



Guide to good practices for the transport of the Poultry



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Guide to good practices for the transport of the Poultry

Director- General for Health and Food Safety

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Contents

0. INTRODUCTION.....	7
0.1 APPROACH AND ACKNOWLEDGEMENTS.....	7
0.2 Aim of this guide.....	10
0.3 Main welfare key areas during poultry transport.....	11
0.4 Animal Based Measures.....	11
0.5 Structure of the guide.....	12
0.6 List of definitions.....	13
1. ADMINISTRATIVE ISSUES.....	15
1.1 Introduction.....	15
1.2 Administration.....	16
1.3 COMPETENCE AND TRAINING.....	17
1.4 RESPONSIBILITIES.....	18
2. JOURNEY PLANNING AND PREPARATION.....	20
2.1 Introduction.....	20
2.2 Planning the journey.....	20
2.3 Means of transport.....	24
2.4 Animal related preparation.....	28
3. HANDLING AND LOADING OF ANIMALS.....	30
3.1 Introduction.....	30
3.2 Loading facilities.....	30
3.3 Handling of animals during loading.....	31
4. TRAVELLING.....	35
4.1 Introduction.....	35
4.2 Driving.....	36
4.3 Water, feed and resting times.....	36
4.4 Emergencies.....	37
5. UNLOADING OF ANIMALS.....	39
5.1 Introduction.....	39
5.2 Design of unloading area.....	39
5.3 Care of animals following unloading.....	40
5.4 Bio-security, cleaning and disinfection.....	41
REFERENCES.....	42

0. INTRODUCTION

Since 1991, the EU has provided a common legal framework which was then updated by Regulation (EC) 1/2005 on the protection of animals during transport, hereafter referred to as '**the Regulation**'. It came into effect on the 1st of January 2007, and aims to provide a level playing field for operators while ensuring sufficient protection for the animals being transported. The content and impact of the Regulation has been the subject of a Scientific Opinion from the European Food Safety Authority (EFSA, 2011), followed in 2011 by an impact report from the Commission to the European Parliament and the Council (Anon., 2011). In this report, three key recommendations were formulated:

1. The Regulation has had beneficial impact on the welfare of animals during transport, but there is **room for improvement** of the situation;
2. An **amendment** of the Regulation **is not the most appropriate approach** to address the identified problems;
3. As regards the gap between the requirements of the legislation and available scientific evidence the Commission sees that this is best addressed by **the adoption of guides to good practice**.

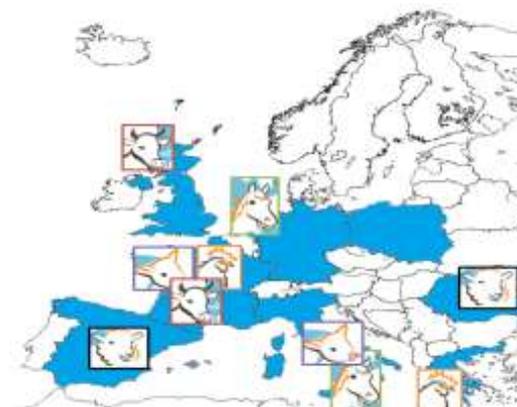
The European Commission has welcomed the production of "clear and simple guidelines to assess the fitness for transport" prepared by stakeholder groups for [bovines](#) in 2012, and [equidae](#) and [pigs](#) in 2016. It was then considered important to extend this approach to address all aspects of the welfare of livestock during transportation.

0.1 APPROACH AND ACKNOWLEDGEMENTS

This Guide has been produced within the framework of the Animal Transport Guides project, commissioned by DG SANTE under contract SANCO/2015/G3/SI2.701422. The project started on the 10th of May 2015, **and its main aim was to develop and disseminate good and better practices for the transportation of livestock**. The foundation for this Guide was laid in the first project year, through an extensive literature search and resulting overview of a substantial number of available practices. These overviews of suggested practices can be found on the Animal Transport Guides website: <http://animaltransportguides.eu/>. There is one report for each of five livestock species (pigs, poultry, horses, sheep and cattle). In the second year, these very broad and diverse lists were discussed and largely rewritten, to develop the present five Guides to Good Practices. This involved an intensive process of stakeholder consultation.

The first step in moving from the collection of practices to a draft Guide of Good Practices was taken at member state level. Teams consisting of academic partners from two countries per species (the '**Duo Countries**') took the lead.

- ✓ Sheep: Spain and Romania
- ✓ Poultry: Greece and France
- ✓ Pigs: Italy and France
- ✓ Horses: Italy and the Netherlands
- ✓ Cattle: United Kingdom and France



The academic partners identified practices that are at the level of current EU legislation ('**Good Practices**') and practices that are aspiring more ('Better Practices beyond EU legislation', or simply '**Better Practices**'). The partners then proceeded to ask national stakeholder groups in their own countries to reflect on these suggestions for good and better practices. To support this process and work towards consensus, an iterative Delphi procedure of anonymised input collection was used. Well over 100 stakeholders were involved in this step, representing a variety of backgrounds. The largest number of stakeholders indicated they were farmers (19 individuals), transporters (27), slaughterhouse personnel (13), NGOs (12) and competent authorities (27). Representatives from animal trade, academia and vehicle manufacturers also took part in this consultation process. All discussions were carried out in the national language of the member state involved. The final results of this Delphi procedure were five "Draft Guides to Good Practice". These were not published, but used as the basis for the final Guides.

The final Guides for each of the five livestock species were developed through a second round of consensus building at European level, with the help of '**Focus Groups**'. These focus groups had an international basis: the delegates were asked to represent knowledge, experience and opinions beyond those of their own country. Table 0.1 below shows the composition of these five focus groups.

Table 0.1 Composition of international Focus Groups, involved in the production of the final Guides to Good Practice. The numbers indicate the number of representatives per stakeholder category.

	Sheep	Poultry	Pigs	Horses	Cattle	Total
Farmers	3	5	3	1		12
Vehicle manufacturers			2			2
Animal traders	1				2	3
Transporters		3	2	3	5	13

Slaughterhouses	2	5		1		8
Official veterinarians		2	1	2	2	7
Animal scientists	2	3	2	2	2	11
Animal welfare organisations	2	3	2	4	5	16
Total	10	21	12	13	16	72

A first series of meetings of the five focus groups was organised at the end of May 2016. During these meetings, the draft guides were presented by the academic partners. A road map to turn the draft guides into the current final versions was then agreed with the stakeholders. All focus groups held subsequent meetings in Brussels, to discuss and reach consensus on the wording of each single practice to be included in the final Guides. Different species groups had different numbers of meetings, and the last ones were held in March 2017.

To support and help guide the process of writing, the Animal Transport Guides project team set up a '**Stakeholder Platform**'. This group of people provided advice throughout the first two years of the project on how to tackle issues that affect all five species guides. The Platform was composed of representatives from 13 international organisations or stakeholder groups: the International Road transport Union (IRU), the Federation of Veterinarians of Europe (FVE), Eurogroup for Animals, Copa-Cogeca, Association of Poultry Processors and Poultry Trade (AVEC), the German Breeders Organisation (ADT), Eyes on Animals, the Irish Ministry of Agriculture, vehicle manufacturer Pezzaioli, Union Européenne du Commerce du Bétail et des Métiers de la Viande (UECBV), European Forum of Farm Animal Breeders (EFFAB), the German Transporters Organisation (BDT), and the Greek Ministry of Agriculture. The Platform met 5 times in Brussels over two years.

As part of the development of the five Guides, the species Focus Groups and the Stakeholder Platform choose 17 topic areas which deserved extra attention. The practices in these areas were collected in 17 so called '**Fact Sheets**', aiming to summarise and illustrate in an accessible way the most critical aspects of the journey or the most vulnerable categories of animals. Linked to the present Poultry protocol, 3 Fact Sheets were produced: **Preparation of vehicle, driver and loading for poultry**, **Preparing the catching of birds** and **Preparing the catching of end-of-lay hens**. These three, and those related to the other Guides, are published in eight European languages.



The target audience for the fact sheets are farmers, drivers, local veterinarians and abattoir staff. The target audience for the Guides to Good Practice are transport organisers, competent authorities and policy makers. The Guides and the Fact Sheets can all be found on the project's website: <http://animaltransportguides.eu/>.

The development of the Fact Sheets and the Guides would not have been possible without the highly constructive discussions at national and international level with the many stakeholders mentioned above. **Their help with this process was essential, and the authors are grateful for the time and knowledge they contributed to the writing of the Guides.**

0.2 Aim of this guide

The Guides to Good Practice have the objective to improve the welfare of poultry during transportation by providing practical tools to meet the requirements of the Regulation and to deliver practices which go beyond legislation.

