TECHNOLOGY TRANSFER
FOR THE LIVESTOCK INDUSTRY

representing the Scottish red meat industry

An information and training package
produced by
QMS
for farm animal transport

livestock transport
cattle sheep and pigs
handle with care...

Price: £10.00
Further information

The information contained in this document cannot cover all the relevant issues in detail. The documents listed below contain further details, and the contact list gives links to specialist advice.


The EU Drivers’ Hours Rules. Road Haulage Association.

SFQC Ltd
Royal Highland Centre
10th Avenue,
Ingliston,
Edinburgh
EH28 8NF
Tel: 0131 335 6600
Fax: 0131 335 6601
Email: info@sfqc.co.uk

QMS
The Rural Centre
Ingliston
Newbridge
Midlothian
EH28 8NZ
Tel: 0131 4724040
Fax: 0131 4724038
www.qmscotland.co.uk

Road Haulage Association
Scotland & Northern Ireland
Roadway House
The Rural Centre
Ingliston
Newbridge
EH28 8NZ
Tel: 0131 472 4180

NFUS
The Rural Centre
Ingliston
Newbridge
EH28 8NZ
Tel: 0131 4724000
Fax: 0131 4724010
www.nfus.org.uk

The Rural Directorate
Animal Health and Welfare Division
Room 350
Pentland House
47 Robb’s Loan
EDINBURGH
EH14 1TY
Tel. 0131 244 6479
www.scotland.gov.uk

Scottish Pig Producers Ltd
28 King Street
Huntly
AB54 8DG
Tel: 01466 792284

An information package for drivers involved in the transport of all farm livestock

Contents

Introduction Who needs certificates of competence. 1
Animal behaviour Animal experience influences how they react to handling. 2
The different influences; how to manage; use of the flight zone. 2
Causes of stress Animal groups, and where separation is required. 3
Stress on young or pregnant stock. 3
Appropriate handling Good preparation. Taking charge, and correct use of persuasion. 4
Rules for the use of goads. 4
Loading and unloading Stress of loading. Factors to consider before loading. Ramp angles. 5
Fitness to travel Responsibilities; what is fit or not fit for travel? 6
New requirements for young animals. Bedding. 6
Casualty animals Transport to the nearest suitable location. Veterinary advice. 7
Hygiene Controlling the risk of disease spread, and creating a good image. 8
The rules on cleaning vehicles. 8
Stocking density Factors that influence stocking density, such as weather. 9
Current guidance on numbers. 9
Journey times Additional vehicle requirements for journeys over 8 hours. 11
Requirements for feed and water. 11
Drivers hours Summary of new EC Regulations. 12
Journey planning/Contingency plans Journeys start when the first animal is loaded. 13
List contact numbers for advice. Always plan ahead. 13
Ventilation Fresh air, removal of heat, management of temperature stress. 14
Vehicle construction and use Checklist for vehicle use, including lighting. 15
Certification of vehicles for over 8 hour journeys. 15
Driving safely How driver skill influences animal welfare and product quality. 17
The value of smooth operations, braking and attention to tyres. 17
Health and safety Your safety in a difficult job. Personal hygiene. 18
Legislation Who is responsible for what. The driver is always responsible for livestock on their vehicle. 19
Paperwork Animal Transport certificates, Authorisations, Certificates of Competence. 20
Enforcement Who is responsible for checking animal welfare, and what are their powers. 21
Exports Additional requirements for the export trade. Journey logs. 22
Further information Guidance notes and local contacts. 23

Produced by:
Jamie Robertson
Livestock Management Systems
Pioneer House, Aberdeen, AB11 5DE

With thanks to:
the QMS livestock transport steering group,
the hauliers, and other kind contributors
Introduction...

From 5th January 2008 all transporters and attendants using road vehicles for transporting farm animals (including poultry and horses) must have received appropriate training, and must hold a certificate of competence issued by an independent body. This booklet is intended to form part of the required training, along with the experience gained in practice with the handling and transport of farm animals.

Additional information can be found in the guidance notes 'Welfare of Animals During Transport' published by Defra, and available on the web at www.defra.gov.uk

The requirement for training and certification of competence applies to any driver/attendant transporting farm animals by road, but not if the journey is:

a. Not in connection with an economic activity;
b. By farmers using their own or agricultural vehicles for seasonal migration, such as moving stock to summer pasture or winter grazing;
c. By farmers of their own animals in their own vehicles for a distance of less than 50km (31 miles) from their holding;
d. The journey is 65km (40 miles) travelled distance or less;
e. Directly to/from veterinary practices or clinics under the advice of a veterinarian

Assessment of competence will be available from a variety of sources. SFQC can provide certified assessment. See the section on information sources on page 23 for further details.

Assessments of those involved in journeys under 8 hours are provided by means of a multiple choice theory test. Drivers involved in journeys over 8 hours will also require a practical assessment of competence including driving and animal handling skills

Assessment of competence will, for most drivers, provide recognition of the skills and knowledge that they already hold.

Exports...

Remember the need for a valid vehicle approval certificate for journeys over 8 hours to EU member states. There will also be a requirement for a journey plan and a journey log.

A journey log requires detail of the following:

1. Planning
2. Place of departure
3. Place of destination
4. Declaration by transporter
5. Specimen anomaly report

Full details are available in the Defra guidance notes. www.defra.gov.uk
A knowledge of how animals are likely to behave is an essential ingredient of successful livestock haulage, and is now a requirement under law. For most operatives this knowledge is already present, and the notes below are purely intended as a reminder. However, it is not reasonable to expect new entrants to the industry to have the same knowledge as experienced staff, and there is an obligation on the sector to make sure that drivers are well informed.

The way in which animals react to transport will influence the degree of stress that the transport impacts on them. There are many aspects to be considered, including:

- Previous exposure to handling
- Previous exposure to mixing with other animals
- Previous physical exertion
- Previous exposure to the elements (hot, cold, wind, daylight, noise)
- The physiological state of the animal (see next page).

Most drivers on regular haulage of livestock will recognise that animals from different farms can act in different ways, being more or less easy to handle. This is a result of different genetics, different breeding practices, different systems of management, and different levels of stockmanship. The genetics and previous experience of an animal will influence how they react to the novel situation of transport. A good driver will acknowledge these differences and act accordingly.

It is essential to recognise the acute senses of animals, and how they react differently from us to the new experience of being collected together, loaded and transported. A key difference is their ability to see, as many animals have restricted vision due to having their eyes on either side of the head. We can use their restricted ability to see to influence where they will look, and therefore where we should stand to influence their behaviour.

All animals have a space around them termed the ‘flight zone’. A skilled handler will approach an animal up to the edge of the flight zone in order to encourage the animal to move. If the flight zone is encroached, the animal will panic and try to flee. The size of the flight zone is affected by a number of factors including age, experience and breed. A skilled stockperson is able to judge the size of the flight zone for an animal or group of animals and act accordingly.

Cattle can be moved more effectively if the handler positions themselves at an angle to the group rather than directly behind. For sheep, too much encouragement from the side of the group may cause them to change direction. If you get too close they will bunch and attempt to run back past you. Gain control by using the flight zone.
Causes of stress & appropriate action to take...

Separation
It is both natural and sensible to keep animals in familiar groups. There will be occasions when the question of separation arises, and the law is quite clear on what must be handled and transported separately:

Animals to be kept separate:

a. Animals of different species
b. Animals of significantly different sizes and age
c. Adult breeding boars
d. Animals with horns from animals without horns
e. Sexually mature males from females
f. Animals hostile to each other
g. Tied animals from untied animals

Exemptions:

1. Females accompanied by dependant young,
2. Animals in groups (a), (b), (c) and (d) above that have been raised together may be transported together.

The physiological state of an animal can influence its ability to withstand the effects of stress. Young animals not only have less experience of the wider environment, but have lower reserves of energy, a lower threshold of resistance to extremes of temperature, and often a lower resistance to any disease organisms present compared to older animals. Adult female animals may be pregnant, and should be handled with great care.

Careful handling will minimise additional stress on animals. Identifying particularly nervous animals is good practice, and care should be taken to keep such animals as part of their peer group. Animals on their own are more likely to become stressed than those kept as part of a familiar group.

You can use your own stress levels as an indicator of what is impacting on the stock in your care. If the loading, driving or unloading is winding you up, you can be sure that your behaviour will be impacting negatively on the stock in your care. Stay cool, and help deliver the quality livestock that we need.

Paperwork...

Remember that an Animal Transport Certificate (ATC) is required on all journeys except for farmers transporting their animals on journeys up to 50km, or as part of seasonal transhumance. Delivery notes or Animal Movement Documents may be used if preferred. ATCs must be kept for 3 years.

