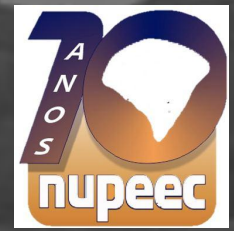




Universidade Federal de Pelotas
Faculdade de Veterinária
Núcleo de Pesquisa, Ensino e Extensão em Pecuária



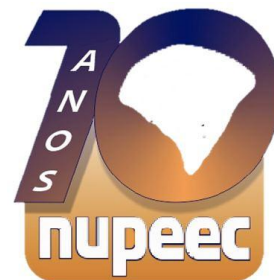
IMPORTÂNCIA DO USO DE DRENCH DURANTE O PERIPARTO DE VACAS LEITEIRAS

Taynara Moreira Machado

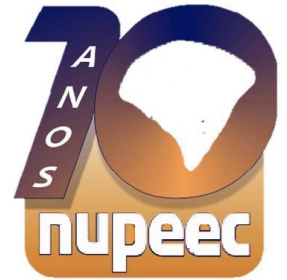
Orientação: Márcio Erpen Lima

Pelotas, 17 de outubro de 2012

Tudo começou...



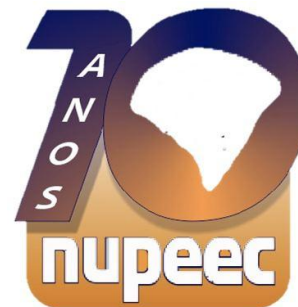
Ε na ΝΥΠΕΕΕ...?



Introdução



Drench



São suplementos minerais e energéticos.

Leveduras e Tamponantes.

Reestabelece o equilíbrio de eletrólitos;
Fonte de energia e hidratação.

Periparto



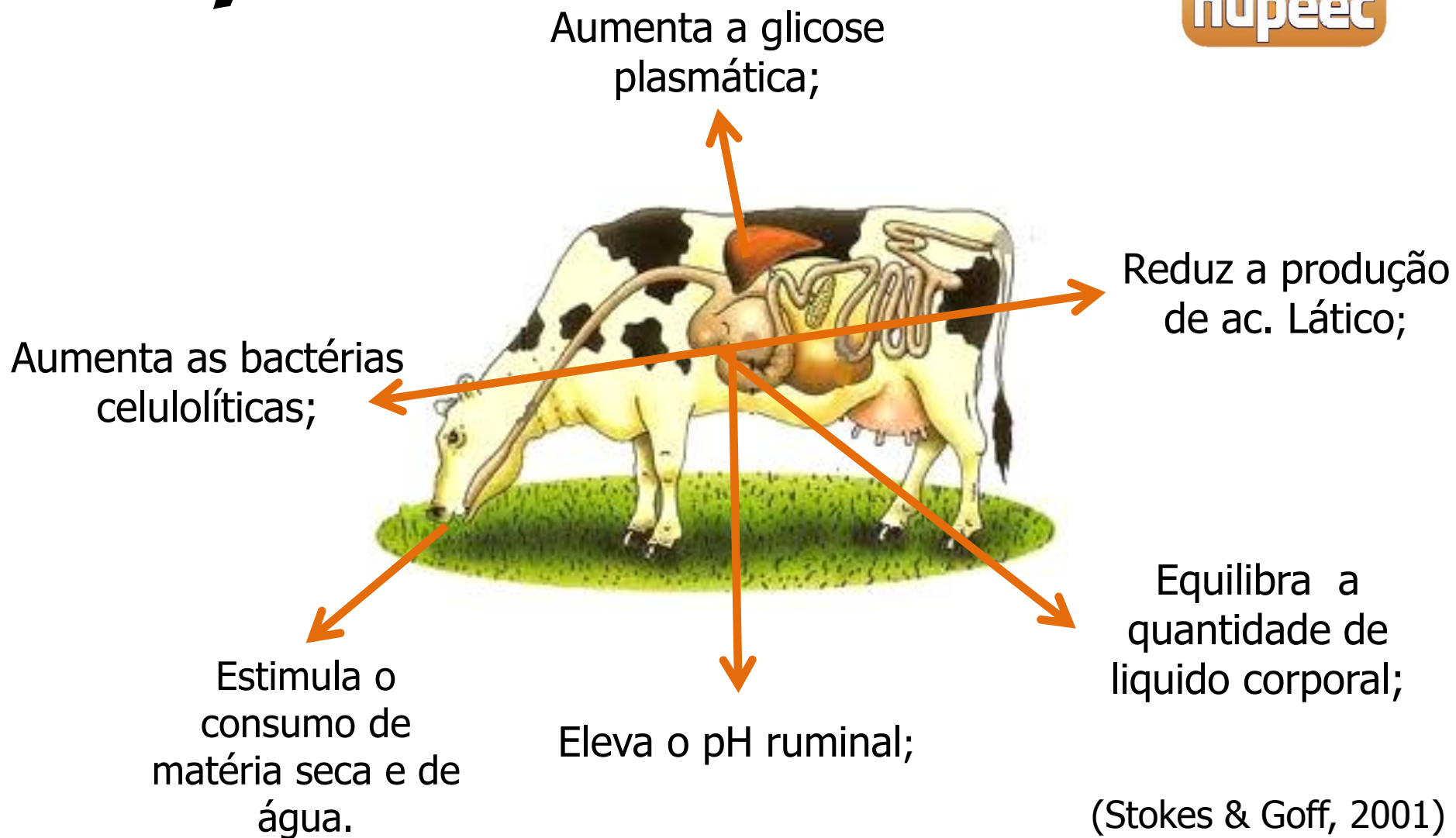
Maior taxa de descarte de animais



Período Crítico

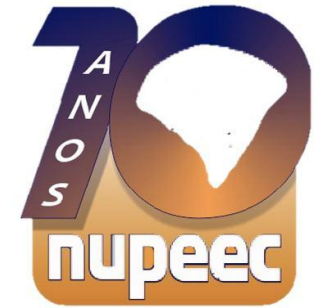


Porque usar drench?



