# UNILEVER LIVESTOCK TRANSPORT & SLAUGHTER

## IMPLEMENTATION GUIDE

The Unilever Livestock and Transport Implementation Guide has been developed to give advice and information to farmers, hauliers and slaughterhouses on good practice.



## CONTENTS

# BACKGROUND TO THIS GUIDE

The Sustainable Agriculture Code (SAC) and its accompanying Implementation Guides are generic documents, and have been developed to provide standards on how raw materials and livestock products supplied to Unilever should be produced on farm. This guide has been developed to provide advice and information for farmers, hauliers and abattoirs on livestock transportation (i.e. farm to farm or farm to slaughter) and slaughter.

**For livestock transportation** this guide has been developed to provide guidance to farmers and hauliers on good practice and measures to help maintain and improve their systems.

**For livestock slaughter** this guide has been specifically developed to provide guidance to suppliers and abattoirs on good practice and measures to help maintain and improve their systems.

It is crucial that you are fully aware of all legislative requirements in your country, which may require practices that go beyond those recommended in the following guide.

# SECTION 1
# LIVESTOCK TRANSPORT (BEEF & PORK)

## INTRODUCTION

**The following recommendations and guidelines are aimed to provide farmers, hauliers and slaughter plants with a framework by which high levels of welfare could be achieved during the transport of livestock.**

**Ideally, anyone responsible for the haulage of live animals (farmers, commercial hauliers) should be approved under a global, national or local assurance scheme (if available) or, as a minimum, should ensure that the vehicles used are compliant to country specific transport legislation.**

**Preferably drivers should be trained and hold a recognised certificate of competence (if approved training courses are available), or as a minimum be aware of the health and welfare requirements of the animals they transport and the legislation surrounding their transport. Training should be reviewed and refreshed periodically, with records maintained.**

### Vehicles

Operators of vehicles, whether farmers or commercial hauliers, should only use vehicles that are fit for purpose.

Recommended guidelines for transport vehicles are:

- Non-slip, solid flooring: to minimise slips and falls of the animals. Examples of non-slip flooring would include, rubber mats, stamped tread, sand, shavings, straw bedding etc. It is possible to measure the number of slips and falls in a group of animals to ensure facilities provided are adequate.
- Gates and doors open freely and can be secured shut: gates and partitions should not have gaps or spaces where animals can get their heads or legs stuck.
    - To minimise the risk of injury, partitions are provided in vehicles to ensure animals are not too tightly loaded or too loosely stocked. (Guidance: partitions should be provided when pen length exceeds 3.7m - cattle; 3.1m – sheep and pigs; 2.5m - calves).
    - Partitions should be rigid, and strong enough to withstand the weight of the animals being transported.
- Internal ramps should function properly and extend all the way to the floor.
- There should be no sharp or protruding objects that pose a threat of injury to animals.
- To prevent leakage of faeces and urine, vehicles should be bedded or be fitted with drainage and storage into on-board tanks.
- Vehicles are fitted with adequate protection to shelter animals from extremes of weather and temperature.

## LOADING AND UNLOADING OF LIVESTOCK

### Fitness to travel

Animals must be fit for the intended journey before the journey starts *and must remain sufficiently fit throughout the journey*: the animal should be healthy enough to tolerate the entire journey it is about to make (including loading, unloading and any journey breaks) with no, or very little, adverse effect on it; the journey should not cause the animal any suffering or injury.

If necessary casualty animals (sick or injured) can be transported, if the following requirements are met:

- They can be loaded and unloaded without using any force or causing any pain or suffering.
- The animals can comfortably bear weight on all four legs and stand without pain or distress.
- The condition will not deteriorate during the journey.
- Plentiful bedding is provided.
- The casualty animal must be segregated during transport.

Any animal which has been injured during transport, these may include animals with broken legs, or recumbent animals (unable to stand) must be slaughtered or killed immediately on arrival at the destination (in-situ - animals must not be dragged off vehicle to facilitate casualty slaughter) using a humane method.

### Handling

Ideally, all personnel employed in the loading and unloading of livestock vehicles should be trained and competent (training conducted by an approved trainer/course). Personnel should at all times handle the animals in a calm, gentle manner.

When handling or moving animals it is prohibited to:

- Strike or apply pressure to particularly sensitive parts of the body (eyes, nose, ears, tails or genitals).
- Crush, twist or break the tail of any animal.
- Grasp the eyes of any animal.
- Inflict any blow or kick to any animal.
- Suspend any live animal.
- Drag any live animal.

Wherever possible, passive methods of moving animals are preferred (e.g. the use of flags or pig boards). Occasionally, it may be necessary to use electric goads. Electric goads (preferably battery operated), designed for use on animals, should only be used on adult animals which refuse to move, provided that:

- The shocks last for no more than 1 second and are adequately spaced out.
- The animal has room ahead of it in which to move.
- The shocks are only applied to the muscles of the hindquarters.

### Loading

It is recommended that wherever possible, the steepness of the loading ramp be kept as level as possible.

- For pigs and calves - an angle of 20 degrees, that is 36.4% to the horizontal (equivalent to a vertical rise of four over a distance of 11);
- For cattle other than calves - an angle of 26 degrees 34 minutes, that is 50% to the horizontal (equivalent to a vertical rise of four over a distance of eight).

*Recommendations from the Department for Environment, Food and Rural Affairs (DEFRA, UK)*

When transporting pigs, they must be able to lie down and stand up in their natural position, and the stocking density is 235 kilograms of liveweight/$m^2$ (as stated by the European Council Directive 95/29/EC).

### Segregation

It is recommended that in the following circumstances, animals are transported separately:

- Animals of different species
- Animals of significantly different sizes or ages
- Adult breeding bulls or boars
- Sexually mature males from females
- Animals with horns from animals without horns
- Animals hostile to each other
- Tied animals from untied animals

## STOCKING DENSITIES

Stocking densities in vehicles must be appropriate to the type of stock being carried, the duration of the journey and climatic conditions.

**USA Guidelines - Cattle (Temple Grandin):**
Recommended Truck Loading Densities.

| Feedlot Fed Steers or Cows, Avg. Weight English/Metric Units | Horned or Tipped or more than 10% Horned and Tipped English/Metric Units | No Horns (polled) English/Metric Units |
|---|---|---|
| 800 lbs. (360 kg) | 10.90 sq. ft. (1.01 sq. m.) | 10.40 sq. ft. (0.97 sq. m.) |
| 1000 lbs. (454 kg) | 12.80 sq. ft. (1.20 sq. m.) | 12.00 sq. ft. (1.11 sq. m.) |
| 1200 lbs. (545 kg) | 15.30 sq. ft. (1.42 sq. m.) | 14.50 sq. ft. (1.35 sq. m.) |
| 1400 lbs. (635 kg) | 19.00 sq. ft. (1.76 sq. m.) | 18.00 sq. ft. (1.67 sq. m.) |

**EU – Cattle Guidelines for road transport:**

| Category | Approximate Weight (Kg) | Area ($m^2$ per animal) |
|---|---|---|
| Small Calves | 50 | 0.30-0.40 |
| Medium Sized Calves | 110 | 0.40-0.70 |
| Heavy Calves | 200 | 0.70-0.95 |
| Medium Sized Cattle | 325 | 0.95-1.30 |
| Heavy Cattle | 550 | 1.30-1.60 |
| Very Heavy Cattle | >700 | >1.60 |

## RECORDS

### Transport Certificates

To aid in the traceability of the livestock and ensure that transport times are not exceeded, animals should be accompanied by a transport certificate which includes the following information

- Name & address of consignor/owner of cattle
- Details of haulier/driver
- ID/registration number of vehicle
- Place of loading & final destination
- Date & time first animal was loaded
- Date time & place last animal was unloaded
- Animal identification; slap mark, tattoo, ear tag number etc.

