Change of udder conformation traits during lactations in a Holstein Friesian herd

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The aim of this study is to establish how change the conformation traits during lactations. We made our investigations on the dairy farm of Agrár Rt, Enying in Kiscséripuszta. The conformation traits based on minimal two consecutive scorings with a 50-point scale were evaluated in a Holstein Friesian herd with 739 cows. The two evaluations were at the first and second lactations.

The scores of conformation traits at the first and second evaluation are reported in table 1. During the lactations the scores of fore udder attachement were decreased slightly (with 1.6 points) and for rear udder hight increased with 0.9 point (by 20-24 cm). The scores for udder width were better with 1.1 points but were under by 15 cm, and udder suspension were better with 0.3 point. As for udder depth, the udder floors were above the hocks at the first scoring by 7.5 cm and by 5 cm at the second. At the first evaluation the rear teat placements were scored as normal but during the second lactations the scores for trait of side teat placements increased.The udder system generally was evaluated for "good" level but later its score (77.6-77.0 points) decreased with 0.6 point.

Table 1. The scores of conformation traits at the first and second scoring.

Udder conformation	1st scoring			2nd scoring			
traits	Average	Deviation	CV%	Average	devIation	CV%	Diff.
Udder placement	24.7	4	17	23.1	6	28	-1.6
Udder hight	30.5	4	14	31.4	4	13	+0.9
Udder width	26.7	5	17	27.8	5	19	+1.1
Udder attachment	31.2	5	16	31.5	6	21	+0.3
Udder depth	30.9	7	22	22.8	9	38	-8.1
Teat placement	24.0	6	26	22.8	8	35	-1.2
Udder system	77.6	4	5	77.0	5	7	-0.6

By the distribution of scores we can established that the number of cows with weak udder attachment were slighty increased but also increased the number of cows with strong attached udder (Figure 1).

As for udder depth there were by16% more cows with udder floors below hocks and by 23% more cows with udder floors above hocks (but no reached 5 cm). Besides the number of cows are decreased by 5% which udder floors above hocks (by 5-7.5 cm) and also decreased where this distance were 7.5-17.5 cm (Figure 2).

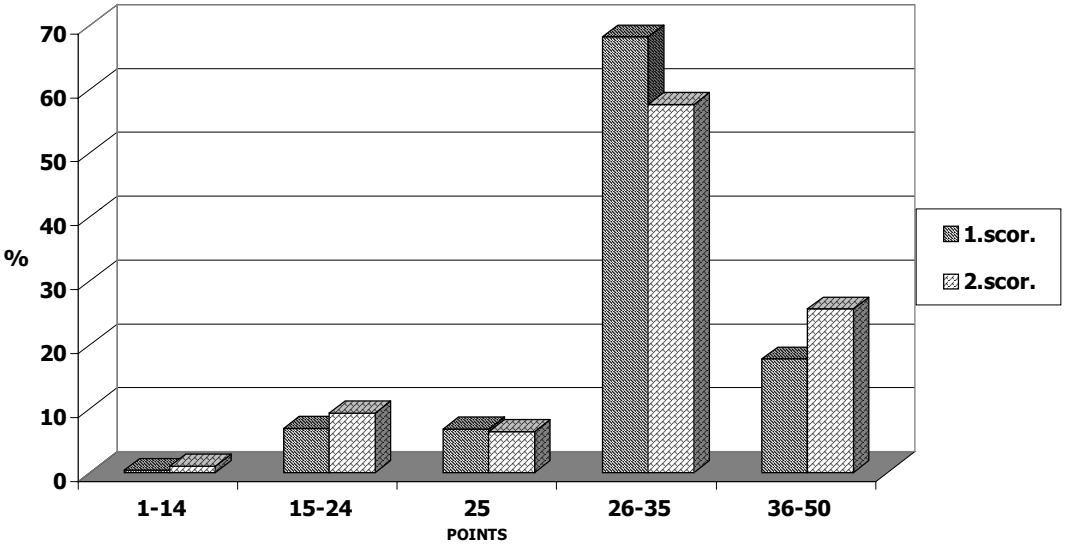

Figure 1. The distribution of udder attachement in two scorings.

