



The African Telatelist

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CHICKENS – (Warwick Stobrawe)

From Wikipedia, the free encyclopedia



The **chicken** (*Gallus gallus domesticus*) is a domesticated fowl, a subspecies of the Red Jungle fowl. As one of the most common and widespread domestic animals with a population of more than 24 billion in 2003, there are more chickens in the world than any other species of bird. Humans keep chickens primarily as a source of food, consuming both their meat and their eggs.

The traditional poultry farming view of the domestication of the chicken is stated in *Encyclopædia Britannica* (2007): "Humans first domesticated chickens of Indian origin for the purpose of cockfighting in Asia, Africa, and Europe. Very little formal attention was given to egg or meat production... "Recent genetic studies have pointed to multiple maternal origins in Southeast, East, and South Asia, but with the clade found in the Americas, Europe, the Middle East and Africa originating in the Indian subcontinent. From India the domesticated fowl

made its way to the Persianized kingdom of Lydia in western Asia Minor, and domestic fowl were imported to Greece by the fifth century BC. Fowl had been known in Egypt since the 18th Dynasty, with the "bird that gives birth every day" having come to Egypt from the land between Syria and Shinar, Babylonia, according to the annals of Tutmosé III.

Terminology

In the UK and Ireland adult male chickens over the age of 12 months are primarily known as cocks, whereas in America, Australia and Canada they are more commonly called roosters. Males less than 1 year old are *cockerels*. Castrated roosters are called *capons* (surgical and chemical castration is now illegal in some parts of the world). Females over a year old are known as *hens* and younger females as *pullets* although in the egg-laying industry, a pullet becomes a hen when she begins to lay eggs at 16 to 20 weeks of age. In Australia and New Zealand (also sometimes in Britain), there is a generic term *chook* /'tʃʊk/ to describe all ages and both sexes. The young are called *chicks* and the meat is called *chicken*.

In some breeds the adult rooster can be distinguished from the hen by his larger comb



"Chicken" originally referred to chicks, not the species itself. The species as a whole was then called *domestic fowl*, or just *fowl*. This use of "chicken" survives in the phrase "Hen and Chickens", sometimes used as a British public house or theatre name, and to name groups of one large and many small rocks or islands in the sea (see for example Hen and Chicken Islands).

In the Deep South of the United States chickens are also referred to by the slang term *yardbird*

General biology and habitat

Chickens are omnivores. In the wild, they often scratch at the soil to search for seeds, insects and even larger animals such as lizards or young mice.

Chickens may live for five to ten years, depending on the breed. The world's oldest chicken, a hen, died of heart failure at the age of 16 according to the Guinness Book of World Records.

Roosters can usually be differentiated from hens by their striking plumage of long flowing tails and shiny, pointed feathers on their necks (*hackles*) and backs (*saddle*) which are typically of brighter, bolder colours than those of females of the same breed. However, in some breeds, such as the Sebright, the rooster has only slightly pointed neck feathers, the same colour as the hen's. The identification can be made by looking at the comb, or eventually from the development of spurs on the male's legs (in a few breeds and in certain hybrids, the male and female chicks may be differentiated by colour). Adult chickens have a fleshy crest on their heads called a comb, or cockscomb, and hanging flaps of skin either side under their beaks called wattles. Collectively, these and other fleshy protuberances on the head and throat are called caruncles. Both the adult male and female have wattles and combs, but in most breeds these are more prominent in males. A *muff* or *beard* is a mutation found in several chicken breeds which causes extra feathering under the chicken's face, giving the appearance of a beard.

Wild Red Jungle fowl

Domestic chickens are not capable of long distance flight, although lighter birds are

generally capable of flying for short distances, such as over fences or into trees (where they would naturally roost). Chickens may occasionally fly briefly to explore their surroundings, but generally do so only to flee perceived danger.

Social behaviour

Chickens are gregarious birds and live together in flocks. They have a communal approach to the incubation of eggs and raising of young. Individual chickens in a flock will dominate others, establishing a "pecking order", with dominant individuals having priority for food access and nesting locations. Removing hens or roosters from a flock causes a temporary disruption to this social order until a new pecking order is established. Adding hens, especially younger birds, to an existing flock can lead to fighting and injury. When a rooster finds food, he may call other chickens to eat first. He does this by clucking in a high pitch as well as picking up and dropping the food. This behaviour may also be observed in mother hens to call their chicks and encourage them to eat.

Roosters crowing (a loud and sometimes shrill call) is a territorial signal to other roosters. However, crowing may also result from sudden disturbances within their surroundings. Hens cluck loudly after laying an egg, and also to call their chicks. Chickens also give a low "warning call" when they think they see a predator approaching.

Courtship

To initiate courting, some roosters may dance in a circle around or near a hen ("a circle dance"), often lowering his wing which is closest to the hen. The dance triggers a response in the hen and when she responds to his "call", the rooster may mount the hen and proceed with the mating.

Nesting and laying behaviour

Hens will often try to lay in nests that already contain eggs and have been known to move eggs from neighbouring nests into their own. The result of this behaviour is that a flock will use only a few preferred locations, rather than having a different nest for every bird. Hens will often express a preference to lay in the same location. It is not unknown for two (or more) hens to try to

share the same nest at the same time. If the nest is small, or one of the hens is particularly determined, this may result in chickens trying to lay on top of each other.

There is evidence that individual hens prefer to be either solitary or gregarious nesters. Some farmers use fake eggs made from plastic or stone (or golf balls) to encourage hens to lay in a particular location.