The present document mainly refers to practices related to **day-old chicks, pullets, broilers, end of lay hens** (*Gallus gallus*) and **turkeys** (*Meleagris palopavo*). These practices may also apply to other types of "poultry" such as ducks, geese, quails and pigeons. However, the reader should be aware that, if similar principles remain applicable, some adaptation may be necessary due to the specific needs of each species.

Good transport is important for poultry comfort and welfare. This guide lists practices which aim to support entrepreneurs in increasing the quality of the transport of poultry in accordance with the Regulation, and thus ensures good comfort to animals and promote animal welfare.

The practices in this report are based on scientific knowledge, scientific literature, experiences and information from stakeholders. No distinction is made by source, unless this is regarded as relevant for better understanding or checking of the background. They can be used to develop company specific guidelines or Standard Operating Procedures for transporters and other stakeholders, or as a reference source for dealing with aspects of transportation in the way which is practical and which supports animal welfare.

This document is not of legally binding nature and does not affect the requirements of the EU legislation on animal transport or other relevant pieces of legislation. Nor does it commit the European Commission. Only the Court of Justice of the European Union is competent to authoritatively interpret Union law. The reader is therefore invited to **consult this guide in connection with the relevant provisions of the legislation** and refer, when necessary, to the relevant competent authorities.

0.3 Main welfare key areas during poultry transport

During transportation, various aspects are important to ensure bird comfort and welfare, which differ when transporting chicks compared to end-of-lay hens or broilers.

Special attention must be paid to avoid bone injuries in end-of-lay hens due to poor catching and handling conditions (see 3.3 Handling of animals during loading). As turkeys are heavy to handle, it is essential to catch them correctly and carefully (see 3.3 Handling of animals during loading). Another important aspect is to ensure good functioning of ventilation systems, as these are essential to protect adult birds from heat or cold stress during transport, which may impact in particular on poorly feathered hens (see 4. Travelling). Atmospheric temperature control is also important for chicks. For instance, hypothermia resulting cold stress due to poorly controlled ventilation regimes of 'chicks boxes' can lead to mortality. Water and feed restrictions during transport also have an impact, especially on adult birds. End-of-lay hens are often transported more than 12 hours. Depending on the weather, transportation can be very stressful for these birds. These restrictions also have a negative impact on broilers, even if the transport duration is shorter.

0.4 Animal Based Measures

The ultimate aim of providing the right conditions during driving should be to provide good welfare, **so that the animals are healthy and fit when they come off the truck at destination**. The current legislation, most quality assurance schemes and the present guide offer several suggestions on what these conditions should be. They advise e.g. on space allowances and the feed and water requirements of the animals. This advice is based on years of experience or thorough research which has identified the welfare risks associated with deviations from this advice.

It is important to realise that recommendations based on '**conditions**' (the resources on the truck or the handling and animal management by operators) **do not necessarily guarantee good welfare**, but they offer advice to maximise the chance that the welfare of the animal will be good. The effect conditions have on the actual welfare status is influenced by other factors, as many of the (recommended) conditions are interacting with each other. **Animal Based Measures (ABMs) are measures that are taken directly from the animal**. They include behaviour, clinical signs of disease, mortality, appearance of the feathers, etc. ABM's can be used before, during and after the journey.

Before the journey Animal Based Measures help to assess fitness of animals for transportation. In chapter [2.4.2 Fitness to travel](#) the most common ones are mentioned. A second useful reason to look at crated animals before loading is to obtain information on catching practices. It makes economic sense to improve welfare during catching, and poor practices are identified by high numbers of animals with trapped wings, toes, heads, splayed legs (legs spread apart), or birds lying on their backs ([Jacobs et al., 2016](#)). These are signs that birds have been caught roughly or that the containers were stacked

incorrectly. As a result these animals will experience pain or discomfort throughout the journey, and they may even die.

During transport the assessment of ABMs is more difficult. Poultry are subjected to mass transportation into crates, containers or chick boxes, so inspection of each individual animal is not feasible. However, many trucks are equipped with **side access doors** to the individual containers, and some have a passage in the middle to improve air flow, which may also allow drivers to see some of the birds in the centre of the truck ([Eyes on Animals, 2017](#)). If this passage is not present, birds in the middle of the truck cannot be seen. However, the birds in the outer rows can still be viewed (providing of course that side covers are not in use). Observing them during the journey, e.g. during resting times of the driver, is helpful to determine if they are not too hot or cold. Birds that are panting are showing signs of heat stress, whereas when huddling they are showing signs of cold stress. Depending on the weather and on the birds' behaviour (e.g. panting, huddling), the driver can adjust the side covers if necessary, or take other measures to avoid poor welfare and death.

During unloading ABMs can be helpful to assess the quality of the transport. In particular the level of DOAs (Dead on Arrivals) will provide information that should be used to improve the transporter's next journey.

0.5 Structure of the guide

Transport spans a **chain of events** from preparation to unloading. To facilitate the use of the guide in every day practice, it is structured according to five stages of the journey:

1. Administrative issues
2. Preparation and planning
3. Handling and loading animals
4. Travelling
5. Unloading animals

Stages 2 – 5 follow transport activities in chronological order. The first 'stage' is added because administrative issues, including staff competence, training etc. are important for the execution of almost all activities during transport of animals. Each stage is subdivided into a number of aspects, and for each of them this guide presents 'good practices' as well as 'better practices beyond EU legislation'. See below for definitions.

The practices are not equally important in terms of their expected impact on animal welfare. Therefore, this guide suggests topic areas which are very important, and areas which are relevant but less important. The very important topics will be 'boxed' throughout this guide.

The digital version of this Guide includes words or references with so called '**hyperlinks**'. Clicking on these links (usually with 'Control' + 'left mouse click') will lead to another

related part in this Guide, or to background information in documents or on websites, providing of course the reader has internet access on his reading device.

0.6 List of definitions

For the purpose of this report,

- **'Good practices'** are defined as: procedures and processes that ensure compliance with requirements of legislation or regulations, designed to protect the animals' welfare.
- **'Better Practices beyond EU legislation'** are defined as providing additional guidance on how procedures and operations can be improved to exceed any legally defined minimum welfare requirement, and which are intended to increase the welfare status of the animals during the relevant periods and procedures. They will be abbreviated to "better practices" throughout the document.

In addition to the above operational definitions of good and practices beyond EU legislation (better), the following is a list of terms used in this report, which may need a precise description to avoid confusion.

Attendant	A person directly in charge of the welfare of the animals who accompanies them during a journey
Broilers	From commercial growing farms to slaughterhouse
Competent authority	The central authority of a Member State competent to carry out checks on animal welfare or any authority to which it has delegated that competence
Container	Any crate, box, receptacle or other rigid structure used for the transport of animals which is not a means of transport
Competent authority	Central authority of a Member State competent to carry out checks on animal welfare or any authority to which it has delegated that competence
Day-old chicks	<ul style="list-style-type: none"> - From hatchery to commercial grower farms (broilers) - From hatchery to commercial grower farms (turkeys, "poultry") - From hatchery to commercial rearing farms (laying hens) - From hatchery to breeding farm (breeding stock)
End-of-lay hens	Laying hens for table eggs production from laying farm to slaughterhouse

Journey	The entire transport operation from the place of departure to the place of destination, including any unloading, accommodation and loading occurring at intermediate points in the journey
Keeper	Any natural or legal person, except a transporter, in charge of or handling animals whether on a permanent or temporary basis
Long journey	A journey that exceeds 8 hours, starting from when the first animal of the consignment is moved
Official veterinarian	The veterinarian appointed by the competent authority of the Member State
Place of departure	The place at which the animal is first loaded on to a means of transport provided that it had been accommodated there for at least 48 hours prior to the time of departure
Place of destination	the place at which an animal is unloaded from a means of transport and accommodated for at least 48 hours prior to the time of departure, or slaughtered
Pullets	Laying hens for table eggs production from rearing farm to laying
Transporter	Any natural or legal person transporting animals on his own account, or for the account of a third party
Turkeys	From commercial growing farms to slaughterhouse
Vehicle	Means of transport fitted with wheels which is propelled or towed

1. ADMINISTRATIVE ISSUES

1.1 Introduction

A series of **documents are required by the EU legislation to transport live animals** which must accompany the consignments and might be required at all time by the competent authorities. Having properly prepared the documents required will **prevent unnecessary delays** and additional checks by the authorities.

