Présentation des avis de l'EFSA relatifs au bien-être des animaux d'élevage pendant le transport (2022)

Dans le cadre de la :

Concertation bien-être animal | Groupe de travail n°4

« Bien-être des animaux lors du transport »

Séance du 7 avril 2023

Agnès Tiret, CNR BEA - 07/04/2023

Centre national
de référence pour le
bien-être animal

Déroulé

- Avant-propos & Introduction

- Focus sur « fitness » et « vulnerable animals » :
  - « Highly relevant welfare consequences » : vue d'ensemble et vue par espèces
  - « Fitness for transport », aptitude au transport : vue d'ensemble et vue par espèces
  - « Vulnerable animals for transport », animaux vulnérables au transport : vue par espèces

- Conclusion

Avant-propos & Introduction

Avant-propos

Cette présentation par le CNR BEA est effectuée à la demande du BBEA (DGAL) dans le cadre de la 1ère réunion du Groupe de travail n°4 « Bien-être des animaux lors du transport » de la Concertation bien-être animal.

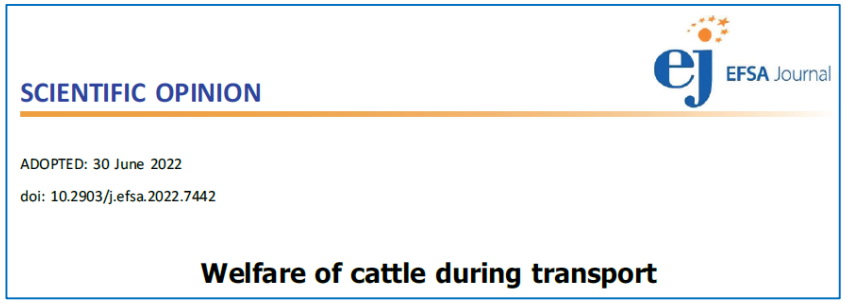
Des éléments de cette présentation reprennent les termes en anglais des avis de l'EFSA, faute à date de traduction officielle disponible en français de ces avis.

FOREWORD

EFSA looks solely at the **animal perspective** to ensure good animal health and well-being.

Environmental, economic and social impact assessment **does not** fall into the remit of EFSA.

Introduction

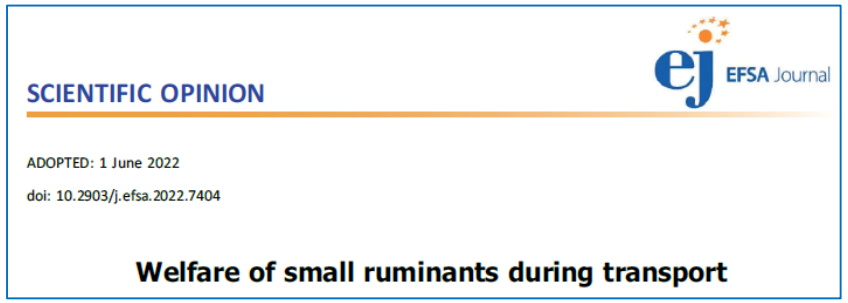

SCIENTIFIC OPINION

EFSA Journal

ADOPTED: 30 June 2022

doi: 10.2903/j.efsa.2022.7442

Welfare of cattle during transport

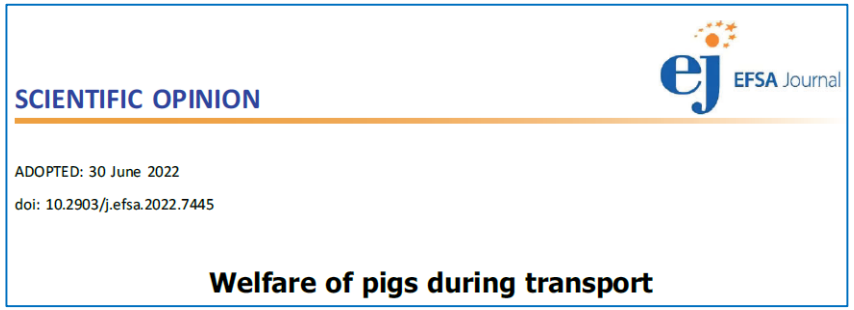

SCIENTIFIC OPINION

EFSA Journal

ADOPTED: 1 June 2022

doi: 10.2903/j.efsa.2022.7404

Welfare of small ruminants during transport

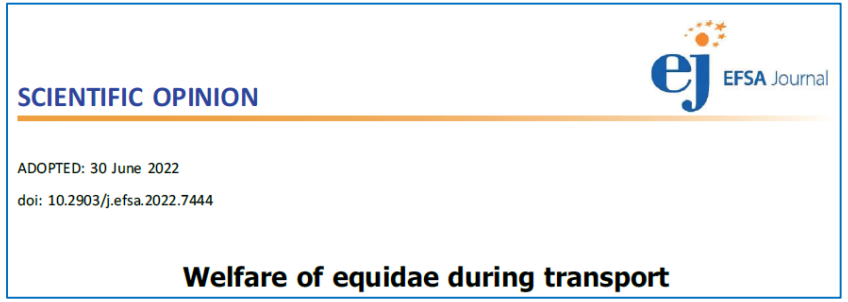

SCIENTIFIC OPINION

EFSA Journal

ADOPTED: 30 June 2022

doi: 10.2903/j.efsa.2022.7445

Welfare of pigs during transport


SCIENTIFIC OPINION

EFSA Journal

ADOPTED: 30 June 2022

doi: 10.2903/j.efsa.2022.7444

Welfare of equidae during transport


SCIENTIFIC OPINION

EFSA Journal

ADOPTED: 30 June 2022

doi: 10.2903/j.efsa.2022.7441

Welfare of domestic birds and rabbits transported in containers

Pour télécharger les avis :
https://www.efsa.europa.eu/en/news/more-space-lower-temperatures-shorter-journeys-efsa-recommendations-improve-animal-welfare

Note : Précédents avis sur le transport publiés par l'EFSA et l'EFSA Animal Health & Welfare (AHAW) Panel : en 2002, 2004 et 2011.

Centre national de référence pour le bien-être animal

Introduction

En un mot…

AUTORITÉ EUROPÉENNE DE SÉCURITÉ DES ALIMENTS

Plus d'espace, des températures plus basses, des trajets plus courts : les recommandations de l'EFSA pour améliorer le bien-être des animaux pendant le transport

Publié le : 7 septembre 2022 | 3 minutes de lecture

Share:

https://www.efsa.europa.eu/fr/news/more-space-lower-temperatures-shorter-journeys-efsa-recommendations-improve-animal-welfare
Consulté le 06/04/2023

Introduction

En quelques mots…

« Cette série d'avis scientifiques couvrent les **petits ruminants** (ovins et caprins), les **équidés** (chevaux et ânes), les **bovins** (y compris les veaux), les **cochons**, ainsi que les **animaux transportés dans des conteneurs**, notamment les **oiseaux domestiques (poulets, poules pondeuses, dindes, etc.)** et les **lapins**.

Au sein des avis sont identifiés les divers impacts sur le bien-être animal **au cours des différentes étapes du transport**, les **dangers** qui peuvent les induire et des **indicateurs** mesurables de bien-être animal qui permettent de les évaluer.

Pour toutes les espèces, l'**aptitude au transport** est considérée comme étant de la plus haute importance. »

https://www.efsa.europa.eu/fr/news/more-space-lower-temperatures-shorter-journeys-efsa-recommendations-improve-animal-welfare
Consulté le 06/04/2023

Introduction

En quelques mots…

« La législation actuelle de l'UE sur la protection des animaux pendant le transport est entrée en vigueur en 2005. Dans le cadre de la **stratégie F2F**, les conclusions de l'EFSA serviront de **fondement à la révision de la législation par la Commission européenne**, une révision qui vise à l'aligner sur les données scientifiques les plus récentes, à élargir son champ d'application, à faciliter son application et, en définitive, à **assurer un niveau plus élevé de bien-être animal**. »

« La proposition de la Commission est attendue pour le **second semestre 2023**. »

https://www.efsa.europa.eu/fr/news/more-space-lower-temperatures-shorter-journeys-efsa-recommendations-improve-animal-welfare
Consulté le 06/04/2023