ATCs must state:

• Name and address of the transporter
• Animal origin and ownership
• Their place of departure
• The date and time of departure
• Their intended place of destination
• The expected duration of the intended journey
• The date and time of unloading at the destination (useful but not mandatory)

Authorisation
Anyone transporting animals on journeys of over 65km must hold a valid transport authorisation. Authorisations are for short journeys (over 65km and up to eight hours), or for long journeys (all journeys, including over eight hours). Authorisations are issued by Animal Health (formerly the State Veterinary Service) and are valid for 5 years. The authorisation refers to the business, not to the individual drivers of vehicles.

You must always carry your authorisation certificate, or a photocopy of it, when transporting animals.

Certificates of competence must be carried at all times on relevant journeys and made available to enforcement officers.

Long journey authorisations
Vehicles used for transport on journeys over 8 hours must have a valid vehicle approval certificate, and a copy must be carried on all relevant journeys. There must also be a system whereby the journey over 12 hours can be traced and recorded. This requirement can be met by ensuring mobile phone contact with the driver and fully functioning tachographs.

Contingency plans are good practice for all journeys, and there is a legal requirement for these to be written down for long journeys. In practice most operators have a system for dealing with breakdowns, sick animals, and poor weather or road conditions. If in doubt, phone the office.

List your contacts eg:

• Office/home
• Lairage/markets/destinations
• QA support line
• Veterinary contact/Defra/Trading Standards
• Garage/mechanic
• Tyres (24 hour support)
• Vehicle helplines
The best way to move animals is to understand their natural behaviour, and to work with that behaviour. Animals tend to move better in familiar groups, at a steady speed to encourage forward vision, and without distractions. Animals move better towards light than towards dark areas.

- Passageways should be clear
- Passageways should be robust and free from injurious surfaces
- Instruments such as sticks may only be used for guidance

Do not be reluctant to take charge of handling if the situation requires it. Ask people to move if needed, or to assist if practical. Your knowledge and experience may be substantial – have the confidence to use it.

For cattle and sheep, use your voice, flags, and a stick as an extension of the arm. For pigs, use your voice, sacks, and pig boards.

Persuasion
It is forbidden to:
- Strike or kick an animal, or cause pain
- Use a pointed stick of any kind
- Use an alkathene pipe or any stick to strike an animal
- Lift or drag in any way that may cause pain or suffering
- Suspend an animal by mechanical means
- Tie an animal by its horns or a nose ring, or tie its legs

Where animals need to be tied the ropes used, tethers or other means used shall:
- a) Be strong enough not to break
- b) Allow the animal, if necessary, to lie down, and to eat or drink
- c) Not give risk of strangulation or injury
- d) Allow animals to be quickly released

On occasion, an animal may need to be persuaded to move when it wishes to stay put. Your best means of moving an animal is to understand its behaviour. If strong persuasion is required the application of a prod in a sensible manner is only permitted under the following conditions and rules:

- Electronic goads should be avoided as far as possible
- Electronic goads may only be used, if at all, on adult cattle or adult pigs that refuse to move
- Electronic goads may only be used when the animal has a clear route to follow
- Electronic shocks may only be applied for a maximum of one second, and only to the hindquarter muscles
- Electronic shock may not be used repeatedly if the animal fails to respond

Poor handling can result in lowered meat quality, as well as bruising, injury, an increase in the severity of any disease carried, hyperthermia or sudden death. Good quality handling is an absolute requirement for good quality stock.

Responsibility for animal welfare during all stages of a journey is logical. The owner of the livestock has a responsibility to ensure that the journey and any contractors are suitable, whilst the transporter has the immediate responsibility to ensure standards are met during the journey, and that the animals are left in adequate care.

Do not accept responsibility for animals or conditions that you know are not suitable. If in doubt, phone the office, the owner, the vet, or other contact such as a marketing group. It is good practice to always have a contact for guidance, and may save you grief later.
Loading, operating and driving safely... 

'loading and unloading facilities must be designed, constructed and maintained so as to avoid injury or suffering and ensure the safety of animals'

Loading and unloading are often the most stressful part of the journey for livestock. Unfamiliar surroundings, physical effort, mixing with other animals and the presence of stockpeople can all be accumulative stresses.

The aim is to minimise the impact on the stock in your care, and this can be achieved by:

- Good preparation - clean, non-slip floors, no obstructions
- Good communication - who does what, where, and when
- Good knowledge - how many stock, of what type
- Good equipment - suitable and well-maintained

Ramp rules
Climbing a loading ramp requires effort for all animals. For some animals that are not used to walking on slopes, or which are unfit in any way, climbing ramps is a major stressor. The steeper the ramp; the greater the stress. The target is to get the animals up any ramp with the minimum of stress, which means adequate preparation, non-slip surfaces, keeping animals in a group, and moving forward.

There are new rules relevant to ramp angles on vehicles.

- For pigs and calves – maximum ramp angle is $20^\circ$
- For sheep and cattle – maximum ramp angle is $26^\circ$

A tolerance of +/- 5° on ramp angles may be allowed.
Foot battens must be present where the slope is more than 10°.
A step of no more than 21 cm (8 inches) is permitted at the top and bottom of a ramp.

- A ramp angle of $20^\circ$ is equivalent to a rise of 4 over a distance of 11
- A ramp angle of $26^\circ$ is equivalent to a rise of 4 over a distance of 8

Vehicles built and in use before 5th January 2007 that complied with the previous WATO regulations may continue to be used until 4th January 2012 if it is impractical or uneconomic to upgrade them. All new vehicles must comply with the new rules.

Health and safety...

When transporting livestock the driver is the most important component of the operation. Health and safety is not something to take for granted, and there are many aspects of livestock haulage that represent a risk to health and safety. Handling livestock at loading and unloading always involves risk, and care is always needed to protect the driver. The reduction in staffing levels on farms increases the probability of lone working, and loading livestock with inadequate numbers of people is a risky business. If in doubt, seek help. Call the office.

Professional driving carries inherent risks. Although HGV drivers have a good status with insurance companies, reflecting the competence involved, there are still strains that should be acknowledged. If tiredness does not actually kill, it definitely increases the risk of accidents occurring. Sitting for hours at a time, day in, day out, is hard on posture and can lead to back problems. Attention to eyesight is essential.

Getting out of a vehicle is not the end of the risks. Working in the confined spaces of markets, farms, and processors carries risks from being hit by other vehicles, so stay alert and make sure that you are seen by others. If in doubt, seek support from those around you.

Slips and trips are among the most common reasons for accidents to people. Working with livestock, with their independent manner, in conditions that can be slippery and sometimes in poor lighting, is dangerous.

Personal hygiene
There are a number of zoonotic diseases which can be transmitted from animals to man. As a livestock haulier, you will not always know what disease risks are present. However, there are simple actions that can be taken to reduce the risks, and the easiest is to keep up personal hygiene standards. Keeping hands clean will always reduce risks of contracting disease, and it is sensible to always wash hands (or use a clean hand wipe) before eating, drinking or smoking.

The livestock industry needs you, so look after yourself.
Driving safely...

There is a good relationship between driver skill, the amount of stress on livestock, and also the profitability of the transport business. Smooth, consistent driving habits allow the animals to relax more during a journey than hard, erratic driving. Scientific study has shown that not only does a hard driving style increase measurable stress on the animals transported, but also significantly decreases meat quality.

It has been estimated that there is a difference of 20% in fuel efficiency between driving on a flat road at uneven speeds of up to 100km/h compared with a uniform, cruise controlled safe speed of 80km/h. If you encounter a slower driver on a road with no passing opportunities, sit back and take a steady pace rather than hustling a situation you do not control.

Braking

Smooth braking helps to keep animals on their feet with minimum of effort.
• Hard breaking = more stress
• More stress = bad welfare
• Bad welfare = poor meat quality

The principles of roadholding of an HGV and the ability of an animal to be sure-footed are the same. However, the driver has complete control over the vehicle, but only partial control over the animal. Compensate for this partial lack of control by applying knowledge of how an animal will behave under certain conditions.

The animal you transport probably has more pressure on its feet than the load on the vehicle tyres, and they will be working hard to stay on their feet. The more effort they are required to make, the greater the stress they will be under. For a loaded livestock vehicle with 18 wheels, the forces in contact with the ground are;
• The load on the tyres is 4.7kg per square centimetre on the tyres
• A 600 kg cow has four feet in contact with the ground
• The load on the cow’s feet is 12kg per square centimetre

Know the stresses, handle with care.