In addition, **good record keeping** is the cornerstone of quality monitoring: it contributes to **transparency** and supports **quality evaluation**. Records can be used to highlight aspects that went well and to identify weaknesses that need to be addressed. Such evaluations can be done at the level of a specific event such as a single journey, and also by aggregating data at the level of multiple transports. Record keeping is indispensable for **maintaining and promoting adequate standards**.

It is important that data requested to be recorded are **clear and understandable** and easy and quick to log. They should be able to be assessed objectively, and be justified for and proportional to the intended goals, i.e. safeguarding the welfare of the transported animals. Records should not be longer than necessary and what is "needed to know" should prevail over what is "nice to know". Promoting and using **electronic records** facilitates meeting the administrative requirements. Furthermore, synergy can be obtained by linking animal welfare records with health and food safety records.

Transporters should carry the **appropriate documentation with them during the journey**. They are likely to be checked for these papers by the competent authorities either during transport or at any transfer or arrival.

In particular, **certificates of competence** must be held by drivers or attendants responsible for transporting domestic Equidae, domestic animals of bovine, ovine, caprine or porcine species and poultry over 65 km. In the EU member states these are mainly independently assessed qualifications specific to the species and duration of journeys involved.

As is indicated in the Regulation, **professional drivers** and attendants should achieve **knowledge of the legislation** in relation to the following topics:

- animal transport,
- animal physiology (in particular drinking and feeding needs)
- animal behaviour and the concept of stress,
- practical aspects of handling of animals,
- the impact of driving behaviour on the welfare of the transported animals and on the quality of meat,
- emergency care for animals and safety considerations for personnel handling animals.

Drivers and attendants need to be able to adequately translate this knowledge into practice. Insufficient knowledge of these issues is regarded as the main risk for impaired animal welfare during transport.

The competent authorities have to ensure that the requirements of Annex IV of the Regulation have been included in a **theoretical examination of applicants**. The content

and duration of training courses, the professional qualifications which can be taken into account, and the type of examination are the responsibility of each member state.

1.2 Administration

Good practices regarding Administration

1. Everyone transporting animals carries **documentation on the means of transport** stating their origin and their ownership, their place of departure, the date and time of departure, their intended place of destination, and the expected duration of the intended journey.
2. Furthermore the following document might be necessary to accompany the transport animals in the EU:
 - An **transporter authorisation** for transports exceeding 65 km and up to 8 hours (Type I) and over 8 hours (Type II),
 - **A certification of competence** of drivers and attendants transporting poultry,
 - **Animal health certificates (where required e.g. trade between Member States or when exporting to non-EU countries)**
 - **Food chain information** regarding slaughter animals.
3. Animal health certificate shall be submitted via the electronic application TRACES
4. Organisers archive all transport records, animal health certificates of each transportation for at least **three years**.

235.

Better practices regarding Administration

5. Transport means provide information about the **net usable surface area** for each loading deck.
6. The data of the journey log are presented in an **electronic format** to be transmitted to the CA.
7. The **categories of animals** within the species are indicated on top of the species (e.g. stallions, fowls, mares).
8. Journey information is transmissible in real time to the Trade Control and Expert System (TRACES). The journey information required relates to:
 - Date and time of **loading of the first animal** of the consignment at the place of departure
 - Date and time of the **unloading of the last animal** of the consignment at the place of destination
 - **Species and number** of animals in the consignment
 - Species and number of animals **injured and dead** during the journey
 - Date and time of **coupling and decoupling** of the trailer. The equipment should be mounted on the trailers and not on the pulling vehicle.
 - Estimated **total weight** of the consignment at the place of departure or at the place of any loading of the consignment
 - Date, time and location of the **places of rest** or transfer.
9. Transport organisers keep transport contracts and journey logs in an archive for **at least 5 years**.

1.3 COMPETENCE AND TRAINING

In general, only skilled workers can complete animal transportation with minimal impact on animal welfare. The skills required ('competence'), obtained through training and work experience in the animal transport chain, enable each operator:

- To have the necessary knowledge about the **impact** of their work **on animal** stress, fear and related injuries
- To know about the **impact** of their work on the **quality of the meat** of transported animals
- To recognise the main physiological signs to **judge the state of the animals** before loading, during loading and transport phases and at unloading (e.g. posture, nervousness and stress, etc.)
- To **adapt the journey** to specific conditions (variable sensitivity of breeds transported to stress and mortality, weather conditions, events which can occur during the trip)
- To know the **biosecurity** rules

Good practices regarding Competence and Training

10. Transport operators ensure that persons who handle livestock have a basic but detailed understanding of animals' behaviour and physical needs. For an overview of biological needs of birds whilst travelling (see [Chapter 2.4 Animal related preparation](#)).

11. Trainers impress upon keepers the potential **effects of their actions** upon animals in their charge.
12. Transport operators ensure that there is a **commitment to proper handling** from everyone, from the top down, involved with the livestock shipment.
13. Transport operators ensure compliance with the minimum legal training programme required for the Certificates of Competence in Europe according to the Regulation and national requirements if any.

Better practices on Competence and Training

14. A **Welfare Transport Officer** in charge of the training, certificates and check of the quality of the transport is appointed in the transport company.
15. The practical **abilities** of the transporter are **recorded and controlled** (e.g. through audits and checks in the field)
16. **Key parameters** are identified and **recorded** to assess the quality of the transport (e.g. the incidence of mortality, injuries and any animal based measures of animal welfare)
17. Transport companies ensure that drivers (and keepers) receive continuous and **updated training**

1.4 RESPONSIBILITIES

Good practices on Responsibilities

18. The **keepers and attendants** (including the owners and managers) of the animals are responsible for
 - a) the general **health**, overall **welfare** and **fitness** of the animals for the journey; these are assessed and recorded by **regular routine inspection**,
 - b) ensuring compliance with any required certification, either veterinary or other,
 - c) the **presence of an animal keeper / attendant** competent for the species being transported during the journey and with the authority to take prompt action; in case of transport by individual trucks, the truck driver may be the sole animal keeper during the journey,
 - d) the presence of an adequate number of animal keepers during loading, and
 - e) ensuring that **equipment and veterinary assistance** are provided as appropriate for the species and the journey.
19. **Business agents** or buying/selling agents are responsible for
 - a) selection of **animals that are fit** to travel, and
 - b) availability of suitable **facilities** at the start and at the end of the journey for the assembly, loading, transport, unloading and holding of animals, including for any stops at resting points during the journey and for **emergencies**.
20. In addition, **animal keepers** or attendants are responsible for the humane handling and care of the animals, especially during loading and unloading. To carry out their responsibilities, they have the **authority to take prompt action**. In the absence of a separate animal keeper, the driver is the animal keeper.
21. The '**Organiser**' is responsible for planning the journey to ensure the care of the animals. This may be the transporter, the vehicle owner and/or the driver. In particular they are responsible for
 - a) choosing **appropriate vehicles** for the species transported and the journey,
 - b) ensuring that properly **trained staff** are available for loading/unloading of animals,
 - c) ensuring adequate competency of the driver in matters of animal welfare for the species being transported,
 - d) developing and keeping up-to-date **contingency plans** for all journey types (even when not mandatory) to address emergencies (including adverse weather conditions),
 - e) producing a **journey plan** for **all** journeys (including where mandatory) which includes a loading plan, journey duration, itinerary and location of resting places,
 - f) loading only those **animals** which are **fit to travel**, for their correct loading into the vehicle and their inspection during the journey, and for appropriate responses to problems arising (if fitness to travel is in doubt, the animal should be examined by a veterinarian who is then responsible for declaring any animals unfit to travel),
 - g) welfare of the animals during the actual transport, and
 - h) **planning the journey, which** should take into account any disparity in the requirements for animal journey times and the requirements of the **social regulations relating to drivers' hours**, including the numbers of drivers required for long journeys to achieve complete compliance. This will ensure compliance with both sets of regulations. This may relate to both driver and animal rest times and a decision on the number of drivers required for long journeys.
22. **Managers of facilities** at the start and at the end of the journey and at resting points are responsible for

236. a) providing **suitable premises** for loading, unloading and securely holding the animals, with water and feed when required, and with protection from adverse weather conditions until further transport, sale or other use (including rearing or slaughter),
- b) providing an **adequate number of animal keepers** to load, unload, drive and hold animals in a manner that causes minimum stress and injury,
- c) **minimising** the opportunities for **disease transmission** by detailed attention to vehicle and facility **cleaning, disinfection**, hygiene and environmental control, as well as provision of clean bedding,
- d) providing appropriate facilities to deal with **emergencies**,
- f) providing facilities and competent staff to allow the **humane killing** of animals when required, and
- h) ensuring proper rest times and minimal delay during stops.