(Stokes & Goff, 2001)

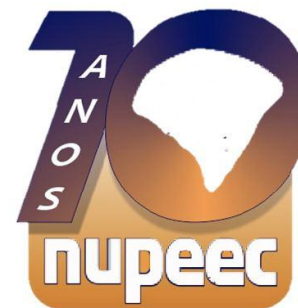
Composição



- 20 a 25 L Água Morna;
- 10 g Cloreto de Potássio;
- 160g Cloreto de Sódio;
- 20g Cloreto de Cálcio ou Propionato de Cálcio;
- 5g Sulfato de Magnésio;
- 250 ml Propilenoglicol.



Composição

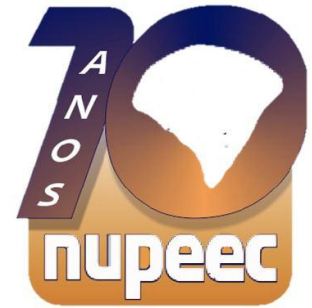


Propilenoglicol funciona como precursor de glicose, entrando na via da Gliconeogênese com isso diminui a mobilização de gordura e também diminui o acúmulo de gordura no fígado;

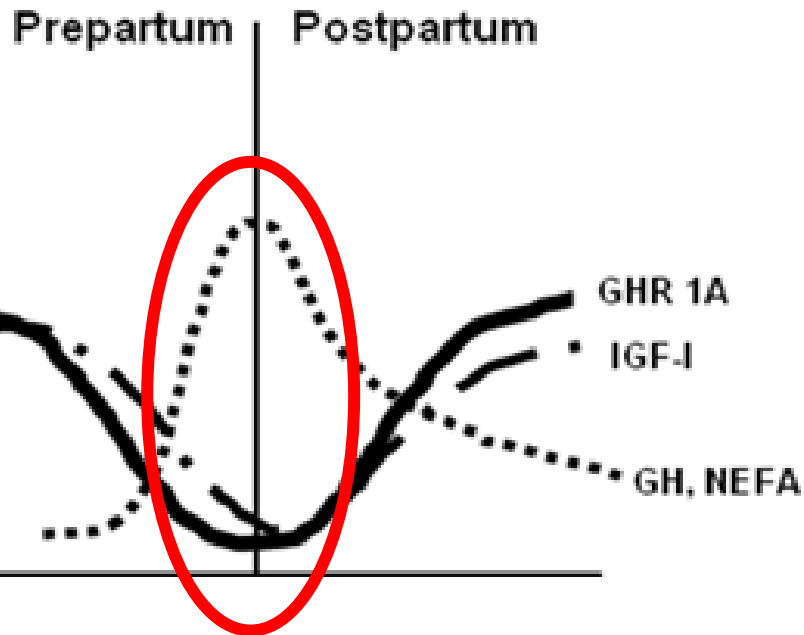
Propionato de Cálcio tem função de prevenir e/ou tratar a hipocalcemia e também serve como precursor de glicose.



