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EURCAW Officials meeting 4/5 Oct 2021: Pig Transport Issues

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Introduction by Annabeth van Aartsen, 3 Topics mentioned:

- Practical EU guidelines to assess fitness of pigs for transport
- Extreme temperatures and transport of pigs
- Stocking density of pigs during transport
- Additional topic: specific animal welfare requirements for transport of piglets needed
- In some MS national regulations in force and own guidelines in practice

Fitness of Pigs for Transport

Reg. (EC) No 1/2005, Annex I:

No animal shall be transported unless it is fit for the intended journey ...

... sick or injured animals may be considered fit for transport if they are: (a) slightly injured or ill and transport would not cause additional suffering ...

⇒ No separation or marking requested

⇒ But: when animals fall ill or are injured during transport, they shall be separated from the others...

⇒ What are the indicators for separation of individual animals during transport?



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Fitness of Pigs for Transport (EURCAW indicator factsheet on t.b.):

Score 1: Minor wounds

Fit for transport under conditions*

Healed, mild lesions or evidence of chewing or puncture wounds, no swelling.



- Under conditions*:
- Pig to be isolated.
 - Pig tagged with a coloured mark.
 - FCI (Food Chain Information) to be completed.
 - Transport not to cause unnecessary pain or suffering.
 - The animal to be loaded last.

Score 2: Major wounds

Unfit for transport

Evidence of chewing or puncture wounds with swelling and signs of infection (left).

Partial loss of the tail with possible necrosis (middle).

Total loss of the tail with possible necrosis (right).



From: Practical (EU) Guidelines to Assess Fitness for Transport of Pigs

to be used obligatory in a MS by competent authority and transporters, assembly centres and keepers

Fitness of Pigs for Transport

Status quo:

- Guidelines are perceived to be helpful, when illustrated
- Most member States use official EU Guidelines to assess fitness for Transport
- Few MS have national Guidelines

Problems:

- No decisions who is responsible: farmers, transporters, assembly centers ...
- Usually only retrospective determination of violations

Solutions:

- Feed back information from slaughterhouse/CA to farmers
- Clarification and Enforcement



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Extreme temperatures and transport of pigs

Requirements of Reg (EC) No 1/2005 on thermal environment and monitoring only related to long transport:

3.1 **Ventilation systems** on means of transport by road ... shall be designed, constructed and maintained in such way that, ... they are capable of maintaining a range of temperatures from **5 °C to 30 °C** within the means of transport, for all animals, with a **+/- 5 °C tolerance**, depending on the outside temperature

3.2 The **ventilation system** must be capable of ensuring even distribution throughout with a minimum airflow of nominal **capacity of 60 m³/h/KN** of payload. It must be capable of operating for at least 4 hours, independently of the vehicle engine

3.3 Means of transport by road must be fitted with a **temperature monitoring system** as well as with a means of recording such data. Sensors must be located in the parts of the lorry which, ..., are most likely to experience the **worst climatic conditions**. ...

3.4 Means of transport by road must be fitted with a **warning system** in order to alert the driver when the temperature in the compartments ... reaches the **maximum or the minimum limit**



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Extreme temperatures and transport of pigs

Interaction of requirements between i. e. thermal conditions and stocking density of animals during transport:

Transport by rail and by road

All pigs must at least be able to lie down and stand up in their natural position.

In order to comply with these minimum requirements, the loading density for pigs of around 100 kg should not exceed 235 kg/m².

The breed, size and physical condition of the pigs may mean that the minimum required surface area given above has to be increased; a maximum increase of 20 % may also be required depending on the meteorological conditions and the journey time.