Better practices on Responsibilities

23. Ensure there are **clear definitions of responsibilities** of keepers, attendants, traders, transport organisers, farmers, assembly centre managers, drivers, control post owners and slaughterers, and that they are listed in the transport contract and to provide a checklist accessible by all staff including the driver(s) or attendants.
24. **Standard Operating Procedures** (SOPs) are established for each activity/task by the agent defined as responsible. These describe **precise protocols** for feeding, watering, renewal and replacement of bedding, animal inspection and monitoring and **definition of those individuals responsible** for each task. SOPs are continuously updated in accordance with new advice and/or guidance.

2. JOURNEY PLANNING AND PREPARATION

2.1 Introduction

Good preparation and planning for the transport of poultry is one of the most important stages of the journey. It is the key to successful animal transport in terms of compliance with legislation, best practice and high standards of animal welfare and economic benefit. **Good planning promotes smooth execution** of transport and is needed to minimize the risk that the involvement of the different parties is poorly synchronised. The complexity of the overall animal transport process necessitates **well-structured integration of each of the activities** according to defined sets of objectives, responsibilities and monitoring tasks. The anticipation of **unexpected events** and problems and the provision of **contingency plans** to supplement well defined Standard Operating Procedures are paramount. Next to the immediate animal welfare concerns, planning should include animal health considerations (biosecurity), human health and safety aspects and economic consequences.

From an animal welfare point of view, the 'preparation and planning' stage includes the following aspects:

- Planning the journey
- Vehicle preparation
- Animal related preparation

These aspects are described in the paragraphs below.

2.2 Planning the journey

The journey shall be as **smooth and quick as possible** in order to limit exposure to transport stress. It shall be planned carefully to assure poultry welfare conditions during the whole transportation. As part of the planning for each journey, **arrangements shall be made to manage any delay**, breakdown or other emergency to minimise risks of impaired welfare during all transport.

The journey shall be **planned and prepared carefully** after the announcement by the farmer or trader of the date and the place of departure and the destination to the final client. Journey plans involve written arrangements regarding start and unloading places, contingency plans, and details on consignment sheets or arrangements that are in place for rest stops, particularly for long journeys.

In particular, they shall include:

- **description of the route of travel** and estimation of its duration
- analysis of **weather forecast**
- choice of the **transport company** and of the truck (e.g. type I or II) and/or vessel depending on journey duration and weather conditions, poultry number and categories
- a **contingency plan**
- planned **number of drivers**
- assurances **that the truck is ready** at the place and time appointed for departure

2.2.1 Journey duration

Journey duration has a clear impact on animal welfare, and is directly linked to the birds' fastening duration. So the journey duration (loading and unloading steps included) has to be correctly estimated to ensure that the feed deprivation period will be as short as possible.

Chapter V of Regulation 1/2005 states that domestic birds can be transported without food and water up to 12 hours disregarding loading and unloading time, or 24 hours for chicks (provided that the journey is completed within 72 hours after hatching).

Good practices on Journey duration

25. The aim of everyone involved in the scheduling process (producer, transporter, director of procurement and dispatcher) **is to minimize the time**, and optimize comfort for the birds when remaining on a trailer.
26. The driver should drive carefully and smoothly. **He chooses the optimal road taking into account distance, weather, road quality and possible road difficulties** (e.g. traffic jam, road works).
27. If minimizing the time birds spent on a trailer is not possible for long journeys from farm to slaughter in extreme weather conditions (hot or cold), then **the catching operations should be carried out at night**.
28. Effective communication between the driver and the people responsible for loading and unloading locations at the places of departure and destination is essential; they must share telephone number and e-mail address in advance in order to be able to **promptly communicate eventual modifications** to the scheduled transport program before and during the journey. For example, the slaughterhouse is informed of the arrival time and of any delay during transport. Waiting time at the slaughterhouse can thus be reduced.

Better practices on Journey duration

29. Broilers and turkeys to slaughter, pullets and end of lay hens of commercial egg layers should **not be held in containers for longer than 6 hours** at the slaughterhouse.
30. As far as possible, when the journey is longer than 9/10 hours, **plan to have 2 drivers in order to avoid any long breaks to be in line with practice 32**.
31. Except for day-old chicks where the truck is heated and ventilated, the transport organizer shall **avoid travelling during the hot parts of the day** by planning the journey to take advantage of cooler conditions, e.g. at night.
32. As far as possible, the transport organiser should **avoid rush-hour traffic** in built-up urban areas.

2.2.2 Contingency plans

The main goal of the transporter is to deliver the animals timely and in good welfare conditions, despite risks of delay on the road. Emergencies may occur, even when optimal preparation and planning has taken place. **The contingency plan aims at helping the driver and the transport company to ensure the security and the welfare of the animals in case of emergency.** The Regulation mentions these as a requirement for

long journey transporter authorisation, but they are also useful for short journeys. Contingency plans are most useful when they are regularly trained and updated by the transporter. They should address 4 questions: what **potential risks** may cause an emergency, **what can be done** when they occur, **who is to do what** and **how will the mitigating actions be carried out**. By being prepared, the transporter will be able to respond in an effective manner and reduce the impact of a delay or accident on the animals. Figure 2.1 provides an example taken from the [Practical Guidelines to Assess Fitness for Transport of Equidae \(2016\)](#).

Annex III – Example of UK contingency plan

Council Regulation (EC) 1/2005

Contingency Plan Template For Type 2 Transporters

Please complete this Contingency Plan and submit to the following address with your application form for a Type 2 Transporter Authorisation:

This generic Contingency Plan is to be completed by the Transporter.

Section 1 – Contact Details

Name of Transporter

Address:

Contact Telephone Number Email Address

Section 2 – In case of an emergency:

- 1 Who is your nominated vehicle breakdown/recovery company?
- 2 What action will you take in the event of a traffic accident, road closure or weather conditions delay your journey?
- 3 What action will you take if the ferry/shuttle service has been suspended?
- 4 What action will you take in the event that your vehicle suffers an irreparable breakdown?
- 5 What action will you take if any animal(s) become ill during the journey?
- 6 What action will you take if any animal(s) needs to be euthanised?
- 7 What action will you take in the event that you encounter extreme temperatures (either hot or cold) during the journey?
- 8 What action will you take if there is confirmation of a Notifiable Disease in an area you're travelling through?

Transporter Signature

Name in BLOCK LETTERS Date

Figure 2.1. The structure of an emergency plan (as presented in the Practical Guidelines to Assess Fitness for Transport of Equidae, 2016)

Good practices regarding contingency plans

33. **If a delay occurs**, the welfare and safety of the animals must be considered paramount at all times. It is the driver's responsibility to keep the animals comfortable and safe and ensure the journey time is kept to a minimum.
34. The driver should make every reasonable effort to minimise the delay and ensure that **water, shade on a hot day, and adequate ventilation are available**.
35. If necessary, the **driver should seek the help of the police** to enable his journey to continue as soon as possible during long traffic hold-ups (i.e. if the road is closed due to an accident).
36. In the case of a **mechanical breakdown** of the vehicle, the nature of the breakdown should be determined and it should be estimated how long the repairs will take. If the repairs cannot take place at the site of the breakdown or they will take an extended period of time, **arrangements for another vehicle** will have to be made.

37. A contingency plan should be present in the vehicle. An example is provided in Figure 2.1. The plan should be known and understood by everyone involved in animal transport during any journey. It needs to describe how to handle unforeseeable incidents and delays to ensure the animals do not suffer significant harm. Delays can be caused by weather, traffic issues, accidents, road construction, mechanical breakdowns or plant shutdowns. The contingency plan must amongst other things include the provision for facilities to hold animals in emergencies.

38. In case of emergencies the contingency plan is activated by the driver and/or transporter, whoever is first aware of the emergency.
39. The contingency plan should **include the following elements**:
 - a) Solutions how a **constant contact** can be organised between the transporter and the driver/s,
 - b) Solutions how a **contact to authorities** can be warranted (police/veterinarians),
 - c) A list of **contact-phone numbers** of all parties involved, including the phone-number of the insurance-company for the birds,
 - d) Solutions how **local breakdown services** can be organised, how a taking over of the shipment can be organised (substitutes),
 - e) Solutions to **arrange repairs** in case of a damage to the vehicle,
 - f) Solutions to **unload animals** in case of emergency or delay: **places where animals can be unloaded** are identified throughout the planned route, and this information is readily available to the driver.
 - g) Solutions how **water, food and bedding** can be organised for animals in the case of unforeseeable long delays (e.g. at border crossings),
 - h) **Other matters** necessary to ensure the animals do not suffer significant harm as a result of delays during transport.
40. **Animals may become injured** during transport and it may be necessary to humanely kill an animal before it reaches its destination in order to prevent the animal suffering further pain or distress. Therefore the transporter should have readily available the **contact details of a veterinarian** or licensed slaughter man competent in humane killing at locations along the journey or at the destination.