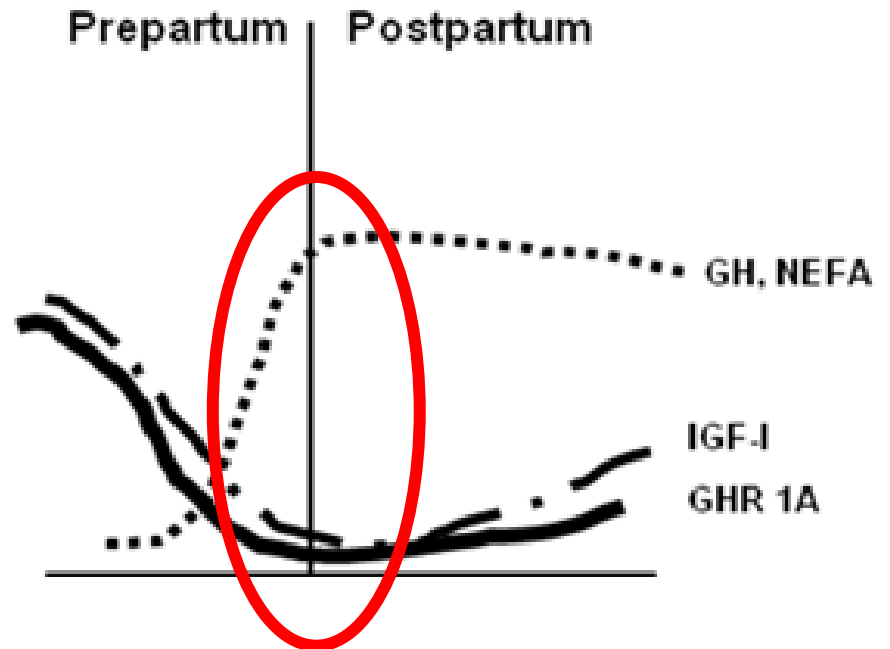
Periparta



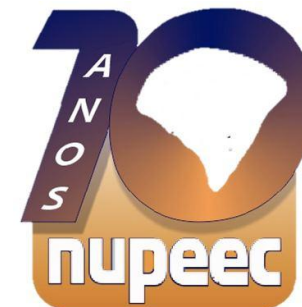
Normal Transition



Abnormal Transition



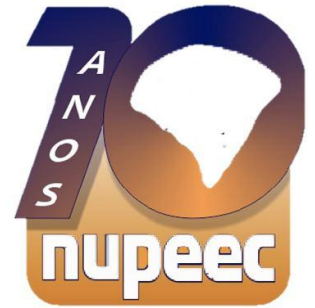
Periparto



DOENÇA PERIPARTO	INCIDÊNCIA (%)	REDUÇÃO NA PRODUÇÃO DE LEITE (% DA LACTAÇÃO)	REDUÇÃO EM LITROS DE LEITE NOS PRIMEIROS 30 DEL	PERDAS ECONOMICAS (0,75 / LITRO)
HIPOCALCEMIA	6	4,7	276	207,00
CETOSE	5	7,6	470	352,50
DESLOCAMENTO DE ABOMASO	3	16	321	240,75
METRITE	8	3,8	371	278,25
RETENÇÃO DE PLACENTA	8	4,1	298	223,50
	TOTAL		1736	1302,00

Fonte: www.milkpoint.com.br // Dairy Herd Management agosto de 2000.

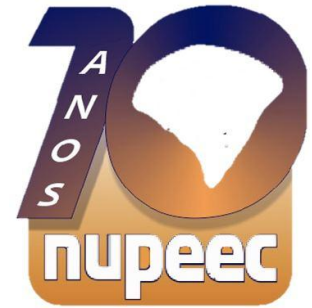
Drench



Será que realmente funciona?



Índice



The Professional Animal Scientist 17:115-122



CASE STUDY: Evaluation of Calcium Propionate and Propylene Glycol Administered into the Esophagus of Dairy Cattle at Calving¹

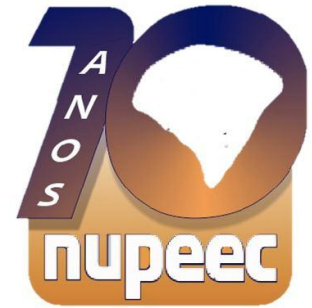
S. R. STOKES^{*,2}, PAS, and J. P. GOFF[†]

^{*}Department of Animal Science, Texas A&M University System, Stephenville, TX 76401 and

[†]USDA, Agricultural Research Service, National Animal Disease Center, Ames, IA 50010-0070



CASE STUDY: Evaluation of Calcium Propionate and Propylene Glycol Administered into the Esophagus of Dairy Cattle at Calving¹



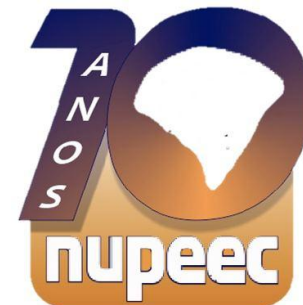
S. R. STOKES^{*2}, PAS, and J. P. GOFF[†]

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Determinar os efeitos de energia (PG) ou cálcio mais energia(CP) como solução oral dada logo após o parto sobre o metabolismo e produção de leite de vacas leiteiras

Matérias e Métodos



- 169 vacas holandês

Controle: 61 animais

PG: 58 animais

CP: 50 animais.

Controle

- 9,5 L de água

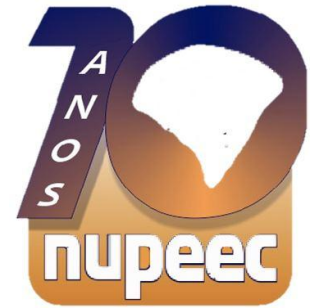
Tratamento
PG

- 9,5 L de água e mais 310g de Propilenoglicol

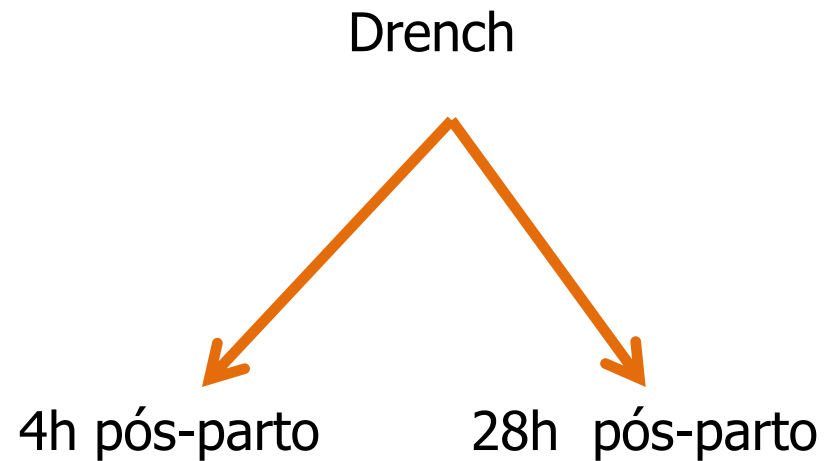
Tratamento
CP

- 9,5 L de água e mais 0,68 kg de propionato de cálcio

Coletas de sangue



- Glicose
- NEFA
- β -hidroxibutirato
- Cálcio
- Magnésio



Resultados e Discussões

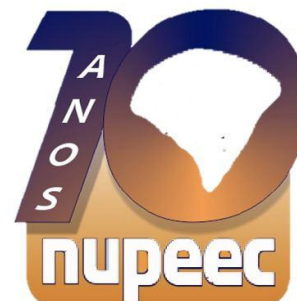


TABLE 2. Metabolic disorder occurrences.

