- 5 to 10 inches of roosting space for each bird

Chapter 14: Materials to Use for Your Chicken Coop

There are many different materials that you can use in the construction and fitting out of your chicken coop. In this section, we will help you to consider the following as part of your project:

- What are the different types of materials you can use to build a chicken coop?
- To DIY, use a kit, adapt another type of building or buy off the shelf?
- What type of flooring is best for the chicken coop?
- What type of bedding should you use in your chicken coop?
- The benefits and perils of chicken wire

What Are The Different Types Of Materials You Can Use To Build A Chicken Coop?

There are lots of options for you to consider when deciding the material you use to construct your chicken coop. You can use metal, plastic and of course wood which is by far the most commonly used.

Metal chicken coops are certainly practical and hardwearing but from the perspective of the occupants of the coop, perhaps not so easy to live in. Consider the climate, in very hot countries; a metal chicken coop is not such a great option, particularly if you have no run for your poultry. They will fry in the metal coop and you certainly won't have happy or healthy birds.

If you are able to provide a spacious run for the chickens, which is properly predator proofed, then a metal coop could work. However, you will need to be super diligent in making sure that your birds are let out first thing in the morning so that they don't get too hot. Plus you will need to remember to get the eggs out regularly otherwise they will fry in their shells! The most common form of metal that is used to construct coops, which is a corrugated sheet; alternatively you could buy a metal shed and adapt this for your coop.

Plastic chicken coops are relatively new to the market but are becoming really popular. This is mostly due to the fact that plastic coops are easier to clean and the level of maintenance required is minimal. They can also be bought off the shelf (albeit the number of design options is a little limited as they are so new on the market) and there are claims that plastic chicken coops lower the risk

of parasite infestations. The designs that you can buy currently are more contemporary than wooden coops.

One of the biggest advantages of plastic coops is that they can be cleaned out and dried in less than 30 minutes, a real bonus if you are busy and in bad weather as your chickens won't want to be out in the rain and wind for long. Plastic coops are also great if you don't have a lot of space and you are raising your chickens in an urban environment.

A plastic coop and a run will fit into most urban outdoor spaces without too many problems. One aspect that you need to be careful with if opting for a plastic coop is condensation. Make sure that there is adequate ventilation in the coop otherwise with a non-breathable material such as plastic, moisture can run down the sides and result in damp bedding and a floor which could lead to fungal growth and respiratory disorders in your chickens.

If you do eventually opt for a plastic coop, you can also go green by making sure that the one you purchase is made from recycled materials. This is another small step towards sustainable living.

Wooden chicken coops are by far the most popular and readily available because they have been around for a long time. In terms of cost, an off the shelf wood coop is about the same price as a plastic one. Wood is a naturally breathable product and when well designed and constructed the coop will not suffer from condensation. A wooden chicken coop will last for years and withstand all climatic conditions, as they can be weather proofed very easily. They are versatile and the sky is the limit on designing what your coop will look like. You can be super creative and build/adapt a coop that fits in with the environment and allows you good interaction you're your chickens.

The type of wood you use will affect the cost of your chicken coop, whether purchased off the shelf, made with a DIY kit or constructed from scratch. Wooden coops also allow you to maximise the comfort of your poultry by making sure that their roosting and nesting spots are well positioned.

When building your coop, apply a wood preserver; make sure that you use a product that is not toxic to either the chickens or the environment. If you choose to build your coop with pressure treated wood make sure that it is a non-toxic treatment that they have used. This type of coop will give you the maximum

lifespan and years of service. However, if you use untreated wood, you need to put on a few coats of preservative.

The key thing when choosing your preservative is to make sure that it is not toxic for the chickens and it provides protection from rain, fungal growth and insect attack such as woodworm. People used to use creosote but thankfully now it is not being used due to its toxic nature. Try and pick a product that is water based, it is easier for you to paint/spray and will not harm either your chickens or environment. You will need to apply the preservative to the framework and structure of the chicken coop before the chicken wire is fixed in place. Apply at least three coats of wood preservative initially to get the right coverage and adhesion. Do remember that there is an annual process of maintenance that you need to undertake with wooden coops.

Wood is hugely rewarding to work with and maintain but it can also harbour the dreaded red mite, which is the poultry keeper's nightmare. A wooden coop is more time consuming with regard to these elements but ultimately the decision on whether you go metal, plastic or wooden is largely about your own personal preference. All will be really effective in housing your chickens.

To DIY, Use A Kit, Buy Off the Shelf or Adapt A Building?

The choice you make here is about three things, how proficient you are as a carpenter, the amount of money you want to spend on your coop and finally the amount of time you have to allocate to the project of coop construction.

If you decide to DIY your chicken coop you need to be fairly good at finding your way around carpentry. You will need enough time to dedicate to drawing your coop design on paper, buying/sourcing the right materials and then spending time building it. If you have all these then the option of building your chicken coop from scratch is viable and will give you an added dimension to keeping your own poultry.

However, most people tend to go with the option of building a chicken coop kit that you can purchase on-line or from a variety of stores. These coops are fairly easy to put together as they come with illustrated step-by-step instructions to how the coop should be put together. There are lots of different designs in the

kit market that are reasonably priced and also quite easy to adapt/modify at a later stage if you decide you want to be more creative with the hen house. Remember that the kits do not contain the materials. You need to source and pay for these in addition to the kit design you have bought.

Buying straight off the shelf is probably the more expensive option out of the three here as you literally just have the coop delivered to your home. Similar to the chicken coop kits there are lots of different designs that are available on the market to buy on-line or in stores. The only real limitation here is the budget that you have allocated to your project.

Somewhere in the middle of designing and building your own coop and buying off the shelf is the option of adapting another type of building into your chicken coop. If you are going to use an existing building, then please make sure that it is suitably disinfected and cleaned before adaptation. The types of buildings that are commonly adapted are rabbit hutches, children's playhouses or garden sheds. The exterior frame is there for you and you can get creative in the internal layout and fittings. Taking this option means that your carpentry skills don't need to be excellent but you still manage to get a coop that is a little out of the ordinary.

What Type Of Flooring Is Best For A Chicken Coop?