41. Only drivers or attendants who have a certificate of competence and have received specific training in the field of animal emergency care, may **attend to animals injured** during transport.
42. For day-old chicks, in case of engine failure, organise another day-old chick truck for reloading.

Better Practices regarding contingency procedures

43. A contingency plan should also be drawn up and in place for **short transports under 8 hours**
44. In order to be properly prepared for an accident, each transport vehicle should contain the following:
 - a) Emergency **contact sheet** with 24-hour phone numbers for dispatch, destination point and local competent authorities, available veterinary surgeons, emergency services, emergency plant operators and insurance companies,.
 - b) Emergency **warning devices** (e.g. flares, emergency triangles) consistent with European requirements.
 - c) **Camera** / mobile phone camera
 - d) Accident **information sheet**
 - e) Company **accident policy sheet**/Standard Operating Procedures,
 - f) **Fire extinguisher**
 - g) **Spill containment** or cleaning kit
45. The transporter should constantly **monitor the comfort and condition** of the animals during any delay. For pullets and birds to slaughter, during any delay **a driver should check the birds** he can see for signs of panting and take appropriate remedial actions
46. The transporter, in the case of delay, should **contact the origination and/or the destination contact persons** to inform them of the nature of the delay and determine the best plan of action for themselves and for the well-being of the animals
47. Provision for **convenient and simple emergency access** should be present on vehicles to make it easier to inspect the sheep and provide assistance to animals in need
48. Emergency procedures are **periodically tested** and discussed with personnel through internal audits, and amended as necessary
49. Equipment kept for **emergency euthanasia** is well maintained and can be operated efficiently; documented training and equipment maintenance records are kept
50. Information on how to transport animals (incl. issues related to emergencies) **is shared between transporters**, and what works or does not work is evaluated regularly.
51. For day-old chicks at risk of heat stress in low humidity circumstances, **water should be sprayed on the floor** of the truck
52. In case of engine failure when transporting day-old chicks **there should be an emergency generator** – so the fans can be kept running and the temperature, air flow and oxygen can be controlled

2.3 Means of transport

The vehicle and more specifically the containers will house the birds during the journey. There is a large variety of trucks and containers but all of them must be suitable to the

birds' types and ages. The vehicle design and maintenance must ensure the safety of the animals and their good welfare, as summarized in Figure 2.1. Moreover, space allowances and curtain configuration must be used appropriate to the weather conditions.

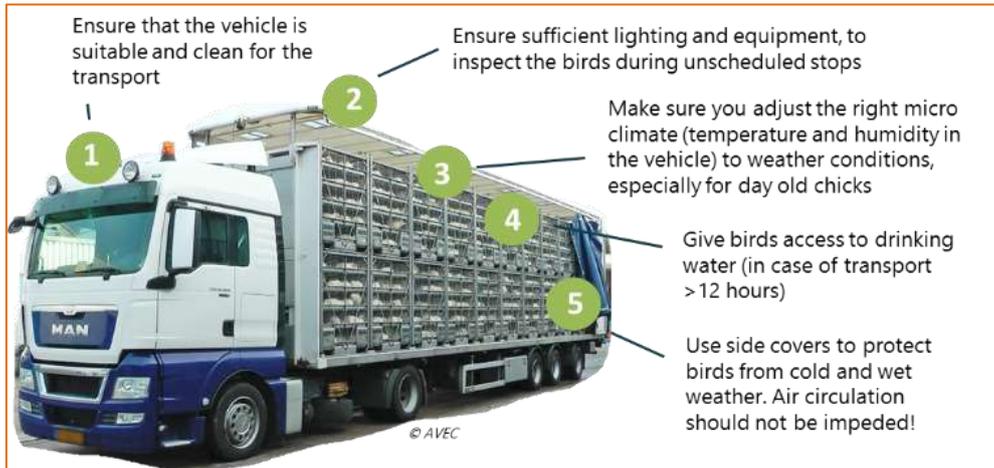


Figure 2.1 Vehicle design and maintenance

When transported, birds try to keep an optimal thermal balance. However, **poorly controlled passive ventilation regimes expose broilers, turkeys and hens to heat or cold stress**. For end-of-lay hens, external temperatures lower than 15°C may cause thermal stress in passively ventilated open vehicles.

In contrast, chicks are transported in closed trucks, with controlled ventilation regimes. However, chicks are sometimes exposed to heat or cold stress due to poorly controlled ventilation regimes of chick boxes, which may compromise their welfare and future productivity.

The **space allowance** in the containers has to be adapted to the poultry species, age and climate to ensure their physical and thermal comfort, as space allowance within the vehicle directly affects the living conditions of transported poultry. A limited space allowance may lead to concussions, injuries, broken legs or wings and even asphyxia. However, end-of-lay hens have a poor feather cover and are more likely to exhibit cold stress if space allowance is too great. As hypothermia is the major issue for chicks, this risk of cold stress also concerns them when the space allowance is too high because they cannot keep warm.

2.3.1 Vehicle design and maintenance

Good practices on vehicle design and maintenance

53. Trucks must be designed to transport animals. They must be **well maintained, clean, functioning well and providing protection** to the birds against climate conditions (e.g. tarpaulin fixed in a way that allows air circulation, and so that the covers/tarps can be easily adjusted to variable weather conditions during long journey).
54. Solid, safe and clean containers should be used.



Figure 2.2 Use of solid, safe and clean containers

55. **Damaged containers should not be used.** They should be repaired or replaced.
56. The floor of containers should be designed to **prevent birds from slipping** (e.g. anti-slip) and faeces from building up.
57. There should be **lighting and equipment** (e.g. ladders, torch) for the driver **to inspect animals** during transport at any stop.
58. **Side covers should be used in case of cold weather**, especially for birds at the back of the vehicle which are more exposed to cold stress. However, air circulation should not be impeded. These covers must be long enough to also protect the birds in the first row.

59. For journeys that last more than 12h for pullets and birds to slaughter, trucks should be equipped with fully operational feeders and water systems. All animals should be able to access feeders and water systems. Water leakages should be prevented as they can wet the birds' plumage.

60. If mechanical ventilation is available (for example, in the trucks for day-old chicks), the **ventilation systems should be regularly checked and maintained.**
61. For **day-old chicks**, temperature and (if available) **humidity sensors should be calibrated** according to the recommendations of the truck manufacturer.
62. For day-old chicks, the temperature and (if available) **humidity sensors should be located at strategic places** compliant with truck recommendations.
63. For day-old chicks, **containers must be properly secured** to prevent movement and disturbance to the birds during transport.

Better practices on vehicle design and maintenance

64. In order to be able to access birds and provide them emergency care, **containers should have lateral access doors.**
65. **Big access doors on the side of the containers are preferable** for loading spent laying hens, they should be of sufficient size to allow containers to be stacked before loading onto the vehicle.
66. **Containers should be improved** with:
 - **Large sliding top doors;**
 - **Solid lip at bottom** to prevent toes popping out;
 - Holes **not so large** that heads can pop out;
 - **Gap of closing door** of containers with no risk.
67. The load should be checked for **stability of containers**, and behaviour of the birds at every stop the driver has to make. This should not affect biosecurity.
68. To prevent heat stress – trucks should be equipped with roofs (Figure 2.3) **that can be lifted**, so warm air can leave the truck. These roofs can also have fans/grids or openings to prevent heat building up



Figure 2.3 Trucks may have roofs that can be lifted to prevent heat stress.

69. If **forced ventilation** is available for pullets and birds for slaughter, it should be used to **minimize heat stress** when necessary, and for journeys of 4 hours or over. There should be an emergency generator available in case of engine failure.
70. For broiler day-old chicks transport, **humidity sensors should be placed** according to the specific truck requirements. An alarm should go off when concentrations are in danger zone.
71. **Paper or other suitable materials should be put on the floor** of the day-old chick container, but not on the bottom of plastic boxes as this may inhibit airflow.