Introduction

En quelques mots…

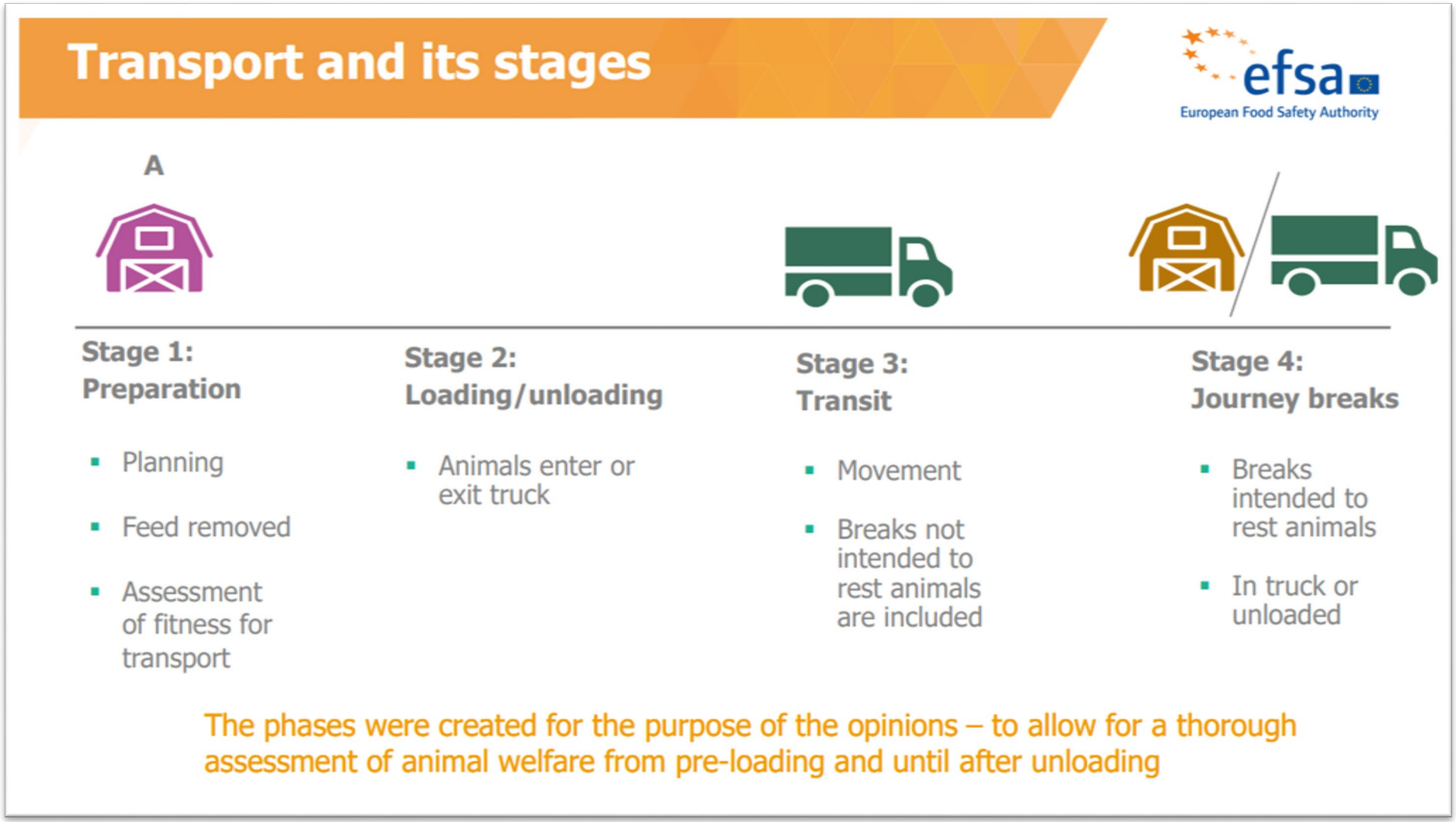
« L'EFSA a défini des **seuils quantitatifs** pour les **températures** à maintenir dans les véhicules de transport ainsi que des **allocations d'espace minimales** pour les animaux. Les avis décrivent également le développement ou la progression de divers autres paramètres impactant le bien-être des animaux au fil du temps pendant le transport, tels que la **faim**, la **soif** et la **fatigue**.
Par exemple, en ce qui concerne les animaux transportés dans des **conteneurs (volailles et lapins)**, l'EFSA recommande que la durée du trajet soit considérée comme l'**entièreté** du temps que les animaux passent dans les conteneurs et que, pour les **poussins d'un jour**, la seule façon d'éviter toute conséquence sur le bien-être est de **transporter les œufs fécondés** et de les faire éclore dans l'élevage de destination. »

« L'EFSA décrit et évalue les pratiques actuelles en matière de transport dans l'UE, **sur la base de données issues de la littérature, des États membres et de l'avis d'experts**. »

https://www.efsa.europa.eu/fr/news/more-space-lower-temperatures-shorter-journeys-efsa-recommendations-improve-animal-welfare
Consulté le 06/04/2023

Transport - étapes

The majority of the opinions deal with **road** transport.



https://www.efsa.europa.eu/sites/default/files/2022-09/3.Herskin-Free-moving-transport.pdf

Focus sur « fitness » et « vulnerable animals »

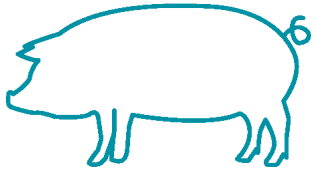
« Highly relevant welfare consequences » : vue d’ensemble et vue par espèces

OVERVIEW Highly relevant welfare consequences associated with transport of farm animals

Welfare consequences (traduction automatique en français via l'EFSA)			Pigs				Sheep				Cattle				Domestic birds				Rabbits				Horses			
			Prepa ration	Loading/ unloading	Transit	Journey break	Prepa ration	Loading/ unloading	Transit	Journey break	Prepa ration	Loading/ unloading	Transit	Journey break	Loading	Journey	Arrival	Uncrating	Loading	Journey	Arrival	Uncrating	Prepa ration	Loading/ unloading	Transit	Journey break
1	Lésions osseuses (dont fractures, dislocations)	Bone lesions (incl. Fractures and dislocations)													x	x	x	x	x		x	x				
2	Stress froid	Cold stress														x	x			x	x					
4	Stress collectif	Group stress	x		x	x				x	x			x												
5	Troubles gastro-entériques	Gastro-enteric disorders																							x	x
6	Stress de manipulation	Handling stress	x	x		x	x	x		x	x	x		x	x			x	x			x	x	x		x
7	Stress thermique	Heat stress	x	x	x	x		x	x			x	x				x	x	x	x			x	x		
1 + 32	Blessures	Injuries	x		x	x		x		x		x											x	x	x	x
16	Stress d'isolement	Isolation stress																					x			
20	Stress de mouvements	Motion stress			x					x			x			x	x		x	x	x				x	
22	Stress de prédation	Predation stress					x	x																		
23	Faim prolongée	Prolonged hunger	x		x	x			x	x			x	x		x	x			x	x				x	
24	Soif prolongée	Prolonged thirst			x	x			x				x	x		x	x			x	x				x	
25	Restriction de mouvements	Restriction of movement			x	x			x				x		x	x	x	x	x	x	x	x		x	x	
26	Troubles respiratoires	Respiratory disorders											x												x	x
27	Problèmes de repos	Resting problems	x		x	x			x	x															x	x
29	Surstimulation sensorielle	Sensory under- and/or overstimulation		x	x			x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
30	Stress de séparation	Separation stress																					x			
32	Lésions des tissus mous et tégumentaires	Soft tissue lesions and integument damage													x	x	x	x	x		x	x				

Centre national de référence pour le bien-être animal

PIGS Transport means and stages



Transport stages

Preparation | (Un)loading | Transit | Breaks

9 welfare consequences

Handling stress	Sensory overstimulation	Motion stress	Prolonged thirst
Prolonged hunger Resting problems Group stress Injuries	Handling stress	Prolonged thirst	Restriction of movement
Heat stress	Heat stress	Restriction of movement	Prolonged hunger Resting problems Group stress Injuries
		Sensory overstimulation	Heat stress
		Prolonged hunger Resting problems Group stress Injuries	
		Heat stress	

SMALL RUMINANTS Transport means and stages within the EU

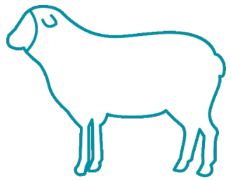
Transport stages

Preparation	(Un)loading	Transit	Breaks

11 welfare consequences

	Preparation	(Un)loading	Transit	Breaks
			Restriction of movement	Motion stress
			Prolonged thirst	
Predation stress		Heat stress	Heat stress	Injuries
		Injuries	Prolonged hunger	Prolonged hunger
		Predation stress	Resting problems	Resting problems
Handling stress		Sensory overstimulation	Sensory overstimulation	Sensory overstimulation
		Handling stress		Handling stress

SHEEP Export to non-EU countries



7 concerns specific to exporting sheep by **Livestock vessels**

- Waiting time at ports
- Heat stress
- Space requirements
- Starvation
- Noxious gases
- Motion stress
- Handling upon arrival

CATTLE Transport means and stages

Transport stages

Preparation | (Un)loading | Transit | Breaks

11 welfare consequences

Preparation	(Un)loading	Transit	Breaks
Group stress	Injuries	Motion stress	Prolonged thirst Prolonged hunger Resting problems
Handling stress	Heat stress	Respiratory disorders	Group stress
	Sensory overstimulation	Restriction of movement	Sensory overstimulation
	Handling stress	Prolonged thirst Prolonged hunger Resting problems	Handling stress
		Heat stress	
		Sensory overstimulation	

DOMESTIC BIRDS AND RABBITS

Transport means and stages

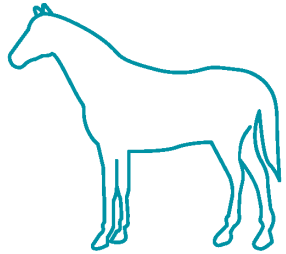
Transport stages

Loading	Journey	Arrival	Uncrating

9 welfare consequences

	Heat stress Cold stress Prolonged hunger Prolonged thirst	Heat stress Cold stress Prolonged hunger Prolonged thirst	
Handling stress			Handling stress
Motion stress	Motion stress	Motion stress	
Bone lesions Soft tissue lesions and integument damage	Bone lesions Soft tissue lesions and integument damage	Bone lesions Soft tissue lesions and integument damage	Bone lesions Soft tissue lesions and integument damage
Sensory overstimulation Restriction of movement	Sensory overstimulation Restriction of movement	Sensory overstimulation Restriction of movement	Sensory overstimulation Restriction of movement

HORSES Transport means and stages



Transport stages

Preparation | (Un)loading | Transit | Breaks

13 welfare consequences

Preparation	(Un)loading	Transit	Breaks
Isolation stress Separation stress	Heat stress Restriction of mouvement	Motion stress Prolonged thirst Prolonged hunger	Gastro-enteric disorders
Handling stress	Handling stress	Gastro-enteric disorders	Respiratory disorders Resting problems
Injuries Sensory overstimulation	Injuries Sensory overstimulation	Respiratory disorders Resting problems	Handling stress
		Heat stress Restriction of mouvement	Injuries Sensory overstimulation
		Injuries Sensory overstimulation	

Specific scenarios and other assessment topics

		Pigs	Sheep	Cattle	Horses
Long journeys to slaughterhouses	Transport lors de longs trajets vers les abattoirs				xx
Transport by air	Transport aérien	xx	xx	x	x
Transport by roll-on-roll-off ferries	Transport par navires/transbordeurs/ferries rouliers		xx	xx	x
Transport by rail	Transport ferroviaire	xx	xx	x	
Export by road	Exportation par la route		xx	xx	
Export in livestock vessels	Exportation par navires de bétail	xx	xx		
Special health status animals	Animaux relevant du statut sanitaire spécial	xx	xx	xx	
Transport of donkeys	Transport d'ânes				x
Transport of goats	Transport de chèvres		x		
Transport of unweaned lambs	Transport d'agneaux non sevrés		x		
Unweaned cows during long journeys by road	Transport de veaux non sevrés			xx	
Transport of cull females to slaughterhouses	Transport de vaches de réforme, transport de truies de réforme	xx		xx	