**It is recommended that all animals are accompanied with this information.*

## JOURNEY TIMES

The journey or transport time for a load is defined as the total time animals remain in the transport vehicles – *"First animal loaded to last animal unloaded"*. EU legislation states that animals are not transported for more than 8 hours, unless additional requirements for vehicles carrying out long journeys are met:

| Vehicle Equipment | Travel Time | | |
|---|---|---|---|
| | 8-12 Hours UK | Over 12 Hours UK | Over 8 Hours Europe |
| Insulated Roof | ✗ | ✓ | ✓ |
| Feeding Equipment | ✓ | ✓ | ✓ |
| Partitions | ✓ | ✓ | ✓ |
| Water Supply | ✓ | ✓ | ✓ |
| Ventilation & Temperature Control Equipment | ✗ | ✓ | ✓ |
| Temperature Monitoring Equipment | ✗ | ✓ | ✓ |
| Satellite Tracking, Data Recording & Transmission Equipment | ✗ | ✓ | ✓ |

## EMERGENCY / CONTINGENCY PLANS

It is recommended that anyone transporting livestock makes contingency plans to deal with emergencies that can arise during a journey such as animals falling ill or injured, unforeseen delays, breakdowns or accidents.

## TRANSPORT BY SEA

In addition to the above recommendations for transport.

### Vessels

Vessels should be fit for purpose, ensuring design and fittings are appropriate for the transported species. In addition to the above 'Vehicle' requirements above:

- Roll-on/roll-off vessels and containers should have securing points for attachment to the vessel. Vehicles should be adequately secured before the start of the sea journey to avoid displacement.
- Secondary ventilation systems are necessary in vehicles/containers on enclosed decks where natural ventilation alone is not sufficient.

### Fitness to travel

Journey planning should take into account expected weather and sea conditions. Special consideration and precautions should be undertaken for livestock that have not acclimatised to, or those unable to cope with extreme weather conditions. In some extreme conditions animals should not be transported at all.

### Inspection/handling during transport

Consignments should be checked immediately before departure by sea. During transport, the behaviour of livestock and any indicators of disease or poor animal welfare (such as stress, pain or fatigue) should be monitored daily. Any treatment or handling of animals, such as emergency killing (appropriate equipment must be readily available), should be undertaken promptly and appropriately and carried out by a competent veterinarian or animal handler.

Ventilation, watering and feeding systems should be monitored throughout the journey and corrective actions undertaken immediately.

### Loading/unloading

Priority should be given to livestock vessels when arriving in port. Suitable unloading facilities at the port should be available. Animals should be unloaded as soon as possible after arrival. On occasions euthanising an animal whilst aboard the vessel is most appropriate for the welfare of the animal. Unloading sick or injured animals should therefore be carried out only if appropriate. Suitable equipment for unloading sick or injured animals should be available and appropriate facilities and treatments provided once unloaded.

### Stocking densities

During transport, adjustments to stocking densities or group composition should be made where appropriate to ensure good health and wellbeing of the livestock. Stocking density should be such that individual animals can be seen for inspection.

### Records

Record keeping should include a journey log of inspection during transport, morbidity and mortality (and any actions) climatic conditions and medication provided (and outcomes).

It is the responsibility of the exporter to ensure compliance with veterinary certification and requirements of the importing and exporting countries. A detailed journey plan should be devised showing knowledge and competence in:

- Record keeping.
- Appropriate travelling conditions for the species transported (including feed and water provision, space allowance, ventilation requirements).
- Compliance with relevant authorities transport regulations.
- Appropriate species specific animal handling methods and associated activities such as cleaning and disinfection, loading and unloading.
- Emergency/contingency plans surrounding potentially encountered problems such as adverse weather conditions.

## SELF-AUDIT CRITERIA FOR FARMERS, HAULIERS AND SLAUGHTERHOUSES

### Outcome Measures (From Temple Grandin)

The following section details how to monitor and measure the transport of livestock. The measures below will allow farmers, hauliers and slaughterhouses to measure how their system operates and whether any changes need to be implemented to improve the system for the livestock.

**Percentage of cattle that fall down or slip**

A fall is one of the most serious problems that can occur during loading and unloading. This outcome measure includes cattle that fall or slip inside the vehicle. A slip is scored if slipping causes an obvious changing in the animal's movement.

- Excellent – No slipping or falling
- Acceptable – Less than 3% of the cattle slip
- Not Acceptable – 1% fall down (body touches floor)
- Serious Problem – 2% fall or 15% or more slip

**Percentage of cattle that move quietly at a walk or a trot that do not run or jump**

- Excellent – 90% or more move at a walk or trot
- Acceptable – 75% or more move at a walk or trot
- Not Acceptable – Less than 75% move at a walk or trot
- Serious Problem – Less than 50% move at a walk or trot

**Percentage of cattle moved with an electric goad**

- Excellent – 0% moved with an electric goad
- Acceptable – 5% moved with an electric goad
- Not Acceptable – 20% moved with electric goad
- Serious Problem – Over 20% moved with an electric goad or an animal is moved by an abusive method such as hitting it hard or poking it in a sensitive area such as the eyes, nose, mouth or rectum.

**Percentage of cattle that strike an object such as a lorry/truck door, lorry/truck deck, gates or fences**

(Rubbing against a flat smooth surface such as the inside of the trailer is not counted)

The following events should be scored as striking an object:

- Cattle bumps back on truck deck.
- Cattle bump into the side of the truck door or jams against the door.
- The animal's head strikes a fence or gate.
- An animal is caught between the end of a gate and a fence.
- Cattle bump into a gate latch or bump a gate strike post.

One score is tabulated that includes inside the truck, loading or unloading ramp and pens, fences and gates in the immediate vicinity of the ramp.

- Excellent – 0% strike an object
- Acceptable – 1% strike an object
- Not Acceptable – 2 to 5% strike an object
- Serious Problem – More than 5% strike an object

# SECTION 2
# LIVESTOCK SLAUGHTER (BEEF & PORK)

## INTRODUCTION

**The slaughter of any animal for the production of food must be carried out in a humane manner, and without any suffering to the animal. It is important that staff are familiar with the needs of the animals they work with, and training should be given to all staff handling live animals. One person should be designated as an animal welfare supervisor who has overall responsibility on site.**

## ARRIVAL

Animals should be unloaded from transport vehicles as soon as possible upon arrival at the slaughterhouse/lairage. This is especially crucial during warmer weather conditions as the majority of vehicle ventilation systems are dependent on the forward movement of the vehicle.