2.3.2 Space on the vehicle

The Regulation requires minimum floor areas as follows:

Category	Area in cm ²
Day-old chicks	21 – 25 per chick
Poultry other than day-old chicks (weight in kg)	Area (in cm ² per kg)
< 1.6	180 - 200
1.6 to <3	160
3 to 5	115
5	105

These figures may vary depending not only on the weight and size of the birds but also on their physical condition, the external weather conditions and the possible journey time.

Good Practices on space on the vehicle

72. For broilers, laying hens, pullets and turkeys, the container **should not be of a height that allows birds to stand** as this may result in falling and causing injury. The height should allow them to **sit comfortably**, with the head raised, during transport.
73. For journeys over 12h, **animals should have access to water** by adjusting the container height so that they all have access to a nipple drinkers.
74. The **space allowance should be adjusted to avoid thermal stress** in cases of hot and humid weather, or in case of cold weather.

75. The birds should be loaded homogeneously, **with the same number of birds in each container.**
76. Containers must be well arranged ensuring **sufficient air circulation.**
77. For day-old chicks, the truck should be **pre-heated in cold weather**, following the recommendations of the manufacturer.

Better practices on space on the vehicle

78. **Each company should foresee a threshold of temperature and relative humidity** above which they need to take actions to avoid thermal stress and thus prevent dead on arrival (DOA). Such action can include, e.g., increasing the space allowance, reducing density in containers placed at warm spots, adjusting the microclimate inside the truck, night transport. Truck specifications should be taken into account.
79. The driver should inform the catching team of **the number of animals they have to put in each container** in order to respect the space allowance he calculated with the information he received on the weight and number of animals

2.4 Animal related preparation

Before the journey, broilers, turkeys and end-of-lay hens are fastened in order to limit contamination risks during the slaughter process and to reduce faeces production in the containers. Even if poultry is usually tolerant to a moderate food deprivation (around 10 hours) - this always induces stress. **Stress is not good for bird welfare and may result in poor meat quality as well** – both are reasons to optimise the journey so that the birds are not be fastened for too long. This holds true especially for end-of-lay hens: after several months of egg production, a prolonged feed withdrawal will make end-of-lay hens more vulnerable during transport. To limit the feed withdrawal time, **it is a better practice not to withdraw feed for more than 24 hours before the expected slaughter time.**

Prior to loading it is essential to **assess the birds' fitness before catching and loading** them into the containers. Catching and transport of unfit birds seriously worsens existing painful conditions, and should be avoided.

When assessing the birds' fitness for transport, the main risks are not the same for all birds. For example, as chicks are regularly screened at hatching and during placement into containers, the risk of loading an unfit bird is low. However, the situation differs for end-of-lay hens. As laying hens produce many eggs during their productive life, their bones are weakened so it is important to spot hens with broken bones before catching and handle them carefully when loading and unloading. **Hens with broken bones are unfit for transport and must be humanely euthanized on farm.**

Practices below aim at pointing out what is an unfit bird, and what to do with these birds.

2.4.1 Preparation of animals for the journey

Good Practices on preparation of animals for the journey

80. Animals transported to the slaughterhouses (broilers, turkeys, end-of-lay hens) should be fasted in such a way that the faeces production is minimized. **This fastening duration should not exceed 24h.** The duration is dependent on transport time and waiting time at the slaughterhouse. In case of journeys less than 12 hours, it must at least be a minimum of 4 hours prior to departure, to minimize faeces falling on the lower levels.
81. **For broilers feed must not be withdrawn more than 12 hours before the expected slaughter time.**
82. Water should be available up to start of the catching procedure.



Figure 2.4 Water should be available up to the start of the catching procedure

83. The transporter should be aware of the number and the weight of birds prior to transport in order to adjust the number of containers and trucks. **Farmers have to communicate relevant information 48h before catching.**

Better practices on preparation of animals for the journey

84. For end-of-lay hens, turkeys and pullets, **feed should not be withdrawn more than 24 hours** before the expected slaughter time.

2.4.2 Fitness to travel

Good Practices on Fitness to travel

85. The farmer or a nominated representative has to **check the fitness of animals presented for transport** before the arrival of catching crew and to supervise the work of the catching team in order to avoid any fitness to travel problems due to catching.
86. The **driver is trained and competent to recognize unfit birds.**

87. The animal conditions prohibiting transport (definition of an unfit animals for transport) are birds:
- with broken bones (wings, legs);
 - with severe difficulties to move

88. Unfit animals must not be loaded and must be **euthanized by a trained person without delay.**
89. **Wet birds should not be transported.** They should first be allowed to dry on the farm. In case of force majeure (such as flooding of a farm), wet birds can only be transported if measures are taken to ensure proper thermal comfort.

90. **If animals become unfit** during the loading of the truck (for example a stack of containers falls down) **they should be unloaded and taken care of.**

3. HANDLING AND LOADING OF ANIMALS

3.1 Introduction

The catching and loading phases are critical for the welfare of the birds. **Poor quality handling during catching and loading can result in injuries, broken bones and even death.** Good handling practices will reduce the incidence of these undesirable consequences and also benefit other aspects of animal production, such as the quality of the final product. Proper training of the catching and loading crew is essential to achieve this. In addition, the catching and loading facilities should be designed in such a way that they allow quick and stress free handling of the birds. The key points of attention (addressing the main risk factors) should focus on:

- The way the catching team **catches the birds;**
- The way the catching team **puts the birds into the containers;**
- The way the catching team **load the containers** into the vehicle;
- The **equipment** that exists for the loading phase (e.g. automated machines to catch and load birds, lift machines to put containers in the vehicles);
- The **floor, light and surfaces** into the vehicle and the farm, which have to be appropriate for the birds as well as for the working teams.



Figure 3.1 A well-trained catching team is necessary to achieve best results.

3.2 Loading facilities

Incorrect design or inappropriate maintenance of loading and unloading facilities and equipment may cause accidents when carrying birds or moving crates, resulting in bruises or injuries to the animals. Consequently, meat quality may be affected leading to economic losses.

Good Practices on loading facilities

91. **The equipment used** in the loading area should be well maintained.
92. Birds should be **protected from getting wet** at all times and particularly when it is cold. Loading should take place as close to the poultry house as possible, protecting the space between truck and poultry house from rain with, for example, a tarpaulin.
93. The containers should be **brought as close as possible to the birds**, e.g. by using a trolley. The shorter the distance birds are carried, the better their welfare.

Better practices on loading facilities

For broilers, turkeys and end-of-lay hens:

94. A **checklist for catching the birds** should be developed and used, which includes the required conditions on the farm and the catching and loading procedure.
95. In case of partial depopulation for birds to slaughter, **the use of a partition**, such as curtains or straw bales, to separate caught birds from those remaining in the shed, is strongly recommended. If dividers are used, they must be risk free. Examples are not to use sharp material, or ropes in which the animals can get stuck.

3.3 Handling of animals during loading

The main concern of the loading phase relates to the handling of birds by the working team. **Appropriate handling does not stress or injure the animals.** It should be ensured that the transfer from the farm into the containers and then inside the vehicle is conducted in a calm and deliberate way.

The sudden entry of several people into a chicken barn inevitably causes stress and flight behaviour. The less noise people make, the less nervous the birds will be. **The correct catching and carrying technique is important.** Figure 3.2 illustrates better catching practices for end-of-lay hens and for broilers.



Figure 3.2 Illustration pictures for Better practices beyond EU legislation for handling of animals during loading

Broilers and turkeys are sometimes mechanically caught. Inappropriate adjustment or maintenance of the catching machine can be detrimental to animal welfare. In particular when the **speed of loading** is not adjusted appropriately to other loading circumstances injuries, fractures and overloading may occur.

Good Practices on handling of animals during loading

For broilers, turkeys, pullets and end-of-lay hens:

96. Catching and loading activities should either be performed by a fully **authorised and licensed company or by properly trained people.** Please refer also to chapter 1.3 responsibility and chapter 2.4.2 fitness to travel.
97. The catching and loading procedure should be **planned well in advance** with the correct number of catchers, in order to allow enough time for

birds to be caught and handled in a professional and mild way (no rushing, catching operation time kept to a minimum).

98. Good catching conditions should include:

- **Clear access** to the truck;
- **Blue light at night**, or reduced light intensity;
- Good **maintenance of all equipment**;
- **Appropriate clothes for the handlers** (e.g. overalls, hygiene caps, boots, face masks, health and safety clothing);
- **Clean and disinfected hands**.

97. Catching teams should apply good handling behaviours. They should move slowly, silently and steadily through the flock and avoid making fast. People who catch the birds should be well positioned in the poultry house. They should not catch animals far from the container. Special care should be taken when placing birds in the upper layer.

