



POULTRY



BY STAFF OF ACS DISTANCE EDUCATION

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CREDITS

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CHAPTER 1 SCOPE AND NATURE OF DOMESTICATED POULTRY

The term *poultry* can be applied to domesticated birds which are raised, farmed and slaughtered for use and consumption by humans. Common poultry include chickens, turkeys, ducks and geese and quail. Less common poultry species include guinea fowl and peafowl, pheasants, pigeons, emus and ostriches.

This book is intended for those interested in understanding the origins of the most common poultry species, the health and care of poultry, poultry production on small and large scales

and general industry standards for breeding, raising and looking after poultry. This book is founded on research from history, agriculture, science and business.



Free Range Chickens

A BRIEF HISTORY

Some poultry breeds have been around, relatively unchanged for a very long period of time, while others are relatively new. Many of the newer breeds are used in commercial poultry farming, traditional breeds are often passed over, however - as with many things in the modern world, new doesn't always necessarily mean best.

Pure breeds of poultry have certain advantages over their modern counterparts:

- They are genetically more stable
- Can survive on lower quality foods
- Are sometimes more productive than modern breeds
- The disadvantages are that they become broody faster than a cross breed

Modern breeds however are bred purely to improve meat or egg production and sometimes vigour. Cross breed hens for example start producing earlier than pure breeds and can more eggs per year. The downsides to cross breeds are:

- That their productive life is often shorter than their purebred counterparts
- They require higher protein feed and more feed than purebreds
- They tend to be egg eaters
- They can also be more aggressive than purebreds

ORIGINS OF POULTRY

The Chinese are known to have kept domesticated fowls as early as 2000 BC. The domestic fowl is thought to have originated from four different species of Jungle Fowl:

Gallus ferruginus

Gallus stanleyii

Gallus sonneratii

Gallus furcatus

Gallus ferruginus/Gallus bankiva (a red jungle fowl) probably played a major role and is probably a parent of most domestic fowls

European poultry were kept largely as scavengers around the yards of people across the UK and Europe until the arrival of feather-legged breeds in the nineteenth century. The arrival of the feather legged varieties saw attitudes toward poultry altered and from then poultry started to be kept in houses and hen yards of more and more people.

KEEPING POULTRY – PROFIT OR PLEASURE

Poultry keeping is cheap and simple when you compare it to keeping large animals such as goats, sheep, pigs or cows. Poultry are easy to handle and easy to manage; to keep poultry happy and healthy they need access to sunlight, a dust bath and appropriate (it can be simple) housing, that is well sheltered from cold winds and is vermin/fox proof.

Poultry are widely kept as domesticated animals:

- By subsistence farmers
- For self-sufficiency i.e. eggs and meat
- As pets
- On small scale farms
- On large scale, commercial farms

Laying hens (for example) are popularly kept by the 'backyard farmer' or on a small holding for pleasure. Some small holders make a business out of their interest in poultry by breeding them for sale (and sometimes 'showing' them) or they sell (or trade) the eggs. Others may set up a full scale farm e.g. free range eggs and chicken, duck or turkey meat or as is the case in many large operations - as caged birds for full scale egg production and meat. Some concentrate on producing certain pure breeds, which they may take to poultry shows and exhibitions, as well as sell them to others interested in pure breeds. Others concentrate on cross breeds suited to meat or egg production. They may sell day old chicks to egg and meat producers while others sell point-of-lay hens.

Some breeders now also offer a 'trade-in' service – buyers trade-in their old hens when they buy new layers. That way they do not have the responsibility of not knowing what to do with unproductive hens. The breeder or poultry supplier takes the responsibility for them. This is an excellent service for backyarders that may like to keep a couple of hens for the family as pets and for fresh eggs, but are unable to dispose of them when the time comes.

CHICKENS

Depending on what your intentions are for raising or keeping chickens, the selection of stock can be important. The breed you choose will offer different benefits. Ornamental breeds are often enjoyed as pets, whereas cross-breeds are mainly used in commercial production as they are capable of laying eggs at a high rate and are exceptionally economical with feed. Cross-breed examples are the White Leghorn male crossed with a female Australorp or the New Hampshire x Rhode Island Red is another good crossbred.



Chicken

There are various ways you can obtain hens. You can buy them as day-old chicks, as pullets or as battery hens. Day-old chicks are cheap but require six months of feeding and much care and attention before they start lay.

If you choose not to raise chicks (thus avoiding the possibility of being left with rooster/cock that you may not want), perhaps adopting or buying ex-battery hens could be a good alternative if you want to buy cheaply. Unfortunately, battery hens are in poor condition and could be diseased. They are usually sold off battery farms at about 18 weeks of age. You may not mind this and in fact you make take great enjoyment out of improving their health and quality of life.