Tyres

The progressive side of the transport sector is well aware of the value of correct tyre pressures. All the points are completely relevant to the smooth transport of animals and minimising stress
• Avoid unnecessary harsh breaking
• Try to use a constant throttle
• Check the brakes and braking systems are properly adjusted
• Check that tyres are correctly inflated and have sufficient depth of tread
• Use the engine break or retarder if fitted
• Get the owner to fit automatic anti-lock breaking

Recognise the difficult conditions that you work under. There are very few drivers on the road that require more skills than the livestock transporter. You have a live load, a vehicle with a high centre of gravity, and a load that is not tied down. Although there are tight time schedules to keep, it is better to phone ahead if you encounter problems on the road than it is to risk putting pressure on the livestock, the vehicle, and yourself.

Fitness to travel...

“No animal shall be transported unless it is fit for the intended journey, and all animals shall be transported in conditions guaranteed not to cause them injury or unnecessary suffering”. Animals must be able to walk freely on all four feet without pain or assistance.

An animal must be fit for the intended journey, and must remain sufficiently fit throughout the journey. This apparently simple target can be problematic in practice; how can it be possible to see every animal under the sometimes difficult working conditions encountered? The aim must be to provide the conditions that allow a driver to adequately inspect livestock at loading, and to provide a working attitude that does not pressurise the individual into carrying unfit stock.

The responsibility for assessment of fitness to travel lies with a number of people depending on the situation. In all cases however, the final decision and responsibility on whether to transport an animal rests with the driver of the vehicle (or the keeper of the animal if they are going to accompany the animal). Do not accept unfit stock. In doubt or where fitness is disputed, obtain the professional opinion of a veterinary surgeon.

An animal shall not be considered fit for its intended journey if it is ill, injured, infirm or fatigued, unless the intended journey is not likely to cause it unnecessary suffering. See the following section on casualty animals for detail (page 7).

Animals are also considered not fit for transport if:
• They are unable to move without pain or assistance
• They present a severe open wound or prolapse
• They are pregnant females 90% or more into the expected gestation period
• They have given birth during the preceding week
• They are newly born animals in which the navel has not been completely healed

New requirements are in place for specific young animals:
• Lambs of less than one week;
• Calves of less than 10 days;
• Piglets of less than 3 weeks;

Bedding requirements for young animals. Bedding provides insulation, and is considered vital for young stock that are naturally more susceptible to cold temperatures. Bedding is a requirement for:
• Piglets less than 10 kgs
• Lambs less than 20 kgs
• Calves less than 6 months

In addition, all pigs under 30kg must be provided with bedding on 8-12 hour journeys. Bedding also has a role in maintaining hygiene; it is illegal to allow faeces or urine to leak from a vehicle.

Lactating female cattle or sheep not accompanied by their offspring must be milked at intervals of not more than 12 hours.
Casualty animals...

A casualty animal may be transported to the nearest available place for treatment or slaughter if transport would not cause additional suffering.

• In cases of doubt, veterinary advice shall be sought
• If an animal should fall ill or be injured during transport they shall be separated from the others and receive first aid treatment as soon as possible. Get appropriate veterinary support immediately.
• Sedatives shall not be used unless strictly necessary, and only used under veterinary supervision

Animals may be transported under veterinary supervision only if no unnecessary suffering is caused. This requirement for ‘no unnecessary suffering’ is obviously open to individual interpretation and sometimes disagreement. Follow all the guidance and be prepared to seek advice in cases of doubt. We do need to work together on this issue and this may require an increase in open discussion by everyone involved in difficult cases.

Casualty animals must be accompanied by the relevant declaration. Arrangements should be made where necessary to notify the processor of the animal’s condition and to ensure appropriate facilities are available. Do not accept animals that are not accompanied with the relevant paperwork.

Animals that are slightly ill or injured may only be transported under very limited circumstances, and only if it does not cause any unnecessary suffering or ill treatment:
• Transport to a veterinary surgery for diagnosis or treatment
• Direct from farm to the nearest available slaughterhouse
• Lame animals; penned singly with space to lie down and with adequate bedding

The driver must know what action to take if an emergency arises during a journey. A suggested plan would include having contact numbers to a veterinary practice or another form of animal health advice (see page 13).
Vehicle construction & use...

'Vehicles must be designed, constructed and maintained so as to avoid injury or suffering and ensure the safety of animals'

The standard of livestock vehicles operating in Scotland has increased significantly since the introduction of the WATO regulations in 1997. Benefits have accrued to the welfare of livestock, product quality, working conditions and above all, the image of the industry.

Vehicle bodies must:
• Be clean and kept easy to clean
• Robust and prevent escape
• Protect from bad weather and extreme temperatures
• Provide adequate ventilation
• Floors must be non-slip
• Adequate lighting must be available to load and unload safely
• Lighting must be available for inspection of all livestock on the vehicle
• Have suitable openings (and footholds) to permit inspection from outside

Spotlights at the rear of the vehicle will aid loading and unloading, and bulkhead lights within the vehicle will improve the efficiency of loading. A torch will provide a minimum standard of lighting for inspection of stock within the vehicle, but must be adequate for the task.

Any vehicles used on journeys over 8 hours must be inspected by an independent authorised body, and carry a valid vehicle approval certificate. Inspection will cover all the standard vehicle requirements, plus the requirements for long journeys which include:
• water/feed equipment
• indication of live animals being transported (a label on outside of container)
Vehicle bodies that are certified for long journeys must carry an external plate that identifies the unique number issued by the certifying body, and the date of issue.

All new vehicles (from 1st January 2007) for journeys over 12 hours within the UK or outside the UK must carry equipment that:
• records details of the journey as set out in the journey log
• records the opening and closing of the tailgate
This will be a requirement for all over 12 hour journey vehicles from 1st January 2009.

Hygiene...

The good name and survival of livestock production in the UK to a significant extent relies on maintaining good health standards in our livestock. Transport, and the standards of hygiene in transport, plays a major role in maintaining standards. There are two reasons for this:

1. Movement of livestock, and their by-products such as faeces, urine and organic matter, can facilitate the transmission of disease around the country
2. Transport as a source of stress can influence the amount of disease organisms that an individual animal can shed from its body – if it has disease, it will spread more bugs when it is stressed.

There are many links in the chain of events that cause spread of disease. Generally, livestock vehicles are not the weakest link in the chain, and standards of cleanliness on livestock vehicles are a good indicator of the hard work that goes into keeping the transport fleet clean. However, it is appreciated that the infrastructure for getting vehicles clean as soon as they are unloaded is not always perfect, and it is an essential element of planning that the driver is always knowledgeable about where the vehicle can be cleaned before the next pick-up.

There is a legal requirement to prevent faeces and urine from leaking from a vehicle. Slurry on the road not only represents an uncontrolled risk of spreading disease, but carries the risk of alienating the public to our industry. Muck on the streets is not a good publicity image.

All vehicles must be cleaned and disinfected after every transport of animals and if necessary before any new loading of animals. This rule does not apply when transporting animals repeatedly from the same source to the same destination (although it may be sensible biosecurity to wash the vehicle anyway…). As a general rule, if you can see dirt, it may contain disease.
A steady supply of fresh air to all livestock on a vehicle is essential to support normal health, and to remove the excess moisture and heat that comes from the animals’ bodies. There is always a requirement for a minimum ventilation rate whatever the weather or animal conditions.

The challenge for the transport sector is to provide adequate ventilation when a vehicle is stationary, and also when driving at 56mph on a cold morning. The first principle is to understand the temperature requirements of the livestock on board any particular journey, and to provide adequate openings on the vehicle to meet those requirements under the prevalent weather conditions.

Generally, high temperatures are only potentially a problem in the UK when vehicles are stationary, or slow-moving in hot weather. The risk comes from the build up of body heat from the animals within the trailer, from heat that is normally removed by the passage of air when the vehicle is moving. If a vehicle is stopped for a period, or in slow-moving traffic in warm weather, ensure all vent flaps are open. If there are options, in warm weather always:

• Park in the shade
• Park across any wind or breeze

Typical values for heat production are:

<table>
<thead>
<tr>
<th>Species</th>
<th>Liveweight (kg)</th>
<th>Heat (Watts)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>Calves</td>
<td>70</td>
<td>100</td>
</tr>
<tr>
<td>Pigs</td>
<td>100</td>
<td>200</td>
</tr>
<tr>
<td>Sheep</td>
<td>40</td>
<td>75</td>
</tr>
</tbody>
</table>

From the values above it can be estimated that a fully loaded triple decker of pigs has an internal heat production of 36000 watts, or 36 KW. If this heat is not able to leave the vehicle, the temperature will rise rapidly. Hence the need to maintain airflow throughout the vehicle to prevent high temperatures that would rapidly stress the animals.