98. Birds should be caught and carried in such a way there is no damage to either wings or legs.

99. Birds should **not** be caught and carried by the neck and should not hit any object whilst they are carried.

100. Broilers may be caught by one leg but if they have to be carried, their bodies have to be supported to minimize the risk of injuries.

101. End-of-lay hens can be caught by one leg if two legs is not practical, but in both cases, the animals have to be supported under the breast / abdominal region to minimize injuries.

102. If broiler chickens are loaded by hand, up to 5 chickens of less than 2 kg per bird are carried in one hand and up to 3 chickens when they are heavier than 2 kg. The other hand is used to support the body weight.

103. The method of catching turkeys by hand should take into account the weight and size of the birds, and be adjusted accordingly. Specifically:

- Birds weighing less than 10 kg should be caught and carried by both legs with no more than 1 bird in each hand; birds must be placed in the container one at a time;
- Birds weighting 10 kg and over should be caught and carried individually by grasping the shoulder of the wing furthest away from the catcher, whilst using the other hand to hold both legs.

104. Birds must be lifted and held close to the body and placed into the container with care.

105. Handlers responsible for the loading of the animals in the containers shall make sure that the **number of animals per container complies with legal requirements** and the driver's calculations.

106. The animals are placed in the container in such a way as to **avoid unnecessary stress or injury**. Animals that lie on their back are put upright again.

107. Animals are **spread out evenly in the container, to prevent smothering**.

108. In case of mechanical catching, it is the responsibility of the staff to carry out **proper maintenance checks of the machines**, so that they function properly during the entire catching operation. This should include taking into account the manufacturer advise on belt speed and overall maintenance.



Figure 3.3 In case of mechanically catching, check machines properly. Picture: © GTC Agricultural

109. **Catching poultry mechanically has to be done by an employee who is well trained** in operating the machines and has knowledge about bird behaviour. The use of catching machines does not remove the producer, farmer and transporter's responsibilities in relation to fitness assessment of the birds.



Figure 3.4 Even during mechanical catching, always continue the check on the fitness of the birds. Picture: © GTC Agricultural

110. In case of mechanical catching of turkeys, the birds should be **herded to the conveyer belts calmly** in small groups to prevent smothering.
111. Each container shall be checked for **trapped body parts**.
112. The containers are **loaded onto the truck with care**.
113. **Containers should not tilt or fall**.

For day-old chicks:

114. Ensure good loading conditions in the hatchery:
- **Appropriate protective clothes** should be worn;
 - **Boxes should be closed properly** in order to avoid day-old chicks falling out
 - **Regular checks should be made in the room for loose day-old chicks**, which should be caught and taken to the proper location

Better practices on handling of animals during loading

115. **Headlights** used by the catching crew should be **blue**.
116. **Birds behind objects** such as racks, nests, water or food pipe-lines **should be caught with care**, to prevent injury through hitting these objects. One hand should be put around both legs and the other hand should support the breast so the birds can be carefully handled without any risks.
117. **Slides should be used to support the breast of end-of-lay hens**, as this will significantly reduce damage to the breast. Slides are sheets of plastic that are placed in the feed trough and that provide a smooth angled surface on which the birds can slide out of the enriched colony cage.
118. End-of-lay hens should be **caught individually by both legs** to avoid injury or suffering and the breast can be supported by the other hand during removal from the enriched colony cage or the racks of aviaries. The number of birds carried depends on the bird's size, but **a maximum of 3 birds per hand must not be exceeded**.
119. **Alternatively, end-of-lay hens may be caught upright** – around the wing and chest - and a maximum of 2 animals at a time should be carried.
120. **No more than 3 broilers** should be carried in one hand.
121. The **loading of turkeys should be carried out as gently as possible** using conveyor belts or similar aids to reduce handling stress of the animal. Turkeys **should be walked** towards the loading area and if possible into the container or vehicle. The birds should be **retained close to the loading modules**, which limits the distance they have to be carried. **Large flocks should be split** using partitions into smaller groups of 50 to 100 birds (depending on bird size). This makes it easier to catch the birds as they are contained in a smaller area, and the birds can be retained closer to the modules which limits the distance they have to be carried. The **partitions have to be moveable** as they are relocated several times during the catching process.
122. If turkeys are to be loaded mechanically, the **conveyor belt machine should be brought** into the house a few hours, and **preferably days before catching** starts. This way the turkeys have time to investigate the machine and are less fearful once loading commences.
123. To make the birds less hesitant to walk onto the conveyor belt, **manure or straw should be placed on it** – so that it acquires a familiar smell.

4. TRAVELLING

The longer the journey, the greater the risk that welfare is negatively affected. Thermal comfort is the main aspect of animal transport, which has increasing impact on welfare as duration increases. If birds are fit, properly prepared to travel and the journey has been planned well, they are likely to arrive at destination in a good welfare state and able to recover quickly after unloading and a relatively short time of rest.

4.1 Introduction

Transport involves several potential stressors that can negatively affect animal welfare. The new and unfamiliar environment, movement restrictions due to confinement, vibrations, sudden and unusual noises, mixing with other animals, temperature and humidity variations together with inadequate ventilation and often feed and water restrictions all have an impact on the animals' welfare status. The impact of all these factors on poultry is influenced by the condition of the birds and the duration of transport. **The longer the journey**, the more likely it is that the stressors will have negative **consequences for welfare**. In addition to that, they are more likely to affect **animal health**, e.g. because of increased animal susceptibility to diseases through immune suppression and high cortisol levels. Finally, prolonged stressors also raise **economic concerns** related to weight losses, Dead On Arrival DOAs and reduced meat quality (bruising, PSE-Pale Soft Exudative and DFD – Dark Firm Dry meat).



Figure 4.1 Transport involves several potential stressors, such as a new and unfamiliar environment. Picture: © AVEC

The driver (and any attendants) have the sole responsibility for the welfare of the animals on the road, and thus play a crucial role during this stage of the transport. They not only operate the vehicle, but also monitor and take care for the animals and deal with emergencies if these occur.

It is important to control the conditions inside the vehicle to avoid undesirable situations that can affect the health condition of the birds. The main factors that reduce the risk of injury and poor welfare include:

- The **way that the cages are put inside the vehicle**, which must be safe and comfortable for birds;
- The **space between the lines of the cages**;
- The access to **feed and water during a long journey**.

4.2 Driving

Smooth driving affects the profitability of the journey directly. 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. The latter is also more comfortable for the animals transported. Thus, there is a good relationship between the way the driver operates the vehicle, the amount of stress on poultry, and also the profitability of the transport business. Smooth, consistent driving habits allow the poultry to relax more during a journey than hard, erratic driving. A hard driving style not only increases measurable stress on the animals transported, but also significantly decreases meat quality.

Good practices on driving

124. **The driver drives carefully and smoothly.** The driver chooses the best option taking into account distance, weather, road quality and possible road difficulties.
125. Some general and simple practices should be followed when driving a vehicle transporting live animals:
 - **Start out slowly;**
 - **Avoid sudden braking;**
 - **Take curves carefully** (in particular at roundabouts);
 - **Change gear gently;**
 - **Use highways** whenever possible, as bad road conditions increase vibration in the vehicle

4.3 Water, feed and resting times

Water and food are rarely available during travel, because of the separated containers system. The Regulation requires adult birds to be fed and watered when travelling more than 12 hours. Long journeys of more than 12 hours mainly concern end-of-lay hens. There is only a limited number of slaughterhouses willing to process them, so they often travel a long way. Possible solutions to reduce dehydration include the use of hydrogels.

For day-old chicks, there is no legal requirement to provide water or feed during transport, as they possess energy and water reserves in their yolk sac. However, dehydration and under nutrition are major causes of transport morbidity and mortality. Therefore day-old chicks should be delivered within 72 hours of hatching.

Smooth driving affects the profitability of the journey directly. 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. The latter is also more comfortable for the animals transported. Thus, there is a good relationship between the way the driver operates the vehicle, the amount of stress on poultry, and also the profitability of the transport business. Smooth, consistent driving habits allow the poultry to relax more during a journey than hard, erratic driving. A hard driving style not only increases measurable stress on the animals transported, but also significantly decreases meat quality.

Good Practices on water, feed and resting times

126. For broilers, pullets, turkeys and end-of-lay hens, **water and food or some hydrogel should be provided to birds travelling more than 12 hours** (not taking into account loading and unloading).
127. For day-old chicks, **provide water or hydrogel and food for journeys lasting more than 24 hours.**

Better practices on water, feed and resting times

128. **Stops must be avoided**, especially at the hottest hours of the day
129. **Birds should be checked during all stops.**
130. For pullets and birds sent for slaughter **during hot days, the vehicle should be parked in the shade**, and positioned perpendicular to the wind whenever possible to allow natural air circulation.