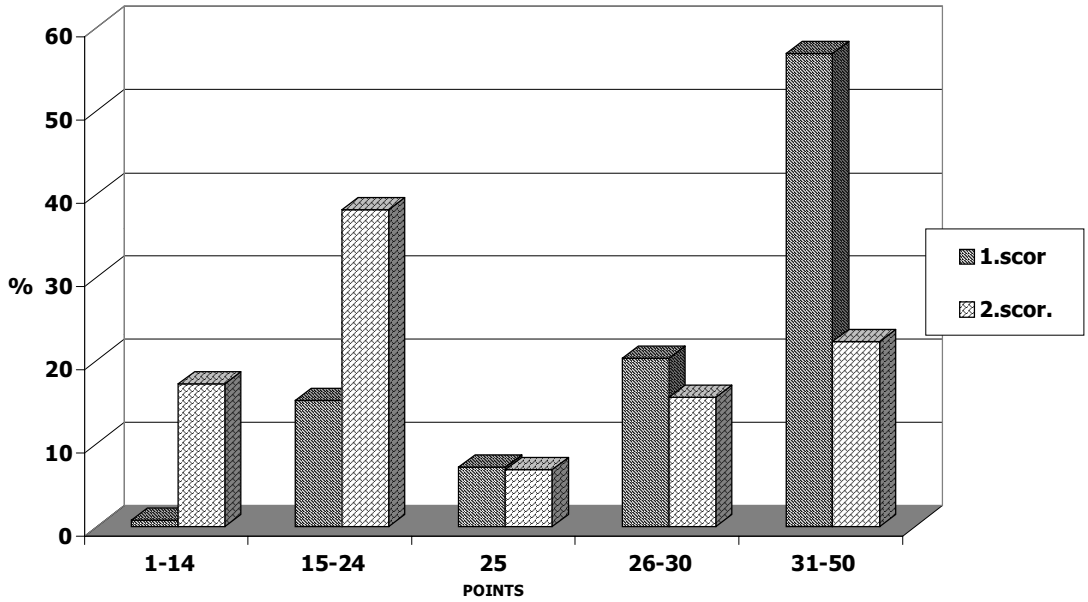

Figure 2. The distribution of udder depth in two scorings.

