

COMPASSION IN WORLD FARMING TRUST

THE WELFARE OF TURKEYS AT SLAUGHTER

A REPORT FOR COMPASSION IN WORLD FARMING TRUST

by

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December 1997

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1. INTRODUCTION

Each year around 35 million turkeys are slaughtered in the UK. Slaughter is a two-stage process; stunning is followed by neck-cutting.

Two methods of stunning are in use. A small number of birds are individually stunned with a hand-held stunner.

In the majority of cases, however, turkeys are hung upside down by their legs from shackles which are on a moving line. This carries them to an electrically charged waterbath, through which the bird's head and upper torso are dragged. The purpose of stunning is to render the turkeys unconscious before their necks are cut; in some cases, however, the electric current is sufficient to stun and simultaneously kill the birds.

After stunning the bird's neck is cut. Unlike broiler chickens where automatic neck-cutters are used, neck-cutting is always manual for turkeys. Death is caused by loss of blood, except where a cardiac arrest was induced in the stunning bath.

After neck-cutting, the birds are placed in the scalding tank, which is designed to loosen feathers to ease plucking. Clearly turkeys should be dead before entering the scalding tank.

2. SHACKLING

Turkeys are unloaded from the transport crates and hung upside down from shackles. This is frequently a stressful and painful process, with rough handling being commonplace as the birds are removed from the crates and placed in the shackles.

By law the turkeys may be left hanging upside down from the shackles for up to 6 minutes before they are stunned or killed (the Welfare of Animals (Slaughter or Killing) Regulations 1995).

Turkeys can weigh around 7 kg (16 lbs), with breeder birds weighing up to 27 kg (60 lbs). Compassion in World Farming Trust believes that it is totally unacceptable for such heavy birds to be left hanging upside down for as long as 6 minutes. Inevitably this places very considerable stress on the birds' legs and hips.

The problem is compounded by the fact that modern turkeys have been selectively bred to develop huge, meaty breasts. The unduly heavy upper body leads to many turkeys suffering from degenerative hip disorders which result in a state of chronic pain (Whitehead, 1992; and Duncan et al, 1991).

Birds with such disorders will inevitably experience great pain both when their legs are placed in the shackles and then as they are left hanging upside down, sometimes for several minutes.

Moreover turkeys, whether or not suffering from hip disorders, will be caused a great deal of pain when the rigid stainless steel shackles compress the bird's periosteum (soft tissue) against its bone. This procedure is very painful for the

turkey and the problem is compounded by the fact that over the years turkeys have been bred to reach ever greater sizes, while the size of the shackles has remained unchanged.

3. PRE-STUN SHOCKS

Gregory (1988) reported the findings of a survey of UK turkey slaughterhouses. He found that a massive 26% of turkeys experienced pre-stun electric shocks.

A 1991 survey found 43% of turkeys receiving pre-stun electric shocks (Wotton and Gregory, 1991). At one slaughterhouse the researchers reported that 80% of the birds experienced pre-stun shocks through the wing.

A 1993 survey reported even more alarming results. This found 57.5% of turkeys to be experiencing pre-stun electric shocks (University of Bristol, 1993). More recently the European Commission's Scientific Veterinary Committee stressed that "the prevalence of pre-stun electric shock in turkeys is high (about 80%)" (SVC, 1996).

The main cause of such shocks is that turkeys' wings hang lower than their heads and so are in danger of entering the stunning bath before their heads. Pre-stun shocks are also caused by the ramp at the entrance to the stunner becoming electrically live due to water splashing out of the stunner.

The whole purpose of stunning is to render birds *immediately* unconscious and thus insensible to pain. This purpose is totally negated if, as often happens, turkeys receive painful electric shocks before being made unconscious.

Moreover, in addition to being painful, pre-stun shocks may stimulate birds into 'flight'; the turkey flaps its wings and may rise upwards thus missing the stunner altogether and so failing to be stunned.