Note: none were specified for domestic birds and rabbits

xx : specific scenario
x : other assessment topic

Focus sur « fitness » et « vulnerable animals »

« Fitness for transport », aptitude au transport : vue d'ensemble et vue par espèces

« Fitness for transport », aptitude au transport

Fitness assessment (in most opinions)

- ✓ Behaviour
- ✓ Clinical signs of illness
- ✓ Gait
- ✓ Posture
- ✓ Discharge
- ✓ Respiration

Risk factors for misclassification

Concept of “un/fitness for transport” not well defined

No comprehensive and available guidelines

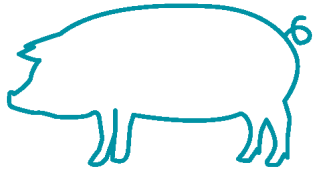
Professionals not all properly trained

Question of groups’ responsibility

OVERVIEW List of general conditions that make an animal unfit for transport

General condition	Pigs	Sheep	Cattle	Domestic birds	Day-old-chicks	Rabbits	Horses
Sickness/illness	X	X	X	X		X	X
Pathophysiological state	X	X	X	X		X	X
In pain	X	X	X				X
Injury	X	X	X	X		X	X
Shoulder sores	X						
Lameness	X	X	X	X		X	X
Fractures and dislocations				X	X	X	
Non-ambulatory	X	X	X				X
Inability to stand					X		
Ear lesions	X						
Eye lesion	X	X	X				X
Skin lesions	X						
Tail lesions	X						
Poor feather cover				X			
Wet plumage/fur in low effective temperature				X		X	
Umbilical outpouchings	X						
Hernia	X	X	X				
Prolapse	X	X	X	X		X	X
Pregnancy	X	X	X			X	X
Recent birth	X	X	X			X	X
New born	X	X	X			X	X
Un-weaned rabbits						X	

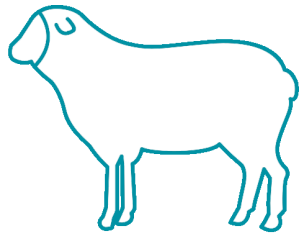
PIGS Fitness for transport



Conditions leading to pigs being unfit for transport (all animal categories)

- Painful clinical condition
  (e.g., arthritic joint)
- Lameness
- Physiological weakness
- Umbilical outpouchings, prolapsed uterus or rectum
- Profuse and continuous bleeding
- Reduced ability to perform important physiological function
  (e.g., respiratory disorders)

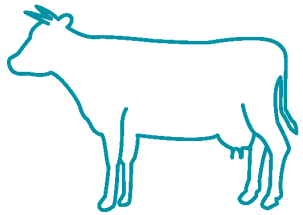
SHEEP Fitness for transport



Conditions leading to sheep being unfit for transport

- Painful clinical condition
  (e.g. arthritic joint)
- Lameness
- Reduced ability to perform important physiological function
- Clinical disease/poor body condition
  (e.g., inappetence, thirst, fever)

CATTLE Fitness for transport

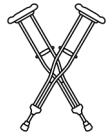


Fitness assessment

1. Decision by herdsman/farmer/producer…
2. … Backed-up by veterinarian, *if needed*
3. … Checked by driver/haulier

Conditions leading to cattle being unfit for transport

Painful clinical condition
(e.g., bone fractures)

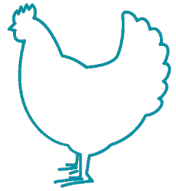
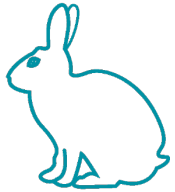


Lameness

Reduced ability to perform important physiological function
(e.g., pneumonia, respiratory diseases)

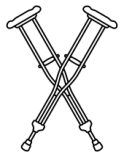
Centre national de référence pour le bien-être animal

DOMESTIC BIRDS AND RABBITS
Fitness for transport


Conditions leading to domestic birds, one-day-all chicks and rabbits being unfit for transport

Evident signs of illness
Emaciation and cachexia



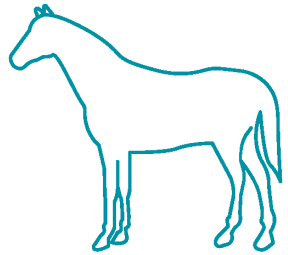
Severe lameness

Fracture and dislocations

Open wounds, prolapse and abscesses

Poor feather cover or wet plumage

HORSES Fitness for transport



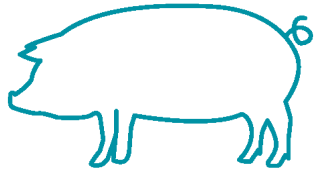
Conditions leading to horses being unfit for transport

Pas de conditions détaillées dans cet avis autres que le tableau des « general conditions » (voir diapo 58)

Focus sur « fitness » et « vulnerable animals »

« Vulnerable animals for transport », animaux vulnérables au transport : vue par espèces

PIGS Vulnerable animals for transport



Specific animal categories

Piglets after weaning

Risk of hypothermia
Risk of hypoglycaemia
Risk of developing diseases

Sows in late pregnancy

Risk of going into labour
Risk of giving birth
Risk of abortion
Susceptible to heat stress

Cull sows to slaughter

Risk of dying

Growing pigs with myopathy

Sows after weaning

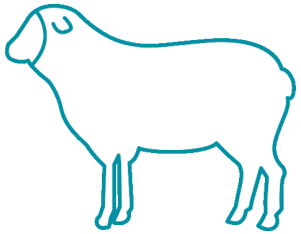
Risk of engorged udders
Risk of developing mastitis

OPERATIONALISATION ISSUES

Threshold in terms of number of days in gestation unknown

A potential example of individuals with physiological weakness

SHEEP Vulnerable animals for transport



Specific animal categories

Cull ewes to slaughter

Health issues: less able to cope with transport conditions
Risk of dying

Ewes with engorged udder

Painful
Reluctant to lie down

Pregnant females

Risk of going into labour
Risk of giving birth
Risk of abortion
In late pregnancy: risk of metabolic conditions
Risk of heat stress

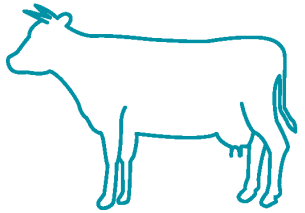
Fetus/newborn

Risk of prenatal stress
Risk of being born during transport

Juvenile animals

Risk of hypothermia and hypoglycaemia
Risk of infectious diseases
More susceptible to cold & lack of food and water

CATTLE Vulnerable animals for transport



Specific animal categories

Cows in late pregancy

Risk of metabolic disorders
(e.g., ketosis and fatty liver)

Risk of heat stress

Reduced exercise capacity

Concerns for fetus

Prenatal stress
Premature birth/death
Risk of being born during transport

Lactating cows

Risk of udder engorgement

Early-lactating cows

Susceptible to metabolic disorders

Risk of hoof-horn lesions

Cull dairy cows

Risk of dying

Susceptibility to cold stress

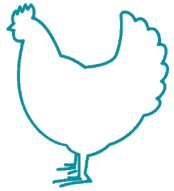
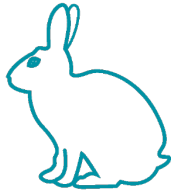
Risk of bruising

Unweaned calves

Compromised immune system
Susceptible to hunger and thirst
Risk of navel inflammation
Risk of gastro-enteric disorders
Risk of injuries

DOMESTIC BIRDS AND RABBITS

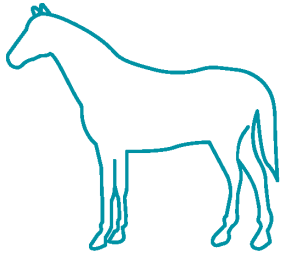
Vulnerable animals for transport


Specific animal categories

Pas détaillé dans cet avis.

HORSES Vulnerable animals for transport



Specific animal categories

Pregnant females

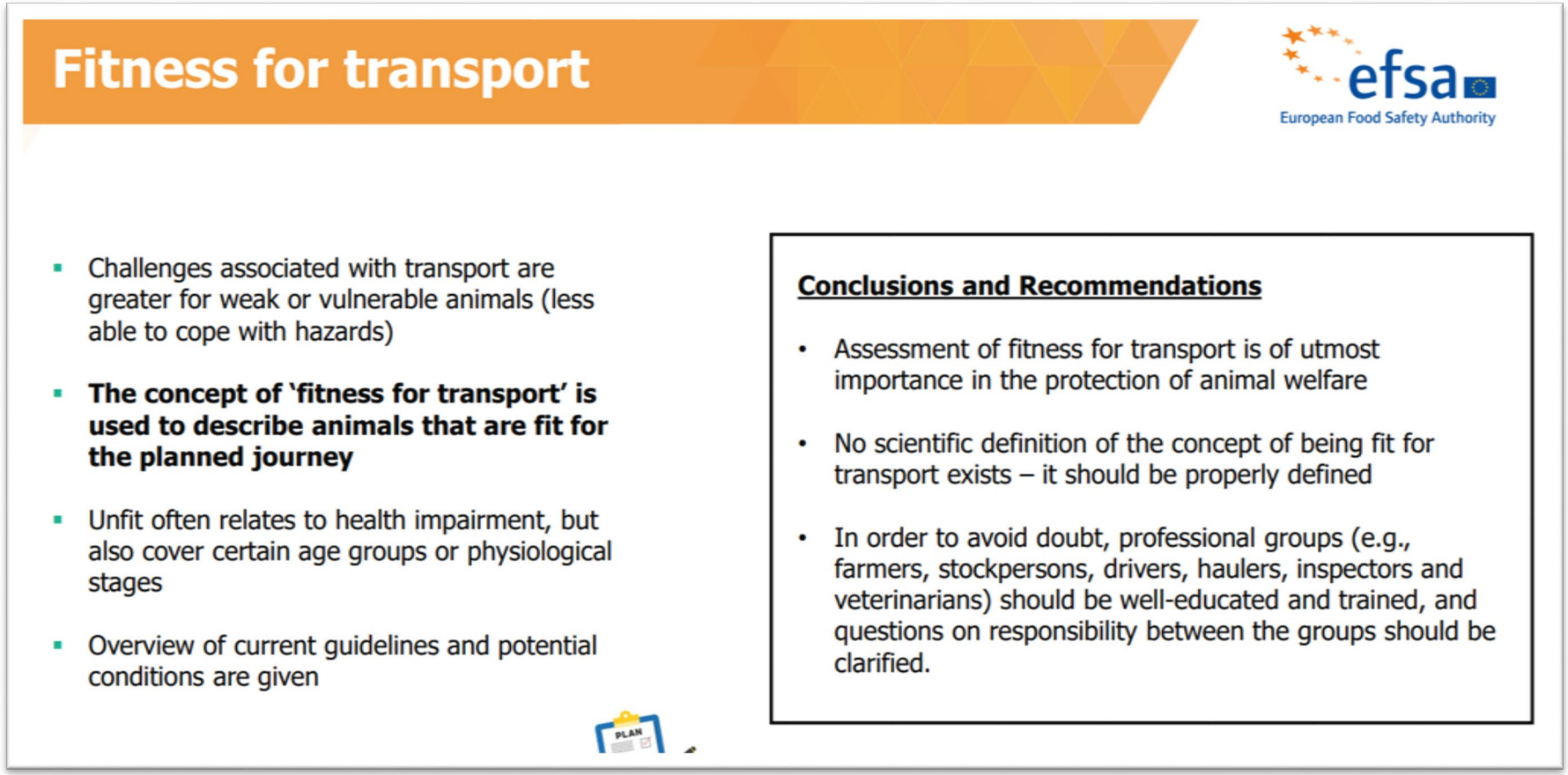
Stress and WCs associated with the different transport stages when carrying a fetus
Risk of going into labour
Risk of giving birth
Risk of abortion