Persistent cold temperatures will stress livestock, with the impact building over time. Young animals are less able to withstand cold stress than older ones, as are animals that have not eaten for a while, or which are physiologically stressed.

Under normal transport conditions more air enters the vehicle body towards the rear than the front. This means that, under cold weather conditions, there will be a higher risk of cold stress at the rear of the vehicle. Conversely, under hot weather conditions there will be a higher risk of heat stress at the front of the vehicle, behind the bulkhead.

Ventilation...

Vehicles used for transport on journeys of more than 12 hours in the UK must be fitted with a ventilation system capable of distributing an even airflow throughout the vehicle. The capacity of the system must be at least 60 m³/hour/KN of payload, and of operating for at least 4 hours independent of the vehicle engine.

Scientific research has shown that space can be a critical factor in the production of stress in animals. However, the results are confused by environmental factors, and a vehicle should always be loaded with consideration of:

• The previous experience of the animals
• The weather, and in particular the outside temperatures
• The duration of the journey
• The level of fitness of the animals (see page 6).

The available space in a vehicle includes the space at head level. There is a need to allow adequate space at head level to provide fresh air to all animals and to facilitate removal of excess body heat. Be careful with the stocking density at the front of an artic trailer/swan neck, where the head height can be less than the rest of the vehicle.

Space allowances should at least conform to the following figures:

### Cattle

<table>
<thead>
<tr>
<th>Category</th>
<th>Approximate weight (kgs)</th>
<th>Area (m² per animal)</th>
<th>Approximate no. per 8ft 4” x 10ft pen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small calves</td>
<td>50</td>
<td>0.30 to 0.40</td>
<td>19 to 25</td>
</tr>
<tr>
<td>Medium sized calves</td>
<td>110</td>
<td>0.40 to 0.70</td>
<td>11 to 19</td>
</tr>
<tr>
<td>Heavy calves</td>
<td>200</td>
<td>0.70 to 0.95</td>
<td>8 to 11</td>
</tr>
<tr>
<td>Medium sized cattle</td>
<td>325</td>
<td>0.95 to 1.30</td>
<td>6 to 8</td>
</tr>
<tr>
<td>Heavy cattle</td>
<td>550</td>
<td>1.30 to 1.60</td>
<td>5 to 6</td>
</tr>
<tr>
<td>Very heavy cattle</td>
<td>&gt;700</td>
<td>&gt;1.60</td>
<td>≤5</td>
</tr>
</tbody>
</table>

### Sheep

<table>
<thead>
<tr>
<th>Category</th>
<th>Weight (kgs)</th>
<th>Area (m² per animal)</th>
<th>Approximate no. per 8ft 4” x 10ft pen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shorn sheep and lambs of 26kgs and over</td>
<td>&lt;55</td>
<td>0.20 to 0.30</td>
<td>25 to 37</td>
</tr>
<tr>
<td></td>
<td>&gt;55</td>
<td>&gt;0.30 ≤25</td>
<td></td>
</tr>
<tr>
<td>Unshorn sheep</td>
<td>&lt;55</td>
<td>0.30 to 0.40</td>
<td>19 to 25</td>
</tr>
<tr>
<td></td>
<td>&gt;55</td>
<td>&gt;0.40</td>
<td>≤19</td>
</tr>
<tr>
<td>Heavily pregnant ewes</td>
<td>&lt;55</td>
<td>0.40 to 0.50</td>
<td>15 to 19</td>
</tr>
<tr>
<td></td>
<td>&gt;55</td>
<td>&gt;0.50</td>
<td>≤15</td>
</tr>
</tbody>
</table>

| Pigs                                           |              |                      |                                       |
| All pigs must be able to stand up and lie down in their natural position. Stocking density of pigs around 100kg should not exceed 235 kg/m². This is equivalent to approximately 0.42 m²/animal, or 18 finishing pigs in an 8 ft x 10 ft standard pen. |
Journey planning...

The transport of animals is one part of a chain of events that can impact on animal welfare, and there is an expectation that any journey is planned to meet the requirements of the specific animals transported, the expected weather and journey conditions. The journey must consider the previous experience, the age, and the physiological state of the animals. The journey plan must also include suitable information for the driver so that he can deal with low-risk but predictable events such as delays, extremes of weather conditions, and animal illness.

A significant amount of livestock transport research has been directed at journey times, and the effect on animal welfare. The requirement for limits to journey times and for higher vehicle specification for long journeys is an attempt to provide some general rules to the difficult balancing of animal requirements, weather conditions, and animal physiology. Good planning is the essence of minimising stress, and the current legislation provides general guidance on the major issues.

Journey times start when the first animal is loaded onto the vehicle, and finish when the last animal is unloaded. It is good practice to keep loading and unloading times to a minimum as it reduces the stress on all the animals on a load. Good co-operation and good coordination are professional standards that benefit the quality and welfare of the livestock. Where standards slip, communicate your concerns to others, if only to the office.

Markets are seldom the beginning of a journey for livestock. For the purposes of estimating journey times, a market which has been approved by Community veterinary legislation can be considered a place of departure if:
1. the animals have arrived at the market after a journey of less than 100kms (62 miles) or
2. the animals have been bedded and watered at the market for at least 6 hours

Contingency plans
The transporter must know what action to take if an emergency arises during a journey. A suggested plan would include:

• Contact with the home base
• Contact with the destination
• Phone number to a veterinary practice
• Phone number for breakdown services
• Phone number for tyre services
The regulations are the same as those applied previously under the Welfare of Animals (Transport) Order 1997, except for new standards for young animals.

Livestock must not be transported for more than 8 hours unless additional requirements for vehicles are met.

Vehicles used for long journeys over 8 hours must have:
1. A valid vehicle approval certificate
2. Adequate feed and water carried on the vehicle
3. Water tanks' total capacity shall be at least 1.5% of maximum payload
4. Water tanks must be designed to be drained and cleaned and water level checked

Vehicles used for long journeys over 8 hours must have:
1. A valid vehicle approval certificate
2. Adequate feed and water carried on the vehicle
3. Water tanks' total capacity shall be at least 1.5% of maximum payload
4. Water tanks must be designed to be drained and cleaned and water level checked

Pigs on journeys over 8 hours must be carried in vehicles that have the ability to provide water at appropriate intervals.

There are derogations in the UK that permit 8 to 12 hour journeys to be undertaken in vehicles with the standards above. There are additional standards for long journeys that currently apply to journeys of more than 12 hours

Maximum journey times:

<table>
<thead>
<tr>
<th>Animals</th>
<th>Maximum Journey Times</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pigs</td>
<td>24 hours. Water must be offered at appropriate intervals, with adequate time to drink.</td>
</tr>
<tr>
<td>Cattle, sheep and goats</td>
<td>After 14 hours there must be a rest period of at least 1 hour, with access to water, and feed if necessary. Thereafter they may be transported for a further 14 hours.</td>
</tr>
<tr>
<td>Unweaned calves, lambs, kids and piglets</td>
<td>After 9 hours there must be a rest period of at least 1 hour, and liquid provided. Feed should be given if necessary. Thereafter they may transported for a further 9 hours</td>
</tr>
</tbody>
</table>

If animals have not reached their destination after these journey times they must be unloaded, fed and watered, and rested in an approved EU control post for 24 hours.

The journey times above may be extended by a maximum of two hours in the interest of animal welfare, if the destination can be reached.

Note that time spent on a vehicle whilst on a ferry counts towards journey time. However, time spent in pens on a ferry of unloaded livestock does not count towards journey time.

### Journey times - feed & water...

### Drivers hours...

From 1st May (2006) ALL drivers (whether driving analogue or digital tachograph fitted vehicles) must be able to produce, on request at the roadside, all their driver records for the current week and any records completed during the previous 15 days. Furthermore, if the driver has been issued with a driver smart card it MUST be able to be produced as well. So if a driver has been issued with a driver card, even if it is not being used, it must be kept with the driver at all times.

