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## SOFT LYING-COVERS RESULT IN A HIGHER MILK YIELD

In 1999 Pache (LfL Saxony) observed that a soft lying area positively influences milk yield. The following investigation substantiates it.

In addition to cow comfort, lying areas must provide heat insulation, in order to prevent hypothermia of the udder. On the one hand, lying areas should be slip resistant for standing up and on the other hand, easily cleanable, which contributes to keeping the cows clean.

It makes sense to not only evaluate lying area quality according to animal lying behaviour, but also to examine additional characteristics like udder health, productive life and milk yield.

### Objective of the study:

The purpose of this study was to examine the relationship between milk yield, mastitides, teat lesions and early culling of cows kept on varyingly soft lying surfaces.

### Procedure:

A questionnaire was sent to 1,923 Norwegian dairy farms with diverse questions about their housing systems (e.g. date of lying cover installation and type of product).

The Norwegian dairy cow data base supplied supplementary information on health status and yield. Data on 29,326 lactating cows from more than 363 herds in Norway was evaluated.

### The degree of lying cover softness was classified:

1 = concrete, softness 0 mm; 2 = rubber mat, softness 1-8 mm, 3 = soft mat, softness 9-16 mm; 4 = multilayer cover, softness 17-24 mm; 5 = mattress, softness > 24 mm.

### Results:

Softness	Elastic coverings			
	2 (1-8 mm)	3 (9-16 mm)	4 (17-24 mm)	5 (> 24 mm)
increase in milk yield compared to concrete	0.3 %	2.4 %	4.5 %	3.9 %

Filled with granules -> loses softness

Durable softness -> positive effect on milk yield!

Risk for.....	concrete	soft covers
mastitides	↑	↓
teat lesions	↑	↓
early culling	↑	↓

Significant lower risk of udder diseases, teat lesions and early culling on soft lying covers!

### Conclusions:

Soft lying covers result in higher milk yields and reduce the risk of udder diseases, teat lesions and early culling.

Hard lying surfaces made of concrete or with hard rubber mats should be avoided in loose housing systems, i.e. changed to soft lying covers if high animal yields are the goal.

Source: Ruud et al., 2010: Associations of soft flooring materials in free stalls with milk yield, clinical mastitis, teat lesions, and removal of dairy cows. Journal of Dairy Science Vol. 93 No. 4