Under natural conditions, most birds lay only until a clutch is complete, and they will then incubate all the eggs. Many domestic hens will also do this—and are then said to "go broody". The broody hen will stop laying and instead will focus on the incubation of the eggs (a full clutch is usually about 12 eggs). She will "sit" or "set" on the nest, protesting or pecking in defence if disturbed or removed, and she will rarely leave the nest to eat, drink, or dust-bathe. While brooding, the hen maintains the nest at a constant temperature and humidity, as well as turning the eggs regularly during the first part of the incubation. To stimulate broodiness, an owner may place many artificial eggs in the nest, or to stop it they may place the hen in an elevated cage with an open wire floor.

At the end of the incubation period (about 21 days), the eggs, if fertile, will hatch. Development of the egg starts only when incubation begins, so they all hatch within a day or two of each other, despite perhaps being laid over a period of two weeks or so. Before hatching, the hen can hear the chicks peeping inside the eggs, and will gently cluck to stimulate them to break out of their shells. The chick begins by "pipping"; pecking a breathing hole with its egg tooth towards the blunt end of the egg, usually on the upper side. The chick will then rest for some hours, absorbing the remaining egg yolk and withdrawing the blood supply from the membrane beneath the shell (used earlier for breathing through the shell). It then enlarges the hole, gradually turning round as it goes, and eventually severing the blunt end of the shell completely to make a lid. It crawls out of the remaining shell, and its wet down dries out in the warmth of the nest.

A day-old chick

The hen will usually stay on the nest for about two days after the first egg hatches, and during this time the newly hatched chicks live off the egg yolk they absorb just before hatching. Any eggs not fertilized by a rooster will not hatch, and the hen eventually loses interest in these and leaves the nest. After hatching, the hen fiercely guards the chicks, and will brood them when necessary to keep them warm, at first often returning to the nest at night. She leads them to food and water; she will call them to edible items, but seldom feeds them directly. She continues to care for them until they are several weeks old, when she will gradually lose interest and eventually start to lay again.

Modern egg-laying breeds rarely go broody, and those that do often stop part-way through the incubation. However, some "utility" (general purpose) breeds, such as the Cochin, Cornish and Silkie, do regularly go broody, and they make excellent mothers, not only for chicken eggs but also for those of other species—even those with much smaller or larger eggs and different incubation periods, such as quail, pheasants, turkeys or geese. Chicken eggs can also be hatched under a broody duck, with varied success.

More than 50 billion chickens are reared annually as a source of food, for both their meat and their eggs.

The vast majority of poultry are raised using intensive farming techniques. According to the Worldwatch Institute, 74% of the world's poultry meat, and 68 % of eggs are produced this way. One alternative to intensive poultry farming is free range farming.

Friction between these two main methods has led to long term issues of ethical consumerism. Opponents of intensive farming argue that it harms the environment, creates human health risks and is inhumane. Advocates of intensive farming say that their highly efficient systems save land and food resources due to increased productivity, stating that the animals are looked after in state-of-the-art environmentally controlled facilities.

In part due to the conditions on intensive poultry farms and recent recalls of large quantities of eggs, there is a growing movement for small

scale micro-flocks or 'backyard chickens'. This involves keeping small numbers of hens (usually no more than a dozen), in suburban or urban residential areas to control bugs, utilize chicken waste as fertilizer in small gardens, and of course for the high-quality eggs and meat that are produced.

Reared for meat

Chickens farmed for meat are called broiler chickens. Chickens will naturally live for 6 or more years, but broiler chickens typically take less than 6 weeks to reach slaughter size. A free range or organic meat chicken will usually be slaughtered at about 14 weeks of age.

Reared for eggs

Chickens farmed for eggs are called egg-laying hens. In total, the UK alone consumes over 29 million eggs per day. Some hen breeds can produce over 300 eggs per year, with "the highest authenticated rate of egg laying being 371 eggs in 364 days". After 12 months of laying, the commercial hen's egg-laying ability starts to decline to the point where the flock is unviable. Hens, particularly from battery cage systems, are sometimes infirm, have lost a significant amount of their feathers, and their life expectancy has been reduced from around 7 years to less than 2 years. In the UK and Europe, laying hens are then slaughtered and used in processed foods, or sold as "soup hens". In some other countries, flocks are sometimes force moulted, rather than being slaughtered, to reinvigorate egg-laying. This involves complete withdrawal of food (and sometimes water) for 7–14 days or sufficiently long to cause a body weight loss of 25 to 35%, or up to 28 days under experimental conditions which presumably reflect farming practice. This stimulates the hen to lose her feathers, but also reinvigorates egg-production. Some flocks may be force moulted several times. In 2003, more than 75% of all flocks were moulted in the US.

The meat of the chicken, also called "chicken", is a type of poultry meat. Because of its relatively low cost, chicken is one of the most used meats in the world. Nearly all parts of the bird can be used for food, and the meat can be cooked in many different ways. Popular chicken dishes include roasted chicken, fried chicken, chicken

soup, Buffalo wings, tandoori chicken, butter chicken, and chicken rice. Chicken is also a staple of many fast food restaurants.



Above: Typical roast chicken

In 2000, there were 50.4 million tons of eggs produced in the world (*Executive guide to world poultry trends*, 2001) and an estimated 53.4 million tons of table eggs were produced during 2002. In 2009, an estimated 62.1 million metric tons of eggs were produced worldwide from a total laying flock of approximately 6.4 billion hens.

Chicken eggs are widely used in many types of dishes, both sweet and savory, including many baked goods. Eggs can be scrambled, fried, hard-boiled, soft-boiled, pickled, and poached. The albumen, or egg white, contains protein but little or no fat, and can be used in cooking separately from the yolk. Egg whites may be aerated or whipped to a light, fluffy consistency and are often used in desserts such as meringues and mousse. Ground egg shells are sometimes used as a food additive to deliver calcium. Hens do not need a male to produce eggs, only to fertilize them. A flock containing only females will still produce eggs, however the eggs will all be infertile.