Fetus/newborn

Risk of prenatal stress
Risk of being born during transport

Conclusion

« Fitness for transport », aptitude au transport



https://www.efsa.europa.eu/sites/default/files/2022-09/3.Herskin-Free-moving-transport.pdf

En résumé

In summary

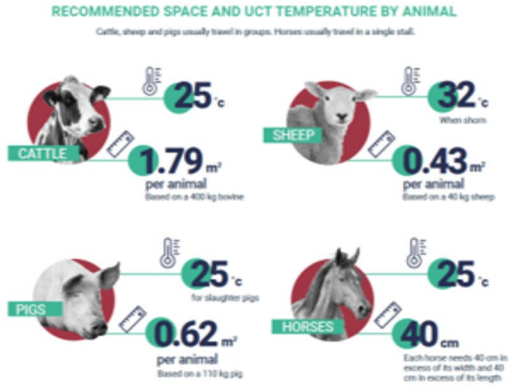
efsa
European Food Safety Authority

- EFSA has assessed animal welfare during transport for horses, cattle, sheep and pigs
- The majority of the opinions deal with road transport – constitutes around 90%
- The opinions focus on non-juvenile animal categories – but also sections on for example unweaned calves or weaners
- The opinions include animal categories such as cull animals and horses sent for slaughter
- Short sections on donkeys and goats are available

TEMPERATURE
Severe heat stress for animals **starts at the upper critical temperature (UCT)**. To reduce this risk, the temperature inside vehicles should not exceed the UCT.

SPACE
Increased space in the vehicle is important to allow animals to **adjust their posture in response to acceleration** and other events during transport. For pigs, small ruminants, and bovines the minimum space allowance for an animal depends on the live weight.

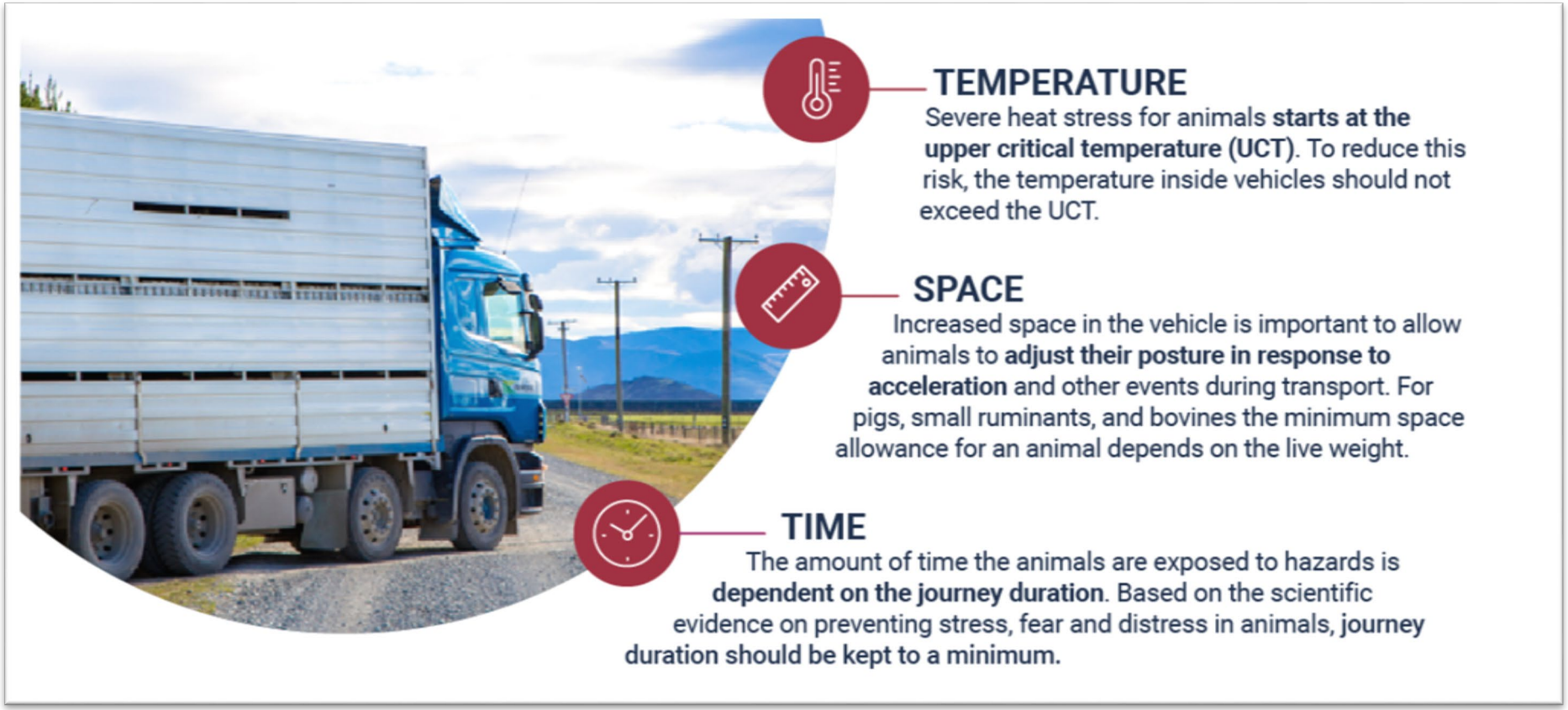
TIME
The amount of time the animals are exposed to hazards is **dependent on the journey duration**. Based on the scientific evidence on preventing stress, fear and distress in animals, **journey duration should be kept to a minimum.**



20

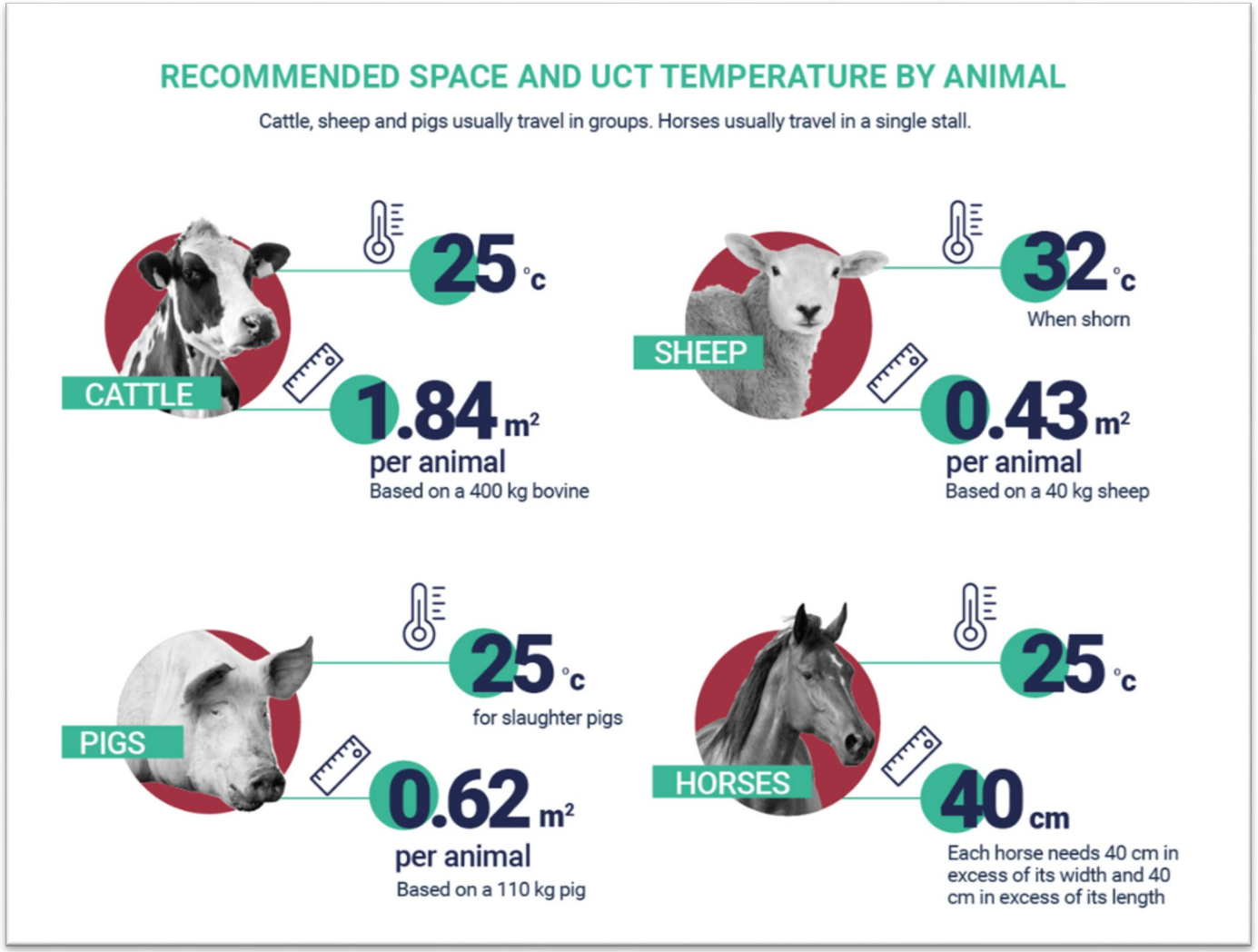
https://www.efsa.europa.eu/sites/default/files/2022-09/3.Herskin-Free-moving-transport.pdf