To reduce waiting times and ensure animals are unloaded as quickly as possible it is advantageous for a slaughterhouse to operate a scheduling procedure. Each vehicle is designated a specific arrival time which can greatly reduce waiting times to unload animals, ideally waiting times for unloading should not exceed 30 minutes.

### Transport Certificates

To aid in the traceability of the livestock and ensure that transport times are not exceeded, animals should be accompanied by a transport certificate which includes the details mentioned on page 6 (Section 1. Livestock Transport – Transport Certificates).

## UNLOADING

### Unloading – Facilities

The unloading bay should be well designed and help facilitate the movement of animals off the transport vehicle. Ideally, unloading bays should be well-lit and fitted with solid sides to reduce incidents of animals being frightened by staff or other distractions occurring around the unloading bay. Ramp angles should be reduced to a minimum, ideally under 10˚ (a 17.6% slope or a 5.7:1 ratio) and should not exceed the following values:

| Type of animal | Degrees | Slope | Ratio |
|---|---|---|---|
| Cattle | 26.6˚ | 50% | 2.0 : 1 |
| Pigs & Calves | 20˚ | 36% | 2.7 : 1 |

Ramps should be fitted with lateral battens to reduce the likelihood of animals slipping. The animals should be able to move freely and easily from the vehicle onto the unloading bay which should provide a solid, non-slip surface.

Steep ramp angles can increase the risk of animals being injured through slipping, jumping, or falling.

It should be noted that many issues relating to poor animal movement at unloading are usually associated with inadequate or poor facility design.

### Unloading – Staff

Unloading should be undertaken in a way that causes the minimum of distress to the animal. All staff handling live animals should be capable and skilled; ideally training should be provided to ensure staff are competent in all aspects of their work with the animals, this may also include the ability to carry out casualty slaughter.

It is never acceptable for staff to resort to acts of violence or extreme force to move an animal.

Staff handling or moving animals must:

- Never twist, break or crush an animal's tail
- Never grasp or pull an animal's ears
- Never poke the eyes of an animal
- Never jab objects into the animal's mouth, ears, anus or genitals

Animals must never be lifted or dragged by their head, horns, tail, or legs.

There should be a designated and competent member of staff who is responsible for the welfare of the animals on site.

### Unloading – Casualty Animals

If an animal is identified as a casualty it should be treated as a priority. If the animal is able to walk without experiencing any further pain or distress then it can be moved immediately to a

casualty pen or directly to slaughter. Any recumbent animals (unable to walk) must be humanely killed in situ; they should never be dragged, pushed or hoisted by shackles/chains whilst conscious.

Casualty pens should be bedded and provide animals with continuous access to clean drinking water and a thermally comfortable environment.

Examples of bedding materials include: straw, wood shavings, sawdust, rice hulls, shredded paper.

## THE LAIRAGE

### The Lairage (holding pens)

The main objective of a lairage is to provide a secure holding area for the animals, offer protection from the elements (especially extreme weather conditions) and provide drinking water and adequate space to lie and rest. Facilities can vary from a purpose-built unit or a secure field.

Animals should spend no more than 24 hours in a lairage.

Research shows that cattle's ability to adjust to new surroundings may take several days; therefore there is limited benefit to extending the lairaging period for any longer than is absolutely necessary.

Ideally, pigs should be rested for 2 hours prior to slaughter, although if they are calm and stress free at unloading, it is possible to slaughter them immediately.

### The Lairage (holding pen) – Design

**Non-slip flooring -** the floor surface should be designed to minimise the risk of animals slipping (but also be easily cleaned). Smooth concrete should be grooved to reduce slipping; there are also proprietary compounds on the market which can be applied to concrete to improve its non-slip properties. Wet, dirty or slurry covered flooring can also increase the incidence of animals slipping; therefore they should be maintained in a clean, non-slip state.

A good way to monitor whether a cattle system is operating effectively is to measure what is happening via outcome measures (see page 13 'Self-audit criteria for slaughterhouses' for a complete set of measures):

- No animals slipping or falling - Excellent
- Less than 3% of the cattle slip - Acceptable
- 1% fall down (body touches floor) - Not Acceptable
- 2% fall or 15% or more slip - Serious Problem

Certain areas in the lairage can increase the risk of animals slipping, such as corners, handling areas, and unloading bays. Animals will panic if they slip or fall, this makes them harder to handle.

**Facility design –** the route the animals take through the lairage should have a minimal number of corners and turns, it is especially important to avoid 90˚ corners as these can appear to be a dead-end to the animal.

It may be possible to improve poorly designed systems by introducing some simple measures:

- Remove or reduce 90˚ corners and sharp turns
- Improve lighting – animals move easier from dimly light areas to lighter areas, diffuse lighting is best as reflections from wet floors or shiny surfaces can cause animals to baulk
- Remove obstructions and distractions – animals have a wide angle vision, so they can be easily frightened by shadows or moving distractions outside of races and pens. Construct solid sides to pens and raceways to improve sight lines and reduce visible distractions (the use of wooden sheets or plyboard is an simple starting point to identify what works best)
- Improve flooring where animals are observed to be slipping or falling – use the measures listed to identify problem areas
- Reduce noise levels – constant loud noise and sudden noises are particularly frightening to animals, so it is important that staff do not shout and noises from equipment/gates etc. are kept to a minimum

Another way to monitor whether the system is operating well is through the level of vocalisation from the animals themselves. Vocalisation in cattle and pigs can be measured as it is very often in response to an adverse experience. For an explanation and guide to scoring vocalisation use the following link: http://www.grandin.com/auditing.scoring.poor.practices.html

### The Lairage (holding pen) – Environment

Important considerations when animals are held in the lairage:

**Temperature –** animal welfare can be adversely affected by high temperatures, so sufficient levels of ventilation and shade should be provided. Whilst held in the lairage animals should be monitored by staff for any signs of heat stress (especially pigs if they are seen panting). Water can be sprayed onto pigs and cattle via sprinklers or hoses to help keep them cool. The showering of pigs should be stopped when the air temperature is below 5˚C or when pigs start to shiver.

**Humidity –** high temperatures combined with high humidity decreases the animal's ability to lose heat through the process of perspiration (sweating), it is therefore especially important to monitor the animals closely when the humidity is high.

**Air quality –** sufficient ventilation should be provided to adequately control levels of harmful or irritant gases such as carbon dioxide and ammonia. High building ventilation rates are also important in removing excess heat and humidity.

### The Lairage (holding pen) – Water and Feed Provision

All animals must have continuous easy access to clean drinking water. Staff should check regularly that drinkers are working and clean water is available for the animals.