A system is being developed for modifying the entry ramp to the waterbath stunner so as to prevent pre-stun shocks. It is also important, in the prevention of such shocks, that the waterbath is of sufficient size to allow the turkeys to enter the bath cleanly, i.e. without coming into contact with the sides of the bath or the front lip.

4. INADEQUATE STUNNING AND NECK-CUTTING

An electric stun is effective for only a limited period, after which the turkey may well begin to regain consciousness. Research shows that almost 90% of turkeys which do not experience a cardiac arrest at stunning show some recovery of their somatosensory evoked responses within 60 seconds of stunning (Gregory and Wotton, 1991).

Loss of such evoked responses is a reliable index of an effective stun. Gregory and Wotton (1991) concluded that "within the current ranges used commercially, waterbath stunning does not have such a profound effect on brain function in turkeys as it does in broiler chickens".

To minimise the danger of turkeys regaining consciousness during bleeding-out, scientists have recommended that the current in the waterbath stunner should be set at a sufficient level to induce a cardiac arrest in a high proportion of birds (Gregory and Wotton, 1991). However, as indicated below, some turkey slaughterhouses are reluctant to induce a cardiac arrest at stunning despite the clear welfare advantages this has in reducing the likelihood of turkeys recovering consciousness. Indeed a number of slaughterhouses are going over to high frequency stunning to address the problems caused by bad bleeding and other carcass quality defects. Where high frequency stunning is used, cardiac arrests are not induced at stunning.

As only a certain proportion of turkeys experience a cardiac arrest in the stunner, it is vital that neck-cutting should be efficient so that those birds which have not been killed in the stunner, die as quickly as possible from loss of blood.

The quickest method of inducing death at neck-cutting is to sever both carotid arteries (the main blood supply to the brain) and both jugular veins (Gregory and Wotton, 1991). Failure to cut both carotid arteries increases the time taken to reach brain failure and thereby increases the danger of turkeys recovering consciousness during bleeding-out. Raj (1995) has stressed that in turkeys (and chickens) “prompt ventral neck cutting aimed at severing both the carotid arteries is essential to ensure humane slaughter”. He added that “failing to sever the two carotid arteries could result in the unacceptable resumption of consciousness in birds during bleeding”. Wotton and Watkins (1997) have pointed out that the trend towards using higher frequencies at stunning may compromise bird welfare “by increasing the probability that they may recover on the bleeding rail due to inaccurate neck cutting” (high frequency stunning does not produce a cardiac arrest).

Shockingly, Gregory’s 1988 survey found that both carotid arteries were routinely severed in under half the slaughterhouses examined. Compassion in World Farming Trust (CIWF Trust) fears that in a number of cases the industry still fails to sever both carotid arteries in turkeys.

Gregory (1988) stressed that “in those birds that do not experience a cardiac arrest [at stunning] there is a danger that consciousness might be regained if both carotids are not cut”. CIWF Trust believes that it is absolutely vital to sever both carotid arteries to prevent birds regaining sensibility on the bleeding rail. There is, moreover, a danger that slaughterhouse workers may not even be aware of turkeys regaining consciousness. Wotton and Wilkins (1997) write that: “Their recovery may be masked in plants that employ a neck cut that severs the spinal cord and renders the bird unable to display signs of recovery like the return of rhythmic breathing movements”.

The dangers involved in birds regaining consciousness are highlighted by Gregory’s survey which showed that 0.1% of turkeys were still alive on entering the scalding tank. This percentage figure amounts to around 35,000 turkeys each year still being alive (but not necessarily conscious) at the time they enter the scalding tank. Referring to birds whose spinal cord has been severed being unable to display signs of recovery, Wotton and Wilkins (1997) write that “this situation may lead to the occurrence of birds entering the scald alive”. Any bird which goes

into the scalding tank whilst still conscious will experience extreme suffering. We fear that the position may not have improved since Gregory's survey.