Infographies EFSA – free moving animals



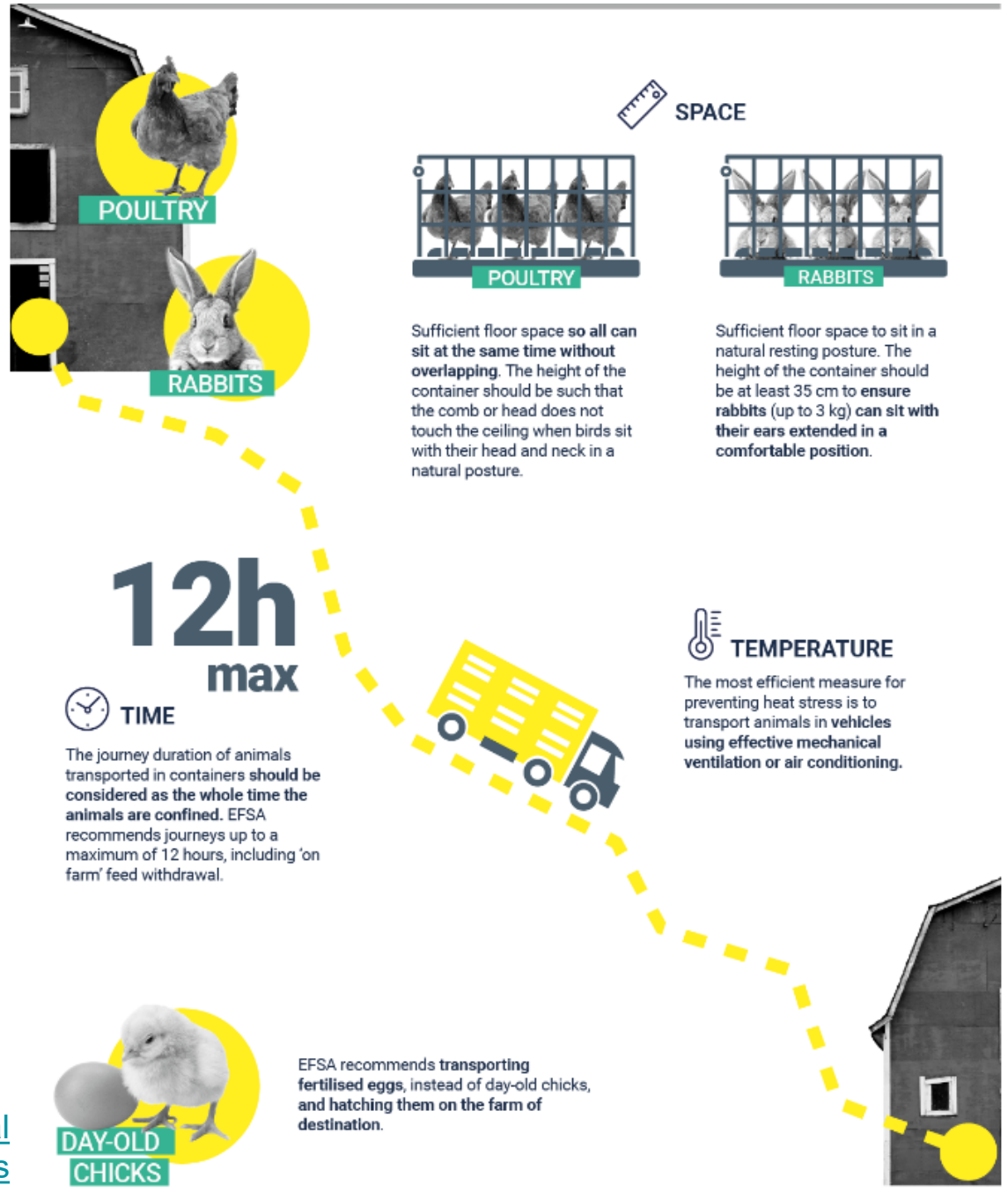
https://www.efsa.europa.eu/en/infographics/animal-welfare-during-transport-free-moving-animals

Infographies EFSA – free moving animals



https://www.efsa.europa.eu/en/infographics/animal-welfare-during-transport-free-moving-animals

Infographies EFSA – animals in containers



https://www.efsa.europa.eu/en/infographics/animal-welfare-during-transport-animals-containers

Centre national de référence pour le **bien-être animal**

Conclusion

Pour en savoir plus

Avis de l'EFSA 2002 : https://www.efsa.europa.eu/en/news/more-space-lower-temperatures-shorter-journeys-efsa-recommendations-improve-animal-welfare

EFSA – Bien-être animal : https://www.efsa.europa.eu/fr/topics/topic/animal-welfare

Merci de votre attention.