Water access must not be compromised by issues such as
- Insufficient or poorly sited drinking points
- contaminated or dirty water
- drinking points which are not suitable for the animals

Feed should be provided to animals which are being held overnight or for longer than 12 hours. Feed should be provided in a sufficient quantity and be of an acceptable type and quality, with all animals having adequate access to the feed.

### The Lairage (holding pen) – Lying Areas

There are several different types of lying areas which are suitable for animals being held in the lairage. They can be solid, or slatted, and made from concrete, plastic or metal. The important factors are that they provide a non-slip, well drained lying area, which can be easily cleaned when necessary. Sufficient space should be provided to allow all the animals in a pen to lie down and stand up without hindrance.
Animals which are held overnight should be provided with appropriate bedding materials, unless the type of flooring (slatted or mesh) makes its use impractical.

## PRE-SLAUGTHER HANDLING

All actions identified under the section 'Unloading – staff' should be followed for pre-slaughter handling.

For adult cattle and pigs which are refusing to move, an electric goad (battery operated only) may be used, provided that the shocks last no more than two seconds and are adequately spaced out, the animal has room ahead of it in which to move and the shocks are only applied to the muscles of the hindquarters. Goads should not be used on a routine basis and staff must not continually hold them as this can lead to habitual and casual use.

Electric goads must never be used on recumbent animals
- If the electric goad is used on more than 25% of the cattle, then there is a fundamental problem with the handling system, which should be reviewed. The aim should be to use the goad on no cattle, but use on 5% of the cattle or less is deemed good.

The use of flags, plastic paddles/flappers and pig boards should be used to encourage animals to move forward, and should never be used to hit or strike the animals.

### Animal Behaviour and Handling

Staff working with animals should understand their behavioural patterns and use these principles to help handle them.

For more information on handling techniques and behavioural principles follow the link:
http://www.grandin.com/behaviour/principles/flight.zone.html

## STUNNING & SLAUGHTER

### Stunning & Slaughter – Staff Training

Any staff undertaking the stunning and slaughter of animals, including casualty animals, must be properly trained and competent. Training should be provided by a competent person or authority with approved staff receiving a certificate of proficiency detailing which duties they are permitted to perform.

### Stunning & Slaughter – Restraining Animals

To ensure that animals are correctly restrained the following provisions should be provided:
- The stun box/restrainer should have a non-slip floor (animals which trip or slip will panic).
- Equipment designed to restrain the animal must not exert too much pressure, it is not acceptable to observe animal's struggling or vocalising.
- Equipment designed to restrain the animals must be appropriately maintained to avoid distress (sharp edges).
- Animals should never be immobilised by cutting leg tendons, by severing the spinal cord, or through the use of electric currents.

## Stunning & Slaughter

Animals must not be moved to the stunning point unless the slaughterman can immediately stun them

Acceptable methods of stunning includes:

**Captive bolt,** the gun should be angled correctly and be fired with sufficient force to pass through the skull and enter into the brain. Immediately after the animal is shot it should collapse, have no signs of rhythmic breathing, have a relaxed jaw, with the tongue hanging out, the pupils of the eyes should be fixed and fully dilated, with no corneal reflex.

**Free bullet (live rounds),** the animal should be stunned with a single shot to the head (shooting in the chest or neck is not a method of stunning and must never be used). The strength of the bullet should be appropriate for the species and size of the animal. A single shot should render the animal immediately unconscious. It is important that local and national laws are complied with and the increased risk to staff by using live rounds is considered.

**Electrical stunning,** sufficient amperage must be passed through an animal's brain to induce an epileptic seizure.

- A minimum of 1.2 amps for at least 2 seconds must be passed through a bovine's brain for an effective stun.
- A minimum of 1.3 amps for at least 3 seconds must be passed through a pig's brain for an effective stun.

When head only (reversible) electrical stunning is used it is recommended that:

- Pigs are bled within 15 seconds of stunning.
- Cattle are bled within 10 seconds of stunning.

Stun to bleed intervals are less critical when non-reversible stunning methods (after the head stun, a second electrical current is applied to the animal's body to induce a cardiac arrest) are used but effective bleeding is essential to insure that all animals are dead prior to any other dressing procedures are carried out.

**Gas –** (Pigs only) a $CO_2$ concentration of over 90% is recommended with an absolute minimum level of 70%, all systems should be fitted with an audible and visual alarm which are triggered in the event of gas levels falling below the minimum 70% level. Once placed into the system pigs should be lowered into the maximum gas concentration within 30 seconds. All pigs should be dead or irrecoverably stunned when they exit the system; any natural or spontaneous blinking is not acceptable. Ideally a corneal reflex (induced by touch) should not be seen.

No animal which is conscious should be suspended or hoisted.

Stunned and shackled animals must not have an arched-back righting reflex, any animal which is fully conscious and suspended upside-down will arch their backs in an attempt to lift their heads and right themselves.

How to determine insensibility and signs of an effective stun: http://www.grandin.com/humane/insensibility.html

## Stunning & Slaughter – Equipment

All equipment used to stun or kill animals should be checked and serviced daily. Any maintenance or repairs should be recorded. Captive-bolts should be stripped down, inspected, and cleaned after use; if there are any concerns about its operation then it is recommended that the velocity is checked.

Any electrical stunning equipment should have the current and voltage checked under load every day prior to operation. Electrodes should be cleaned regularly throughout the day to ensure good electrical contact with the animal.

Suitable back-up equipment must be easily accessible, at all times for use in an emergency. Back-up equipment must also be maintained on a regular basis.

## SLAUGHTER WITHOUT STUNNING

### Religious non–Stun Slaughter

Unilever accepts that Shechita and some Halal methods of slaughter involve animals being slaughtered without prior stunning. Unilever recognises that Religious freedom is important and whenever possible stunning of the animal should be carried out prior to slaughter.

The following recommendations have been developed to provide guidance and current good practice, by following these guidelines it can significantly reduce the animal's distress and pain during the slaughtering process. Suppliers are encouraged to implement these recommendations if stunning is not carried out prior to slaughter:

- Flooring of the restraint box must be non-slip and lighting should encourage animals to enter.
- Animals must be restrained in a comfortable and upright position.
- Conscious animals must never be shackled, hoisted or dragged.
- The animal's body must be fully supported if its feet are lifted off the floor.
- Restraint devices must apply adequate pressure to provide the animal with the sensation of being held. Excessive pressure will cause the animal to struggle.
- Staff must operate restraint devices with a steady smooth motion. Rapid and erratic movements of restraint devices will cause the animals to become fearful and agitated.
- Head restraining devices should not cause excessive extension of the neck; the animal's forehead should be parallel to the floor.
- Once the animal is completely restrained slaughter must be performed within 10 seconds.
- Knives used to slaughter the animals should be twice as long as the width of the animal's neck and be extremely sharp.
- A swift single cut must be made and the wound must not be allowed to close over the knife.
- Animals must not be removed from the restraint box until they have lost sensibility.
- 90% of cattle should collapse within 10 seconds of slaughter.
- If the animal does not collapse within 20 seconds it should be shot with a captive bolt prior to being released from the restrainer box.