If at all possible, you need to make sure that the actual floor of the coop structure is well off the ground to make it predator proof. You can have a fairly shallow ladder that leads into the coop from the run area that is slatted. By making it slatted, your chickens will be able to get up it into the coop but not predators. Also, make sure that you bury some chicken wire at least 12 inches below ground to make the coop predator proof as possible.

By not having chicken wire inside the coop you will stop their feet from getting trapped between the wire holes.

What Type Of Bedding Should You Use In Your Chicken Coop?

The importance of bedding in the coop cannot be over emphasised, as it will keep your chickens happy and healthy. If you follow the instructions above for the coop floor then you can cover the inside floor with many different types

of materials that we will discuss later in this eBook. Good bedding will provide your chickens with a soft surface for them to walk upon and will also absorb their droppings and odour. In addition, the bedding needs to be easy to clean and will provide a soft landing for any eggs that fall out of the nesting spots!

The Benefits and Perils of Chicken Wire

You cannot expect to keep chickens without the use of chicken wire; it is a necessary evil. The chicken wire, when positioned correctly, will act as a good deterrent to predators and make sure that your poultry stays safe. The really important thing that you need to do is make sure that you get chicken wire with small holes. Most regular chicken wire has holes that are over 1 inch which is large enough for predators to claw through with their paws. There is also the risk that the chickens get their feet trapped in the holes. Source around for chicken wire with the smallest holes that you can find. The effort will be worthwhile in keeping your chickens safe and healthy.

Chapter 15: A Selection of Plans and Designs for a Chicken Coop

The design of the coop and run for your chickens is an important aspect of your project. Keep in mind that coops and runs need to be made well to withstand the elements, as we have discussed, keep predators out and have sufficient ventilation. It is quite useful to write a list of answers to the following questions and have them as a tick box when looking for the right coop design.

1. Are there any local regulations about keeping and housing chickens? If so, what are they?
2. How many chickens are you going to keep ?
3. Whether you are going to have them as pets, to supply you with eggs or are you going to breed them
4. The budget for your project and what percentage you want to spend on the coop and run
5. The space you have available on your land for the coop and run
6. Whether you want to have a static or mobile coop and run
7. The hardest weather conditions that your chickens will need to contend with during a year
8. The types of predators that you have in your area

Next you need to decide which one of the four general styles you prefer. They are:

- A-frame – these tend to be the smallest types of coops and use the minimum amount of materials. They are space saving and mostly for new chicken keepers who want to have a few birds. The shelter is attached to a protected run in a long, triangular structure
- Tractor – called as such because it can be moved to different locations. Tractors have open floors at the bottom so that the chickens can “work” the ground that the tractor framed coop and run is positioned. Tractor structures can be moved fairly easily as they are often on wheels or have skids for easy sliding
- All in one – features include a small shelter for a medium sized flock and they have a run under a single roof. There is a door large enough for you to enter but remains small enough for easy relocation
- Walk in – tend to be prefabricated sheds or playhouses. A walk in coop and run is large enough to allow you to walk into for maintenance. Many of these types of coops have adjacent runs

The next stage is for you to decide whether you are going to build your own chicken coop from scratch, buy a DIY kit, or adapt another type of building or purchase one that has already been built and place in your property. Unless your chickens are going to be totally free-range, you need to include a run as part of your plans. As a general rule of thumb, allocate 8 to 10 square feet per chicken in the run. This gives them enough space to stretch their wings and flap about, take refuge from severe weather without having to go back into their coop. A practical idea with runs is to have a coop that is raised with the area under the coop forming an integral part of the run. Off course predator proofing the run to a high standard like the coop is essential.

Some of the most popular chicken coop designs are illustrated below with an image and key layout aspects.

Starter Coop



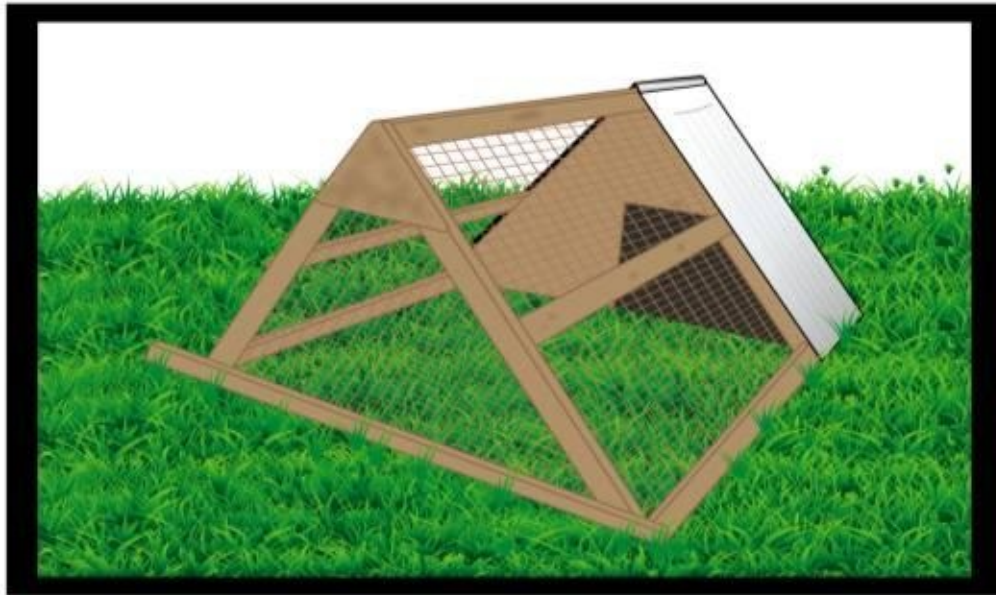
- *All in one style*
- *Self-contained coop and run*
- *Dimensions of 86" x 30" x 41" will house 4 chickens*
- *Has a waterproof composite roof*
- *A nest box lid that lifts (it also has a waterproof composite roof)*
- *Dual roost box inside the living area*
- *Access door on the front for cleaning*
- *Fine coated chicken wire to keep predators out*
- *Open bottom allowing for natural grazing and scratch*
- *Slotted wood floor for your chickens comfort*
- *8 inch wide ramp with runners*
- *Security door to help clean and move the coop*

