

Turkeys

- [Turkey Production & Welfare](#)
- [Disease](#)
- [Transport](#)
- [Slaughter](#)



The vast majority of turkeys (90%) are intensively reared for their meat. Traditionally, turkeys were mainly reared for the Christmas market but today they are produced throughout the year. There are approximately around 6 million turkeys in the UK with almost 15 million slaughtered in 2008 (1).

Given the opportunity turkeys will cover a wide area eating vegetation, seeds and grains. Wild turkeys are strong fliers and roost high up in trees. They are more closely related to game birds such as pheasants and partridges than to chickens.

Turkey Production & Welfare

The modern domesticated turkey emerged from the wild species native to North America, where they live in open forests. Turkeys have a distinctive fleshy caruncle that hangs from the beak, called a snood, and have wingspans of almost 6 feet. The three main types of turkey production consist of conventional enclosed housing (Broiler sheds), pole barns and free range systems.

Flocks of turkeys are kept for breeding to produce chicks to rear for their meat. The parent birds undergo a number of welfare problems having been selectively bred so they produce huge amounts of breast meat. Their large size and broad breasts have caused male breeding turkeys (stags) to suffer from degenerative hip disorders resulting in chronic pain. They are unable to mate naturally so artificial insemination (AI) is routine. This procedure involves the male breeding turkeys being repeatedly 'milked' for semen collection, whilst females (hens) have to endure the process of being caught and inseminated by tube/syringe (2). AI completely frustrates the natural mating instincts of turkeys and is distressing for both stags and hens. The surplus chicks which are produced in breeding (referred to as 'hatchery waste') are killed by a number of permitted methods, these include exposure to gas mixtures or dislocation of the neck (1).

The majority of turkeys reared for their meat are kept in windowless houses, with some containing up to as many as 25,000 birds. Heating, ventilation and lighting, etc are all automatically controlled with a minimum of 8 hours artificial light allowed each day. The stocking density for broiler-type housing of turkeys is 260cm²/kg, and as the birds grow and approach slaughter age they become more tightly packed together. Broiler sheds contain flocks of around 10,000 birds housed on litter (usually wood shavings). The litter is not changed during the turkey's time in the shed and so becomes increasingly covered in the bird's faeces. Turkeys do not scratch around in the litter in the way that chickens will and this means the condition of the litter deteriorates more quickly. Many turkeys die in these sheds every year, this includes young birds that never learn to reach food and water points (these birds are known as starve-outs) (2). Turkeys reared in pole barns are slightly less densely stocked compared with conventional sheds, (around 410cm²/kg). Pole Barns are large sheds with natural lighting and ventilation. As these are not often purpose built for rearing birds bad ventilation, draughts, exposure and heat stress can all cause problems. Due to a lack of environmental stimulation and overcrowding, aggression and cannibalism are often controlled in these barns by de-beaking (2). In free-range systems birds are stocked at 10m² per bird (1).



The mutilations turkeys have to endure includes toe cutting, beak trimming (de-beaking) and de-snooding.

- Toe cutting is carried out to avoid injury to hens during mating (even when saddled – saddles are designed to prevent injury to the backs and sides by the stags), it involves the last joint of the inside toes of the male breeding birds to be removed. This must be carried out within the first 3 days of life, if not then a Veterinary Surgeon must perform this.
- Beak trimming is mostly carried out on breeding turkeys and those kept for meat in pole barns and free-range systems to prevent or control injurious behaviour. It involves slicing off about one-third of the beak usually with a red hot blade when the turkey is around 5 days old (breeders may be de-beaked again at 14 to 18 weeks). This can be extremely painful for the bird and studies on de-beaked chickens have shown pain to be prolonged and perhaps indefinite (3). The Farm Animal Welfare Council believe that it is best to trim accurately (using a cold cut) and substantially when the bird is young in order to retard re-growth of the upper beak so further cutting is not required. Studies have shown that cold cutting was the most accurate method, but that substantial re-growth of the beak occurred. The use of a hot cut was the most distressing procedure for the turkeys. Beak trimming should be carried out by a skilled operator or under supervision.
- Stags may sometimes also be de-snooded soon after hatching. The snood is the part of the turkey's wattle arising from the forehead and lying over the upper beak. De-snooding may occur to reduce the risk of cannibalism in intensively stocked turkeys and if not carried out within 3 weeks of life this must be performed by a Veterinary Surgeon (1).

Disease

There are a number of common diseases which affect turkeys, in particularly those which are intensively reared, these include the following;

Lameness

The selective breeding for rapid weight gain, along with the use of high nutrient feed, has meant that many turkeys are unable to support their own weight. Due to the large size of male breeding turkeys, lameness and infections of leg and hip joints are a problem, with leg pain in particular being considerable (4). Lameness may also be the result of foot ulceration caused by turkeys having to stand on wet, dirty litter.