For the novice poultry keeper, the easiest way to begin is to buy pullets. If you buy them at 18 weeks of age, they will start laying eggs within a further 4-6 weeks. Planning to introduce a younger group of birds into an established flock should take place. Often very young birds need to be kept from older birds initially – so a separate shed may be required for this.

Whatever breed or age you choose, it is important that you obtain stock from a reliable poultry breeder.

TURKEYS

Turkeys are not difficult to raise so you may choose to buy them as day-old poults. Young turkeys can be susceptible to disease and they are particularly vulnerable to chills so keeping them warm during the brooding period (the first few weeks after hatching) is important. If you buy them unsexed, you could also have too many males for your flock. Unless you intend on raising turkeys for meat production, they can be costly to feed and to look after properly and they have no financial benefits.

Alternatively you could buy adult birds and breed your own stock. Two hens and a gobbler are sufficient to start off with. Females should be two years

old at mating and males should be at least one year old and not too fat. One gobbler can serve 8 to 10 females.



Turkey

Many people state the taste of farm reared birds cannot be beaten – in comparison to commercially produced birds. Raising turkeys for the table can be a process of feeding well and fattening the bird up – the fat under the skin is where much of the flavour of these birds is found.

Turkey Breeds include: Broad Breasted White, Broad Breasted Bronze, Bourbon Red, Narragansett, Norfolk Black, Bronze Wing etc.

DUCKS

When it comes to ducks, choosing the best birds in a flock is very important as it can become too expensive to feed below average birds. The characteristic of a good layer is that she is active. Good birds are those which are first to the food and last away from food.



Duck

Also watch for or find out which ones are up and moving around early in the morning and which ones are last in the pen at night. Another sign to watch for is angularity in the bird's physical appearance, which generally denotes poor laying qualities.

Laying breeds include Indian runner and Khaki Campbell.

GEESE

If you are thinking about buying only a small number of geese, it is generally most convenient to buy one gander (male) and between three to six geese (females). Mating needs to be accomplished two months before the spring, as this ensures maximum fertility of eggs.

Eggs require a great deal more moisture than other eggs, so a water tray should be placed in the incubator. Geese will continue to lay for 5-6 years if they are cared for well. It is good policy to have young geese mated to a two year old gander. In this way fertility is assured.

Good geese breeds include: Toulouse, Emden, Chinese, Sebastopol.



Geese

DON'T BUY SICK BIRDS

You may decide to buy or adopt ex-battery hens and this can be a rewarding experience. Seeing previously caged fowl run free is extremely heart warming. There are some important aspects to consider when introducing new birds to your flock.

Firstly we suggest a period of quarantine for new birds joining an existing flock. An appropriate quarantine period would be 3 weeks. This period is long enough to allow infections to pass the infectious stage.

Conversely, it can happen that birds introduced to a flock can develop a disease or die soon after arriving. If the current flock are carrying pathogens there is a chance they have developed immunity to that pathogen; this immunity is not likely to exist in the new birds and so they can succumb to the pathogens carried by the existing flock. When this happens, we are reminded about the importance of maintaining adequate health provisions for all birds.

When you are buying new birds, signs of disease are something to watch for. A healthy bird will display bright red combs and wattles, clear alert eyes and have no discharge around the nostrils. Feathers and plumage appear glossy and in good condition. The legs should be strong; with scales clean and smooth, toenails are preferably short.

In the run, coop or shed, expect to see droppings which are firm and relatively well moulded, grey/brown in colour with a white cap is normal. Other than the smell of droppings nearby – there should be no other strong smell produced or present on or near the birds. Additionally, sounds which are

chirpy are good, quiet or silent breathing is normal for the sleeping state.

Signs to watch out for in sick birds are: sunken eyes, discharge from nostrils, laboured or noisy breathing, smelly feathers or broken plumage, watery or green/yellow coloured droppings, depressed appearance, standing or sitting in a corner, little activity, or cold to touch.

HOW TO HELP HATCHING CHICKS

If you find that you have chicks which don't hatch properly you may decide to help them out of their shells. Some people will prefer not to intervene in this natural process, whereas other will be excited to help save chicks which would otherwise die without help. What you decide to do as a poultry keeper is up to you. The information below is intended for those people who wish to help chicks out of their shells.

Once the chick has pecked (pipped) a hole in the shell it will most often take approximately one hour for it to emerge from the shell. If it takes longer than this, you could assume the chick has got stuck or is struggling to continue breaking through the shell.

- Set up an incubator or a warmed box of some description for the chicks to be placed into. In order to prevent them from being pecked at, ensure they are kept away from adult birds or even other stronger chicks.
- Ensure the humidity is high in your incubator or warmed box.