Disorder	Treatment ^a	Occurrence, total number	Average DIM ^b at occurrence	Occurrence in heifers, number	Occurrence in cows, number
Retained placenta	Control	0			
	PG	3	1	1	2
	CP	0			
Ketosis	Control	1	7	0	1
	PG	0			
	CP	2	15	1	1
Hypocalcemia	Control	1	0	0	1
	PG	0			
	CP	0			
Displaced abomasum	Control	1	4	0	1
	PG	0			
	CP	3	61	1	2
Metritis	Control	6	8	3	3
	PG	1	8	0	1
	CP	0			

^aCP = calcium propionate; PG = propylene glycol.

^bDIM = days in milk.

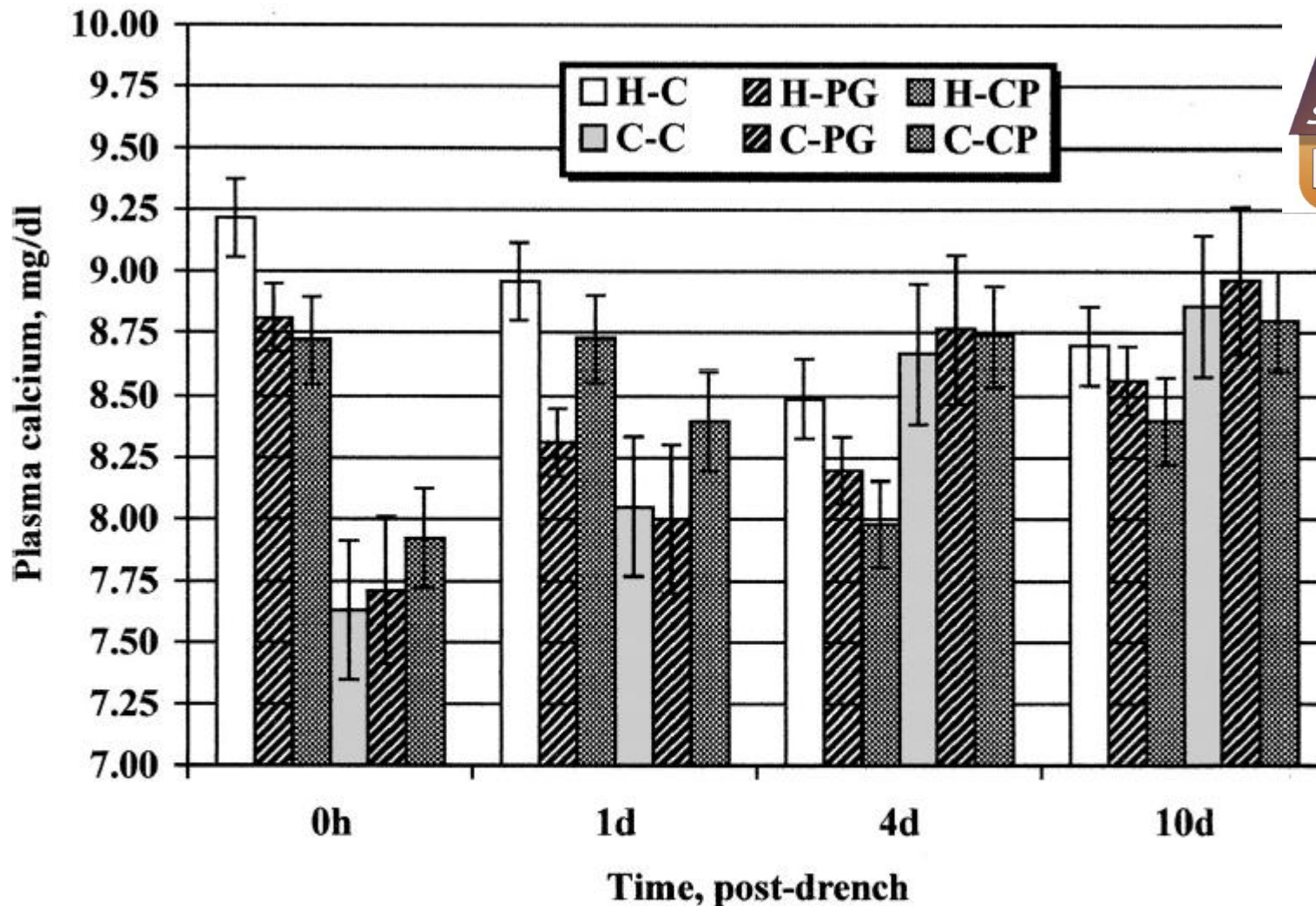


Figure 1. Effects of experimental oral drench on plasma calcium levels (mean \pm SE) in heifers (H) and cows (C). Drench treatments: Control (C) = 9.5 L water; PG = 9.5 L water + 300 mL propylene glycol; CP = 9.5 L water + 0.68 kg calcium propionate. Blood samples taken at 0 and 24 h were obtained before drenches were administered.