Centre national
de référence pour le
bien-être animal

www.cnr-bea.fr

Localisé à INRAE – 147 rue de l'Université
75338 Paris Cedex 07

Annexes

Annexes

Transport – Quelques chiffres

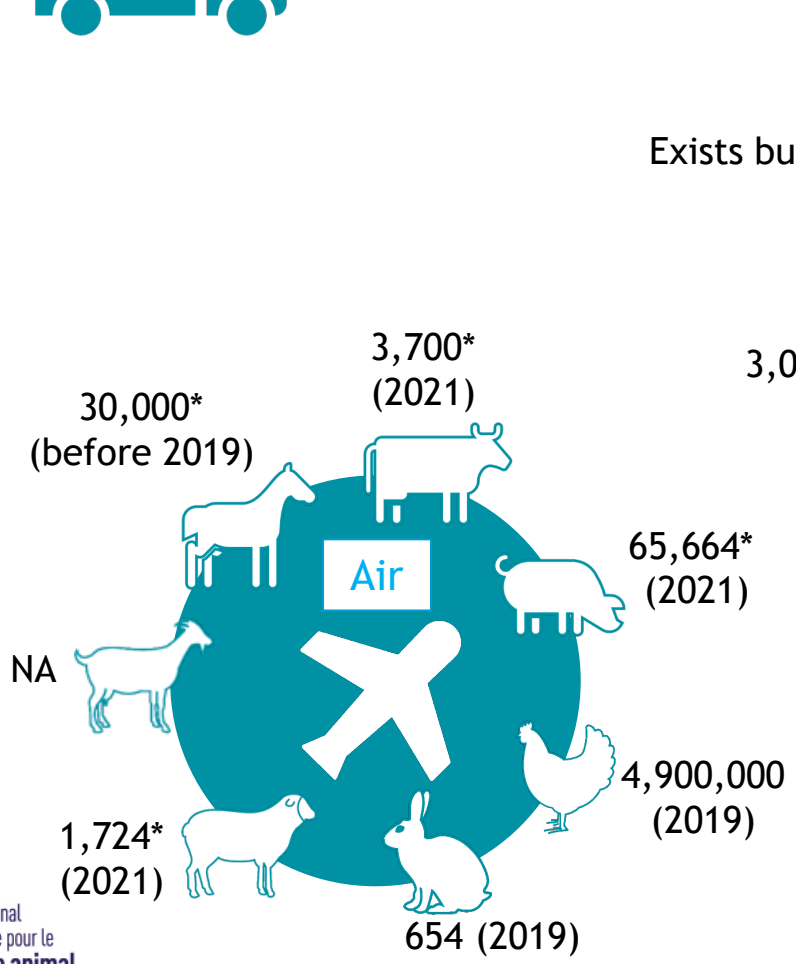
Transport - Quelques chiffres

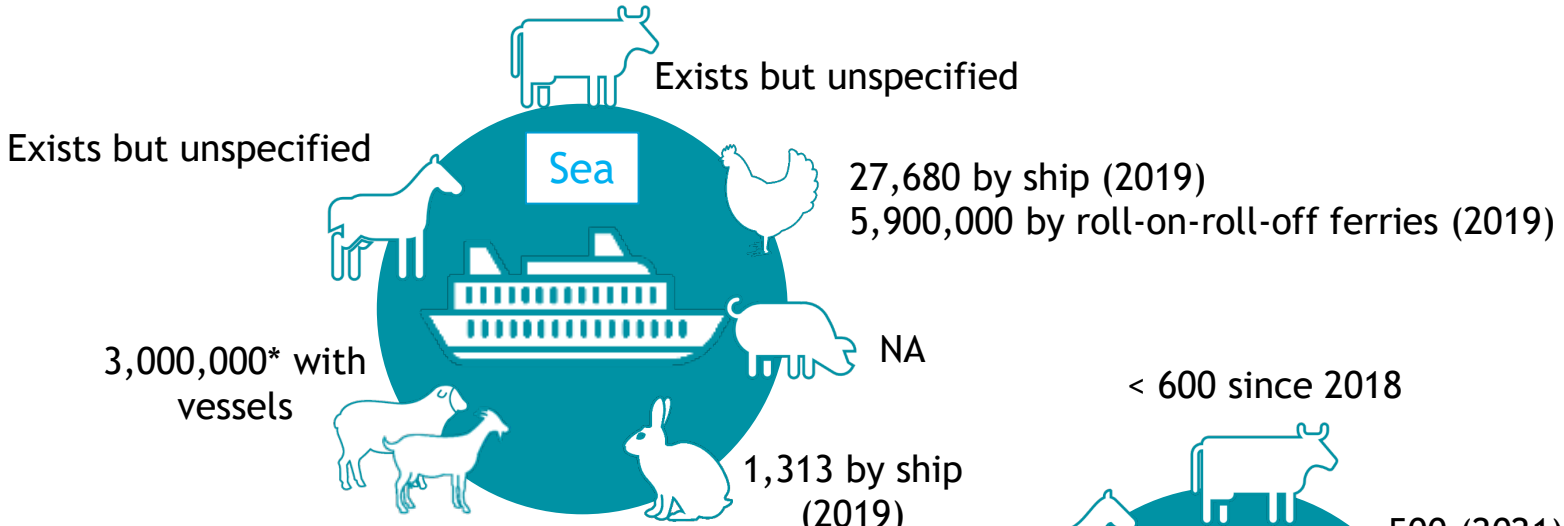
Means of animal transport

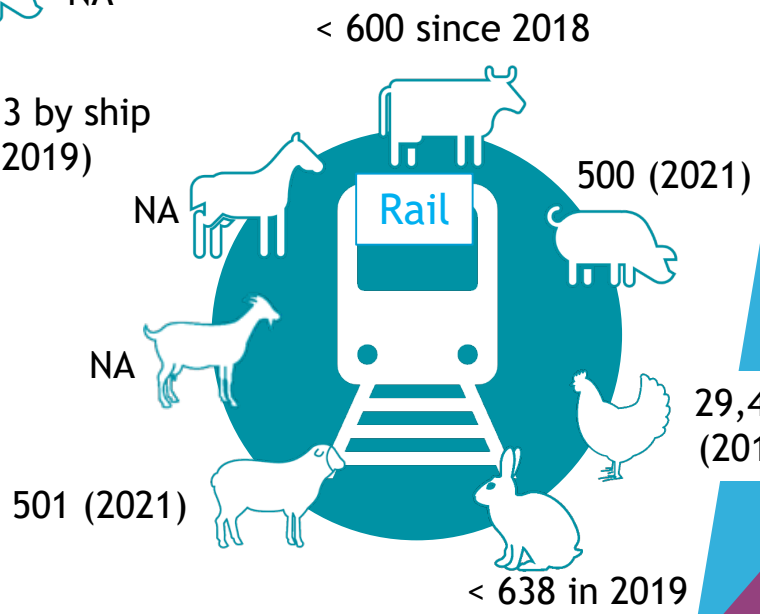
**Not specific to transport within EU*

Source : TRACES - Avis EFSA relatifs au transport (2022)

Road is the main mean of transport (> 85 %) for all animals studied in these EFSA reports







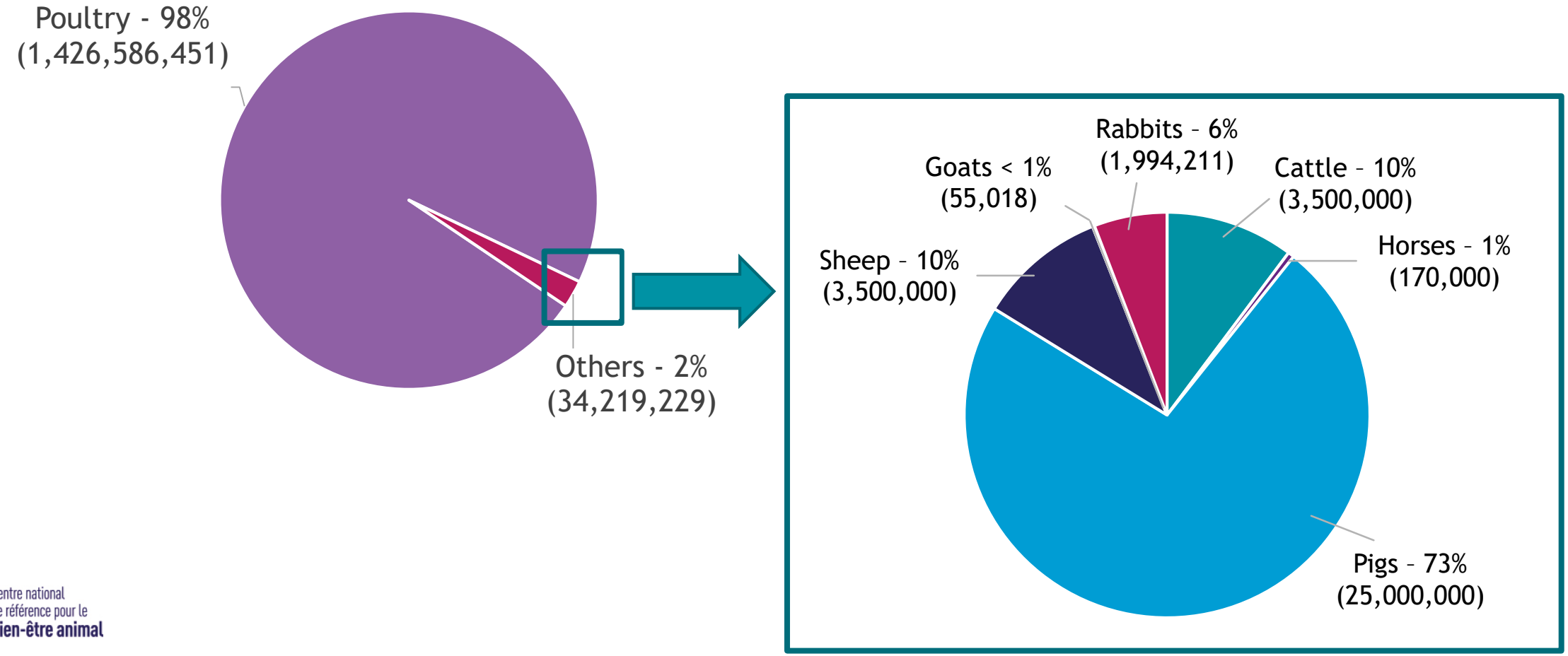
Centre national de référence pour le bien-être animal

Transport - Quelques chiffres

Source : TRACES - Avis EFSA relatifs au transport (2022)

Animals transported within the EU in 2021*

*Figures for poultry and rabbits are from 2019



Centre national de référence pour le bien-être animal

Annexes

« Highly relevant welfare consequences » - Détails par espèces

PIGS Highly relevant welfare consequences associated with transport of pigs

WCs and definitions		Transport stages			
		Preparation	Loading/ unloading	Transit	Journey break
Group stress	The animal experiences stress and/ or negative affective states such as pain, fear and/or frustration resulting from a high incidence of aggressive and other types of negative social interactions, often due to hierarchy formation and competition for resources or mates.	X		X	X
Handling stress	The animal experiences stress and/ or negative affective states such as pain and/or fear resulting from human or mechanical handling (e.g. loading/unloading).	X	X		X
Heat stress	The animal experiences stress and/ or negative affective states such as discomfort and/or distress when exposed to high effective temperature.	X	X	X	X
Injuries	The animal experiences negative affective states such as pain, discomfort or distress due to physical damage to somatic tissue types (bones, joints, skin muscles). This can be due to injuries or pathological changes.	X		X	X
Motion stress	The animal experiences motion sickness, stress and/or fatigue due to the forces exerted as a result of acceleration, braking, stopping, cornering, gear changing, vibrations and uneven road surfaces during transport.			X	
Prolonged hunger	The animal experiences craving or urgent need for food or a specific nutrient, accompanied by a negative affective state, and eventually leading to a weakened condition as metabolic requirements are not met.	X		X	X
Prolonged thirst	The animal experiences craving or urgent need for water, accompanied by an uneasy sensation (a negative affective state), and eventually leading to dehydration as metabolic requirements are not met.			X	X
Resting problems	The animal experiences stress and/ or negative affective states such as discomfort, and/or frustration due to the inability to lie/rest comfortably or sleep. (e.g. due to hard flooring or vibration during transport). This may eventually lead to fatigue.	X		X	X
Restriction of movements	The animal experiences stress and/ or negative affective states such as pain, fear, discomfort and/or frustration due to the fact that it is unable to move freely, or is unable to walk comfortably (e.g. due to overcrowding, unsuitable floors, gates, barriers).			X	X
Sensory overstimulation	The animal experiences stress and/ or negative affective states such as fear or discomfort due to visual, auditory or olfactory under/ overstimulation by the physical environment.		X	X	

SMALL RUMINANTS Highly relevant welfare consequences associated with transport of small ruminants

WCs and definitions		Transport stages			
		Preparation	Loading/ unloading	Transit	Journey break
Group stress	The animal experiences stress and/or negative affective states such as pain, fear and/or frustration and stress resulting from a high incidence of aggressive and other types of negative social interactions, often due to hierarchy formation and competition for resources or mates.				X
Handling stress	The animal experiences stress and/or negative affective states such as pain and/or fear resulting from human or mechanical handling (e.g. loading/ unloading).	X	X		X
Heat stress	The animal experiences stress and/or negative affective states such as discomfort and/or distress when exposed to high effective temperature.		X	X	
Injuries	The animal experiences negative affective states such as pain, discomfort or distress due to physical damage to somatic tissue types (bones, joints, skin, muscles). This can be due to injuries or pathological changes.		X		X
Motion stress	The animal(s) experience motion sickness, stress and/or fatigue due to the forces exerted as a result of acceleration, braking, stopping, cornering, gear changing, vibrations and uneven road surfaces during transport.				X
Predation stress	The animal experiences stress and/or negative affective states such as fear and/or pain resulting from being attacked or perceiving a high predation risk.	X	X		
Prolonged hunger	The animal experiences craving or urgent need for food or a specific nutrient, accompanied by a negative affective state and eventually leading to a weakened condition as metabolic requirements are not met.			X	X
Prolonged thirst	The animal experiences craving or urgent need for water, accompanied by an uneasy sensation (a negative affective state) and eventually leading to dehydration as metabolic requirements are not met.			X	
Resting problems	The animal experiences stress and/or negative affective states such as discomfort, and/or frustration due to the inability to lie/rest comfortably or sleep. (e.g. due to hard flooring, inability to perch or vibration during transport). This may eventually lead to fatigue.			X	X
Restriction of movements	The animal experiences stress and/or negative affective states such as pain, fear, discomfort and/or frustration due to the fact that it is unable to move freely, or is unable to walk comfortably (e.g. due to overcrowding, unsuitable floors, gates, barriers).			X	
Sensory overstimulation	The animal experiences stress and/or negative affective states such as fear, discomfort due to visual, auditory or olfactory under/overstimulation by the physical environment.		X	X	X