Chicken Tractor Coop



- *Tractor style as indicated by the name*
- *A self-contained coop and run*
- *Dimensions of 73" x 46" x 54.5" will house a maximum of 6 chickens*
- *It has a waterproof roof*
- *Nest box lid on the outside for easy removal of the eggs*
- *Four sturdy handles to allow two people to move it fairly easily*
- *Dual roost box inside the living area*
- *Access door on the backside of the coop for easy cleaning*
- *Fine coated chicken wire to be predator safe*
- *Open bottom to allow for natural grazing and scratch*
- *Slotted wood floor for your birds comfort*
- *8 inch wide ramp with runners*
- *Security door to help clean and move the coop*

Mobile Tractor Chicken Coop



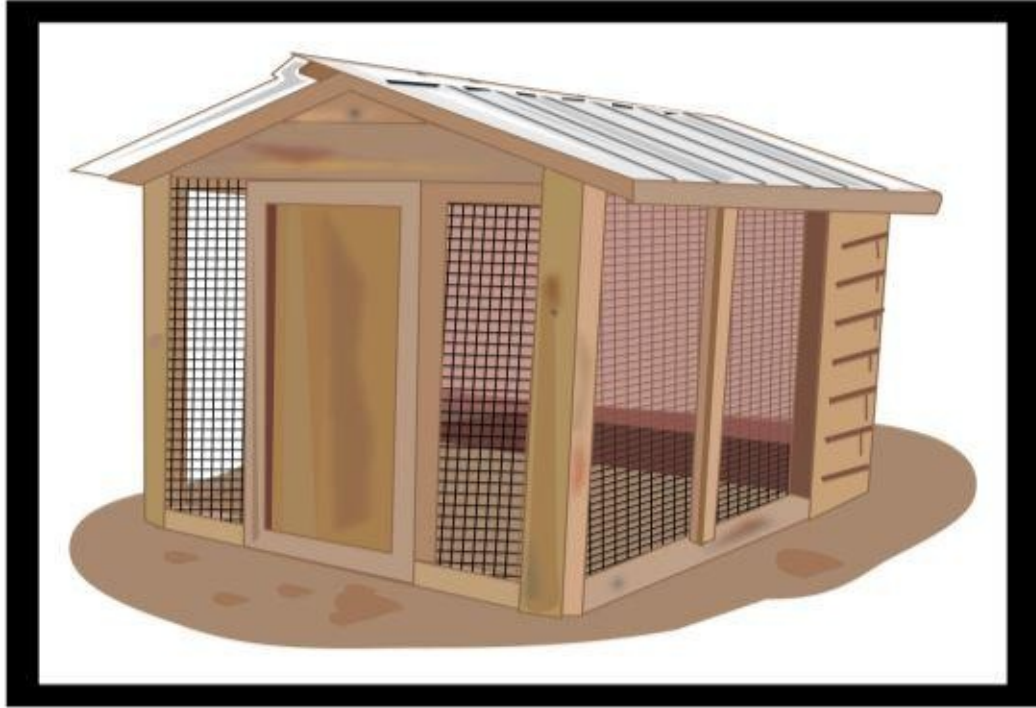
- *Tractor style as indicated by the name*
- *Dimensions of 5.5 foot x 4.2 foot x 3.8 foot will house a maximum of 4 chickens*
- *Swing door for easy access*
- *Handles to move the coop and run*
- *Self-contained nesting box*
- *Run has fine chicken wire to keep predators out*

“Green” Garden Coop



- *A-frame style*
- *A 10 foot long x 3 foot wide and 4 foot height coop would accommodate 4 chickens*
- *Has the unique feature of a “green” roof which you can plant with herbs or other garden produce/plants*
- *Sliding door on the inside of the coop and through a hinged door on the outside for access*
- *Top of the coop lifts off for easy cleaning*
- *Top of the coop can be propped for easy collection of eggs*
- *Fits in easily into small urban settings*

8 Foot X 8-Foot Coop and Run



- *All in one style*
- *Self-contained coop and run*
- *Houses a maximum of 10 chickens*
- *Designed for allow for maximum ventilation*
- *External egg collection*
- *Pitched roof*
- *Full height door to allow you to access the coop and run*

4 Foot X 8-Foot Coop and Run



- *The small version of the 8-foot x 8 foot coop and run, above. This one houses a maximum of 5 chickens*

Free-Range Coop



- *All in one style*
- *Self-contained coop and run*
- *Dimensions of 36" x 30" x 41" will house 4 chickens*
- *Has a waterproof composite roof*
- *A nest box lid that lifts (it also has a waterproof composite roof)*
- *Dual roost box inside the living area*
- *Access door on the front for cleaning*
- *Fine coated chicken wire to keep predators out*
- *Open bottom allowing for natural grazing and scratch*
- *Slotted wood floor for your chickens comfort*
- *8 inch wide ramp with runners*
- *Security door to help clean and move the coop*

Chicken Ark



- *A frame style*
- *Self-contained coop and run*
- *Design first originated in Europe*
- *Rustic appearance*
- *Lid lifts for easy cleaning and egg collection*
- *Has sturdy handles for moving*

Chicken Hous)



- *Walk in style*
- *Self-contained coop and run*
- *Comes in a variety of sizes and can be built to house the number of birds that you choose to keep (using the formula already outlined)*
- *Removable nest boxes for cleaning*
- *Egg collection from the outside*
- *Door that is large enough for you to walk through for cleaning*
- *Is raised off the ground for safety from predators*
- *Excellent ventilation*
- *2 sliding windows for light to encourage egg laying*
- *Predator proof screens*
- *Can be placed against existing walls/fences if desired*

Once you have decided on which coop suits your needs, you need to decide whether you are going to build it yourself, buy the DIY kit, buy the coop off the shelf or adapt another building.

Designing and Building the Coop Yourself

Whatever design you choose, this will take time planning and sourcing the materials plus carpentry skills. There is also your time in the process. However, it will be very rewarding to know that the construction is yours and you know all the details relating to the coop and run. Later in this eBook, the basic carpentry skills you will need to design and build your own coop will be outlined.