For more information on religious slaughter follow the link below:
http://www.grandin.com/ritual/rec.ritual.slaughter.html

## TOUR OF A BEEF PACKING PLANT

The film 'Tour of a Beef Packing Plant' has been produced by the American Meat Institute and is presented by Temple Grandin, it shows how some of the practices outlined in this guide work in practice. To view the film use the following link:
http://www.animalhandling.org/ht/d/sp/i/80622/pid/80622

## SELF-AUDIT CRITERIA FOR SLAUGHTERHOUSES

During any audits of the factory no wilful acts of abuse should be seen. Wilful acts of abuse are, but not limited to:

- dragging a conscious, non-ambulatory animal
- intentionally applying electric prods to sensitive parts of the animal such as the eyes, ears, nose, anus or testicles
- deliberate slamming of gates on livestock
- malicious driving of ambulatory livestock on top of one another either manually or with direct contact with motorized equipment.
- hitting or beating an animal

Scoring should be based on a minimum of 100 animals in large plants and 50 in smaller plants. For a more accurate assessment in small plants, data collected over a period of time should be averaged. These criteria apply to all species.

Scoring for falling and slipping at the unloading area and at the stunning chute / race:

- Excellent – No slipping or falling
- Acceptable – 1% or fewer of the animals falling (body touches floor), or 3% slipping
- Not Acceptable – More than 1% of the animals falling down
- Serious Problem – 5% or more of the animals falling down, or 15% slipping

Vocalization is an indicator of discomfort; an animal should be scored as a vocalizer if the vocalization is associated with:

- Poking with an electric prod
- Slipping or falling
- Vocalizing in the stun box
- Poking by sharp edges on equipment
- Hitting with a gate
- Excessive pressure from a restraint device
- Missed stuns
- Physical abuse by a person
- Signs of agitation such as rearing, jumping, and repeated backing up in the single file race or frantic attempts to escape
- Isolation of a single animal away from other cattle

Score a minimum of 100 animals in large plants and 50 in smaller plants.

- Excellent – 1% or less of the cattle vocalize
- Acceptable – 3% or less of the cattle vocalize
- Not Acceptable – 3 to 10% vocalize
- Serious Problem – More than 10% vocalize

** A single animal that vocalises more than once in a certain situation is counted as one.*

Electric goad use scoring criteria for cattle - Percentage of animals goaded

- Good – 5% or less
- Acceptable – 25% or less
- Not Acceptable – 26 to 49%
- Serious Problem – 50% or more

When evaluating the effectiveness of captive bolt stunning, the auditor monitors whether or not an animal is rendered insensible with a single shot.

- Excellent – 99 to 100% instantly rendered insensible with one shot
- Acceptable – 95 to 98% instantly rendered insensible with one shot
- Not Acceptable – 90 to 94% instantly rendered insensible with one shot
- Serious Problem – less than 90% instantly rendered insensible with one shot

Electric goad use scoring criteria for pigs entering a single file race for electric or $CO_2$ system - Percentage of animals goaded:

- Good – 10% or less
- Acceptable – 25% or less
- Not Acceptable – 26 to 79%
- Serious Problem – 80% or more

Electric goad use scoring for pigs using $CO_2$ / group stunning system or systems where pigs are stunned on the floor in groups – (Not to be used for measuring a single file chute/race system) - Percentage of animals goaded:

- Excellent – 0%
- Acceptable – 5% or less
- Not Acceptable – 6 to 10%
- Serious Problem – 11% or more

Effective Electrical Stunning of Pigs

- Excellent – 99.5 to 100% correct placement of stunning equipment with no vocalization
- Acceptable – 99.4 to 99% correct placement of stunning equipment with 1% or less of animals vocalising
- Not Acceptable – 98 to 96% correct placement of stunning equipment or 2-3% animals vocalising
- Serious Problem – Less than 96% correct placement of stunning equipment or more than 4% of animals vocalising

A full explanation of these measures can be found at:
http://www.grandin.com/interpreting.ami.guidelines.html

A pig audit checklist can be downloaded at:
http://www.grandin.com/pig.audit.form.html

A beef audit checklist can be downloaded from:
http://www.grandin.com/cattle.audit.form.html

# SECTION 3
# LIVESTOCK TRANSPORT (POULTRY)

## INTRODUCTION

**The following recommendations and guidelines are aimed to provide farmers, hauliers and slaughter plants with a framework by which high levels of welfare could be achieved during the transport of livestock.**

**Ideally, anyone responsible for the haulage of live animals (farmers, commercial hauliers) should be approved under a global, national or local assurance scheme (if available) or, as a minimum, should ensure that the vehicles used are compliant to country-specific transport legislation.**

**Ideally drivers should be trained and hold a recognised certificate of competence (if approved training courses are available), or as a minimum be aware of the health and welfare requirements of the animals they transport and the legislation surrounding their transport. Training should be reviewed and refreshed periodically, with records maintained.**

## VEHICLES

Operators of vehicles, whether farmers or commercial hauliers, should only use vehicles which are fit for the purpose of transporting live animals.

There are broadly three types of system used for transporting poultry:

- Modular systems – birds are placed into drawers within a module that are then loaded by forklift onto a transport vehicle.
- Loose basket systems – the baskets containing birds are stacked individually on a transport vehicle.
- Fixed cages – birds are loaded straight into cages on a vehicle.

Recommended guidelines for transport vehicles are:

- Transport containers must be well-maintained. Broken or damaged transport containers must not be used as they are likely to cause injuries to the birds. Transport containers should prevent the bird's head, feet or wings from projecting outside of the container where it may become trapped or injured.
- The vehicle must be suitably equipped to provide protection to the birds from prevailing road and/or weather conditions.
- The vehicle must be suitably equipped to provide appropriate ventilation (natural or mechanical), especially in warm/hot weather conditions to ensure sufficient airflow through the vehicle to prevent the birds from becoming over-heated.
- The transport containers must be held securely on the vehicle.
- Birds must not be able to escape from the transport containers.

POULTRY

## CATCHING, LOADING AND UNLOADING OF POULTRY

### Fitness to Travel

All birds must be fit to travel and the journey should not cause suffering or injury to the birds.
Immediately prior to catching there should be a final detailed inspection of the flock and any birds that are deemed unfit to travel must be humanely and immediately culled by a trained operative.
If unfit birds are identified during the catching process, they should also be humanely and immediately culled by a trained operative.

## CATCHING AND HANDLING

All personnel used in the catching and handling of poultry should be trained and competent (training should ideally be conducted by an approved trainer or course e.g. Fundamentals of Poultry Welfare at Slaughter http://www.rlfundamentals.com). Personnel should handle the birds in a calm and compassionate manner at all times.

Feed should be withdrawn from the birds so their intestines are empty at slaughter / processing, this period should not extend for more than 12 hours (measured from the time the feeders are empty to slaughter). Birds should have access to water until the start of catching.