- In a MS are Instructions how to reduce stocking density in case of high temperatures in place
- In the same MS animal transports with > 35 °C outside temperatures are not allowed
- In a MS slaughter animal transports are limited to 4.5 hours when exceeding 30 °C outside temperature (lasting from 2022 on)
- No guidelines on this topic existing on EU level



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Extreme temperatures and transport of pigs

EU Platform on Animal Welfare: Transport guides on extreme temperatures:



Consider the type of pigs that you transport

Pigs don't sweat, so regulating temperature and humidity during transport is essential for their welfare. Make sure temperatures inside the trailer stay within the thermo-neutral zone. This varies with the size of the animals:

Piglets <15 kg	20-35°C
Growing/finishing pigs 16-110 kg	15-30°C
Finishing pigs 111- 160 kg	10-28°C

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**Possible only in transport
Vehicles with Air Condition**

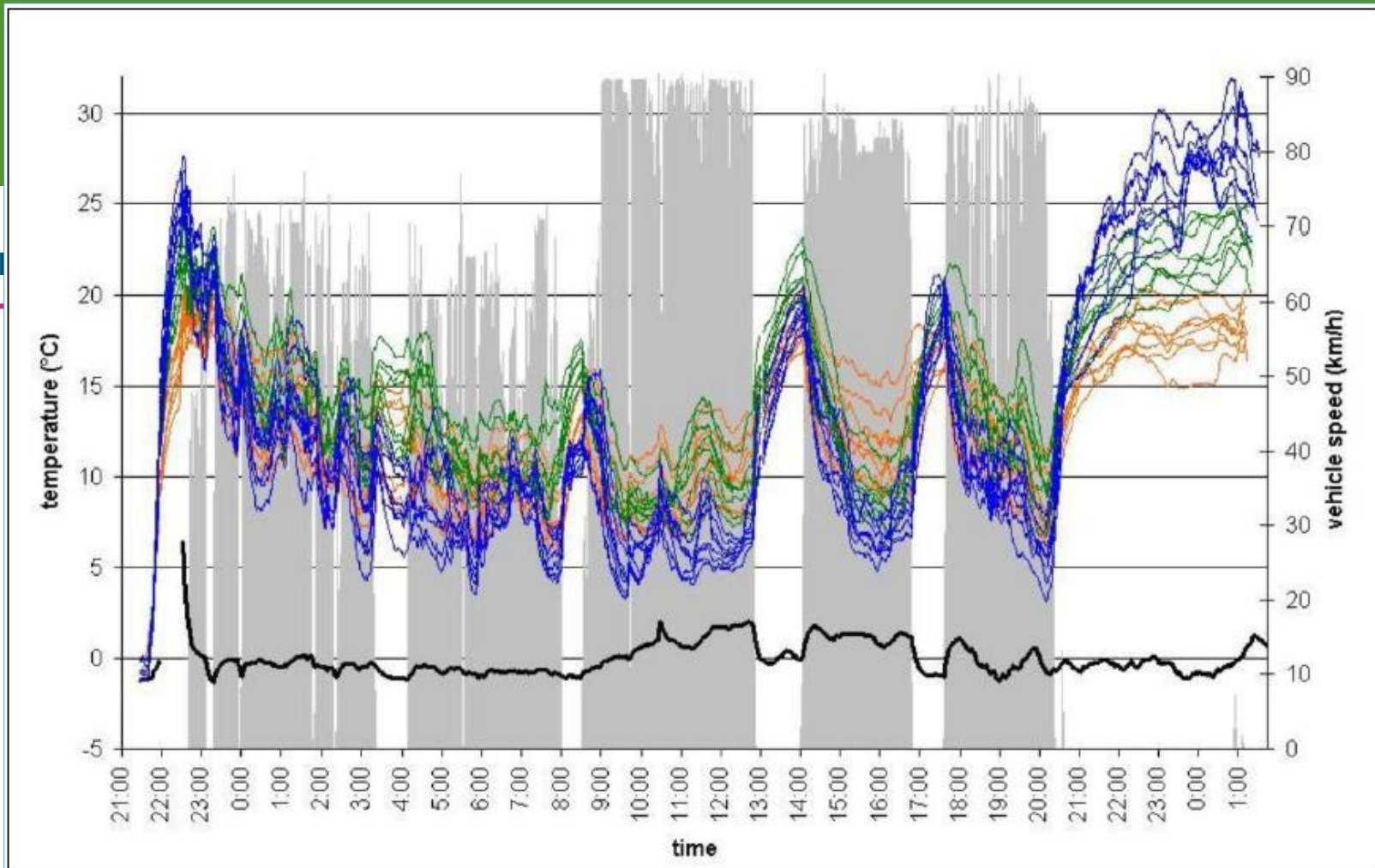


Fig. 4.1. Distribution of ambient temperatures inside a 3-tiered pig transport vehicle (blue lines: upper tier, green lines: middle tier, yellow lines: lower tier) during long transport in winter time in relation to the outside temperature (black line), vehicle speed (grey background columns), and time of day. The mechanical ventilation was switched off, thus showing the inner environment of pig transport vehicles without mechanical ventilation (as is standard for most short-distance transports). The increase of the temperatures inside the vehicle happens even with fully opened ventilation flaps (Figure adopted from Marahrens, 2014).



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Stocking density of pigs during transport

Interaction of requirements between stocking density of animals and i. e. thermal conditions during transport:

Transport by rail and by road

All pigs must at least be able to lie down and stand up in their natural position.

In order to comply with these minimum requirements, the loading density for pigs of around 100 kg should not exceed 235 kg/m².

The breed, size and physical condition of the pigs may mean that the minimum required surface area given above has to be increased; a maximum increase of 20 % may also be required depending on the meteorological conditions and the journey time.