Purchasing the DIY Kit with Plans

This is a very popular option that many chicken keepers are choosing. On-line is a popular and easy way of sourcing DIY kits with plans. The way it works is that you choose the type of design that you would like to have for your chickens from the vast array available through on-line stores. You buy the design with detailed instructions on the materials that you will need their size and the process of building the coop. The kits will even tell you the tools you will need to complete the job with full step-by-step illustrations. When purchasing a DIY kit with plans bear in mind that you have the cost of the materials and there will be a shopping list for you to help in purchasing exactly what you need. A fairly good rule of thumb for the cost of a project is “a third, a third and a third” (the cost of the DIY kit will be a third, the materials will cost a third and your time will cost a third).

Buying Off the Shelf

If you don't have much time, you have a reasonable budget and/or your carpentry/DIY skills are limited then buying an off the shelf chicken coop and run is an option. There are many pet stores that sell them, on-line is another popular option and if you really have the budget, you could commission one to be built for you.

When buying off the shelf, the layout inside the coop is predestined for you so your choices are limited. However, you can always add onto your bought coop and run at a later date. Another very popular option is to buy a shed or a playhouse and adapt this inside for your coop and run. This way, the difficult aspect of carpentry is taken off and you can buy the kit and accessories to deck the inside of the coop and run. If you decide to recycle an existing shed or playhouse, then do make sure that that nothing toxic was used to paint them. Sanitise it well before converting the inside as a chicken coop.

Chapter 16: Basic Skills, Materials and Tools You Need To Design and Build Your Own Coop

Pre-made chicken coops can cost hundreds of dollars or more depending on the type you choose. You can easily save up on that money and build your own backyard chicken coop instead.

Keeping chickens is about trying to be a little self-sufficient and in some ways building your own chicken coop is in the spirit of this intension. You do need to have some basic carpentry skills before you go ahead and embark on the project of building your own coop, but they only need to be basic. In this chapter we will look at the basic skills you will need, the typical building materials that you need to work with and the tools that you will need to have to complete the project successfully.

First and foremost, you need to think of the following:

1. Decide on the basic frame of your coop and run
2. The number of chickens you will keep
3. Draw a basic plan of the exterior of the coop and run

It is also useful to write down the key space allocations you need to provide for your chickens. As a quick reminder they are as followed:

1. 4 square feet per bird inside the chicken coop
2. 8 to 10 square feet per bird in the chicken run
3. Waterers and feeders that are at least 6 to 8 inches off the ground
4. 1 nesting box for 4 birds
5. 5 to 10 inches of roosting space for each bird

Basic Carpentry Skills Required

You need to feel comfortable performing the following carpentry activities before you embark on your project. Remember that reading a manual or book is not enough; you need to have practically performed these activities.

Activity	Description
Measuring and marking materials	You need to be able to read a tape measure correctly and accurately. Pay particular attention to how you mark a piece of wood in preparation for cutting as even a slightly inaccurate or careless mark will make a massive difference to the project
Levelling	Know when to use a spirit level and the correct type of leveller to use for different activities. Know what the terms level, plumb and square mean so that you can check your progress and accuracy as you go through the build
Cutting wood	Know the right type of saw to use to cut different types of wood, particularly the wood that you have selected for your coop. Safety and accuracy of woodcutting are equally essential in making your coop. Most coop designs will require straight 90-degree cuts but also long rip cuts and complex angled cuts to join wood together

Activity	Description
Hammering	The correct hammer to use to pound in different types of nails. If you have the right hammer and technique, nail pounding is not difficult. You also need to know how to remove nails with a claw end hammer and to nail toe-nail boards together at tricky angles
Driving in screws	The different screw heads to use with different types of wood. The drill features and torque settings and how to use them to achieve the best results with the wood that you have selected

Materials You Need For Your Coop and Run

The type of building materials that you will be using in building your coop depends on budget, preference and availability. Contained here is a selection of the most popular building material associated with coop construction.

Building Material	Description
Framing wood	The external structure of your coop will probably be made up of 2x4s or 2x3s. For a bigger walk in coop external structure's floor joists and/or roof rafters, you will probably use 2x6s or 2x8s. For the support posts you will need to upgrade to 4x4s
Plywood	This will be for the floors, cladding the walls and sheathing the roof. In most instances, oriented strand board) OSB) or T1-11 panelling is a good alternative if plywood is hard to find or expensive
Roof	You can use asphalt roofing shingles or put a composite roof to your coop to weather proof it well. Alternatively, you could use corrugated roofing panels of metal or fibreglass
Chicken wire (also known as hex netting or wire mesh)	You will need plenty of this for the coop, run and below ground to make it predator proof
Nails and screws	You need both of these at various stages in your coop and run

Building Material	Description
	construction. Make sure that you use the correct fasteners that suit the material that you have chosen and the weather conditions. If you opt for shingled roofs then you will need special roof nails
Fencing staples	These are special U-shaped nails to fasten wire mesh in place and you will need plenty of these as part of the project
Wood preservative which is non toxic	To coat the wood to make it weather proof

The Tools You Need To Build Your Coop and Run

You need to feel confident using these tools before embarking on your project, as they are all essential to build your coop and run.

Name of Tool	Tool function
Personal safety clothing and gear	Use this at all costs to avoid injury and to make it easier to work. Things such as gloves, protective goggles, hearing protection and knee pads will help to keep you safe and working without putting unnecessary strain on your body
Tape measure	Have a tape measure that is solid and at least 10 feet long. It also needs to show incremental measurements at least every eighth of an inch. Make sure that the tape measure uses the same type of standards as any drawings that you have produced
Level	It is best to have more than one and of different sizes. A pocket sized torpedo level, a medium 2 foot level and a long 4 foot carpenters level
Set square	This tool will help you to mark straight lines, lay out and check angles and use as a cutting edge
Circular saw	You cannot build your coop without this power tool, as it is essential to cut the angles on the wood. You could also choose to have another