4.4 Emergencies

Emergency situations are by definition unexpected, and require immediate action. It is important that drivers or other persons in charge have a plan on what to do, should an emergency situation take place. The plan should include a series of emergency telephone numbers, e.g. to obtain veterinary assistance.

Better Practices regarding emergencies

131. In case of a mechanical breakdown of the tractor, the nature of the breakdown should be determined and it should be estimated how long the repairs will take. If the repairs cannot take place at the site of the breakdown or they will take an extended period of time, arrangements for another tractor will have to be made. Numerous factors need to be taken into consideration when determining how long animals can safely be left on a stationary trailer:
 - Weather – (e.g. birds will do fine on a trailer for four hours in cool, low humidity weather. In extreme summer heat and humidity, they will experience heat stress quite quickly)
 - Fitness of the animals
 - Age of animals
 - Time since last feeding and drinking
 - Location of the delay (e.g. rural area vs. freeway)
 - Time of day
 - Safety of animals at current location
132. In the event of an accident, the transporter should:
 - a. Call the national road emergency number if the accident occurs on a public roadway or if the emergency assistance is required for an on-farm accident. Advise operator of:
 - The location of the accident
 - The fact that you have animals on-board
 - The status of any loose animals
 - Any known hazards
 - b. Set out emergency warning devices within 10 minutes of accident

- c. Call the designated company contact. If the company has a dispatch checklist for accidents, proceed through list. If not, inform the dispatcher of the location of the accident, if there are any injuries, condition of animals, position of trailer, number of vehicles involved and if first responders are on scene yet
 - d. Call other designated contacts according to company protocol. These could include but are not limited to the insurance companies for the cargo and the vehicle and the destination, and provide them with the same information
 - e. If the tractor and/or trailer are damaged and unable to move, proceed to point g.
 - f. If damage is minor, the trailer is upright and there are no injuries, take photos and record names and addresses of other people involved and witnesses
 - g. Collect any loose birds from the road and gather them in an area as far away from traffic as possible
 - h. Locate accident reporting kit and camera. Take photos of accident as soon as possible. Photographs should include photos of road conditions, vehicle damage, trailer position, the overall accident scene, skid marks, curves, intersections and where the vehicle left the road (if it did)
 - i. Provide as much protection and comfort for the animals as possible
 - l. Release statements only to the public authorities. The transporter must remember that at this point he or she is the most visible company and pork industry representative and the transporter must conduct himself or herself as such
 - m. When first responders arrive, the transporter should advise them of accident details including any human injuries, the status of any loose animals, any known hazards and the company's emergency response plan. If available, the transporter should let the authorities know if a company rescue trailer and animal handling personnel are on the way and their estimated time of arrival. Transporters must respect the chain of command at all times
134. Birds that have become injured during transport should be humanely killed to prevent further pain or distress.

5. UNLOADING OF ANIMALS

5.1 Introduction

Unloading starts when the truck enters the area of the final destination, and ends when all the containers are present on the platform. Main risk factors include:

- The **design of the unloading area**, which has to be well ventilated, well lit, cleaned and disinfected for animal safety and comfort;
- The **level of cleanliness of the vehicle**. Vehicles should be cleaned and disinfected in order to avoid biosecurity problems.

5.2 Design of unloading area

Waiting areas and holding pens should be covered to protect the birds from extreme temperatures and weather conditions. In particular end-of-lay hens and day old chicks can suffer most from these circumstances. The unloading area needs to be designed to prevent unnecessary discomfort for the birds.

Good practice on the design of the unloading area

For broilers, turkeys and end-of-lay hens:

133. **Protected and covered unloading areas are required** to protect the birds from extreme temperatures and weather conditions, using heating or cooling system if necessary



Figure 5.1 Well designed facilities that protect the (un)loading area should be used.
Picture: ©AVEC

Better practices on the design of the unloading area

134. **Additional ventilation before unloading** should be used if the temperature is too high.
135. When facilities do not have protection from the weather, birds in transit or waiting unloading for slaughter cannot remain in a parked vehicle for more than two hours. **In such a situation it is advisable to drive the vehicle to allow better air circulation.**
136. The parking area should have trees or roofs that provide shade.

5.3 Care of animals following unloading

On arrival at their final destination, operators are asked to act with caution and care towards the birds. An extended waiting time on the truck/in the containers implies an additional fasting period for the birds, which is undesirable. **Delays at the slaughterhouse should be reduced to a minimum.**

Good practices on Care of animals following unloading

137. **Noise levels**, from all sources, should be minimised during unloading.
138. Chicks and pullets should be provided with **food and water** and appropriate accommodation when unloaded in the farm
139. Pullets arriving at a rearing or finishing site which are **unfit**, e.g. when they are lame, fatigued, injured or ill, must be **humanely killed as soon as possible**.
140. At the slaughterhouse, appropriate measures should be taken to **create a suitable climate** for the waiting birds. In warm weather the truck should be parked in the shade, allowing air circulation
141. For broilers, turkeys and end-of-lay hens, if the dead on arrival rate is above the limit, **the slaughterhouse should inform the transporter and the farmer** who should provide information about the transport and catching conditions.

For day-old chicks:

142. Before parking the truck and before unloading day-old chicks, **the driver must consider temperature and wind orientation**.
143. The driver should avoid draughts while unloading by following the truck **specifications regarding ventilating**
144. **Unloading should happen in a quick but orderly manner**, with an adequate number of staff, and in an environment without excessive temperature fluctuations.
145. Empty **reusable chick boxes should be reloaded** on the truck and cleaned and disinfected in the hatchery before being used again. Paper chick boxes are not reloaded on the truck.
146. Any deaths and injuries that have occurred during transportation of chicks **must be recorded and reported** to the hatchery.

Better practices on Care of animals following unloading

147. Injured birds, wet birds or consignments with a high dead on arrival percentage **should be separated from others and slaughtered first**.
148. **Catching crews should receive feedback** about the average % of injuries and DOAs, allowing them to compare their performance and draw conclusions
149. If on any day transport **mortality exceeds critical thresholds** established at national level:
 - **A record of this observation** must be kept by the transporter for further evaluation of the transporters performance;
 - There must be an **investigation into the cause** or causes of death by the transporter;
 - **Effective preventative measures** must be put in place without delay to remedy the problem during subsequent journeys.
150. Before the next consignment from the same source is collected, **all deaths and injuries must be recorded and reported** to:
 - The driver;
 - The haulier;

- The Poultry Welfare Officer;
- The catching crew so they can compare it with the average % DOA and injuries;
- The farm manager;
- The farm organization.

For day-old chicks:

151. Park the truck as close to the door to facilitate the unloading process.
152. The height from which the boxes of day-old chicks are emptied should be kept as low as possible and **in any case never more than 3 times the height of the birds.**

5.4 Bio-security, cleaning and disinfection

Bio-security is important for travelling animals to prevent the spreading of diseases. In addition, stress during transport may affect their immune system and make them more sensitive to disease. After unloading the animals, the vehicle can still carry and spread pathogens, therefore it is obligatory to clean and disinfect it after each transport. The following practices apply both to short and long transports.

Good practices on cleaning and disinfection

153. For birds to slaughter, trucks and containers should be **cleaned and disinfected at the processing plant before leaving again.**
154. For hens and/ or day-old chicks delivered to farms, trucks, reusable boxes, and **containers must be washed** on the spot, or return to the transport company or hatchery to be washed, **before being used again for a next load.**
155. The cleaning and disinfection place must have **hot and cold water available** to clean the maximum number of trucks that can stay each day'.
156. Cleaning and disinfection areas should be free of obstacles within a 2-meter perimeter around the truck. Lighting must be available at night time.
157. **Sufficient light should be provided** at the level of objects to be cleaned.
158. The driver must keep a **record of each cleaning and disinfection occasion**, indicating the trade name of the disinfectant product used and the doses.

Better practices on cleaning and disinfection

159. Lorry wash areas should be 25 m long to accommodate trucks, **with a 5 to 7% slope to drain waste water to the relevant collecting system.**
160. There should be a standard operation procedure on the truck or at the unloading facilities, which includes **the main points required for adequate cleaning.** This includes water quality, the approved program of cleaning and disinfection, the method of inspection, correctives measures, detergent and the disinfectant agents approved and used.

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