EC Drivers’ hours ~ came into effect from 11th April 2007

<table>
<thead>
<tr>
<th>Daily driving times</th>
<th>9 hours maximum driving time between two daily driving periods, although this can be increased to 10 hours twice per week.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly driving</td>
<td>56 hours maximum</td>
</tr>
<tr>
<td>Fortnightly driving</td>
<td>Maximum accumulated driving time in any two weeks is 90 hours</td>
</tr>
<tr>
<td>Break times</td>
<td>45 minutes break must be taken during or immediately after 4.5 hours of continuous driving. This can be split and taken as a minimum period of 15 minutes within the 4.5 hours with a second period of at least 30 minutes.</td>
</tr>
<tr>
<td>Daily rest</td>
<td>Regular daily rest remains as any period of uninterrupted rest of at least 11 hours. However, this daily period may be reduced to 9 hours, limited to a maximum of 3 times between two weekly rest periods. Split rest can only be taken in two periods of at least 3 hours and at least 9 hours respectively.</td>
</tr>
<tr>
<td>Weekly rest</td>
<td>In any two weeks there must be two regular rests of 45 hours, or one regular rest and one reduced rest of at least 24 hours. Compensation for a reduced weekly rest must be made up by the end of the 3rd week following, added to a minimum of 9 hours rest.</td>
</tr>
</tbody>
</table>
The regulations are the same as those applied previously under the Welfare of Animals (Transport) Order 1997, except for new standards for young animals.

Livestock must not be transported for more than 8 hours unless additional requirements for vehicles are met.

Vehicles used for long journeys over 8 hours must have:
1. A valid vehicle approval certificate
2. Adequate feed and water carried on the vehicle
3. Water tanks' total capacity shall be at least 1.5% of maximum payload
4. Water tanks must be designed to be drained and cleaned and water level checked

Pigs on journeys over 8 hours must be carried in vehicles that have the ability to provide water at appropriate intervals.

There are derogations in the UK that permit 8 to 12 hour journeys to be undertaken in vehicles with the standards above. There are additional standards for long journeys that currently apply to journeys of more than 12 hours

Maximum journey times:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pigs</strong></td>
<td>24 hours. Water must be offered at appropriate intervals, with adequate time to drink.</td>
</tr>
<tr>
<td><strong>Cattle, sheep and goats</strong></td>
<td>After 14 hours there must be a rest period of at least 1 hour, with access to water, and feed if necessary. Thereafter they may be transported for a further 14 hours.</td>
</tr>
<tr>
<td><strong>Unweaned calves, lambs, kids and piglets</strong></td>
<td>After 9 hours there must be a rest period of at least 1 hour, and liquid provided. Feed should be given if necessary. Thereafter they may transported for a further 9 hours</td>
</tr>
</tbody>
</table>

If animals have not reached their destination after these journey times they must be unloaded, fed and watered, and rested in an approved EU control post for 24 hours.

The journey times above may be extended by a maximum of two hours in the interest of animal welfare, if the destination can be reached.

Note that time spent on a vehicle whilst on a ferry counts towards journey time. However, time spent in pens on a ferry of unloaded livestock does not count towards journey time.

---

Drivers hours...

From 1st May (2006) ALL drivers (whether driving analogue or digital tachograph fitted vehicles) must be able to produce, on request at the roadside, all their driver records for the current week and any records completed during the previous 15 days. Furthermore, if the driver has been issued with a driver smart card it MUST be able to be produced as well. So if a driver has been issued with a driver card, even if it is not being used, it must be kept with the driver at all times.

EC Drivers' hours - came into effect from 11th April 2007

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Daily driving times</strong></td>
<td>9 hours maximum driving time between two daily driving periods, although this can be increased to 10 hours twice per week.</td>
</tr>
<tr>
<td><strong>Weekly driving</strong></td>
<td>56 hours maximum</td>
</tr>
<tr>
<td><strong>Fortnightly driving</strong></td>
<td>Maximum accumulated driving time in any two weeks is 90 hours</td>
</tr>
<tr>
<td><strong>Break times</strong></td>
<td>45 minutes break must be taken during or immediately after 4.5 hours of continuous driving. This can be split and taken as a minimum period of 15 minutes within the 4.5 hours with a second period of at least 30 minutes.</td>
</tr>
<tr>
<td><strong>Daily rest</strong></td>
<td>Regular daily rest remains as any period of uninterrupted rest of at least 11 hours. However, this daily period may be reduced to 9 hours, limited to a maximum of 3 times between two weekly rest periods. Split rest can only be taken in two periods of at least 3 hours and at least 9 hours respectively.</td>
</tr>
<tr>
<td><strong>Weekly rest</strong></td>
<td>In any two weeks there must be two regular rests of 45 hours, or one regular rest and one reduced rest of at least 24 hours. Compensation for a reduced weekly rest must be made up by the end of the 3rd week following, added to a minimum of 9 hours rest.</td>
</tr>
</tbody>
</table>

---

Drivers hours...
The transport of animals is one part of a chain of events that can impact on animal welfare, and there is an expectation that any journey is planned to meet the requirements of the specific animals transported, the expected weather and journey conditions. The journey must consider the previous experience, the age, and the physiological state of the animals. The journey plan must also include suitable information for the driver so that he can deal with low-risk but predictable events such as delays, extremes of weather conditions, and animal illness.

A significant amount of livestock transport research has been directed at journey times, and the effect on animal welfare. The requirement for limits to journey times and for higher vehicle specification for long journeys is an attempt to provide some general rules to the difficult balancing of animal requirements, weather conditions, and animal physiology. Good planning is the essence of minimising stress, and the current legislation provides general guidance on the major issues.

Journey times start when the first animal is loaded onto the vehicle, and finish when the last animal is unloaded. It is good practice to keep loading and unloading times to a minimum as it reduces the stress on all the animals on a load. Good co-operation and good coordination are professional standards that benefit the quality and welfare of the livestock. Where standards slip, communicate your concerns to others, if only to the office.

Markets are seldom the beginning of a journey for livestock. For the purposes of estimating journey times, a market which has been approved by Community veterinary legislation can be considered a place of departure if:

1. the animals have arrived at the market after a journey of less than 100kms (62 miles) or
2. the animals have been bedded and watered at the market for at least 6 hours

Contingency plans
The transporter must know what action to take if an emergency arises during a journey. A suggested plan would include:

• Contact with the home base
• Contact with the destination
• Phone number to a veterinary practice
• Phone number for breakdown services
• Phone number for tyre services
A steady supply of fresh air to all livestock on a vehicle is essential to support normal health, and to remove the excess moisture and heat that comes from the animals’ bodies. There is always a requirement for a minimum ventilation rate whatever the weather or animal conditions.

The challenge for the transport sector is to provide adequate ventilation when a vehicle is stationary, and also when driving at 56mph on a cold morning. The first principle is to understand the temperature requirements of the livestock on board any particular journey, and to provide adequate openings on the vehicle to meet those requirements under the prevalent weather conditions.

Generally, high temperatures are only potentially a problem in the UK when vehicles are stationary, or slow-moving in hot weather. The risk comes from the build up of body heat from the animals within the trailer, from heat that is normally removed by the passage of air when the vehicle is moving. If a vehicle is stopped for a period, or in slow-moving traffic in warm weather, ensure all vent flaps are open. If there are options, in warm weather always:

- Park in the shade
- Park across any wind or breeze

Typical values for heat production are:

<table>
<thead>
<tr>
<th>Species</th>
<th>Liveweight (kg)</th>
<th>Heat (Watts)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>Calves</td>
<td>70</td>
<td>100</td>
</tr>
<tr>
<td>Pigs</td>
<td>100</td>
<td>200</td>
</tr>
<tr>
<td>Sheep</td>
<td>40</td>
<td>75</td>
</tr>
</tbody>
</table>

From the values above it can be estimated that a fully loaded triple decker of pigs has an internal heat production of 36000 watts, or 36 KW. If this heat is not able to leave the vehicle, the temperature will rise rapidly. Hence the need to maintain airflow throughout the vehicle to prevent high temperatures that would rapidly stress the animals.

Persistent cold temperatures will stress livestock, with the impact building over time. Young animals are less able to withstand cold stress than older ones, as are animals that have not eaten for a while, or which are physiologically stressed.

Under normal transport conditions more air enters the vehicle body towards the rear than the front. This means that, under cold weather conditions, there will be a higher risk of cold stress at the rear of the vehicle. Conversely, under hot weather conditions there will be a higher risk of heat stress at the front of the vehicle, behind the bulkhead.

Vehicles used for transport on journeys of more than 12 hours in the UK must be fitted with a ventilation system capable of distributing an even airflow throughout the vehicle. The capacity of the system must be at least 60 m³/hour/KN of payload, and of operating for at least 4 hours independent of the vehicle engine.

Stocking density & segregation...

Scientific research has shown that space can be critical factor in the production of stress in animals. However, the results are confused by environmental factors, and a vehicle should always be loaded with consideration of:

- The previous experience of the animals
- The weather, and in particular the outside temperatures
- The duration of the journey
- The level of fitness of the animals (see page 6).