Name of Tool	Tool function
	type of saw as part of your build collection. These are mitre saw, table saw, jig saw and hand saw which will help with some aspects of the build
Hammer	Choose a hammer that is the right weight for you and you can swing comfortably
Pneumatic nail gun	You will have a large number of nails to hammer in and a pneumatic nailer will make things easier for you
Cordless drill	The drill is mostly to use as a power screw gun as you will have a lot of screws to put into the wood. Using a manual screw driver will take you a lot of time and elbow effort
Tin snips (also known as wire cutters)	Is a clipper and enables you to snip the chicken wire that you use to the right size
Paint brush/roller	To apply the weather proofing to the wood
Staple gun	To fix the roofing, depending on the type you opt for on your coop

The final thing you need is space somewhere outside to work and layout your construction. It is a good idea to have a covered space too so that you can keep things dry until you weather proof your coop

Chapter 17: *How to Source Cheap Building Materials*

If you are looking for cheap building materials for your coop, you may try to get bargain deals from local shops that resell leftovers, recycled, and broken materials. If you shop around and ask family and friends, you may even get to buy cheap leftovers of construction materials which can be easily used to build your coop for a fraction of the cost that new material would take.

You may even check sites where people place ads for the sale of used goods, some of which you can buy at cheap rates for your chicken coop.

So use these tips to build your chicken coop in a hassle-free manner.

What Are the Safe Materials You Could Use When Building a Chicken Coop?

When building a chicken coop, you should remember to use materials that last long and can keep your chickens safe. If you are wondering what factors you should remember while selecting safe materials for your coop, this checklist can help:

- Choose the right wood

Though wood is the most common material for chicken coops, it will eventually rot. You may opt for a composite material as an alternative. However, in case you wish to stick to wood, it would be feasible to opt for redwood, cedar, or tropical hardwoods, which are naturally rot-resistant. Some people also choose to use softwoods (like hemlock, Douglas-fir, pine etc.) and put a sealer on it. However, it's advisable to stay away from wood infused with pesticides as traces of harmful chemicals may eventually become part of your animal feed and get into your chickens.

- Use strong fence and wire materials to ward off predators

Depending on what type of predators roam in the locality or your neighbourhood, you should choose your wire materials and design your fence. If the predators like to dig, it's advisable to build your coop at the ground level. In

case you anticipate attacks from larger animals, use fence materials that can withstand the predator's force.

Some common chicken fencing and wire materials include:

1. Galvanized hardware cloth: Considered to be the best material for enclosing your coop, it will stay firm once it has been bent into shape.
2. Chain link: Though it's strong and easily available, and can keep the dogs out, the arms and hands of a raccoon can reach through to your chickens. So, keeping adequate space for your chickens to retreat should they be threatened is advisable.
3. Rabbit wire fencing: This type of fencing has 4 or 3 inch rectangular or square openings. When attached to the floor, such fencing offers added security. Though they keep away predators trying to enter the coop from below, they let the chickens scratch and graze at the ground more naturally.
4. Electric net fencing: This is ideal for people who have lots of free space, where they can put up an electric net fencing to create a wide perimeter and hook it to a portable power source. Any predator that touches it would get a shock.

- Quality netting/mesh wire

To keep your chickens safe from hawks and other greedy birds, make sure to cover runs with netting or mesh wires.

Apart from these, you should also install adequate lighting arrangements, food and water containers, and check for tears and holes in the coop wires and screens so that you could get them repaired as soon as you spot one.

Chapter 18:How Much You Should Spend on Materials for Your Chicken Coop?

If you are wondering how much it will cost to build your own chicken coop, you can take your search online to find a wide variety of chicken coop plans from which you may take your pick. While some of these plans are free, others may be paid-for. Such online research would give you an idea of project cost variations depending on your requirements, as well as the choice of materials and plans.

How Much You Should Spend on Materials?

Before you start building a chicken coop, you need to assess the number of chickens it will house. If you have 6 chickens, you should aim for about 10" of perch room and around 5 sq. ft. of space for each chicken. You should also make provisions to have a door that allows easy access to the coop, apart from having a small storage area, adequate natural light, and excellent ventilation. By shelling approximately \$300, you can easily build a top-notch, solidly constructed coop. if you are working on a stringent budget, it's advisable to stick to a simple coop structure, and steer clear of expensive items like automatic food dispensers or automatic watering systems. Once you get accustomed to running your coop for some time, you can easily bring improvements if the need is there.

For building the coop, you will need chicken wires and 2 x 4 as your core materials. Depending on your budget, you may either erect a concrete foundation, or simply put up concrete blocks and a wooden floor of good quality.

The money that you should spend on your chicken coop materials depend on your requirements and the availability of funds. So, make sure to do your homework well to find out well matched plans and invest the required time and effort to build your chicken coop. Remember-if the right amount of time, effort and planning is invested in the job, you will get a chicken coop that gives back

rich dividends in the long run.

How to Save on Your Chicken Coop

The three best ways to save money on building a chicken coop are:

- **Do It Yourself:** If you can find suitable plans online, and are reasonably handy with tools, you may save a lot on a DIY project.
- **Buy your own materials:** By spending about \$300-\$400, you can get ready-made chicken coop kits. You may even shop around a bit to get good discounts/deals/offers to bring down the cost further.
- **Buy a quality set of plans:** Though you can get free plans on the internet, it's best to spend a little and buy a plan that fits your requirements rather than have a free plan that's hard to understand and implement.

So, use these steps to save money while building your chicken coop.

Chapter 19: *List of the Most Durable Materials for Your Chicken Coop*

When building a chicken coop, you should use materials that are sturdy and last long. However, with a lot of materials available in the market these days, each claiming to be the best for building chicken coops, the ideal choice becomes difficult. So, here are a few things to help you choose wisely:

- Finding the right materials

You may be looking to find pieces of cheap scrap woods for your coop, but chances of getting fitting pieces is bleak. Even if you get such pieces, you may have to pull some nails to make them fit in your building plan. So, deciding if you should stick to your small budget and source cheap materials, or investing more to make no compromise with the design plan is important. Whatever you decide, make sure you select a plan that fits your needs and budget.

- Search well to get money saving deals

You can find many great deals online to buy potential building materials and save money on building your coop. However, it's always better to put up a sturdy coop, even if you have to opt for a smaller sized housing rather than opt for a larger building that uses poor quality materials.