Light levels in the house should be dimmed or blue lighting can be used to help calm the birds prior to catching. Light ingress from doorways should be prevented; this can be achieved by hanging black curtains in the doorways, or using staff to open and close the doors as necessary. If light ingress cannot be adequately controlled, then it is possible to use frames or the transport containers to make small pens to surround small groups of birds during the catching process.
It is essential that the ventilation in the house is maintained throughout the catching process.

When handling or moving birds:

- Never pick up any birds by the head, neck or wing.
- Never inflict a blow or kick a bird.
- Never cause or inflict an injury to a bird.
- Never throw birds into the transport containers.

Transport containers should be placed as close to the birds as possible, so they are carried for as short a distance as possible.

Poultry are caught by one of two methods:

- Manual
- Automatic

Manual catching can be carried out by one of the following methods (in order of preference):

1. Ideally birds should be caught individually, with catchers placing both hands around the bird's body (single bird catching and bird carried upright).
2. The second option is to catch and carry the bird by both its legs (can be single or multiple birds carried in each hand and the bird is inverted).
3. The last method is to catch and carry the bird by one leg (multiple birds carried per hand and the bird is inverted).

Where laying birds are removed from a cage system, they should be caught by both legs and then carefully withdrawn from the cage. It may be necessary to use a 'feeder protector' which stops the bird's keel bone hitting the edge of the feed trough. When catching from an enriched cage system it is essential that catchers work from both sides of the same cage at the same time which avoids birds moving out of the catcher's reach.

When automatic catching equipment is used (in deep litter systems), they should not cause fear, distress or injury to the birds. Attention should be paid to the way in which the birds are picked-up and to conveyor systems that move birds to the transport containers. The equipment should not trap the birds or cause injury.

**It is essential that the number of birds placed into each transport container is accurately controlled to ensure that they are not over-stocked. This applies to both manual and automatic catching systems.**

## LOADING

### Loading Vehicles

Where transport containers are moved to the vehicle, they should be kept level to avoid birds sliding to one end of the container, not shaken or raised/lowered too quickly. The containers must be carefully stacked and a final check made to ensure that no heads, wings or feet are protruding from the containers.

## STOCKING DENSITIES

Stocking densities in transport containers must be appropriate to the weight of the bird, distance transported and the climatic conditions (stocking densities should be reduced in warmer climates).

*Reference: European Food Safety Authority, "The welfare of animals during transport", Scientific Report of the Scientific Panel on Animal Health and Welfare on a request from the Commission related to the welfare of animals during transport (Question N° EFSA-Q-2003-094), Adopted on 30th March 2004.*

A summary of floor space allowances for birds weighing 2 kg and 2.5 kg is given in the following table:

| Bird weight | Country | Space ($cm^2$ / kg) |
|---|---|---|
| 2 kg | Canada | 158.7 |
| | New Zealand | 150.0 |
| | European Union | 160.0 |
| 2.5 kg | Canada | 158.7 |
| | New Zealand | 150.0 |
| | European Union | 160.0 |

*Source: EC 95/29, 1/2005 the Welfare of Animals during Transport Orders (WATO))*

The current transport stocking density for broilers detailed in the EC 95/29 legislation and WATO, 1997 are:

| Birds body weight | Space allowance |
|---|---|
| ⩽ 1.6 kg | 180-200 $cm^2$ $kg^{-1}$ |
| ⩽1.6 but ⩽3.0 kg | 160 $cm^2$ $kg^{-1}$ |
| ⩽3.0 but ⩽ 5.0 kg | 115 $cm^2$ $kg^{-1}$ |
| ⩽5.0 kg | 105 $cm^2$ $kg^{-1}$ |

It should be noted that it may be necessary to reduce stocking densities in hot weather to avoid hyperthermia which can increase transport mortality.

## RECORDS

### Transport Certificates

To aid in the traceability of the birds, monitor transport times and stocking densities, loads should be accompanied by a transport certificate which includes the following information:

- Name & address of farm
- The ID of the house(s)*
- Details of haulier / driver
- ID / registration number of vehicle
- Destination
- Date & time when catching began
- The time when the vehicle was fully loaded
- The time when the vehicle left the farm
- The number of birds per container
- The total number of full containers and total number of birds on the load
- The time at which the vehicle arrived at the slaughterhouse

** If birds are caught from more than one house onto a single vehicle, then there should be a clear record of the number of birds originating from each house. Each group should be clearly identifiable on the vehicle.*

At the slaughterhouse the time when the load started to be processed should also be recorded.

## JOURNEY TIMES

Regulation within the European Union states that: *birds must not be without feed for any longer than 12 hours prior to being slaughtered*, consequently this effectively limits the journey time to a proportion of this limit. *Reference: Welfare of Animals during Transport, Council Regulations EC NO 1/2005*.

It is considered good practice to limit the journey time to 4 hours, as the percentage of birds found dead on arrival at the slaughterhouse increases after 4 hours and more rapidly after 6 hours – *Reference: Warriss, P.D., Bevis, E.A., Brown, S.N. and Edwards, J.E. (1992a). Longer journeys to processing plants are associated with higher mortality in broiler chickens. British Poultry Science, 33, 201-206.*

## EMERGENCY / CONTINGENCY PLANS

It is recommended that anyone transporting poultry makes contingency plans to deal with emergencies that can arise during a journey such as unforeseen delays, breakdowns or accidents. Drivers should also be equipped with mobile telephones and have contact numbers for emergency use.

## AUDIT CRITERIA FOR POULTRY CATCHING AND TRANSPORT

### Outcome Measures

The following section details how to monitor and measure the catching and transport procedures. The measures below will allow farmers, hauliers and slaughterhouses to measure how their systems operate and whether any changes need to be implemented to improve the welfare of the birds.

- **Number of birds that are 'Dead on Arrival' at the slaughterhouse (DOA's)**

This is calculated by counting the number of dead birds at the 'hang-on' point and expressing this figure as a percentage of the total number of birds on the load.

*This figure should ideally not exceed 0.25% and should never exceed 0.5%, in which case the cause must be identified and corrective actions implemented.*

- **Percentage of broilers with bruised wings, legs or breasts (a sample of 100 birds from each load to be checked for each problem)**

This is calculated by counting the number of birds with these conditions after de-feathering and expressing this figure as a percentage of the number of birds assessed.

It is common practice to make a judgement of whether bruising occurred before catching (green bruises) or during the catching / loading / slaughter process (red bruises).

*There is no amount of bruising that is acceptable, but the aim should to have levels below 1% and continuously monitor and reduce them.*

- **Percentage of broilers with dislocated / broken wings or legs (a sample of 100 birds from each load to be checked for each problem)**

This is calculated by counting the number of birds with these conditions after de-feathering and expressing this figure as a percentage of the number of birds assessed.

It is common practice to make a judgement of whether any dislocations / broken bones occurred before (associated with blood / bruising) or after slaughter (no blood / bruising), possibly caused by the de-feathering equipment.