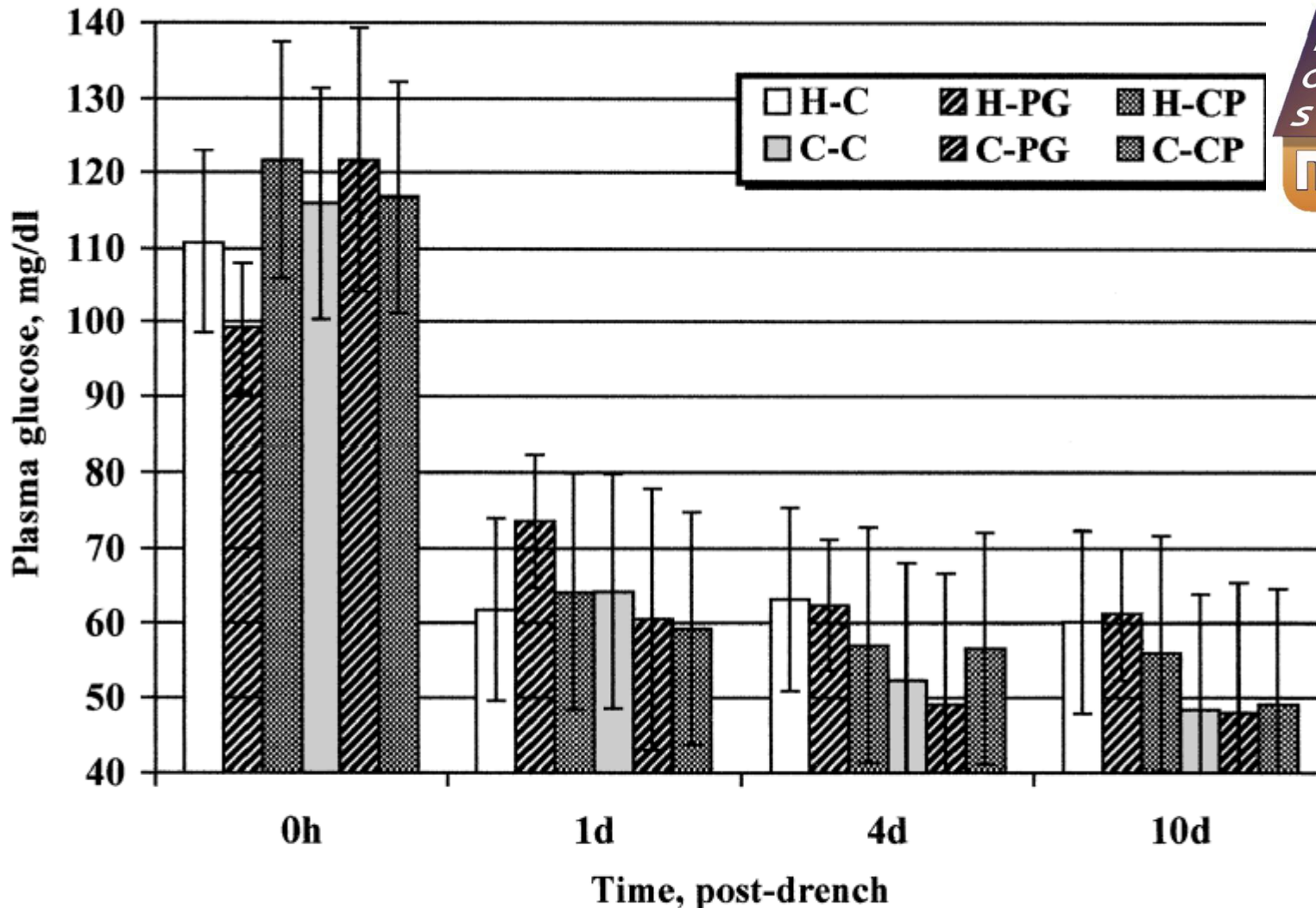


Figure 3. Effects of experimental oral drench on plasma glucose levels (mean \pm SE) in heifers (H) and cows (C). Drench treatments: Control (C) = 9.5 L water; PG = 9.5 L water + 300 mL propylene glycol; CP = 9.5 L water + 0.68 kg calcium propionate. Blood samples taken at 0 and 24 h were obtained before drenches were administered.