- Leaving enough space for your chickens

Just like too big a space will cost you more; going for a cramped space will be equally disastrous as the latter will make your hens fight over brooding room. So, while building your coop, remember to keep at least 3-4 square feet of space inside the coop per chicken.

- Considering climate of your region

To make your coop durable, you need to take the climatic conditions into consideration. Areas that have a cool climate or receive more than adequate rainfall will need more insulation than regions with a warmer climate. Similarly, proper ventilation is necessary in case your coop is housed in a region that has a

hot climate.

- Choosing the right foundation

Make sure to erect a strong foundation for your coop to make it durable. Rather than saving a few dollars and opting for a cheap foundation that falls apart after a few months, investing in the right materials is a wiser decision. In this way, you will get a coop that can endure the climate, and offer a space for healthier and happier chickens.

Where to Get the Materials from?

Depending on how much you are ready to spend on your chicken coop, you can get the materials from online sites where such ads are posted. Builders or warehouses selling used/scrap materials at bargain prices can also get you good deals, provided you get materials that are in usable condition and fit your construction plans.

Chapter 20: *The Materials You Need To Make a Nest Box*

Materials required

Materials List:

- A sheet of oriented strand board or exterior plywood measuring 42 x 82. In case you are going for a smaller coop, you may even use anything measuring about 1/23 or wider for the thinner end.
- A 1 x 2" lumber; buy approximately 6 feet of it.
- Different sized exterior screws measuring 13, 2.53, 1.253, and 33.
- A few hinges.
- 1 or 2 latches.
- Exterior paint and primer (you may also use wood sealer and stain).
- Your chosen roofing material and roofing felt. Alternately, you may simply paint the roof really well.
- Caulk (optional).
- Other recycled materials like hardware, doors, roofing, *etc.* that you may want to fit in.

List of Tools:

- Circular saw
- 2 table saws or sawhorses
- Power driver along with driver bits and assorted drill

- Tape measurer
- Two clamps having a minimum capacity of 23
- Speed square
- Handsaw (this would help to deal with finishing cuts)
- Paintbrush
- Pencil

Once you have all these materials and tools at hand, you are ready to start building your nest box. Keep these points in mind to do the job well:

- Know your skill sets

Assess if you have the required skill level to do the job. Except for a few challenging angled cuts, it shouldn't be a hard task to complete. However, if you aren't confident, it's best to seek help.

- Assess the time required

If you are building the nest box along with a coop at the same time, the total time taken to finish the jobs would be more than if it were a single project of building only the nest boxes. So, plan for additional time that such construction and painting jobs may take.

- Measurements

Don't stick to the plan measurements rigidly as you may need to make some minute adjustments to make the boxes fit your needs.

- Be safe

Handle the materials, tools, and equipment with care and read the manufacturer's instructions/ disclaimers. Also, remember to protect your eyes, limbs and ears while building the boxes.

Chapter 21: *The Materials You Need To Insulate the Chicken Coops*

If you have a chicken coop, you already know that your hens are your responsibility. So, it becomes your duty to provide them with fresh food and water and adequate housing. This is why you should insulate your coop, especially if you live in a cold region. By making your chickens stay a bit warmer over the winter months, the insulation would make them healthier and happier. This in turn would mean that they lay more eggs, and thus let you earn more profits.

Since chickens are prone to pecking and eating just about anything, you need to stop their access to things that they should not eat. Sealing the walls well while insulating your coop will help you achieve this purpose. However, keep your insulation covered or out of your chickens' reach. Otherwise, they may damage it by pecking.

- Plugging holes and gaps

If you wish to get started with insulation process for your chicken coops, you should make sure that there are no holes through which rain or wind could come through and make your hens wet or cold. You should also check the roof for holes or gaps as their presence would cause water to get in, thus making your insulation layer become soggy and heavy. This may ultimately cause the insulation layer to break. So, plug all holes and gaps by sealing them with a flash tape.

- Insulation

You will need:

- a) Roll of gaffer tape
- b) Large sheet of Styrofoam

You can buy a roll of gaffer tape from your local store. Hardware shops that stock large sheets of Styrofoam can let you have the material. You may even

search online stores for the Styrofoam sheet. Before installing the sheet of Styrofoam in place, assess the size that you need and cut it down to fit the measurements. Next, use the gaffer tape to fix it in place.

So, if you haven't yet insulated your chicken coop, get started now with these easy steps acting as your guide.

Chapter 22: The Roofing Materials for Your Chicken Coop

If you are planning on building a chicken coop, you should think well about the type of roofing material before buying them. Apart from serving one of the most significant functions, the roof of your coop is also one of the largest in size, which makes it the most visible constituent of the completed construction.

While selecting roofing materials, you should keep the following factors in mind:

- Ease of use
- Reasonable cost
- Ease of availability
- How easily they can be handled
- Whether they can be used with the type and size of tools that you have

When it comes to choosing chicken coop roofing options, you can take your pick from:

- Mineral felt

Being user-friendly, comparatively cheap, and readily available, this is the most commonly used material for a chicken coop's roof. It is made up of a bitumen based sheet, which has a coating of small pieces of grit with a mineral finish (green in color). You can use a utility knife to cut mineral felt easily, and glue or nail it to the roof with bitumen paint. Though it is quite durable and can last for up to ten years, it may get damaged easily if any of the other roofing components make some movement.

- Torch on felt

Quite similar to the mineral felt, this too has a bituminous material, but

comes without the mineral finish. The difference with mineral felt and torch on felt lies in the application. To use the latter, you should put up a coating of bitumen primer to the surface of the roof. When this layer becomes touch dry, a blow torch is used to heat the torch on felt from underneath, which is then cautiously rolled onto the surface of the roof while it is hot. Once cooled, the felt gets attached to the complete roof surface to give a long-lasting, waterproof finish.

- Corrugated metal sheeting

If you need to set up the coop's roof in a hurry, you can opt for a corrugated metal sheet, which can withstand all weather conditions and last a lifetime. Such a sheet is usually galvanized to avoid rusting. Though such roofs don't have an extremely attractive appearance, you can paint them to make them blend in with the surroundings.