*There is no amount of dislocated / broken wings or legs that is acceptable, but the aim should be to have levels below 1% and continuously monitor and reduce them.*

**Data Analysis**

The measures defined above should be analysed by the following factors:

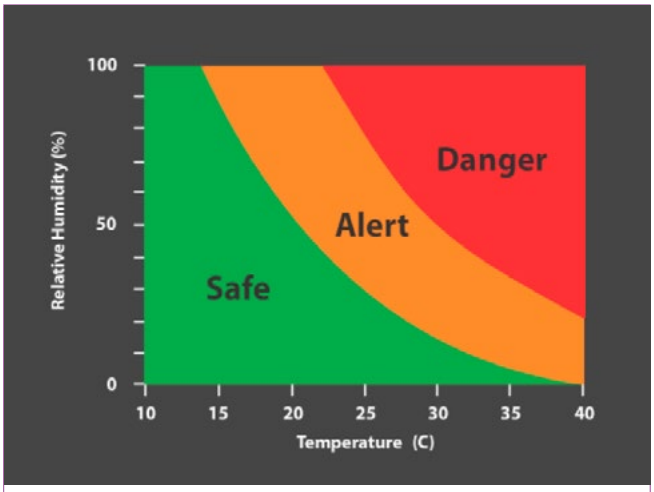
- Farm / catching team
- Vehicle / driver / journey time
- Weather conditions
- Time held at the slaughterhouse

Analysis in this way helps to identify the root cause of any issues and should form part of a continuous improvement programme.

# SECTION 4
# LIVESTOCK SLAUGHTER (POULTRY)

## INTRODUCTION

**The slaughter of any bird for the production of food must be carried out in a humane manner, and without any unnecessary suffering. It is important that training should be given to all staff handling and slaughtering poultry. One person should be designated as an animal welfare supervisor who has overall responsibility for poultry health and welfare on site.**




Department of Environment, Food and Rural Affairs:
Guide to the Alleviation of Thermal Stress in Poultry in Lairage

## ARRIVAL

On arrival at the slaughterhouse, if the birds are not be slaughtered immediately, they should be placed in a holding area (the lairage) that provides protection and/or shade from adverse weather conditions. Suitable ventilation should also be provided during periods of warm weather. It may be necessary to use fans to increase airflow and in hotter climates, it could also be necessary to use misting or cooling systems.

In some situations the lairage will accommodate the entire trailer, or the transport containers can be unloaded from the trailer and placed into the lairage.

The birds should be inspected on arrival, staff should look for any signs that birds are distressed, injured, too hot (panting) or too cold (huddled), and procedures should be in place to deal with any of these situations.

The temperature and humidity in the lairage should be regularly checked when birds are being held prior to slaughter. The diagram below shows how the combined effects of temperature and humidity interact and increase the risk of heat stress occurring in the birds. High humidity levels will reduce the temperature at which birds start to experience heat stress. By monitoring both temperature and humidity it will ensure environmental conditions are maintained in the 'safe zone' which allows the birds to maintain an acceptable body temperature and will not compromise their welfare.

## PLANNING / SCHEDULING

It is essential that the entire catching and transportation schedule is carefully planned and this is kept under constant review. If the slaughterhouse experiences any problems or breakdowns, a system should be in place to allow the catching teams to respond on farm. In some circumstances it may be necessary to delay or stop the catch to ensure that maximum catch to slaughter times (see page 17 – Journey Times) are not exceeded.

If all the birds transported to the slaughterhouse cannot be processed during the day, due to a breakdown, then a decision must be made in conjunction with the official veterinary surgeon to determine the best course of action. It may be that birds can be moved to another slaughterhouse, taken back to the farm or held until the problem is rectified.

## TRANSPORT CERTIFICATES

To aid in the traceability of the poultry and ensure that transport times are not exceeded, all loads should be accompanied by a transport certificate (see page 7 – Transport Certificates). The time of arrival at the slaughterhouse should be recorded and an accurate weight of the vehicle taken via a weighbridge. This allows the stocking density of the birds to be checked and verified.

## UNLOADING

### Unloading the Vehicle

There are various systems used for unloading transport containers off vehicles, these systems depend on the stunning or killing system used (electric water-bath or controlled atmosphere) and the equipment manufacturer.

Systems vary from manually removing birds from 'side-loaders' through to manually lifting containers from the vehicles, and to systems which use forklifts, hoists or automated systems that remove the modules onto a conveyor system.

When unloading birds in transport containers, staff must ensure that:

- Transport containers are handled and moved with care.
- Transport containers are kept level, not jolted, raised or lowered too fast.
- When stacking transport containers in the lairage there is adequate space between them to allow sufficient airflow around the containers.

Birds should be slaughtered or killed as soon as possible after their arrival at the slaughterhouse, and the amount of time spent in the lairage minimised.

### Unloading the Transport Containers & Shackling

Live birds should be presented to the 'hang-on' team in a way that minimises the amount of handling prior to shackling. There are many different transport containers, which provide a diverse range of openings and access to the birds. In any case care must be used when removing birds from their transport containers so as not to cause injuries or damage to the birds. This is especially important when dealing with spent laying hens as rough handling will result in fractures to the legs and hip joints.

High-speed poultry processing lines utilise shackle systems in which the birds are suspended upside down by their legs / feet. Shackling is known to be a stressful experience for live birds and the time that the birds are shackled should be minimised wherever possible. Ideally the time from shackle to stun should be for no more than one minute.

**N.B. this becomes a legal requirement in the EU from January 2013 for all newly built slaughterhouses and from January 2019 for all existing slaughterhouses.**

Where birds are live shackled, it is essential that they are shackled by both legs and the shackle should be the correct size to accommodate the shank of the leg of bird being slaughtered (it may be necessary to have different sizes of shackle available). Live bird shackle lines should also have a 'breast comforter' (or breast rub strip) fitted which runs from the first hang-on point all the way through to the stunner point. The bird's breast should contact this strip at all times and it will help to calm the birds and reduce wing flapping prior to stunning.

Ideally, stunning or killing the birds whilst they remain in their transport containers is the best approach; this has the distinct advantage of not having to shackle live birds. This is generally only possible with controlled atmosphere systems. Some controlled atmosphere systems do require the birds to be removed from the transport containers and the birds then enter the system on a conveyor belt. In these systems the removal of the birds should be as smooth and gentle as possible. Such systems commonly include a tipping mechanism and it should be ensured that ramps or slides are incorporated to minimise any drops.

POULTRY

All systems should be designed to ensure that birds do not escape, and any birds which do must be caught immediately and returned to the slaughter line.

A system should be in place to ensure that all transport containers are empty before they are sent through the washer. At all times birds must be handled carefully to ensure that their welfare is not compromised.

## STAFF - COMPETENCE

Effective animal welfare training is essential for all staff who work in the live bird areas of the slaughterhouse. All staff should be aware of, and be sensitive to the welfare of birds. Staff must be trained to recognise signs of distress, and injury, and be competent in bird handling and, if necessary, casualty slaughter.

Shackling staff should be trained to recognise birds that are unfit, either because they are sick or injured, or if they are too small (birds that are too small may pass over the water-bath and not be stunned).

