

Italian Heavy Draft Horse management: practices and welfare issues

B. Benedetti^A, G. Pigozzi^B,
F. Patroncini^B, B. Padalino^A

^A University of Bologna, Department of
Agricultural and Food Sciences

^B Associazione Nazionale Allevatori Cavallo
Agricolo Italiano da TPR



INDEX

- BACKGROUND
- AIM OF THE STUDY
- MATERIALS AND METHODS
- MAIN RESULTS AND DISCUSSION
- CONCLUSIONS
- FUTURE PERSPECTIVE



BACKGROUND

AIMS OF
THE STUDY

MATERIALS
AND
METHODS

RESULTS
AND
DISCUSSION

CONCLUSIONS

FUTURE
PERSPECTIVE



Consumers are becoming increasingly aware of animal welfare issues



European Union is investing to produce evidence-based animal protection laws



Horses are different from other livestock, having multiple roles in the society, from sport to meat production



Italian Heavy Draft Horse (IHDH) is an increasing reality, with limited evidence on their husbandry practices

BACKGROUND

AIMS OF THE STUDY

MATERIALS
AND
METHODS

RESULTS
AND
DISCUSSION

CONCLUSIONS

FUTURE
PERSPECTIVE

HYPOTHESIS

The husbandry practices and welfare concerns of IHDH are related to the

- 1) farmer experience
- 2) type of farming
 - Intensive
 - Semi-intensive
 - Extensive

AIMS

Investigate IHDH management practices and welfare issues and find possible associations between them.



THE SURVEY: APPROACH

BACKGROUND

AIMS OF
THE STUDY

**MATERIALS
AND
METHODS**

RESULTS
AND
DISCUSSION

CONCLUSIONS

FUTURE
PERSPECTIVE



Conducted from
March to
November 2023

Consent was asked
to the respondents
before taking their
answers

Cross-sectional
survey
40 multiple-choice;
6 open-ended
question

By telephone from the
deputy director of
«Associazione Nazionale
Allevatori IHDH»
(ANACAITPR)

THE SURVEY: DETAILS

BACKGROUND

AIMS OF
THE STUDY

**MATERIALS
AND
METHODS**

RESULTS
AND
DISCUSSION

CONCLUSIONS

FUTURE
PERSPECTIVE

Respondents' details

Farms' details

Good feeding

Good housing

Good health

Appropriate behaviour

Statistical analysis

- Descriptive statistics
- Chi-square goodness of fit test (χ^2 GOF test)
- Fisher's Exact Test



With farmer experience
(<20 years; >20 years) and
type of farming (intensive;
semi-intensive; extensive)

Respondents' details

BACKGROUND

AIMS OF
THE STUDY

MATERIALS
AND
METHODS

**RESULTS
AND
DISCUSSION**

CONCLUSIONS

FUTURE
PERSPECTIVE

92 breeders were interviewed, reaching a representative sample of the IHDH farmers population

- The respondents were mainly **middle-age males**
- Most of them had more than **20 years of experience** in rearing horses
- They learnt the profession mainly from their **families**
- They **personally** took care of the animals
- The concept of **welfare** was almost completely identified as «**good health**»
- Only for **8.9%** of respondents animal welfare included **>1 welfare principle**

Farms’ details

BACKGROUND

AIMS OF
THE STUDY

MATERIALS
AND
METHODS

RESULTS
AND
DISCUSSION

CONCLUSIONS

FUTURE
PERSPECTIVE

Variable name	Category	Frequency and Percentage	χ^2 GOF Test	Fisher’s Exact test
Zone of Italy (n=92)	North	35 (38.0%)	0.159	Type of farming <0.001
	Centre	35 (38.0%)		
	South	22 (24.0%)		
Number of horses (n=91)	1-10	62 (68.2%)	<0.001	
	>10	29 (31.9%)		
Different equids (n=89)	No	72 (80.9%)	<0.001	
	Yes	17 (19.1%)		
Different animals (n=92)	No	61 (66.3%)	0.002	
	Yes	31 (33.7%)		
Purpose of the farm (n=92 – multiple answers allowed)	Reproduction	81 (88.0%)	-	Farmer experience 0.004
	Show	38 (41.3%)		
	Meat production	26 (28.3%)		
	Sport	5 (5.4%)		
	Other (i.e., work, leisure)	8 (8.7%)		