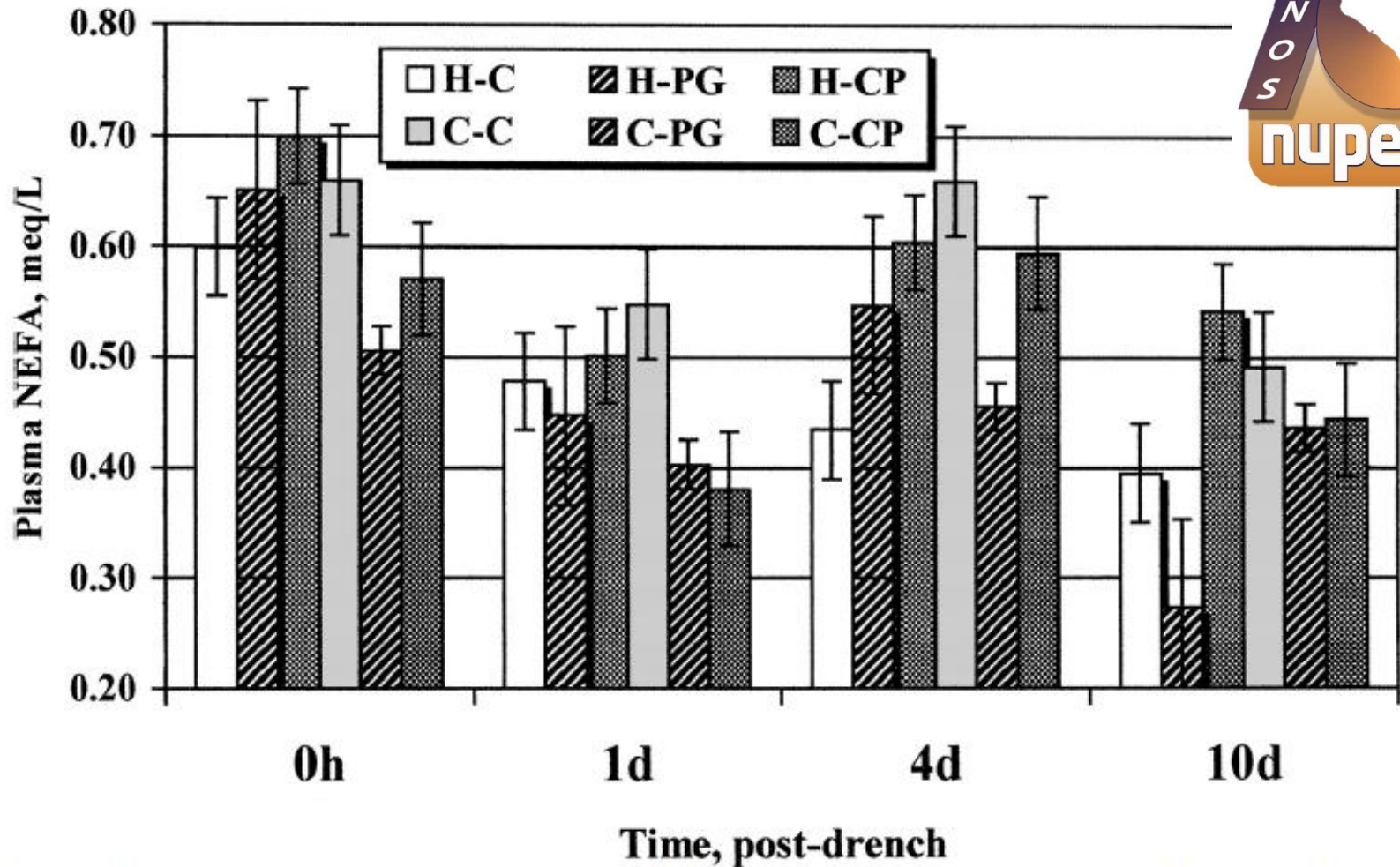


Figure 4. Effects of experimental oral drench on plasma nonessential fatty acid (NEFA) levels (mean \pm SE) in heifers (H) and cows (C). Drench treatments: Control (C) = 9.5 L water; PG = 9.5 L water + 300 mL propylene glycol; CP = 9.5 L water + 0.68 kg calcium propionate. Blood samples taken at 0 and 24 h were obtained before drenches were administered.