The available space in a vehicle includes the space at head level. There is a need to allow adequate space at head level to provide fresh air to all animals and to facilitate removal of excess body heat. Be careful with the stocking density at the front of an artic trailer/swan neck, where the head height can be less than the rest of the vehicle.

Space allowances should at least conform to the following figures:

### Cattle

<table>
<thead>
<tr>
<th>Category</th>
<th>Approximate weight (kgs)</th>
<th>Area (m² per animal)</th>
<th>Approximate no. per 8ft 4&quot; x 10ft pen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small calves</td>
<td>50</td>
<td>0.30 to 0.40</td>
<td>19 to 25</td>
</tr>
<tr>
<td>Medium sized calves</td>
<td>110</td>
<td>0.40 to 0.70</td>
<td>11 to 19</td>
</tr>
<tr>
<td>Heavy calves</td>
<td>200</td>
<td>0.70 to 0.95</td>
<td>8 to 11</td>
</tr>
<tr>
<td>Medium sized cattle</td>
<td>325</td>
<td>0.95 to 1.30</td>
<td>6 to 8</td>
</tr>
<tr>
<td>Heavy cattle</td>
<td>550</td>
<td>1.30 to 1.60</td>
<td>5 to 6</td>
</tr>
<tr>
<td>Very heavy cattle</td>
<td>&gt;700</td>
<td>&gt;1.60</td>
<td>≤5</td>
</tr>
</tbody>
</table>

### Sheep

<table>
<thead>
<tr>
<th>Category</th>
<th>Weight (kgs)</th>
<th>Area (m² per animal)</th>
<th>Approximate no. per 8ft 4&quot; x 10ft pen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shorn sheep and lambs of 26kgs and over</td>
<td>&lt;55</td>
<td>0.20 to 0.30</td>
<td>25 to 37</td>
</tr>
<tr>
<td></td>
<td>&gt;55</td>
<td>&gt;0.30 ≤25</td>
<td></td>
</tr>
<tr>
<td>Unshorn sheep</td>
<td>&lt;55</td>
<td>0.30 to 0.40</td>
<td>19 to 25</td>
</tr>
<tr>
<td></td>
<td>&gt;55</td>
<td>&gt;0.40 ≤19</td>
<td></td>
</tr>
<tr>
<td>Heavily pregnant ewes</td>
<td>&lt;55</td>
<td>0.40 to 0.50</td>
<td>15 to 19</td>
</tr>
<tr>
<td></td>
<td>&gt;55</td>
<td>&gt;0.50 ≤15</td>
<td></td>
</tr>
</tbody>
</table>

Pigs

All pigs must be able to stand up and lie down in their natural position. Stocking density of pigs around 100kg should not exceed 235 kg/m². This is equivalent to approximately 0.42m²/animal, or 18 finishing pigs in an 8 ft x 10 ft standard pen.
Hygiene...

The good name and survival of livestock production in the UK to a significant extent relies on maintaining good health standards in our livestock. Transport, and the standards of hygiene in transport, plays a major role in maintaining standards. There are two reasons for this:

1. Movement of livestock, and their by-products such as faeces, urine and organic matter, can facilitate the transmission of disease around the country
2. Transport as a source of stress can influence the amount of disease organisms that an individual animal can shed from its body – if it has disease, it will spread more bugs when it is stressed.

There are many links in the chain of events that cause spread of disease. Generally, livestock vehicles are not the weakest link in the chain, and standards of cleanliness on livestock vehicles are a good indicator of the hard work that goes into keeping the transport fleet clean. However, it is appreciated that the infrastructure for getting vehicles clean as soon as they are unloaded is not always perfect, and it is an essential element of planning that the driver is always knowledgeable about where the vehicle can be cleaned before the next pick-up.

There is a legal requirement to prevent faeces and urine from leaking from a vehicle. Slurry on the road not only represents an uncontrolled risk of spreading disease, but carries the risk of alienating the public to our industry. Muck on the streets is not a good publicity image.

Vehicle construction & use...

‘Vehicles must be designed, constructed and maintained so as to avoid injury or suffering and ensure the safety of animals’

The standard of livestock vehicles operating in Scotland has increased significantly since the introduction of the WATO regulations in 1997. Benefits have accrued to the welfare of livestock, product quality, working conditions and above all, the image of the industry.

Vehicle bodies must:
• Be clean and kept easy to clean
• Robust and prevent escape
• Protect from bad weather and extreme temperatures
• Provide adequate ventilation
• Floors must be non-slip
• Adequate lighting must be available to load and unload safely
• Lighting must be available for inspection of all livestock on the vehicle
• Have suitable openings (and footholds) to permit inspection from outside

Spotlights at the rear of the vehicle will aid loading and unloading, and bulkhead lights within the vehicle will improve the efficiency of loading. A torch will provide a minimum standard of lighting for inspection of stock within the vehicle, but must be adequate for the task.

Any vehicles used on journeys over 8 hours must be inspected by an independent authorised body, and carry a valid vehicle approval certificate. Inspection will cover all the standard vehicle requirements, plus the requirements for long journeys which include:
• water/feed equipment
• indication of live animals being transported (a label on outside of container)
Vegetable bodies that are certified for long journeys must carry an external plate that identifies the unique number issued by the certifying body, and the date of issue.

All new vehicles (from 1st January 2007) for journeys over 12 hours within the UK or outside the UK must carry equipment that:
• records details of the journey as set out in the journey log
• records the opening and closing of the tailgate
This will be a requirement for all over 12 hour journey vehicles from 1st January 2009.
A casualty animal may be transported to the nearest available place for treatment or slaughter if transport would not cause additional suffering.

- In cases of doubt, veterinary advice shall be sought
- If an animal should fall ill or be injured during transport they shall be separated from the others and receive first aid treatment as soon as possible. Get appropriate veterinary support immediately.
- Sedatives shall not be used unless strictly necessary, and only used under veterinary supervision.

Animals may be transported under veterinary supervision only if no unnecessary suffering is caused. This requirement for ‘no unnecessary suffering’ is obviously open to individual interpretation and sometimes disagreement. Follow all the guidance and be prepared to seek advice in cases of doubt. We do need to work together on this issue and this may require an increase in open discussion by everyone involved in difficult cases.

Casualty animals must be accompanied by the relevant declaration. Arrangements should be made where necessary to notify the processor of the animal’s condition and to ensure appropriate facilities are available. Do not accept animals that are not accompanied with the relevant paperwork.

Animals that are slightly ill or injured may only be transported under very limited circumstances, and only if it does not cause any unnecessary suffering or ill treatment:

- Transport to a veterinary surgery for diagnosis or treatment
- Direct from farm to the nearest available slaughterhouse
- Lame animals; penned singly with space to lie down and with adequate bedding

The driver must know what action to take if an emergency arises during a journey. A suggested plan would include having contact numbers to a veterinary practice or another form of animal health advice (see page 13).
Driving safely...

There is a good relationship between driver skill, the amount of stress on livestock, and also the profitability of the transport business. Smooth, consistent driving habits allow the animals to relax more during a journey than hard, erratic driving. Scientific study has shown that not only does a hard driving style increase measurable stress on the animals transported, but also significantly decreases meat quality.

It has been estimated that there is a difference of 20% in fuel efficiency between driving on a flat road at uneven speeds of up to 100km/h compared with a uniform, cruise controlled safe speed of 80km/h. If you encounter a slower driver on a road with no passing opportunities, sit back and take a steady pace rather than hustling a situation you do not control.

Braking

Smooth braking helps to keep animals on their feet with minimum of effort.
- Hard breaking = more stress
- More stress = bad welfare
- Bad welfare = poor meat quality

The principles of roadholding of an HGV and the ability of an animal to be sure-footed are the same. However, the driver has complete control over the vehicle, but only partial control over the animal. Compensate for this partial lack of control by applying knowledge of how an animal will behave under certain conditions.

The animal you transport probably has more pressure on its feet than the load on the vehicle tyres, and they will be working hard to stay on their feet. The more effort they are required to make, the greater the stress they will be under. For a loaded livestock vehicle with 18 wheels, the forces in contact with the ground are;
- The load on the tyres is 4.7kg per square centimetre on the tyres
- A 600 kg cow has four feet in contact with the ground
- The load on the cow’s feet is 12kg per square centimetre

Know the stresses, handle with care.

