Effet d'une surface de couchage en sable ou matelas caoutchouc sur le comportement de couchage de vaches boiteuses en infirmerie.

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Les vaches boiteuses (score de locomotion supérieur ou égal à de 4) présentant un ulcère de la sole ou une lésion de la ligne blanche

- Mettent plus de temps à se coucher et à se relever, et ces mouvements sont plus entrecoupés d'hésitation
- Présentent plus de mouvements de tête et de reniflement avant couchage (exploration/hésitation)
- Restent moins longtemps couchées (8.3h VS 12.5h en moyenne) alors que la durée d'une séquence de couchage est la même : elles se couchent donc moins souvent (douleur du mouvement ?)
- sont plus réticentes à changer de position
- et prennent moins souvent une position latérale (qui est signe de confort)

quand elles sont logées sur un matelas sans litière comparé à une litière profonde type sable.

Ceci est sans doute dû à la plus grande douleur des mouvements sur cette surface.

Le temps passé debout est augmenté

La guérison des lésions risque donc d'être fortement ralentie…

Table 2. Least squares means of lying time and frequency of lying for the 32 lame cows kept in individual hospital pens and restricted to deep-bedded sand for 24 h and rubber mats for 24 h in a balanced order[1]

Behavioral variable	Sand	Rubber	SEM	$F_{1,27}$	P-value
Total lying time					
Duration[2] (h/18 h)	12.5	8.3	0.77	23.22	<0.001
Lying laterally					
Number of cows[3]	14	4	—	—	<0.01
Lying bout					
Duration[2] (min/bout)	75	72	6.43	0.13	=0.718
Frequency[2] (n/18 h)	11	7	0.99	10.58	<0.01
Laterality					
Left side[2] (%)	52.7	55.2	4.73	0.17	= 0.685

[1]The behavior was recorded for 18 h from 1200 to 0600 h the following morning.
[2]Least squares means from a mixed model accounting for cow as a random effect and lactation number, and DIM as fixed effects.
[3]Analyzed using McNemar's test ($\chi^2 = 8.33$, df = 1).

Table 4. Least squares means of lying intentions from for the 32 lame cows kept in individual hospital pens and restricted to sand for 24 h and rubber mats for 24 h in a balanced order[1]

Behavioral variable	Sand	CI sand	Rubber	CI rubber	SEM	$F_{1,27}$	P-value
Head swinging movements							
Bouts preceded by head swinging movements[2] (%)	37.9	—	48.6	—	8.72	2.76	0.108
Latency[2,3] (s)	9.5	2.4 to 38.1	124.6	31.2 to 497.5		20.25	<0.001
Total head swinging time[1,3] (s)	79	23.9 to 166.2	110	42.1 to 209.8		0.98	0.330
Average head swinging time per bout[2,4] (s)	9	2.3 to 19.1	18	7.6 to 31.5		3.36	0.078
Sniffing and head swinging movements							
Total sniffing and head swinging time[2,3] (s)	496	381.2 to 646.0	964.5	741.0 to 1,255.7		18.56	<0.001
Average sniffing and head swinging time per bout[2,3] (s)	48.2	32.8 to 70.9	144.9	98.6 to 238.9		22.75	<0.001

[1]The behavior was recorded for 18 h from 1200 to 0600 h the following morning.
[2]Least square means from mixed model accounting for cow as a random effect and lactation number, and DIM as fixed effects.
[3]Back-transformed least squares means (95% CI) where natural log-transformation was applied to the variable.
[4]Back-transformed least squares means (95% CI) where square root-transformation was applied to the variable.