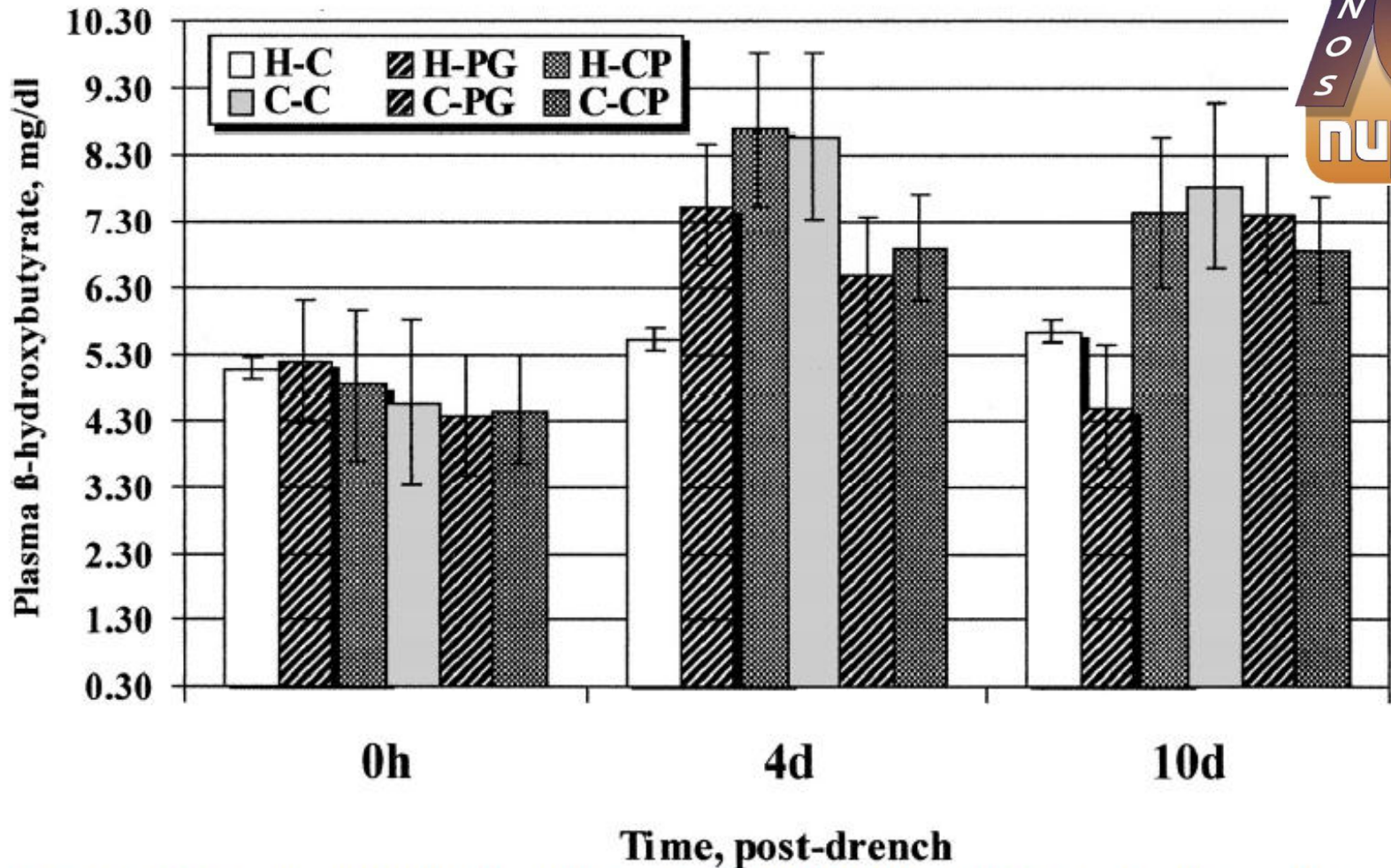


Figure 5. Effects of experimental oral drench on plasma β -hydroxybutyrate levels (mean \pm SE) in heifers (H) and cows (C). Drench treatments: Control (C) = 9.5 L water; PG = 9.5 L water + 300 mL propylene glycol; CP = 9.5 L water + 0.68 kg calcium propionate. Blood samples taken at 0 and 24 h were obtained before drenches were administered.

Produção de Leite

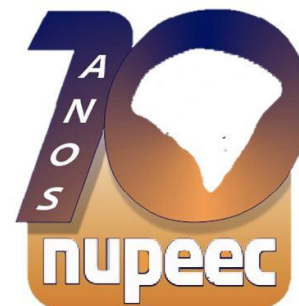


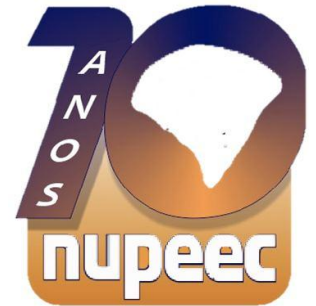
TABLE 4. Milk production response to oral drenching.

Item	Heifers		Cows		Drench ^a				<i>P</i>	
	Average	SEM	Average	SEM	Control	PG	CP	SEM	Age	Drench
Period 1	32.3	0.9854	47.4	0.7096	38.2	41.2	40.3	0.9975	0.0001	0.1118
Period 2	34.2	0.9854	48.7	0.7153	41.1	40.7	42.6	1.0025	0.0001	0.4528
Period 3	36.0	1.0546	47.9	0.7889	40.8	43.2	41.8	1.0727	0.0001	0.3246
Period 4	36.3	0.9403	43.9	0.6518	39.9	40.8	39.6	0.9280	0.0001	0.6801
Average kg/d, all periods	35.4	0.8436	47.0	0.5754	39.7 ^b	42.8 ^c	41.1 ^{bc}	0.8234	0.0001	0.0495

^aDrench treatments: Control = 9.5 L water; PG = 9.5 L water + 300 mL propylene glycol; CP = 9.5 L water + 0.68 kg calcium propionate.

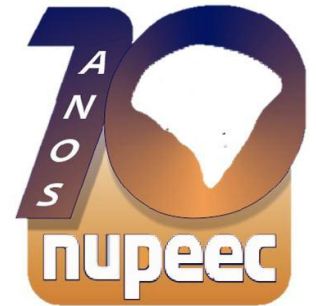
^{b,c}Drench means within the same row with different superscripts are significantly different by respective *P* level listed.

Conclusão



Não encontrou-se diferença no cálcio, glicose, B-hidroxibutirato e distúrbios metabólicos.

Mesmo que a hipocalcemia clínica ou cetose não é prevalente nas vacas mais velhas, como foi o caso neste rebanho, o custo do tratamento preventivo por via oral pode ser justificado pelo aumento na produção de leite



OC: 30

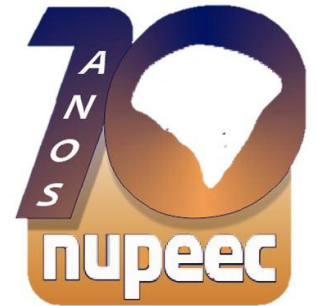
The efficacy of different combinations of ketosis treatments in israeli dairy cows.

Goshen, T.; Lynne-sha'ag M.; Bdolah-avram T.; Koren o.

Hachaklait & koret School Of Vetetinary Medicine, The Hebrew University, Jerusalem, Israel