Slaughter staff should receive additional training which covers the slaughter method used by the factory, how to recognise signs of recovery, signs of an effective stun and how to carry out casualty slaughter. Ideally slaughter staff should receive a licence or certificate of competence from a veterinary surgeon or other competent authority which details the procedures the licence holder can carry out and the type of equipment they can use.

It is never acceptable for staff to kick, strike, throw or deliberately injure a bird.

There should be a designated and competent member of staff who is responsible for the welfare of the birds and they must be present when live birds are on site.

## STUNNING & SLAUGTHER

### Controlled Atmosphere

In controlled atmosphere systems a non-aversive gas mixture should be used (as permitted by local legislation). The birds must be placed into an environment that already contains the correct concentration of the gasses to be used. The system should automatically control the concentrations of the gas mix and should have an audible and visual alarm which triggers if key gases fall out of desired parameters.

The majority of controlled atmosphere systems are designed to kill the birds, but systems are available that only stun the birds. If stunning is used the birds neck must be cut immediately on exit from the system (see later section – Neck Cut) to ensure it does not recover consciousness.

### Electric Water-Bath

A breast comforter should be in place right up to the stunner to help settle the birds and reduce the likelihood of birds flapping their wings and 'flying' over the stun-bath. In electric water-bath systems it is essential that the birds enter the bath without receiving a pre-stun shock. To achieve this, an insulated entry ramp should be used. The bird's head should be the first part of the body to contact the water-bath and this should deliver an immediate and effective stun.

The height of the bath, position of the entry ramp and electrical stunning parameters should be adjusted to suit the size of each load of birds being processed.

The stunner settings used must be compliant with local legislation and deliver an effective stun. The birds should be regularly checked to ensure that the stun is effective. The stunner settings (current and frequency) should also be regularly checked.

Signs of an effective electrical stun *(reference Humane Slaughter Association)* include:

- neck arched with head held vertically
- no rhythmic breathing
- rigidly extended legs
- constant, rapid body tremors
- absence of a third eyelid (nictitating membrane) reflex
- wings held tightly against body

If any bird is seen to miss the stun bath, it must immediately be humanely culled. The most practical way of achieving this is by using neck dislocation followed by an effective neck-cut. Only fully trained operatives are permitted to carry out this procedure (see page 19 – Staff - Competence).

Council Regulation (EC) No 1099/2009, of 24 September 2009, on the protection of animals at the time of killing states the following Electrical requirements for water-bath stunning equipment (average values per animal).

| Frequency | Current |
|---|---|
| < 200 Hz | 100 mA |
| From 200 to 400 Hz | 150 mA |
| From 400 to 1500 Hz | 200 mA |

### New Technologies

Unilever recognises that there are new stunning technologies in development; they should be carefully assessed and evaluated, then approved by a competent authority with a view to adoption if they do deliver a benefit.

The evaluation and potential adoption of such technologies is encouraged.

### Neck Cut

After exiting the water-bath stunner or controlled atmosphere system, all birds should have their necks cut. In systems where the birds are stunned only, this must occur as quickly as possible, typically after no more than 10 seconds. Ideally, both carotid arteries and jugular veins should be severed to ensure a rapid loss of blood and death (if stunned). No further processes are permitted to take place until the bird has bled for at least 90 seconds.

The neck cut can either be automated or carried out manually. In all cases, an appropriate number of trained and licensed / competent slaughter men must be in place to ensure that all birds are checked for an effective neck cut. If any birds have been cut ineffectively, or missed completely, it is the responsibility of the slaughterman to ensure the vessels are effectively cut.

After the bleed line, birds will pass into the scald tank. It is critical that all birds are dead before they enter the scald tank.

## SLAUGHTER WITHOUT STUNNING

### Religious non–Stun Slaughter

Unilever accepts that Shechita and some Halal methods of slaughter involve poultry being slaughtered without prior stunning. Unilever recognises that religious freedom is important, but, whenever possible, stunning of the animal should be carried out prior to slaughter.

The following recommendations have been developed to provide guidance and current good practice. Following these guidelines can significantly reduce the bird's distress and pain during the slaughtering process. Suppliers are encouraged to implement these recommendations if stunning is not carried out prior to slaughter:

- Knives used to slaughter the birds must have a blade that is at least twice as long as the width of the bird's neck and be extremely sharp.
- The condition of the blade should be perfect, without flaws.
- A swift single cut must be made and the wound must not be allowed to close over the knife.

## SELF-AUDIT CRITERIA FOR SLAUGHTERHOUSES

### Outcome Measures

The following section details how to monitor and measure the slaughter of poultry. The measures below will allow the slaughterhouses to measure how their system operates and whether any changes need to be implemented to improve the system for the birds.

A sample of birds from every load should be monitored for the following measures:

**Effectiveness of stun**

Check post stun to assess the percentage of birds stunned effectively prior to neck cutting. Ensure that no birds that are missing the stun bath completely. Check further down the line to see whether the birds exhibit any signs of recovery.

*Temple Grandin Chicken Welfare Audit; Stunner Efficacy Percentage:*

- *Score 300* birds or more (preferably from different groups)*
- *100% of Birds stunned = Excellent.*
- *99% of birds stunned = Acceptable*

**Effectiveness of neck cut**

Check immediately after the neck-cut to assess the percentage of birds that are being cut effectively first time. Check that no birds pass the back-up slaughterman without having an effective neck cut.

*98% of birds should be effectively cut after mechanical (primary) cutting, then 100% after backup process is complete (after slaughterman).*

**Pre-scald tank check**

Check the entry point to the scald tank to ensure that the birds are dead.

*100% of the birds must be dead at this point.*

**Percentage of birds with bruised / dislocated / broken wings**

This is simply calculated by counting the number of birds with these conditions after de-feathering and expressing this figure as a percentage number of birds in the sample.

It is common practice to make a judgement of whether any dislocations / broken bones occurred before (associated with blood / bruising) or after slaughter (no blood / bruising), possibly caused by the de-feathering equipment.

It is recognised that this damage may occur at catch, during transportation, during the hang-on process or at stun. Nevertheless, by analysing this data across many loads / farms it may be possible to establish whether there are any problems being caused by the slaughter process.

** C.J. Clopper and E.S. Pearson. The use of confidence or fiducial limits illustrated in the case of the binomial. Biometrika 26 (4) p. 404-413. 1934.*

**Lead Editors**
Vanessa King, Unilever Sustainable Sourcing Development Team
Klaas Jan van Calker, Sustainable Sourcing Consultant (Dairy)

**External Advisers**
FAI Farms Ltd.

Version 1



**For further information/contact**
For Suppliers: www.unileversuppliers.com
Publications: www.unilever.com/sustainable-living/news/publications/

**Acknowledgements**
Design A10plus, Rotterdam, www.a10plus.nl

**Unilever PLC**
100VE
100 Victoria Embankment
London EC4Y 0DY

T: +44 (0)20 7822 5252
**www.unilever.com**

Unilever