

Horses: collection centres, transport and slaughterhouses in Argentina and Uruguay

Report on a scientific study conducted
in 2016 - 2017



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september 2018

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1. Preface

The following report was prepared in connection with a study of a number of site visits to 1 Uruguayan and 2 Argentinian horse slaughterhouses and a number of equine collection centres during the period between November 2016 and October 2017. Each slaughterhouse was visited in each season in order to form a scientific image of the animal welfare status of the animals at the sites visited. During these extensive site visits, environmental parameters were measured, animal observations were carried out and the slaughterhouse staff in charge and the floor staff were questioned. During the site visits, the findings were tested against European standards and norms governing animal welfare, among others.

The site research was conducted by Dr Liesbeth Vermeulen in consultation with Dr Bert Driessen and Professor Jos Van Thielen of the Animal & Welfare research group. All of them have many years of experience in monitoring animal transport and animals in slaughterhouses. The research was conducted and recommendations made in complete objectivity and independence.

2. Objectives

An intensive, year-long (2016-2017) study of horses in collection centres, during transport and at slaughterhouses in Argentina and Uruguay was conducted with the objectives of:

- gaining a picture of animal welfare and animal welfare problems during transport and at slaughterhouses;
- formulating and offering suggestions for improvement, with the aim of optimising animal welfare;
- by monitoring animal welfare in a few slaughterhouses, creating a leverage effect according to which other slaughterhouses will also become interested and adopt this methodology.

3. Protocol

For the study, we opted:

- to monitor 3 horse slaughterhouses:
 - Pico (Argentina)
 - Lamar (Argentina)
 - Sarel (Uruguay)
- to observe in each season: every slaughterhouse is visited 4 times
- every visit to a slaughterhouse (including visit to collection centres and follow-up of transport) requires 4 to 5 days;
- in order to monitor the horses chronologically: starting from the collection centre, then during transport and finally at the slaughterhouse;
- environmental, climate and transport parameters were monitored and registered;
- monitoring and registering the condition, clinical deviations and the behaviour of the horses.



4 Results

A total of 23 horse transports were observed and 580 horses were followed from the collection centre to the slaughterhouse (Table 1).

Table 1: transport and results of the 23 horse transports observed.

Slaughter-house	Transport	Season	# horses	Avg live weight	Transport								
					Duration (min)	Km	Density m ² /animal		Weather conditions	Fresh air	Avg. temperature of trucks (°C)	Avg. humidity (%)	Dew point (%)
							m ² /animal – front/rear	m ² /kg					
Lamar													
	1	Spring - 11/2016	25	486	191	206	1.578	0.0032425	Rain, overcast	Yes	23.5	60.46	15.27
											24.21	59.67	15.66
	2	Spring - 11/2016	25	391	79	152	1.582	0.00408369	Sunny	No, Black plastic sheet	26.79	35.02	10.06
							1.607				26.26	35.17	9.65
	3	Summer - 03/2017	28	474	209	192	1.538	0.00302523	Sunny	Yes	27.17	49.62	15.70
							1.378				27.01	49.63	15.50
	4	Summer - 03/2017	30	454	279	250	1.161	0.0027338	Overcast	Yes	21.52	51.64	11.07
							1.284				21.44	52.03	11.12
	5	Autumn - 06/2017	27	415	331	338	1.451	0.00354107	Sunny	Yes	11.95	52.06	2.33
							1.481				12.88	50.47	2.78
	6	Autumn - 06/2017	29	443	284	323	1.5	0.00311042		Yes	14.02	67.92	8.08