Tyres

The progressive side of the transport sector is well aware of the value of correct tyre pressures. All the points are completely relevant to the smooth transport of animals and minimising stress.
- Avoid unnecessary harsh breaking
- Try to use a constant throttle
- Check the brakes and braking systems are properly adjusted
- Check that tyres are correctly inflated and have sufficient depth of tread
- Use the engine break or retarder if fitted
- Get the owner to fit automatic anti-lock breaking

Recognise the difficult conditions that you work under. There are very few drivers on the road that require more skills than the livestock transporter. You have a live load, a vehicle with a high centre of gravity, and a load that is not tied down. Although there are tight time schedules to keep, it is better to phone ahead if you encounter problems on the road than it is to risk putting pressure on the livestock, the vehicle, and yourself.

Fitness to travel...

“No animal shall be transported unless it is fit for the intended journey, and all animals shall be transported in conditions guaranteed not to cause them injury or unnecessary suffering”. Animals must be able to walk freely on all four feet without pain or assistance.

An animal must be fit for the intended journey, and must remain sufficiently fit throughout the journey. This apparently simple target can be problematic in practice; how can it be possible to see every animal under the sometimes difficult working conditions encountered? The aim must be to provide the conditions that allow a driver to adequately inspect livestock at loading, and to provide a working attitude that does not pressurise the individual into carrying unfit stock.

The responsibility for assessment of fitness to travel lies with a number of people depending on the situation. In all cases however, the final decision and responsibility on whether to transport an animal rests with the driver of the vehicle (or the keeper of the animal if they are going to accompany the animal). Do not accept unfit stock. If in doubt or where fitness is disputed, obtain the professional opinion of a veterinary surgeon.

An animal shall not be considered fit for its intended journey if it is ill, injured, infirm or fatigued, unless the intended journey is not likely to cause it unnecessary suffering. See the following section on casualty animals for detail (page 7).

Animals are also considered not fit for transport if:
- They are unable to move without pain or assistance
- They present a severe open wound or prolapse
- They are pregnant females 90% or more into the expected gestation period
- They have given birth during the preceding week
- They are newly born animals in which the navel has not been completely healed

New requirements are in place for specific young animals:
- Lambs of less than one week;
- Calves of less than 10 days;
- Piglets of less than three weeks;
- can only be transported for a maximum of 100km (62 miles).

Bedding requirements for young animals.

Bedding provides insulation, and is considered vital for young stock that are naturally more susceptible to cold temperatures. Bedding is a requirement for:
- Piglets less than 10 kgs
- Lambs less than 20 kgs
- Calves less than 6 months

In addition, all pigs under 30kg must be provided with bedding on 8-12 hour journeys. Bedding also has a role in maintaining hygiene; it is illegal to allow faeces or urine to leak from a vehicle.

Lactating female cattle or sheep not accompanied by their offspring must be milked at intervals of not more than 12 hours.
Loading, operating and driving safely efficiently & effectively...

‘loading and unloading facilities must be designed, constructed and maintained so as to avoid injury or suffering and ensure the safety of animals’

Loading and unloading are often the most stressful part of the journey for livestock. Unfamiliar surroundings, physical effort, mixing with other animals and the presence of stockpeople can all be accumulative stresses.

The aim is to minimise the impact on the stock in your care, and this can be achieved by:

• Good preparation - clean, non-slip floors, no obstructions
• Good communication - who does what, where, and when
• Good knowledge - how many stock, of what type
• Good equipment - suitable and well-maintained

Ramp rules
Climbing a loading ramp requires effort for all animals. For some animals that are not used to walking on slopes, or which are unfit in any way, climbing ramps is a major stressor. The steeper the ramp; the greater the stress. The target is to get the animals up any ramp with the minimum of stress, which means adequate preparation, non-slip surfaces, keeping animals in a group, and moving forward.

There are new rules relevant to ramp angles on vehicles.

• For pigs and calves – maximum ramp angle is 20°
• For sheep and cattle – maximum ramp angle is 26°

A tolerance of +/- 5° on ramp angles may be allowed. Foot battens must be present where the slope is more than 10°.

A step of no more than 21 cm (8 inches) is permitted at the top and bottom of a ramp.

• A ramp angle of 20° is equivalent to a rise of 4 over a distance of 11
• A ramp angle of 26° is equivalent to a rise of 4 over a distance of 8

Vehicles built and in use before 5th January 2007 that complied with the previous WATO regulations may continue to be used until 4th January 2012 if it is impractical or uneconomic to upgrade them. All new vehicles must comply with the new rules.

Health and safety...

When transporting livestock the driver is the most important component of the operation. Health and safety is not something to take for granted, and there are many aspects of livestock haulage that represent a risk to health and safety. Handling livestock at loading and unloading always involves risk, and care is always needed to protect the driver. The reduction in staffing levels on farms increases the probability of lone working, and loading livestock with inadequate numbers of people is a risky business. If in doubt, seek help. Call the office.

Professional driving carries inherent risks. Although HGV drivers have a good status with insurance companies, reflecting the competence involved, there are still strains that should be acknowledged. If tiredness does not actually kill, it definitely increases the risk of accidents occurring. Sitting for hours at a time, day in, day out, is hard on posture and can lead to back problems. Attention to eyesight is essential.

Getting out of a vehicle is not the end of the risks. Working in the confined spaces of markets, farms, and processors carries risks from being hit by other vehicles, so stay alert and make sure that you are seen by others. If in doubt, seek support from those around you.

Slips and trips are among the most common reasons for accidents to people. Working with livestock, with their independent manner, in conditions that can be slippery and sometimes in poor lighting, is dangerous.

Personal hygiene
There are a number of zoonotic diseases which can be transmitted from animals to man. As a livestock haulier, you will not always know what disease risks are present. However, there are simple actions that can be taken to reduce the risks, and the easiest is to keep up personal hygiene standards. Keeping hands clean will always reduce risks of contracting disease, and it is sensible to always wash hands (or use a clean hand wipe) before eating, drinking or smoking.

The livestock industry needs you, so look after yourself.
Responsibility for animal welfare during all stages of a journey is logical. The owner of the livestock has a responsibility to ensure that the journey and any contractors are suitable, whilst the transporter has the immediate responsibility to ensure standards are met during the journey, and that the animals are left in adequate care.

Do not accept responsibility for animals or conditions that you know are not suitable. If in doubt, phone the office, the owner, the vet, or other contact such as a marketing group. It is good practice to always have a contact for guidance, and may save you grief later.

Legislation...

Appropriate methods of handling...

The best way to move animals is to understand their natural behaviour, and to work with that behaviour. Animals tend to move better in familiar groups, at a steady speed to encourage forward vision, and without distractions. Animals move better towards light than towards dark areas.

- Passageways should be clear
- Passageways should be robust and free from injurious surfaces
- Instruments such as sticks may only be used for guidance

Do not be reluctant to take charge of handling if the situation requires it. Ask people to move if needed, or to assist if practical. Your knowledge and experience may be substantial – have the confidence to use it.

For cattle and sheep, use your voice, flags, and a stick as an extension of the arm. For pigs, use your voice, sacks, and pig boards.

Persuasion
It is forbidden to:

- Strike or kick an animal, or cause pain
- Use a pointed stick of any kind
- Use an alkathene pipe or any stick to strike an animal
- Lift or drag in any way that may cause pain or suffering
- Suspend an animal by mechanical means
- Tie an animal by its horns or a nose ring, or tie its legs

Where animals need to be tied the ropes used, tethers or other means used shall:

a) Be strong enough not to break
b) Allow the animal, if necessary, to lie down, and to eat or drink
c) Not give risk of strangulation or injury
d) Allow animals to be quickly released

On occasion, an animal may need to be persuaded to move when it wishes to stay put. Your best means of moving an animal is to understand its behaviour. If strong persuasion is required the application of a prod in a sensible manner is only permitted under the following conditions and rules:

- Electronic goads should be avoided as far as possible
- Electronic goads may only be used, if at all, on adult cattle or adult pigs that refuse to move
- Electronic goads may only be used when the animal has a clear route to follow
- Electronic shocks may only be applied for a maximum of one second, and only to the hindquarter muscles
- Electronic shock may not be used repeatedly if the animal fails to respond

Poor handling can result in lowered meat quality, as well as bruising, injury, an increase in the severity of any disease carried, hyperthermia or sudden death. Good quality handling is an absolute requirement for good quality stock.
Separation
It is both natural and sensible to keep animals in familiar groups. There will be occasions when the question of separation arises, and the law is quite clear on what must be handled and transported separately:

Animals to be kept separate:

a. Animals of different species
b. Animals of significantly different sizes and age
c. Adult breeding boars
d. Animals with horns from animals without horns
e. Sexually mature males from females
f. Animals hostile to each other
g. Tied animals from untied animals

Exemptions:

1. Females accompanied by dependant young,
2. Animals in groups (a), (b), (c) and (d) above that have been raised together may be transported together.