BACKGROUND

AIMS OF
THE STUDY

MATERIALS
AND
METHODS

RESULTS
AND
DISCUSSION

CONCLUSIONS

FUTURE
PERSPECTIVE

Good feeding and good housing

- Most farmers **watered** (98.9%) and **fed** (85.9%) their animals *ad libitum*
- Almost half of the respondents reported that horses had access to **pasture** (41.3%), especially in **extensive** systems (Fisher’s Exact Test p-value <0.001)
- Half respondents reported leaving **salt blocks** available (47.8%)

Variable name	Category	Frequency and Percentage	χ^2 GOF Test	Fisher’s Exact test
Horse housing (n=92 – multiple answers allowed)	Paddock	43 (46.8%)	-	
	Pasture	38 (41.3%)		
	Box	16 (17.4%)		
	Other	7 (7.5%)		
Type of farming (n=91)	Intensive	21 (23.1%)	0.069	
	Semi-intensive	31 (34.1%)		
	Extensive	39 (42.9%)		
Group housing (n=92)	No	19 (20.7%)	<0.001	Farmer experience 0.017
	Yes	73 (79.3%)		

BACKGROUND

AIMS OF
THE STUDY

MATERIALS
AND
METHODS

**RESULTS
AND
DISCUSSION**

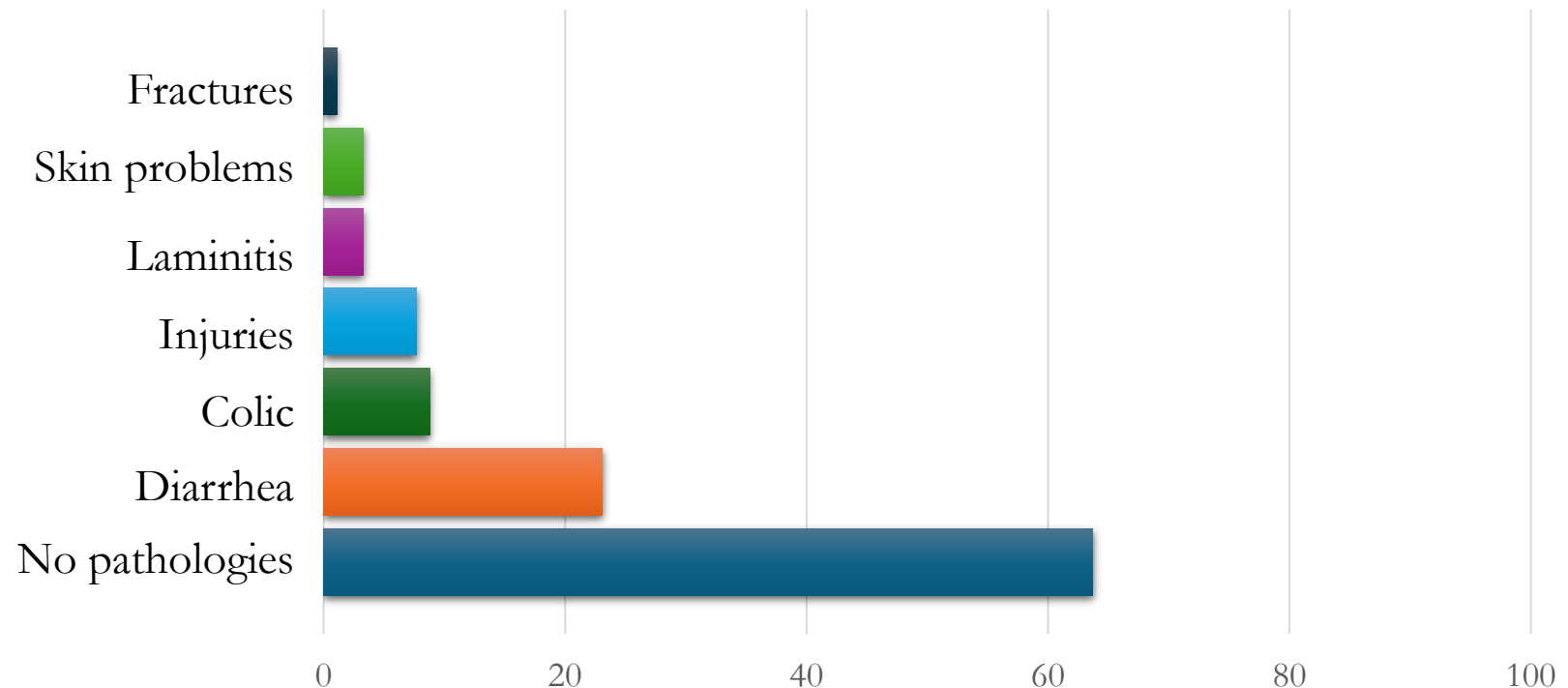
CONCLUSIONS

FUTURE
PERSPECTIVE

Good health

- **Deworming** was performed more frequently in **intensive farming** (Fisher's Exact Test p-value <0.001)
- **Hoof care and dental care** was done when needed but not scheduled
- **Hot branding** was performed by **85%** of respondents