CATTLE Highly relevant welfare consequences associated with transport of cattle

WCs and definitions		Transport stages			
		Preparation	Loading/ unloading	Transit	Journey breaks
Group stress	The animal experiences stress and/or negative affective states such as pain, fear and/or frustration resulting from a high incidence of aggressive and other types of negative social interactions, often due to hierarchy formation and competition for resources or mates.	X			X
Handling stress	The animal experiences stress and/or negative affective states such as pain and/or fear resulting from human or mechanical handling (e.g. loading/ unloading).	X	X		X
Heat stress	The animal experiences stress and/or negative affective states such as discomfort and/or distress when exposed to high effective temperature.		X	X	
Injuries	The animal experiences negative affective states such as pain, discomfort or distress due to physical damage to somatic tissue types (bones, joints, skin, muscles). This can be due to injuries or pathological changes.		X		
Motion stress	The animal experiences motion sickness, stress and/or fatigue due to the forces exerted as a result of acceleration, braking, stopping, cornering, gear changing, vibrations and uneven road surfaces during transport.			X	
Prolonged hunger	The animal experiences craving or urgent need for food or a specific nutrient, accompanied by a negative affective state, and eventually leading to a weakened condition as metabolic requirements are not met.			X	X
Prolonged thirst	The animal experiences craving or urgent need for water, accompanied by an uneasy sensation (a negative affective state), and eventually leading to dehydration as metabolic requirements are not met.			X	X
Respiratory disorders	The animal experiences negative affective states such as discomfort, pain, air hunger and/or distress due to impaired function or lesion of the lungs or airways.			X	
Resting problems	The animal experiences stress and/or negative affective states such as discomfort, and/or frustration due to the inability to lie/rest comfortably or sleep (e.g. due to hard flooring or vibration during transport). This may eventually lead to fatigue.			X	X
Restriction of movements	The animal experiences stress and/or negative affective states such as pain, fear, discomfort and/or frustration due to the fact that it is unable to move freely, or is unable to walk comfortably (e.g. due to overcrowding, unsuitable floors, gates, barriers).			X	
Sensory overstimulation	The animal experiences stress and/or negative affective states such as fear or discomfort due to visual, auditory or olfactory under/overstimulation by the physical environment.		X	X	X

DOMESTIC BIRDS AND RABBITS Highly relevant welfare consequences associated with transport of domestic birds and rabbits

Welfare consequence	Preparation	Loading		Journey		Arrival		Uncrating	
Handling stress	n.a.	x	x	–	–	–	–	x	x
Bone lesions	n.a.	x	x	x	–	x	x	x	x
Soft tissue lesions and integument damage	n.a.	x	x	x	–	x	x	x	x
Restriction of movement	n.a.	x	x	x	x	x	x	x	x
Sensory overstimulation	n.a.	x	x	x	x	x	x	x	x
Motion stress	n.a.	–	x	x	x	x	x	–	–
Heat stress	n.a.	–	–	x	x	x	x	–	–
Cold stress	n.a.	–	–	x	x	x	x	–	–
Prolonged hunger	n.a.	–	–	x	x	x	x	–	–
Prolonged thirst	n.a.	–	–	x	x	x	x	–	–

Left : Poultry
Right : Rabbits

HORSES Highly relevant welfare consequences associated with transport of horses

WCs and definitions		Transport stages			
		Preparation	Loading/ unloading	Transit	Journey break
Gastro-enteric disorders	The animal experiences negative affective states such as discomfort, pain and/or distress due to impaired function or lesion of the gastro- intestinal tract resulting from, e.g. nutritional deficiency, infectious, parasitic or toxigenic agents.			X	X
Handling stress	The animal experiences stress and/or negative affective states such as pain and/or fear resulting from human or mechanical handling (e.g. sorting and vaccination of newly hatched chicks, loading/unloading, catching and crating of animals to be transported, inversion).	X	X		X
Heat stress	The animal experiences stress and/or negative affective states such as discomfort and/or distress when exposed to high effective temperature.		X	X	
Injuries	The animal experiences negative affective states such as pain, discomfort or distress due to physical damage to somatic tissue types (bones, joints, skin, muscles). This can be due to injuries or pathological changes.	X	X	X	X
Isolation stress	The animal experiences stress and/or negative affective states such as frustration and/or fear resulting from the absence of or from limited social contact with conspecifics.	X			
Motion stress	The animal(s) experience motion sickness, stress and/or fatigue due to the forces exerted as a result of acceleration, braking, stopping, cornering, gear changing, vibrations and uneven road surfaces during transport.			X	
Prolonged hunger	The animal experiences craving or urgent need for food or a specific nutrient, accompanied by a negative affective state and eventually leading to a weakened condition as metabolic requirements are not met.			X	
Prolonged thirst	The animal experiences craving or urgent need for water, accompanied by an uneasy sensation (a negative affective state) and eventually leading to dehydration as metabolic requirements are not met.			X	
Respiratory disorders	The animal experiences negative affective states such as discomfort, pain, air hunger and/or distress due to impaired function or lesion of the lungs or airways.			X	X
Resting problems	The animal experiences stress and/or negative affective states such as discomfort, and/or frustration due to the inability to lie/rest comfortably or sleep. (e.g. due to hard flooring, inability to perch or vibration during transport). This may eventually lead to fatigue.			X	X
Restriction of movement	The animal experiences stress and/or negative affective states such as pain, fear, discomfort and/or frustration due to the fact that it is unable to move freely, or is unable to walk comfortably (e.g. due to overcrowding, unsuitable floors, gates, barriers).		X	X	
Sensory overstimulation	The animal experiences stress and/or negative affective states such as fear, discomfort due to visual, auditory or olfactory overstimulation by the physical environment.	X	X	X	X
Separation stress	The animal experiences stress and/or negative affective states such as fear and/or frustration resulting from separation from conspecifics.	X			

Annexes

« Fitness for transport », aptitude au transport : détails par espèces des « General conditions »

Note : définition d'un **animal « non-ambulatory** » :
“ Unable to stand or move without assistance and/or unable to bear weight on two legs (Consortium of the Animal Transport Guides Project, 2018)”.

PIGS List of conditions that can make pigs unfit for transport

General condition	Specific condition
Sickness/illness	Not specified further
	Cardiovascular or respiratory disorders/laboured breathing
	Dehydration risk and poor general status (profuse diarrhoea)
Pathophysiological state	Weakness
	Anaemia (pale skin, breathing quickly)
	Emanciation
	Circulatory weakness
	Breathing difficulties
	Fatigued/exhausted
Injured	Not specified further
	Serious wound, open or bleeding
	Disabled/infirmity
	Severe, profuse nose bleeding
	Profuse bleeding from the vulva
	Significant pus discharge from the vulva
	Swelling. Multiple abscesses and/or deformation and/or arthritis
	Unhealed wounds after recent surgery
	Severe blood loss
Tail lesions	Severe tail lesions: Evidence of chewing or puncture wounds with swelling and signs of infection. Pigs appearing depressed.
	Partial or total loss of the tail with possible necrosis
Ear lesions	Severe ear lesions: • Wounds involving a large part of the ear. • Exposed ear cartilage. • Inflammation/ infection deeper in the ear. • Severe elephantiasis - the ear is so large/heavy that it limits the pig from moving normally, or from maintaining balance due to the titled head. • Acute accumulation of blood (‘blood-ear’).

SHEEP List of conditions that can make a sheep unfit for transport

General condition	Specific condition	
Sickness/illness	Not specified further	
	Pathological processes	
	Cardiovascular or respiratory disorders/laboured breathing	
	Apparent lack of coordination/disorientation	
	Generalised nervous system disorder	
	Shock or dying	
	Fever	
	Infected navel	
	Gangrenous udder	
	Mastitis	
	Bloated to the extent that it exhibits signs of discomfort or weakness	
	Gastrointestinal disruption	
	Contagious ecthyma (orf)	
	Orchitis	
	Swollen penis	
	Urinary calculi causing abdominal distention	
Pathophysiological state	Weakness	
	Emaciation	Not specified further
		BCS < 2 out of 5
	Fatigue/exhaustion	
	Dehydration	
	Distress	
	Hypothermia	Not specified further
		Cold stress or frostbite
	Hyperthermia	Not specified further
		Heat stress
	Engorged udder	
	Eye lesion	Blind in both eyes
		Blind
		Severe squamous cell carcinoma
Injury	Not specified further	
	Severe open wound or a severe laceration	
	Disabled/infirmity	
	Unhealed wounds after recent surgery	
	Severe haemorrhage	
	Abscess	
	Has sustained an injury and is hobbled to aid in treatment	
	Ingrown horn	
	Flystrike	

General condition	Specific condition
Sickness/illness	Not specified further
Prolapse	Prolapsed uterus or a severe rectal or severe vaginal prolapse
Hernia	Hernia that (i) impedes movement, including when a hind limb of the animal touches the hernia as the animal is walking, (ii) causes signs of pain or suffering, (iii) touches the ground when the animal is standing in its natural position or (iv) has an open wound, ulceration or obvious infection
In pain	Cannot be moved/transported without causing additional suffering
	Experience severe pain when moving
	Fracture
	Fracture that impedes mobility or causes pain or suffering
Lameness	Unable to bear weight on each leg
	Lame in one or more limbs to extent that it exhibits signs of pain or suffering and halted movements or a reluctance to walk
	Swollen joints

General condition	Specific condition	
Non-ambulatory		
Reproductive state	Pregnancy	Final 10% of gestation period
		Likely to lamb
		Within 2 weeks of lambing
	Recent lambing	Given birth within the previous 48 hrs
		Given birth within previous week
Newborn	Unhealed navel	
	< 1 week old	