							1.316		Sunny, lightly overcast		13.79	66.07	7.49
	7	Winter - 10/2017	27						Overcast	Yes			
	8	Winter - 10/2017	26						Overcast	Yes			
Pico													
	1	Spring - 11/2016	8	398	111	36.7	1.719	0.00431711	Rain, overcast	Yes	15.9	92.2	14.62
											/	/	/
	2	Spring - 11/2016	29	459	455	461	1.325	0.00303195	Sunny	Yes	23.78	46.82	11.03
							1.431				23.22	45.93	11.21
	3	Summer - 03/2017	11	438	419	470	1.227	0.00280083	Sunny	Yes	24.57	56.13	15.21
											/	/	/
	4	Summer - 03/2017	20	426	335	289	2.208	0.00463615	Sunny	Yes	22.85	59.84	14.46
							1.875				22.77	59.74	14.37
	5	Autumn - 06/2017	15	468	480	585	5.25	0.0087963	Sunny	Yes	14.48	56.80	5.84
	6	Autumn - 06/2017	26	446	500	569	1.667	0.00344828	Sunny	Yes	15.80	61.52	8.33
							1.471						
	7	Winter - 10/2017	34	370	632	700	1.1613	0.00273379	Overcast	Yes	16.49	67.24	10.27
							1.2838						
Sarel													
	1	Spring - 11/2016	42	337	73	63	1.009	0.00296341	Sunny	Yes	28.47	47.35	16.09

							0.987				29.12	46.38	16.34
	2	Spring - 11/2016	38	377	87	69	0.798	0.00248605	Overcast	Yes	28.79	54.82	18.78
						1.112	28.76				54.97	18.81	
	3	Summer - 03/2017	32	386	211	154	1.149	0.00295038	Sunny	Yes	26.93	56.16	17.42
						1.130	26.44				57.13	17.23	
	4	Summer - 03/2017	38	362	425	407	1.054	0.00291273	Sunny	Yes	22.99	83.66	19.92
	5	Autumn - 06/2017	32	398	268	228	1.302	0.0032602	Sunny	Yes	18.24	65.98	11.74
						1.297	18.08				66.06	11.61	
	6	Autumn - 06/2017	12	399	201	185	1.189	0.00297704	Sunny	Yes	18.34	56.76	9.58
	7	Winter - 10/2017	26	401	461	380	1.5057	0.00375234	Overcast	Yes	14.21	67.62	8.16
	8	Winter - 10/2017	16	377	370	380	1.1564	0.00305976	Overcast	Yes	15.85	70.87	10.47

4.1 Collection centres

- The collection centres used had sufficient space for the animals, drinking water and places of shelter for the animals.
- There were no disruptive environmental parameters while loading up the animals.
- The loading area consisted of natural materials: a sandy soil, earthen loading dock and wooden fencing. Those are all beneficial for the animals' comfort.
- The gauchos are expert in driving the animals.
- The horses were loaded into an open trailer (without roof cover), and thus the animals were stepping into an open space. When animals who have been kept in extensive farming conditions approach a closed, dark space, always makes them suspicious, making them alert and often causing them to turn around (experience with t1 trailer with a dark canvas as roof cover).
- Only a few horses had any signs of injury.

4.2 Transport

- The trailers for horse and cattle transport in South America all look more or less similar: metal structures, without roof cover, steel netting on the floor to prevent slipping, large compartments and often gangways above the horses' heads for the gauchos.
- When entering the trailers, the horses make a lot of noise by stamping.
- Given the great distances in Argentina and the limited number of slaughterhouses, the distances over which both humans and animals are transported are relatively great by Belgian standards (see Table 1).
- The trailers' height is not always adjusted to the height of the horses.

4.3 Slaughterhouses

- When the horses are unloaded, they are generally in good condition.
- In the waiting area only a limited number of horses use the shelter, although there is space for all horses to use it simultaneously.
- When the horses are showered, they respond defensively.
- There is a lot of machine noise in the slaughterhouse, which stresses the horses. Therefore a sound wall has been installed between the shoot box and the slaughterhouse itself. This kind of wall ensures that the sound is muffled and that the horses are calmer in the shoot box and the shot can be taken successfully.

5. Suggestions for optimization

5.1 Collection centres

- It is not always clear to the horse handlers and transporters that the horses must meet certain conditions in order to be eligible for transport, referred to in the jargon as 'fitness to travel'. These conditions differ from one region to the next. Although the legislation frequently mentions that the horses must be fit for transport, the definition of fitness is vague. Concrete guidelines (what is allowed/exclusions) could help the horse handlers and transporters when deciding whether or not a horse is fit to be transported.
- A checklist of requirements (fresh drinking water, sufficient feed, no barbed wire etc.) that a collection centre must meet is a tool for both collection centre owners, so that they can determine themselves whether their collection centre is adequate, and for slaughterhouses that wish to ensure that the collection centres meet certain quality standards. Such a checklist could also be used by supervisory bodies. The use of a single checklist limits any potential dispute among the various stakeholders.

