THE PREVALENCE OF CLAW DISORDERS AND THEIR EFFECT ON MILK YIELD IN HUNGARIAN DAIRY HERDS

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In the present study we have collected data on the prevalence of claw disorders in Hungarian dairy farms and studied the connection between severity and milk production.
Data collection was carried out on randomly chosen dairy farms at the time of the regular claw trimming from the spring of 2005 to November, 2005. 37–120 cows from different production groups per farm were studied, giving a total of 540 animals.

During claw trimming we have collected data on the prevalence of digital dermatitis (DD), interdigital dermatitis (ID), laminitis, sole ulcer, heel-horn erosion (HHE) and interdigital hyperplasia (IH). In case of DD we have recorded the localization and extension of the lesion. Data on the calving date, locomotion score, milk yield, milk fat, milk protein content and SCC of the studied animals were also collected.

A total of 1581 claws were diagnosed with disorder. DD was found most prevalent (making up 45,9% of all disorders, affecting 33,5% of all claws, Figure 1). It could also be concluded that hind claws are more likely to be affected by different disorders (except for laminitis and heel-horn erosion). Dermatitis digitalis was present on 5 predilection areas, out of which the plantar area was affected in most of the cases (81% of all DD cases, Figure 2).

Merely 13 cows out of all studied animals were given a locomotion score 1, meaning that only 2,4% of all animals were not lame. It was observed that lower locomotion scores correlated with lower numbers of disorder/claw and smaller DD lesions (Figure 3 and 4). It was also found that cows suffering from DD or laminitis are more likely to present other disorders at the same time and be given a higher locomotion score (Table 1 and 2). We have found no significant difference between the milk yield and milk composition of lame and healthy animals.

Results of the present study point out that claw disorders are highly prevalent in Hungarian dairy farms thus prevention of such diseases is greatly important. Figure 2. The prevalence of different DD types

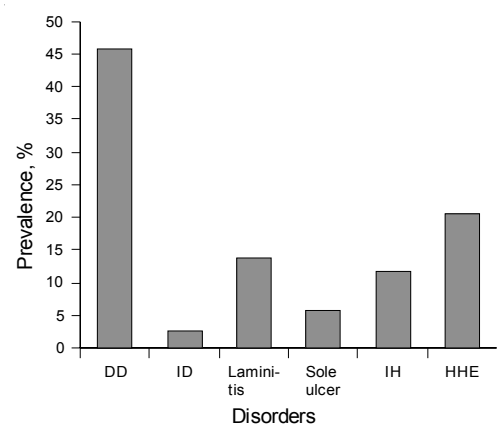

Figure 1. The prevalence of claw disorders

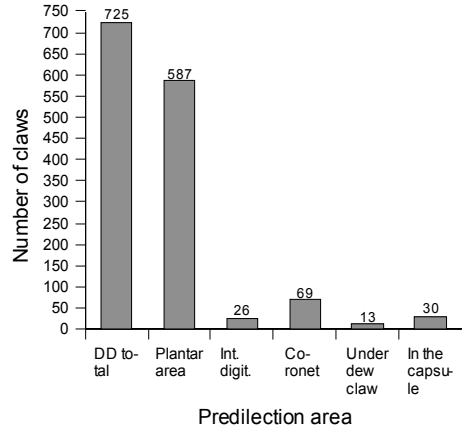

Figure 2. The prevalence of different DD types

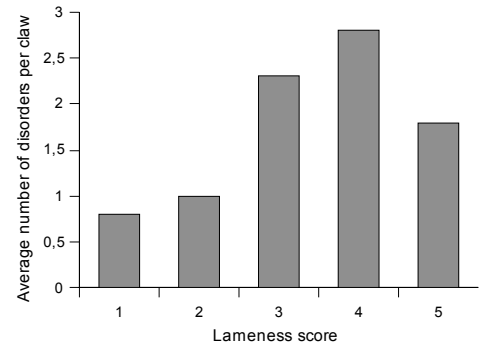

Figure 3. Average number of disorders per claw

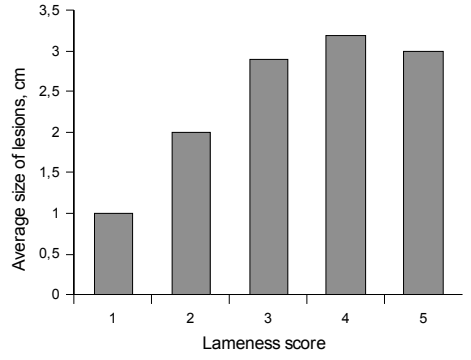

Figure 4. Average size of DD lesions

Table 1. Correlation between DD and certain indices of claw disorders

	DD	
	no	yes
Prevalence of laminitis, %	5,3	12,4
Prevalence of sole ulcer, %	2,6	5,5
Average number of disorder per claw	0,9	2,4
Lameness score	2,3	2,9

Table 2. Correlation between laminitis and certain indices of claw disorders

	Laminitis	
	no	yes
Prevalence of DD, %	19,4	41,6
Prevalence of sole ulcer, %	2,8	11,5
Average number of disorder per claw	1,5	3,2
Lameness score	2,7	3,0