- Cedar shingles

Such materials are most commonly used for North America's coop roofing purposes. Made of wood, they can easily blend into your surroundings. What's more, they can be cut and used easily, are not very costly, and are easily available. However, since they are not waterproof, a coating of tar paper is usually applied to the coop's roof structure before the shingles are used.

Chapter 23: How to Find Cheap Power Tools

A common problem when arranging for these tools is the expense associated with them. If you would like to get these tools at a cheaper rate, here are some tips for you to consider:

1. Drive down to nearby rural areas or farms. A little research and knowing where to look around can get you a lot of materials that you can use for chicken coop construction. You can look for old weathered wood, wire mesh, and tools such as a saw and hammer.

2. You can also visit a carpenter's workshop or a local metal welding shop to collect some material. These shops often have leftover metal pieces, cardboards, plastic panels, *etc.* that are of no use to them. Most carpenters will give you such materials for free, or you can buy these at a minimal cost.

3. Search the internet for "second hand power tools" or discounted equipment. This is a good way to arrange for all basic power tools at a cheaper cost. You can also look for wholesale outlets or resale shops that sell toolkits and carpentry equipment at reasonable rates, that is, much lower than the market price.

4. Many people keep common power tools such as circular saws, hammers, electric drills, *etc.* for regular repair jobs. Ask your friends/family members if they have any of these equipment. You can borrow it from them.

5. Pawn shops are also an excellent source for finding inexpensive tools. The tools at a pawn shop are often in good shape and tested for functionality. If you can haggle well with the shop owners, you can easily get the tools at significantly cheaper rates, often up to 60% less than the initial price.

Finally, choose a simple design that does not involve complicated carpentry skills. You will also be able to build a smaller chicken coop quickly and in a hassle-free manner.

Chapter 24: The Best Brands of Chicken Coop Building Tools

Power tools can make your chicken coop construction a quick, simple and enjoyable process. The problem, however, lies in finding the right power tools that offer the best results and are safe to operate. Here is a list of the top five power tool manufacturers that you can trust when buying power tools for building a chicken coop:

- Makita

Makita is a global manufacturer of industrial quality tools and offers a wide selection of equipment and tool accessories. Established in 1915, the company is known for its advanced motor design technologies. They manufacture tools that are ideal for simple constructions tasks. The circular saw, drills and belt sanders manufactured by Makita are compact, lightweight and have strong motors that allow for efficient cutting, drilling and simple woodworking tasks.

An interesting feature of Makita tools is that they have LED lights. So if you are working in a relatively dark room, these lights will illuminate your work area, thereby ensuring better accuracy and safety.

- DeWalt

Established in 1924, DeWalt is a worldwide manufacturer of power tools and machines. Most tools for building a chicken coop are produced by DeWalt. They are especially known for their hammer drills, grinders and sanders, screwdrivers and plate joiners. The tools are available in varying shapes, sizes, weights, switches and torques. You can make your selection based on the overall ease of use and comfort.

- Hitachi

Hitachi is not only the oldest but the biggest manufacturer of power tools and accessories today. They have a customized range of products geared towards household repairs and DIY carpentry jobs involving cutting, drilling, grinding/shaping and polishing. If you plan on buying cordless equipment such as a cordless drill, hammer or a cordless screwdriver, Hitachi is a good brand to

consider. The tools are lightweight and powered by lithium ion batteries that last longer.

- Craftsman

For general household needs and simple constructions, Craftsman is a good brand. They offer power tools in all categories. Craftsman tools are known for their durability and innovative techniques. For simple woodworking and DIY constructions, Craftsman tools can offer great results. Their tools are also known to offer higher rust resistance and better durability than other brands. You can buy belt sander, polishing tools and drilling equipment from this brand.

- Dremel

If you are looking for speed and accuracy for your power tools, Dremel is the right choice. Known for their molding and metalworking equipment, this is a trusted brand for both industrial and home-based constructions activities. Dremel's power tools have a rotating motion with high RPM and low torque which makes them ideal for cutting and drilling activities. The rotary tools and drills are specially designed to handle construction activities that demand precision and control.

In addition to these brands, there are many other good brands in the market such as Ryobi, Milwaukee, Black and Decker, and Porter Cable. When buying tools for building a chicken coop, look for the following things:

- Quality and precision
- Guarantee of at least one year
- Affordability

Once you find the right power tools, you can start building your very own chicken coop.

Chapter 25: *Smart Tips to Prevent You from Buying the Wrong Chicken Coop Tools*

When it comes to choosing the right power tools manufacturer, the decision can be tough and complicated. With each company offering a range of power tools and devices with special features, how do you decide which one is best suited for your needs?

Common attributes to look for when buying power tools is to choose the ones that are lightweight, durable, affordable, and come with a guarantee. Here are a few tips on how you can avoid buying the wrong chicken coop tools:

Tip # 1

Stay away from a non-credible or shady equipment shops. The promises of the cheapest tools or the best bargains can appear tempting, but it is best to look for affordable brands and not the cheapest ones. Some shops sell power tools with imitation brand names – for instance, you may buy a circular saw that has the DeWalt symbol or logo on it, but the motor, handle, cutting metal, and so forth would be imitation or low-quality parts. Not only would such machines make your chicken coop construction difficult, but they may also pose safety threats. The only way to avoid such parts is by sticking to trusted hardware shops that sell genuine items.

Tip #2

Another common mistake most people make while buying power tools is to get carried away by the number of features. A sand grinder, a saw or any other tool required for building a chicken coop must essentially offer speed, accuracy and durability. All additional frills such as extra attachments, changeable handles, lights, *etc.* do not really make a tool better than the ones with fewer add-ons. Opt for quality and not quantity when buying a power tool.

Tip #3

The most expensive equipment may not necessarily be the best. Do your research regarding the best brands for power tools. You can also read online

reviews and recommendations for the most long-lasting and efficient tools (beware of paid review sites though!). Large companies that manufacture power tools in bulk are often able to sell their products at lower rates. However, their products are well-tested and designed for accuracy and durability.