The physiological state of an animal can influence its ability to withstand the effects of stress. Young animals not only have less experience of the wider environment, but have lower reserves of energy, a lower threshold of resistance to extremes of temperature, and often a lower resistance to any disease organisms present compared to older animals. Adult female animals may be pregnant, and should be handled with great care.

Careful handling will minimise additional stress on animals. Identifying particularly nervous animals is good practice, and care should be taken to keep such animals as part of their peer group. Animals on their own are more likely to become stressed than those kept as part of a familiar group.

You can use your own stress levels as an indicator of what is impacting on the stock in your care. If the loading, driving or unloading is winding you up, you can be sure that your behaviour will be impacting negatively on the stock in your care. Stay cool, and help deliver the quality livestock that we need.

Causes of stress & appropriate action to take...

Paperwork...

Remember that an Animal Transport Certificate (ATC) is required on all journeys except for farmers transporting their animals on journeys up to 50km, or as part of seasonal transhumance. Delivery notes or Animal Movement Documents may be used if preferred. ATCs must be kept for 3 years.

ATCs must state:

- Name and address of the transporter
- Animal origin and ownership
- Their place of departure
- The date and time of departure
- Their intended place of destination
- The expected duration of the intended journey
- The date and time of unloading at the destination (useful but not mandatory)

Authorisation
Anyone transporting animals on journeys of over 65km must hold a valid transport authorisation. Authorisations are for short journeys (over 65km and up to eight hours), or for long journeys (all journeys, including over eight hours). Authorisations are issued by Animal Health (formerly the State Veterinary Service) and are valid for 5 years. The authorisation refers to the business, not to the individual drivers of vehicles.

You must always carry your authorisation certificate, or a photocopy of it, when transporting animals.

Certificates of competence must be carried at all times on relevant journeys and made available to enforcement officers.

Long journey authorisations
Vehicles used for transport on journeys over 8 hours must have a valid vehicle approval certificate, and a copy must be carried on all relevant journeys. There must also be a system whereby the journey over 12 hours can be traced and recorded. This requirement can be met by ensuring mobile phone contact with the driver and fully functioning tachographs.

Contingency plans are good practice for all journeys, and there is a legal requirement for these to be written down for long journeys. In practice most operators have a system for dealing with breakdowns, sick animals, and poor weather or road conditions. If in doubt, phone the office.

List your contacts eg:

- Office/home
- Lairage/markets/destinations
- QA support line
- Veterinary contact/Defra/Trading Standards
- Garage/mechanic
- Tyres (24 hour support)
- Vehicle helplines
A knowledge of how animals are likely to behave is an essential ingredient of successful livestock haulage, and is now a requirement under law. For most operatives this knowledge is already present, and the notes below are purely intended as a reminder. However, it is not reasonable to expect new entrants to the industry to have the same knowledge as experienced staff, and there is an obligation on the sector to make sure that drivers are well informed.

The way in which animals react to transport will influence the degree of stress that the transport impacts on them. There are many aspects to be considered, including:

- Previous exposure to handling
- Previous exposure to mixing with other animals
- Previous physical exertion
- Previous exposure to the elements (hot, cold, wind, daylight, noise)
- The physiological state of the animal (see next page).

Most drivers on regular haulage of livestock will recognise that animals from different farms can act in different ways, being more or less easy to handle. This is a result of different genetics, different breeding practices, different systems of management, and different levels of stockmanship. The genetics and previous experience of an animal will influence how they react to the novel situation of transport. A good driver will acknowledge these differences and act accordingly.

It is essential to recognise the acute senses of animals, and how they react differently from us to the new experience of being collected together, loaded and transported. A key difference is their ability to see, as many animals have restricted vision due to having their eyes on either side of the head. We can use their restricted ability to see to influence where they will look, and therefore where we should stand to influence their behaviour.

All animals have a space around them termed the ‘flight zone’. A skilled handler will approach an animal up to the edge of the flight zone in order to encourage the animal to move. If the flight zone is encroached, the animal will panic and try to flee. The size of the flight zone is affected by a number of factors including age, experience and breed. A skilled stockperson is able to judge the size of the flight zone for an animal or group of animals and act accordingly.

Cattle can be moved more effectively if the handler positions themselves at an angle to the group rather than directly behind. For sheep, too much encouragement from the side of the group may cause them to change direction. If you get too close they will bunch and attempt to run back past you. Gain control by using the flight zone.

Responsibility for checking compliance with the regulations lies with the Local Authorities and includes checking the vehicle, the livestock and the paperwork. They may give advice and verbal warnings, and their position must be respected. They may also issue notice under the regulations that require the transporter to:

- Not transport a particular group of animals
- Fulfil special conditions for transport
- Complete a journey or return to the place of departure by the most direct route
- Hold animals in a particular location until a problem is resolved
- Have an animal humanely slaughtered
- Require repair or replacement of equipment before it can be used

Animal Health also carries out enforcement work. Non-statutory bodies such as the Scottish SPCA may take action when animals are in distress.

Serious or repeated infringement can result in prosecution. Authorisations to transport can also be removed, suspended or have conditions attached. In practice the standard of operations has kept improving and the number of cautions issued in Scotland is low. Quality pays.
Introduction...

From 5th January 2008 all transporters and attendants using road vehicles for transporting farm animals (including poultry and horses) must have received appropriate training, and must hold a certificate of competence issued by an independent body. This booklet is intended to form part of the required training, along with the experience gained in practice with the handling and transport of farm animals.

Additional information can be found in the guidance notes 'Welfare of Animals During Transport' published by Defra, and available on the web at www.defra.gov.uk

The requirement for training and certification of competence applies to any driver/attendant transporting farm animals by road, but not if the journey is:

a. Not in connection with an economic activity;
b. By farmers using their own or agricultural vehicles for seasonal migration, such as moving stock to summer pasture or winter grazing;
c. By farmers of their own animals in their own vehicles for a distance of less than 50km (31 miles) from their holding;
d. The journey is 65km (40 miles) travelled distance or less;
e. Directly to/from veterinary practices or clinics under the advice of a veterinarian

Assessment of competence will be available from a variety of sources. SFQC can provide certified assessment. See the section on information sources on page 23 for further details.

Assessments of those involved in journeys under 8 hours are provided by means of a multiple choice theory test. Drivers involved in journeys over 8 hours will also require a practical assessment of competence including driving and animal handling skills

Assessment of competence will, for most drivers, provide recognition of the skills and knowledge that they already hold.

Driving for quality – showing that quality counts

Exports...

Remember the need for a valid vehicle approval certificate for journeys over 8 hours to EU member states. There will also be a requirement for a journey plan and a journey log.

A journey log requires detail of the following:

1. Planning
2. Place of departure
3. Place of destination
4. Declaration by transporter
5. Specimen anomaly report

Full details are available in the Defra guidance notes. www.defra.gov.uk
Further information

The information contained in this document cannot cover all the relevant issues in detail. The documents listed below contain further details, and the contact list gives links to specialist advice.


The EU Drivers' Hours Rules. Road Haulage Association.

SFQC Ltd
Royal Highland Centre
10th Avenue,
Ingliston,
Edinburgh
EH28 8NF
Tel: 0131 335 6600
Fax: 0131 335 6601
Email: info@sfqc.co.uk

Road Haulage Association
Scotland & Northern Ireland
Roadway House
The Rural Centre
Ingliston
Newbridge
EH28 8NZ
Tel: 0131 472 4180

The Rural Directorate
Animal Health and Welfare Division
Room 350
Pentland House
47 Robb’s Loan
EDINBURGH
EH14 1TY
Tel. 0131 244 6479
www.scotland.gov.uk

QMS
The Rural Centre
Ingliston
Newbridge
Midlothian
EH28 8NZ
Tel: 0131 4724040
Fax: 0131 4724038
www.qmscotland.co.uk

NFUS
The Rural Centre
Ingliston
Newbridge
EH28 8NZ
Tel: 0131 4724000
Fax: 0131 4724010
www.nfus.org.uk

SFQC Ltd
The Rural Centre
Ingliston
Newbridge
Midlothian
EH28 8NZ
Tel: 0131 4724040
Fax: 0131 4724038
www.qmscotland.co.uk

Scottish Pig Producers Ltd
28 King Street
Huntly
AB54 8DG
Tel: 01466 792284
livestock transport

Cattle, sheep, and pigs

handle with care...

An information and training package
produced by
QMS

for farm animal transport