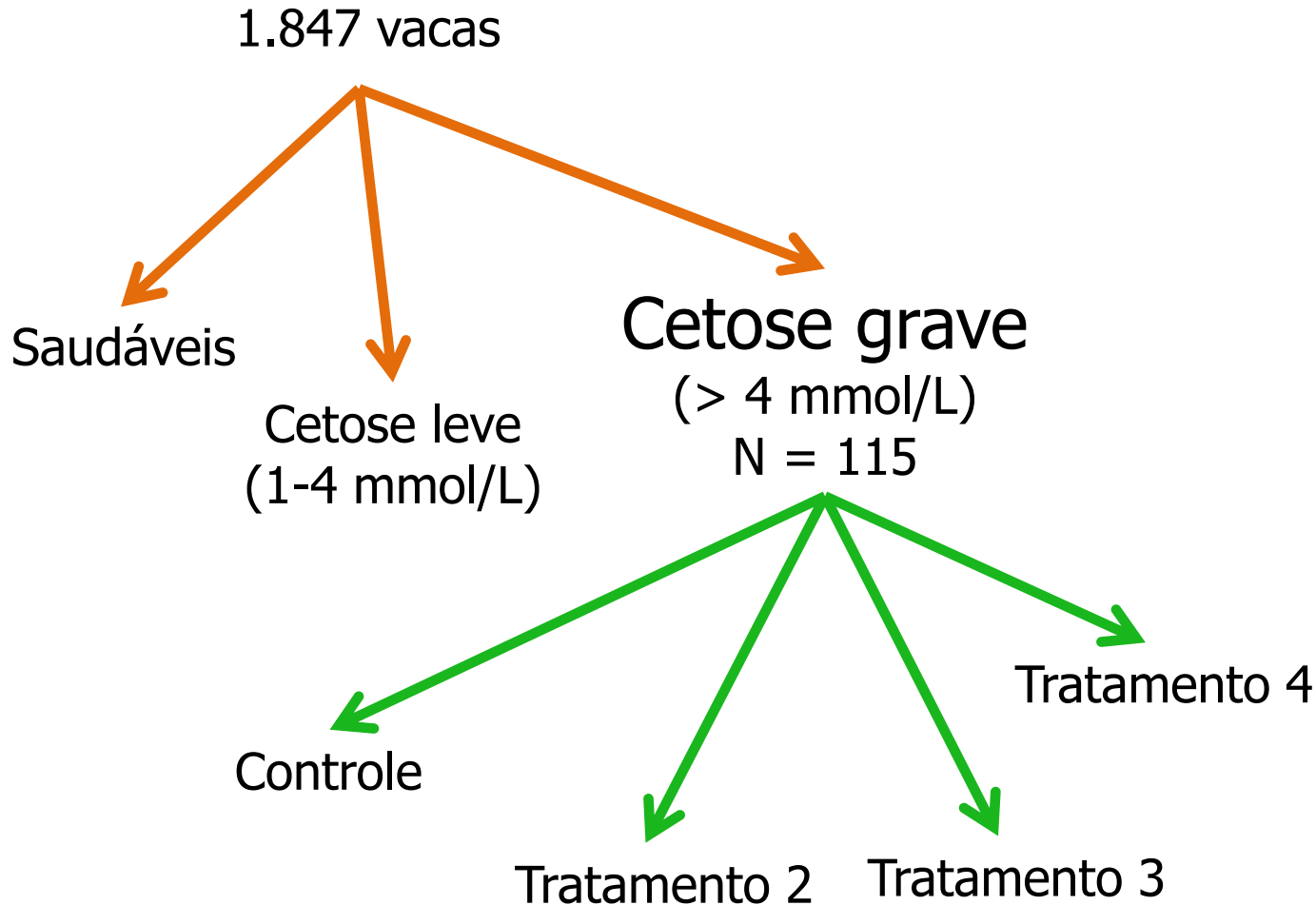
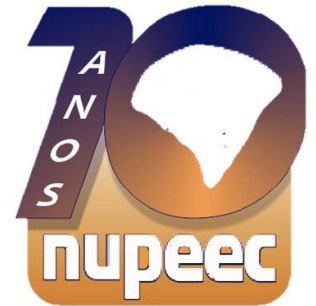


Objetiva



Comparar a eficácia de diferentes tratamentos comumente usado em Israel, e seu efeito sobre a recuperação, reprodução e produção de leite aos 305 dias.

Matérias e Métodos



**Controle
(Dext, Dex e
Propil.)**

500 mL Dextrose a 50%, 30 mg
Dexametasona e Propilenoglicol por 3 dias.

**Tratamento 2
(Dext e Dex)**

500 mL de Dextrose e 30 mg de
Dexametasona

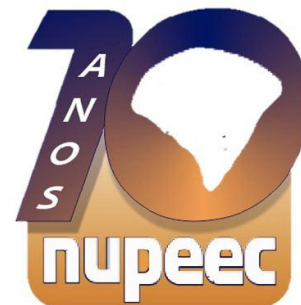
**Tratamento 3
(Dex e Propil.)**

500m mL de Dextrose e Propilenoglicol por 3
dias.

**Tratamento 4
(Dex e Propil.)**

30 mg Dexametasona e Propilenoglicol por 3
dias.

Resultados e Discussões



- Ausência de Acetoacetato na urina

Dext e Propil. < Dext, Dex e Propil.;

- Produção de Leite

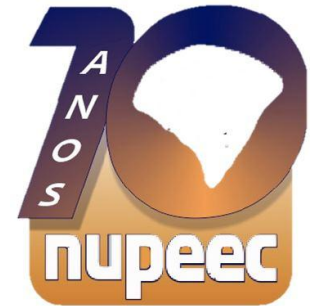
Dext e Propil. < Dext, Dex e Propil.
(1.070 L a menos)

- Cura

Dext, Dex e Propil. foi significativamente mais eficaz que os tratamentos.

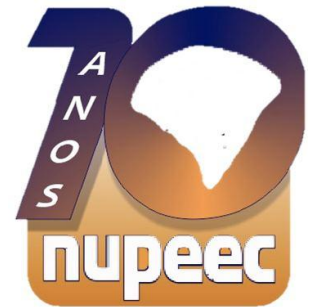
- Não houve diferença na taxa de concepção 1s, anestro, ovários inativos, dias em aberto e as taxas de prenhez aos 150 DEL.

Conclusão



O tratamento de cetose deve conter glicocorticoides para a cura e a produção de leite. Tratar cetose com apenas propilenoglicol oral não é eficaz.

Com isso...





Obrigada!

taymoreiramachado@gmail.com