Pathologies



BACKGROUND

AIMS OF
THE STUDY

MATERIALS
AND
METHODS

**RESULTS
AND
DISCUSSION**

CONCLUSIONS

FUTURE
PERSPECTIVE

Appropriate behaviour

- Horses were reported not to show **stereotypies** or **aggression**
- One third of the respondents reported that their horses were **not trained** to the use of the **halter** and to **be handled**
- Halter training was **less frequently** reported in horses kept in **extensive systems** (Fisher's Exact Test p-value <0.001)
- Almost the totality of respondents **did not train** horses **for transport** (94.6%)

It is important to promote taming as most IHDH are handled and transported for various reasons (e.g., shows, breeding, slaughterhouse)

TAKE HOME MESSAGE

BACKGROUND

AIMS OF
THE STUDY

MATERIALS
AND
METHODS

RESULTS
AND
DISCUSSION

CONCLUSIONS

FUTURE
PERSPECTIVE

- We obtained preliminary information on how IHDH is reared
- Some **good practices** were highlighted (e.g., group housing, feeding and watering ad libitum)
- But there were also some **welfare issues** and practices that need to be improved (e.g., no scheduled health care, hot branding, training)

First step to ensure a higher level of **welfare** for this Italian breed



BACKGROUND

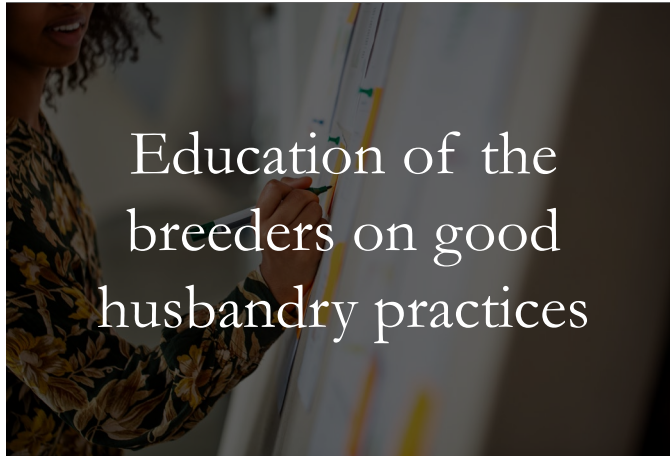
AIMS OF
THE STUDY

MATERIALS
AND
METHODS

RESULTS
AND
DISCUSSION

CONCLUSIONS

**FUTURE
PERSPECTIVE**



Education of the
breeders on good
husbandry practices



Developing
objective tools to
assess the welfare
of these horses



Providing evidence to
better understand the
horses situation in
Italy and Europe

References

- <http://www.anacaitpr.it/>
- Phillips, C. J. C., et al. "Students' attitudes to animal welfare and rights in Europe and Asia." *Anim. Welf.* 21.1 (2012): 87-100.
- Dalla Costa, E., et al. "Equine on-farm welfare assessment: A review of animal-based indicators." *Anim. Welf.* 23.3 (2014): 323-341.
- Mantovani, R., Sartori, C., Pigozzi, G. "Retrospective and statistical analysis of breeding management on the Italian Heavy Draught Horse breed." *Animal* 7.7 (2013): 1053-1059.
- Hoskin, S. O., Gee E. K.. "Feeding value of pastures for horses." *NZVJ* 52.6 (2004): 332-341.
- Kjellberg, L., et al. "Frequency and nature of health issues among horses housed in an active open barn compared to single boxes—A field study." *EVJ* (2024).
- Lindegaard, C., et al. "Evaluation of pain and inflammation associated with hot iron branding and microchip transponder injection in horses." *Am. J. Vet. Res.* 70.7 (2009): 840-847.
- Marsbøll, A. F., Christensen J. W. "Effects of handling on fear reactions in young Icelandic horses." *EVJ* 47.5 (2015): 615-619.

Italian Heavy Draft Horse management: practices and welfare issues

Thank you for
your attention!

beatrice.benedetti7@unibo.it