Tip #4

Avoid the ‘one-size fits all’ approach. A company might manufacture all types of power tools, but their specialization is usually limited to one or two types. For example, Milwaukee is known for its electric power tools, but it might not be the best choice for belt sanders or hammers. Power tools can be divided into three categories – Stationary, Portable and Table Top. For best results, find out about the most popular manufacturer for each category. Do not buy all tools from the same brand.

Tip #5

Avoid buying tools in a jiffy. Do your research well and know which tool is most suitable for your needs. Do you need a corded or a cordless version? Where do you plan to use it? Try testing different varieties of the power tool to check for movement and ease of use. Do not buy power tools that are too heavy or meant for commercial purposes. For most DIY needs, lightweight cordless machines are a better option.

Following these tips can help you select the right power tools for building a chicken coop.

Chapter 26: How to Properly Preserve & Store Your Chicken Coop Tools So They Won't Rust Right Away

When building a chicken coop, you not only need to buy the right tools, but need to maintain them as well. Since most tools are made of metal, the possibility of rust and subsequent damage cannot be ignored. Therefore, it is important to appropriately store and preserve your power tools.

- Store power tools in a sand/oil mixture. Once prepared, this mixture can be used for many years and does not need to be replaced frequently. To prepare your own oil and sand mixture, take a 5-gallon bucket and fill it with sand. Now pour half-a-gallon of mineral or motor oil in it. Your mixture is ready and can be used to store tools such as circular saw, sanders, pitchforks, hoes, *etc.*
- Keep all tools away from moisture and oil them regularly. First clean the surface with a dry cloth. Now dip a towel or coarse rag in oil and rub it vigorously on the metal parts. Mineral oil is usually a good choice for oiling metal and iron surfaces.
- You can also spray the rust-free solution on top of the tools from time to time. If any of the tools have accumulated rust, clean them with a cloth and then scrub with a wire brush or sand paper till the rust is completely scraped off. Now oil the tools properly and store them.
- A good way to preserve your chicken coop building tools is to store them in a clean, dry plastic container. Lightweight tools can be hung on hooks or a rack. Most local hardware shops sell strong adhesives that can be used to hold tools together. By hanging the tools or using bonding agents, you will be able to keep your power tools off the ground, away from moisture and dust.

- Another good way to safeguard the tools against moisture is to cover them with a protective coating. There are some good rust-preventative solutions available that can be sprayed all over the tools. These form a protective covering and keep the equipment protected against moisture and dust. Periodic use of such sprays can offer long-lasting protection and keep your power tools in good condition.

- Gloves are an important part of your personal safety gear and must be stored properly. Keep them in closed containers, away from the reach of bugs and mites. Another good solution is to store your gloves in air-tight space bags that offer effectively protection against moisture, dust and other damage.

- Battery-powered power tools need special attention. Check the batteries periodically for leaks, rust or other changes. You can find details on battery maintenance in the manufacturer's booklet that comes with the power tool. Even the cords and plugs should be checked for any damage before using them.

Proper storage and maintenance of power tools can increase the longevity of the machine, allowing you to use them for a long time. It is important to store tools in a clean and dry place, away from moisture, dust and insects. Also, regular application of oil or rust-free sprays can provide added protection against rust, keeping your tools shiny and sharp.

Inspect your tools periodically and follow the above mentioned steps to keep your chicken-building tools in good condition.

Chapter 27: Why You Need Power Tools and How to Use Power Tools in Your Chicken Coop Building?

Building your own chicken coop can become a little more tricky and complicated if you do not use the right power tools and follow proper directions. From a belt sander, circular saw, drills and hammers, there are many tools you need to build a chicken coop.

The Need for Power Tools

Power tools can be of three kinds – stationary, portable and table top. Each of these has its own unique specialty and purpose that can make construction of a chicken coop simpler and quicker. Here is a look at some of the main reasons why you need power tools:

- Speed

While building a chicken coop, you will be required to perform cutting, drilling, grinding and other such tasks. Power tools can make this simpler for you. The electricity-powered or battery-enabled tools work far more powerfully than manual tools that were used traditionally. When used correctly, you can finish long-complicated processes of cutting, sanding, and so on within minutes.

- Accuracy

No matter how experienced you are a slight deviation in measurement while cutting boards or drilling holes can spoil your chicken coop design completely. With high-quality power tools this risk is completely eliminated. Companies such as Bosch and Craftsman use advanced technologies to design tools that can work with complete precision and accuracy.

- Less labor-intensive

With manual tools, you will not only need more time, but also a lot of energy. Simple cutting of a wooden board using a regular saw requires good muscle power and strength, in addition to the long hours. A circular saw would

complete this job within minutes, requiring minimal physical effort.

- Safety

While power tools do come with some safety concerns, they are fewer than those associated with manual tools. With proper safety gear and precautions, the chances of any injury or damage are minimal in the case of power tools. In fact, good manufacturers design their tools in a way that offer maximum safety.

Chapter 28: Using Power Tools While Building a Chicken Coop

The chicken coop building process can be a simple or complicated one, depending on how you plan it. Before using the power tools, decide which types you would need, the total cost involved, and safety measures. Here are some tips on how you should go about using the power tools while building a chicken coop:

- Most accidents that occur during carpentry jobs can be attributed to the incorrect or inefficient use of power tools. Ensure that you wear proper safety gear such as gloves, goggles, *etc.* while using any of the machines or tools.
- Pick the right tool for your needs. Some people try to adjust with the existing tools in order to save money, but this can be very dangerous. There are specialized machines for grinding, polishing, cutting and other such tasks, and one must stick to using the right ones for each job. Also, avoid buying low-cost, malfunctioning, or second hand tools as they can spoil the construction of your chicken coop and also pose major risks.
- Follow the instructions provided by the manufacturer for each tool. Read through the user manual thoroughly and follow each step as is. If you are not sure about how to use a particular tool, seek the help of a trained or experienced person.

Plan things beforehand, because once your chicken coop design is ready, it will be easier for you to decide when and how to use the right tools. Ensure there is proper space and ventilation in the construction area so you can use the power tools with precision and safety. It is also important to ensure that the tools are stored in a dry and clean place to avoid damage.

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