Turkey Rhinotracheitis (TRT)

This is an acute respiratory disease of turkeys caused by a pneumovirus, characterised by coughing, sneezing and sinusitis which can make the face look very swollen. Secondary bacterial infection, with organisms such as *E.coli* or *Pasteurella*, usually follows and this can lead to high mortality. Any disease which causes diarrhoea and wet litter can have a drastic effect on the ability of the birds to make a full recovery. If a flock becomes infected, antibiotics are used to minimise the effects of secondary infection. A live vaccine is available commercially and is usually applied by spray application in the first 10 days of life. However, this is not always totally effective and some outbreaks still occur (3).

Bacterial infections

The bacterium *E.coli* is always present in the digestive tract of poultry with most strains being non-pathogenic. *Coli septicaemia* is one of a small number of pathogenic strains and it has been suggested that male turkeys may be more susceptible to this than females, especially when under severe stress (6). The unhealthy intensive nature of farms means bacteria can spread easily through flocks. *Salmonella* and *Campylobacter* are widespread in broiler farms and frequent causes of food poisoning in humans.

BirdFlu

Avian influenza is a highly contagious viral disease affecting the respiratory, digestive and/or nervous system of many species of birds. It is caused by a Type A influenza virus, a disease which must be notified to the local State Veterinary Service Divisional Veterinary Manager. There are two types of avian influenza virus, low pathogenic (LPAI) and highly pathogenic (HPAI). Within the LPAI types there is evidence that certain H5 and H7 viruses may mutate and become highly pathogenic. On April



5th 2006 a dead swan which was found in Scotland tested positive for the highly pathogenic virus H5N1. On February 3rd 2007, H5N1 was confirmed on a poultry farm in Holton, Suffolk. A 3 km Protection Zone (PZ) and 10 km Surveillance Zone (SZ) were imposed along with a wider Restricted Zone. On March 12th 2007 the restrictions around the farm in Holton were lifted. Only the movement of meat produced from birds originating within the PZ that were killed prior to the PZ merging with the SZ will need to continue to be licensed and reported. A Food Standards Agency (FSA) investigation has thoroughly examined the possibility that food waste at the Bernard Matthews cutting plant at Holton may have been stored inappropriately. The investigation concluded that there was no evidence of any offences under the Animal By-Products Regulations 2005.

All of the evidence collected indicates that the infection has not spread beyond one site. Defra have not yet located the exact source of the infection but the lack of evidence of another outbreak indicates that the risk of spread of infection has now reduced. European Union (EU) trade will recommence from the restriction zones and Defra are working with exporters, British Embassies overseas and non-EU countries' veterinary authorities to try to keep export markets open and to facilitate exports (1).

Transport

The catching and transport of birds prior to slaughter can cause considerable pain and distress. Turkeys are considerably larger and stronger than chickens and can be nervous and easily frightened. Catchers are often less familiar with handling turkeys and many birds may be injured whilst being removed from sheds/barns and thrust into crates. Poor handling frequently results in bruising, skin grazing and broken blood vessels. Transport to slaughter can be a considerable distance and the birds may be exposed to extremes of weather. Cold, heat, stress, suffocation and shock all take their toll.

Slaughter

Turkeys are normally slaughtered at between 9 and 21 weeks old, depending on the size of bird being produced (the natural lifespan of a turkey is around 10 years). Almost 15 million turkeys (14.9 million) were slaughtered in the UK in 2008 (14.88 million in 2007) (1). The majority of birds are killed in large, semi-automated slaughterhouses. Turkeys are removed from their crates and hung upside down by their legs from shackles on a moving line. Turkeys may legally hang shackled for up to 3 minutes before being stunned and this time is probably frequently exceeded (2). At slaughter, turkeys can weigh anything from 5 - 28kg, light turkeys are those classed under 8kg and heavy turkeys over 8kgs. The pain caused to heavy birds whilst they hang in shackles must be considerable. This pain will be worsened by the fact that many of the birds and especially the larger ones will suffer from diseased hip joints.

The shackles carries them to an electrically charged stunning water bath through which the bird's head is dragged in order to render the bird unconscious, and thus insensible to pain before their necks are cut. For a bird to be stunned, rather than receiving an electric shock, the electric current must pass through its brain before contacting any other part of the body. As turkeys have a large wingspan, their wings hang lower than their heads and so are in danger of entering the stunning bath before their heads (2,5).

Scientific Research has identified two vital factors to reduce the danger of birds regaining consciousness as they bleed to death. Sufficient current should be used to induce a cardiac arrest and both carotid arteries in the neck (the main blood supply to the brain) must be severed to ensure that the turkeys die as quickly as possible from loss of blood, reducing the likelihood of birds regaining consciousness. A number of slaughterhouses fail to regularly ensure both these factors are carried out (5). After the bird's necks have been cut they are placed into a scalding tank, which is designed to loosen their feathers before plucking.

Due to an additional demand for turkeys at Christmas, 'Seasonal Slaughterhouses' are used to cope with the extra demand, 10 millions turkeys are killed in this period (7). Many turkeys will be killed by having their necks dislocated, research has shown that this does not usually have an immediate effect and therefore unconsciousness may not be instantaneous (2). There is no law that a licensed slaughter man must carry the procedure of neck dislocation.



References & Useful Links

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