Expressão facial de ovinos	е
equinos como indicadores de	dor



DNA do projeto AWIN – app para avaliação do bemestar animal e também dor



PLoS ONE

Development of the Horse Grimace Scale (HGS) as a pain assessment tool in horses undergoing routine castration

Emanuela Dalla Costa 1 *, Michela Minero 1 , Dirk Lebelt 2 , Canali 1 , Matthew C. Leach 3

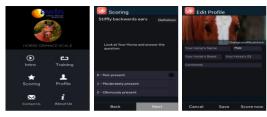
Diana Stucke², Elisabetta

¹Università degli Studi di Milano, Dipartimento di Scienze Veterinarie e Sanità Pubblica, Milan, Italy

¹Pferdeklinik Havelland / Havelland Equine Hospital, Beetssee-Brielow, Germany

¹Newcostle University, School of Agriculture, Food & Rural Development, Newcastle Upon Tyne, United Kingdom

Horse Grimace Scale (HGS) Smartphone Application



Download for free from the Animal Welfare Science Hub: <u>www.animalwelfarehub.com</u>

Facial expressions as pain indicator in horses



PLoS ONE

Development of the Horse Grimace Scale (HGS) as a pain assessment tool in horses undergoing routine castration

Emanuela Dalla Costa^{1*}, Michela Minero¹, Dirk Lebelt², Diana Canali¹, Matthew C. Leach³

Diana Stucke², Elisabetta

²Università degli Studi di Milano, Dipartimenta di Scienze Veterinarie e Sanità Pubblica, Milan, Italy

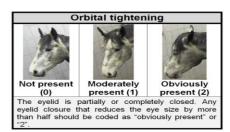
²Pferdeklinik Havelland / Havelland Equine Hospital, Beetssee-Brielow, Germany

³Newcastle University, School of Agriculture, Food & Rural Development, Newcastle Upon Tyne, United Kingdom

Horse Grimace Scale (HGS) Facial action coding system (according to EKMANAND FRIESEN 1978) "action unit"= facial part/muscles changing in relation to pain 6 "Facial Action Units (FAUs)": Score 0-2: 0 = not present 1 = moderately present 2 = obviously present HGS: Ears Stiffly backwards ears Moderately present (1) Not present (0) Obviously present (2) The ears are held stiffly and turned backwards. As a result, the space between the ears may appear wider relative to baseline. HGS: Above eye area Tension above the eye area Moderately present (1) Obviously present (2)

The contraction of the muscles in the area above the eye causes the increased visibility of the underlying bone surfaces. If temporal crest bone is clearly visible should be coded as "obviously present" or "2".

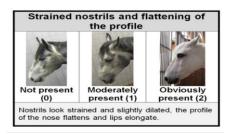
HGS: Eyes



HGS: Facial muscles

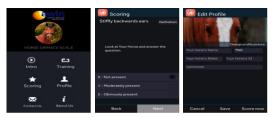


HGS: Nostrils



	rained and pr chin	onounced
Not present	Moderately present (1)	Obviously present (2)
Strained mouth	is clearly visible w lower lip causes a	hen upper lip is

<u>Horse Grimace Scale (HGS)</u> Smartphone Application

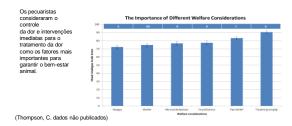


Download for free from the Animal Welfare Science Hub: <u>www.animalwelfarehub.com</u>

Diagnóstico de dor em ovinos

• Indicadores de dor em ovinos com footrot (podridão dos cascos), mastite e toxemia de gestação e também alternativas de controle.

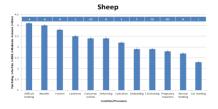
Importância do bem-estar



Dor em ovinos

(Thompson, C. dados não publicados)

Quais as situações e ou práticas de manejo que os pecuaristas consideraram mais desafiador ao bemestar dos ovinos.



Indicadores de dor em ovinos com lesões podais

- University of Cambridge, projeto AWIN, dados não publicados (McLennan, K.; Rebelo, C.; Casas, F.C.C.; Corke, M.H. & Holmes, M.).
- Indicadores de dor em ovinos e alternativas de controle para melhorar o bem-estar.

_				
Foo	t-r∩t	eт	ovin	റട





Toxemia de gestação e mastite





• São associadas com dor?

Métodos

- Abordagem multidisciplinar
- Comparação entre animais com a doença clínica e controle.

COLETA DE DADOS			
Dia 1	Dia 7	Dia 42/90	
Diagnóstico	Diagnóstico	Diagnóstico	
Comportamento	Comportamento	Comportamento	
Expressão facial	Expressão facial	Expressão facial	
Sangue	Sangue	Sangue	
Fezes	Fezes	Fezes	
Temp/ FC/ FR/ EC	Temp/ FC/ FR/ EC	Temp/ FC/ FR/ EC	
Lã		Lã	

12 propriedades - RU 37 36 38 17 12 12 29 MS Treatmento NSAID Controle Treatmento & Controle NSAID Treatmento & Controle NSAID Controle Treatmento & Controle NSAID Controle 14 TG

Mudanças na área orbital



Mudanças na área do masseter



Posição da orelha: visão frontal



Posição da orelha – visão lateral



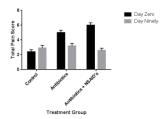
Lábios e mandíbula

Não presente	Presente de forma parcial	Presente
O	1	2

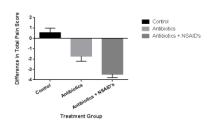
Narinas e septo nasal



Expressão facial e footrot



Mudança de expressão facial antes e após a intervenção



Newton Fund	FAPESP	RESEARCHER LINKS	
Brazil & UK One Health - On	e Welfare Workshop, Pirassununga, SP, Br	razil 9 – 12 March 2015	
Agradecimentos:			
ABRAVEQ Dirk Lebelt Michela Minero Emmanuela Dalla Costa			
Dianna Stucke British Council FAPESP VPS			
FMVZ CECSBE – Centre for Comparativ University of Surrey	e Studies on Sustainability Health and Welfa	re	
SURREY LINIVERSITY OF		S THE STATE OF THE	
adro	aldo.zanella@us	p.br	
	_		
	animal welfa	are	

science hub