GOATS: " […] conditions very similar to the ones listed above for sheep (Section 3.3.3) will leave goats unfit for transport. […] for goats, no list of conditions leading to animals being unfit has been developed. […] " (p.69) doi: 10.2903/j.efsa.2022.7404

CATTLE List of conditions that can make cattle unfit for transport

General condition	Specific condition	
Sickness/illness	Not specified further	
	Pathological processes	
	Laboured breathing	
	Congestive heart failure	
	Generalised nervous system disorder	
	Shock or dying	
	Fever	
	Pneumonia (unresponsive with fever)	
	Infected navel	
	Gangrenous udder	
	Acute mastitis	
	Bloated to the extent that it exhibits signs of discomfort or weakness	
	Massive purulent discharge	
	Actinomycosis (lumpy jaw)	
	Extensive cancer/leukosis	
	Ketosis	
	Orchitis	
	Swollen penis	
	Multiple abscesses	
	Peritonitis	
	Urinary calculi causing abdominal distention	
Pathophysiological state	Weakness	
	Emaciation	
	Fatigue/exhaustion	
	Dehydration	
	Distress	
	Hypothermia	
	Hyperthermia	Not specified further
		Heat stress
	Engorged udder	
Eye lesion	Blind in both eyes	
	Severe squamous cell carcinoma	
Reproductive state	Recent calving	Visible placenta
Newborn	Unhealed navel	
	< 1 week old	

General condition	Specific condition
Sickness/illness	Not specified further
Injured	Not specified further
	Severe open wound or a severe laceration
	Disabled/infirmity
	Unhealed wounds after recent surgery
	Severe haemorrhage
	Has sustained an injury and is hobbled to aid in treatment
	Ingrown horn, broken horns if bone tissue is affected or animal appears depressed
Prolapse	Prolapsed uterus or a severe rectal or severe vaginal prolapse
Hernia	Hernia that (i) impedes movement, including when a hind limb of the animal touches the hernia as the animal is walking, (ii) causes signs of pain or suffering, (iii) touches the ground when the animal is standing in its natural position, or (iv) has an open wound, ulceration or obvious infection;
Experiencing pain	Cannot be moved/transported without causing additional suffering
	Experience pain when moving
	Fracture that impedes mobility or causes pain or suffering
Lameness	Unable to bear weight on each leg
	Lame in one or more limbs to extent that it exhibits signs of pain or suffering and halted movements or a reluctance to walk
	Unable to walk as fast as a brisk human pace (cannot keep up with the healthy herd)
	Likely to lose balance during transport
	Arthritis in multiple joints

General condition	Specific condition	
Non-ambulatory	Not specified further	
Reproductive state	Pregnancy	Final 10% of their gestation period
		Last month of pregnancy
		Within 2 weeks of calving
	Recent calving	Given birth within the previous 48 h
		Given birth within previous week
		Given birth within the previous 14 days
		Visible placenta
Newborn	Unhealed navel	
	< 1 week old	

Centre national de référence pour le bien-être animal

DOMESTICS BIRDS AND RABBITS List of conditions that can make domestic birds, day-old-chicks or rabbits unfit for transport

	Domestic birds	Day-old-chicks	Rabbits
Evident signs of illness	X		X
Emaciation and cachexia	X		X
Severe lameness: Unable to stand or walk more than a few steps	X		X
Open wounds and prolapse	X		X
Abscesses			X
Poor feather cover in low effective temperature (end-of-lay hens only)	X		
Fractures (legs, wings) and dislocations	X	X	X
Wet plumage in low effective temperature (except for ducks and geese)	X		
Wet fur in low effective temperatures			X
Poor chick quality		X	
Inability to stand		X	
Female rabbits in the last third of gestation			X
Female rabbits and young up to 7 days after parturition			X
Un-weaned rabbits			X

Principal conditions which will make domestic birds unfit for transport

- Evident signs of illness
- Emaciation and cachexia
- Severe lameness: Unable to stand or walk more than a few steps
- Open wounds and prolapse
- Poor feather cover in low effective temperature (end-of-lay hens only)
- Broken bones (legs, wings) and dislocations
- Wet plumage in low effective temperature (except for ducks and geese)

Principal conditions which will make day-old chicks unfit for transport

- Poor chick quality
- Inability to stand
- Fractures (legs, wings) and dislocations

Principal conditions which will make rabbits unfit for transport

- Evident signs of illness
- Emaciation and cachexia
- Severe lameness: Unable to stand or walk more than a few steps
- Female rabbits in the last third of gestation
- Female rabbits and young up to 7 days after parturition
- Un-weaned rabbits
- Open wounds, prolapse and abscesses
- Fractures (legs, etc.) and dislocations
- Wet fur in low effective temperatures

HORSES List of conditions that can make a horse unfit for transport

General condition	Specific condition
Sickness/illness	Not specified further
	Pathological processes
	Laboured breathing (rapid, shallow)
	Generalised nervous system disorder
	Shock or dying
	Fever
Pathophysiological state	Weakness
	Emaciation/ Severely emaciated
	Fatigue/exhaustion
	Visible dehydration
	Distress
	Body condition would result in poor welfare because of the expected climatic conditions
Injury	Not specified further
	Open or infected wound
	Disabled
	Recent major surgery
	Severe head injury
	Profuse bleeding
	Penis injuries
Prolapse	No further specified
	Uterine, vaginal or rectal prolapse
In pain	Cannot be moved/transported without causing additional suffering
	Present signs of unreasonable pain (e.g. Unresponsive to surroundings or repeatedly looking at abdomen, rolling or kicking at abdomen)
	Fracture
	Until 3 weeks after a painful procedure (e.g. castration)
Lameness	Unable to bear weight on each leg
	Unable to move independently without pain or to walk unassisted

General condition	Specific condition	
Non-ambulatory		
Eye lesion	Blind in both eyes	
Reproductive state	Pregnancy	Final 10% of gestation period (corresponding to 33 days)
		Heavily gestating, likely to give birth (i.e. Wax-like beads or milk drops present, or relaxation hindquarters and tail muscles)
		Within 2 weeks of giving birth
	Recent given birth without a foal	Given birth within the previous 48 h
		Given birth within previous week
General condition	Specific condition	
Newborn	Unhealed navel (e.g. red and swollen, moist or with fluid)	
	Less than 6 months	
	Less than 4 months	

Note: “Table (17) provides an extensive list of examples of conditions that would make a horse unfit for transport. However, the full list has not been scientifically validated. In addition, such a list of conditions is not the complete answer to issues related to fitness. There are difficulties in readily identifying the conditions and in making a judgment on whether the severity of each condition is sufficient to make a horse unfit in relation to the intended journey.”

HORSES List of conditions that can make a horse unfit for transport

Adapted table from Fitness Guidelines (World Horse Welfare et al., 2015) on conditions that render horses unfit for transport or require further investigation

CONDITIONS	ABMs to declare horses UNFIT FOR TRANSPORT	FURTHER ASSESSMENT REQUIRED
Difficulty standing, moving, maintaining balance or lameness, deformity	Stumbling, staggering or falling. Animal unable to: Stand or remain standing; maintain balance; move without difficulty; bear any weight on one of its legs. Severe lameness. Reluctance to stand or move.	Mild lameness. Weight shifting. Abnormal posture.
Wounds	Exposed body cavity, muscle, deeper tissue or bone. Large reopened wound (including surgical wounds). Infected open wound. Difficulty moving. Pain	Multiple wounds. A wound that may reopen. Transport likely to aggravate the wound.
Bleeding	Profuse and/or continuous bleeding. Blood squirting out under pressure.	Nose bleed or other bleed that has stopped
Prolapse	Red or pink mass protruding from the vulva or anus. Bleeding from vulva or anus.	
Late pregnancy or recently foaled	Mares beyond 90% (300 days) of gestation period, or foaled in the previous week. Wax-like beads or droplets of milk on tips of teats.	Enlarged abdomen. Full or enlarged udder.
New-born foal	Navel not healed: moist; fluid dripping from end; redness and swelling.	
Pain	Repeated rolling; kicking or looking at abdomen. Unresponsive to surroundings. Inability to stand or difficulty standing. Horse grimace scale = 2	Restlessness. Weight shifting. Profuse sweating. Facial tension. Horse grimace scale = 2
Dehydration	Unresponsive to surroundings.	Drinking excessively or for extended periods. Aggression when water is present. Dark, thick or strong-smelling urine. Abnormal faeces.
Exhaustion	Unresponsive to surroundings. Inability to stand or move. Collapse.	Lethargy, dull demeanour. Leaning or resting head. Reluctance to move or stand.
Body Condition Score (BCS) (animals may be at risk of other health problems)	Poor/emaciated: Ribs, hips, backbone prominent. Skin stretched tightly over bones. Horses with a BCS ≤ 1 and a BCS=5 are unfit for transport	Very fat: Fat deposits on top of neck. Ribs and pelvis buried. Back broad and flat. Deep gutter along spine.
Infectious disease	High rectal temperature (above 38.5°C/101.3°F). Fitting, paralysis or collapse.	Swellings, lumps or abscesses. Repeated coughing. Discharge from any orifice. Sensitivity to light, touch or noise. Abnormal faeces.
Colic	Repeated rolling, lying down, looking at abdomen. Pain.	Restlessness. Groaning. Profuse sweating. Abnormal posture or head and neck position.
Swelling, inflammation or abscess	Significant swelling, heat and/or redness. Pain. Ruptured abscess. Inability to move. Lameness.	Abscess that has not ruptured. Mild lameness. Reluctance to move.
Hernia	Signs of pain, poor general health or colic.	Large hernia. Evidence of lesions or infection. Transport likely to aggravate condition.
Visually impaired	Total blindness.	Discharge from eye/s. Abnormal eye/s. Material present on the eye.
Dangerous behaviour	Behaviour that presents a risk, such as rearing, bucking, kicking, biting or striking out	If in any doubt about an animal's behaviour
Unbroken Equidae	Journeys over eight hours for animals that cannot be led by a halter/head collar without causing avoidable excitement, pain or suffering. BUT score can be used to differentiate these animals (Menchetti et al., 2021).	If in any doubt about whether an animal is broken/handled or not.