But what´s about different animal categories and behavioural requirements (i. e. lying behaviour, natural position, moving area to reach drinkers)?

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Stocking density of pigs during transport

Some MS with national rules on stocking densities of pigs during transport:

Lebendgewicht bis zu kg je Tier	Mindestbodenfläche je Tier in qm
1	2
6	0,07
10	0,11
15	0,12
20	0,14
25	0,18
30	0,21
35	0,23
40	0,26
45	0,28
50	0,30
60	0,35
70	0,37
80	0,40
90	0,43
100	0,45
110	0,50
120	0,55
über 120	0,70

Animal Transport Guides

Better Practices regarding space:

85. Minimum floor area per pig should be **according to maximum live weights** as presented in **Table 2.3**, which are based on practical experience.

Table 2.3 Guideline on space allowances.

Maximum Live Weight [Kg/animal]	Minimum Floor Space [m ² /animal]	Maximum Live Weight [Kg/animal]	Minimum Floor Space [m ² /animal]
6	0.07	50	0.30
10	0.11	60	0.35
15	0.12	70	0.37
20	0.14	80	0.40
25	0.18	90	0.43
30	0.21	100	0.45
35	0.23	110	0.50
40	0.26	120	0.55
45	0.28	Over 120	0.70



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Stocking density of pigs during transport (EURCAW Review)

Table 6.2. Space allocation for pigs during transport in m²/animal depending on the pigs' body weight (BW), lying position, space requirement for drinking and resting in a commercial barn, based on the formula $A = k \cdot BW^{0.67}$, where A is the area covered by the pigs and k is a constant value that depends mainly on posture.

Body weight (BW in kg)	Area A (m ² /pig) K=0.0192	Area A (m ² /pig) K=0.0274	Area A (m ² /pig) K=0.033	Area A (m ² /pig) K=0.046	Reg. (EC) 1/2005 (m ² /pig)*
	Sternal lying	Drinker access	Average reqmnts	Lateral lying	
10	0.09	0.13		0.22	0.04
20	0.14	0.20	0.25	0.34	0.09
30	0.19	0.27	0.32	0.45	0.13
40	0.23	0.32	0.39	0.54	0.17
50	0.26	0.38	0.45	0.63	0.21
60	0.30	0.43	0.51	0.71	0.26
70	0.33	0.47	0.57	0.79	0.30
80	0.36	0.52	0.62	0.87	0.34
90	0.39	0.56	0.67	0.94	0.38
100	0.42	0.60	0.72	1.01	0.43
110	0.45	0.64	0.77	1.07	0.47
120	0.47	0.68	0.82	1.14	0.51
130	0.50	0.71	0.86	1.20	0.55
140	0.53	0.75	0.90	1.26	0.60
150	0.55	0.79	0.95	1.32	0.64



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Thank you for listening!

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