5.2 Transport

- Back door: both when loading and unloading, the door is never slid up completely. This requires some attention. It should be possible to devise a system to ensure that the door is always opened completely.
- A checklist of the features of a good trailer: there is an awareness and intention to adjust the animal trailers. The question is what requirements such a trailer must fulfil. A checklist with well-founded requirements for a horse trailer would be an added value for the sector.

5.3 Slaughterhouses

- The reduction of environmental influences: the noisy surroundings in a slaughterhouse is by definition seen as almost normal. And yet a calm (working) environment is important for both humans and animals. Attention needs to be paid to reducing disruptive environmental influences such as noise and lack of adequate lighting (which causes disturbing shadows). Not only the reduction of the underlying sound level (to below 85 dB) is important, but so too is the reduction of peak noises that startle both humans and animals. The reduction of such peak noises can be achieved by applying damping rubber to the walls and floors of loading docks, latches, weigh scales etc. In addition, one should consider making a strict separation between the space to which the animals are delivered and the slaughtered animals, so that noise from the slaughtering equipment (such as sawing machines) are not audible in the waiting areas. This could be achieved by building a vertical wall for the stunning box. Such a wall could also prevent live animals from seeing the line of suspended carcasses. In addition, a floor with a rough structure/texture is important to prevent slipping.
- Horse showers: according to Argentinian and Uruguayan law, for hygienic purposes (to reduce contamination) horses must be showered just before entering the slaughterhouse. The way in which this is conducted is crucial for the stress levels among horses. A gentle stream of water that starts very gradually is necessary.
- Training: organise regular training for transporters and slaughterhouse staff who are in contact with live animals. Regular training is important, given the effects of a training session will gradually wane after a few months. It is best to schedule such training systematically throughout the year.
- Camera images: in various slaughterhouses cameras have already been installed. This enables the management and person responsible for animal welfare to monitor the slaughtering process on a continual basis and to make adjustments where needed, without having to be present on the work floor at all times. Such a camera system is an added value for every slaughterhouse. It is best for standard guidelines to be drawn up regarding: the purpose of the images, who may consult them, the period during which the images are stored, analysis of the images (at what points in time), what parameters are to be analysed and recorded, actions to be taken after identifying unacceptable actions on the camera images, admissibility of the images as evidence etc.
- Offering shelter in the waiting area: although a horse is a field animal and able to withstand extreme weather, shelter should be made available mainly for the combination of rain and cold. Such shelter may consist of a roof constructions, but can also be made of natural materials such as trees and bushes. In addition, attention should be paid to the soil conditions, especially during times of persistent rain.

6. Summary and conclusion

In November 2016, March 2017, June 2017 and October 2017, a total of 23 horse transports were observed by the Animal & Welfare group. Horses were observed from the loading of the animals up to 24 hours after slaughter. Based on a checklist, parameters such as the condition of the horses, ambient temperature in the waiting area, shelter availability etc. were gathered. Video images were made during each phase of the slaughtering process: from loading to slaughter. The expertise of the slaughterhouse staff who are in contact with/handle live animals was also assessed. Moreover, the group enquired into which of the changes recommended in the course of this scientific research and a previous work visit (2015) have been implemented by the slaughterhouse.

This specific working method for data collection/observations in the workplace enabled the researchers to form an objective assessment of the situation as regards animal welfare and to make suggestions for improvement.

During each transport monitored, from the loading spot, through the transport, to the procedures at the slaughterhouse, the horse handler, transporter and slaughterhouse staff cooperated fully with the researchers from Animal & Welfare.

Each slaughterhouse involved in the study has made adjustments based on recommendations made in the course of the scientific research (November 2016 - October 2017) and a previous work visit (2015). This is a good start towards optimizing the slaughtering process in terms of animal welfare and production efficiency. Every slaughterhouse has a suitable team on site. Attention needs to be given to providing regular training for the slaughterhouse staff who are responsible for working with live animals. The observations suggest that norms of good animal welfare are being complied with and that the stakeholders involved are open to the suggested improvements.





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