It would appear from the above that two factors are vital to minimise the danger of turkeys regaining consciousness during bleeding-out:

- * Sufficient current should be used to induce a cardiac arrest at stunning; and
- * Both carotid arteries should be severed.

As indicated above, we fear that some turkey slaughterhouses fail to sever both carotid arteries. One reason for this is that the cutting of both carotids leaves the head very loose. Loose heads tend to be wrenched off in the automatic feather plucking machine. The feathers are sold commercially and the presence of loose heads amongst the feathers jeopardises such sales. CIWF Trust believes that it is wrong for turkeys to be placed at risk of regaining consciousness during bleeding-out simply to safeguard the sale of the birds' feathers.

Another reason why many slaughterhouses fail to sever both carotid arteries lies in the fact that, in order to aid evisceration (removing the internal organs), the turkey's head is often attached to the shackle after death. This is called 3-point suspension, i.e. the head as well as the legs are suspended from the shackle. If, however, both carotid arteries are severed, the trachea and oesophagus will usually also be cut, with the result that the head will be too loose to be attached to the shackle (indeed, as indicated above, it may already have fallen off in the automatic plucking machine).

One must similarly ask why many parts of the industry are reluctant to induce cardiac arrests in the stunner on a routine basis. The thinking appears to be as follows. The retention of too much blood in the body after neck-cutting can give rise to problems with carcase quality. This problem can arise from poor neck-cutting (e.g. when only one carotid artery is cut) which can increase the length of time needed to bleed the carcase adequately so leading to incomplete exsanguination, i.e. the retention of too much blood.

To address this problem, some slaughterhouses want to avoid turkeys being dead at the time of neck-cutting and so do not wish to induce cardiac arrests in the stunner. The belief is that if a turkey is still alive at neck-cutting, its muscular contractions, such as body movements and wing-flapping, will assist bleed-out by helping to massage the blood out of the major vessels.

Put simply, some slaughterhouses fail to induce cardiac arrests and so put the turkeys at risk of regaining consciousness simply to help with the problem of inadequate bleed-out, a problem that would not arise if they severed both carotid arteries. As indicated above, the severing of both carotids would not only minimise carcase quality problems by inducing rapid bleed-out, but is also essential to minimise the risk of birds recovering consciousness.

6. CONCLUSIONS

1. The practice of suspending turkeys, which are heavy birds, upside down by their legs from shackles, places very considerable strain on the birds' legs and hips. Modern turkeys are selectively bred to develop huge meaty breasts. The heavy upper body places excessive stress on the hips and results in many turkeys suffering from degenerative hip disorders. Such birds experience great pain both when being shackled and then as they are left to hang upside down, sometimes for several minutes.
2. Turkeys, whether or not suffering from hip disorders, are caused considerable pain when the rigid steel shackles compress the soft tissue of the shank against the bird's bone.
3. Around 50% of turkeys experience painful, pre-stun electric shocks either because their wings enter the waterbath stunner before their heads, or because the entrance ramp to the stunner is electrically live due to water splashing out of the stunner. In some cases pre-stun shocks may stimulate the birds into 'flight'; the turkey flaps its wings and may rise upwards, thus missing the stunner altogether and so failing to be stunned.
4. It is absolutely vital to sever both carotid arteries to prevent turkeys regaining sensibility on the bleeding line. Many turkeys, however, are in danger of regaining consciousness during bleeding out because some turkey slaughterhouses insist on placing commercial considerations ahead of the welfare of the birds. A number of slaughterhouses fail regularly to:
 - a) induce cardiac arrests at stunning, and
 - b) sever both carotid arteries,despite the welfare advantages these practices have in reducing the likelihood of turkeys regaining consciousness.
5. Each year around 34,000 turkeys may still be alive when they enter the scalding tank.
6. Bearing the above factors in mind, it is clear that many turkeys suffer at slaughter. Urgent changes are needed in slaughter practice and legislation to minimise this suffering.

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December 1997

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