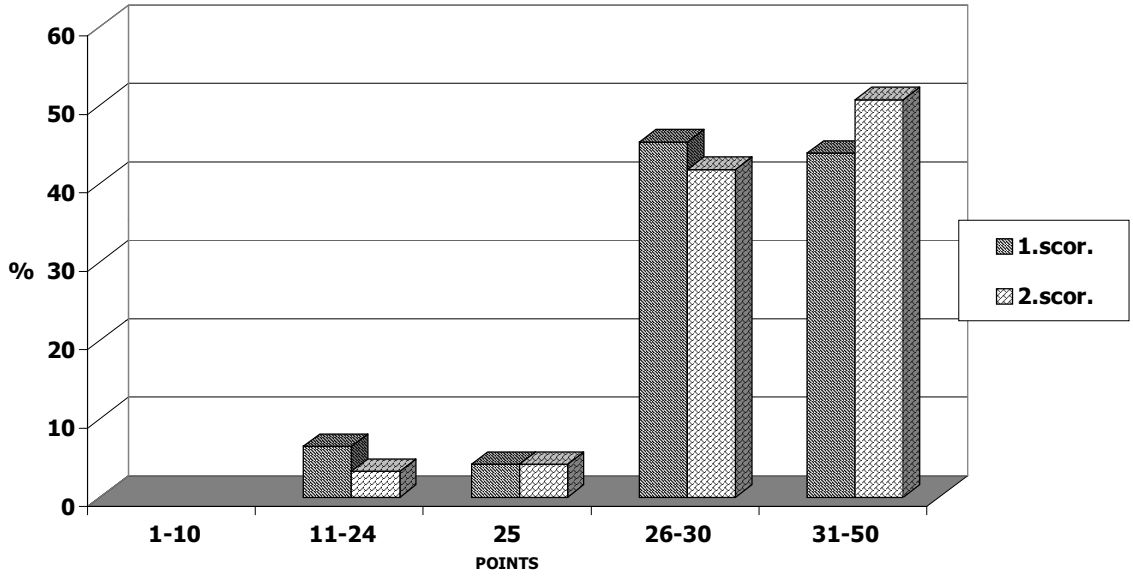

Figure 3 The distribution of udder height in two scorings.

At rear udder hight at the second scoring there were by 7% more cows which were evaluated „very good" level.(Figure 3). The average of udder width were better at the second evaluation because the number of cows with narrow udder were slighty decreased (by 4%) and largely (by 11%) were increased the cows with wide udder (Figure 4).

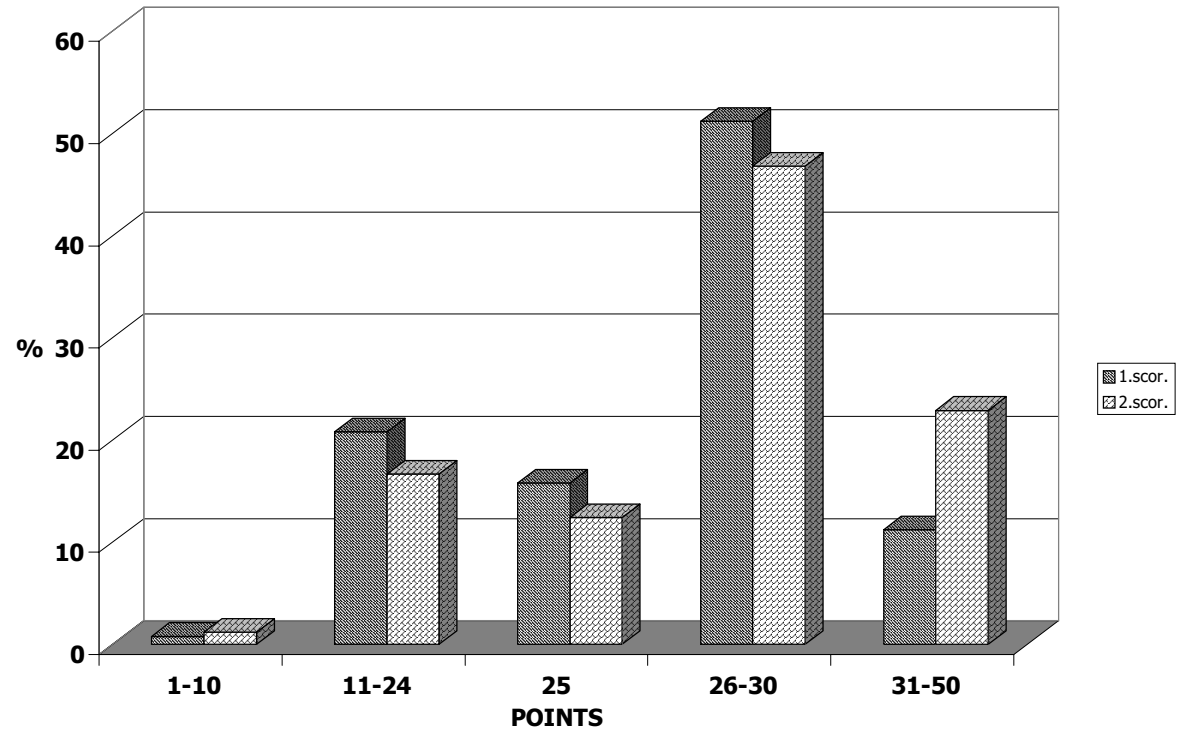

Figure 4. The distribution of udder width in two scorings.

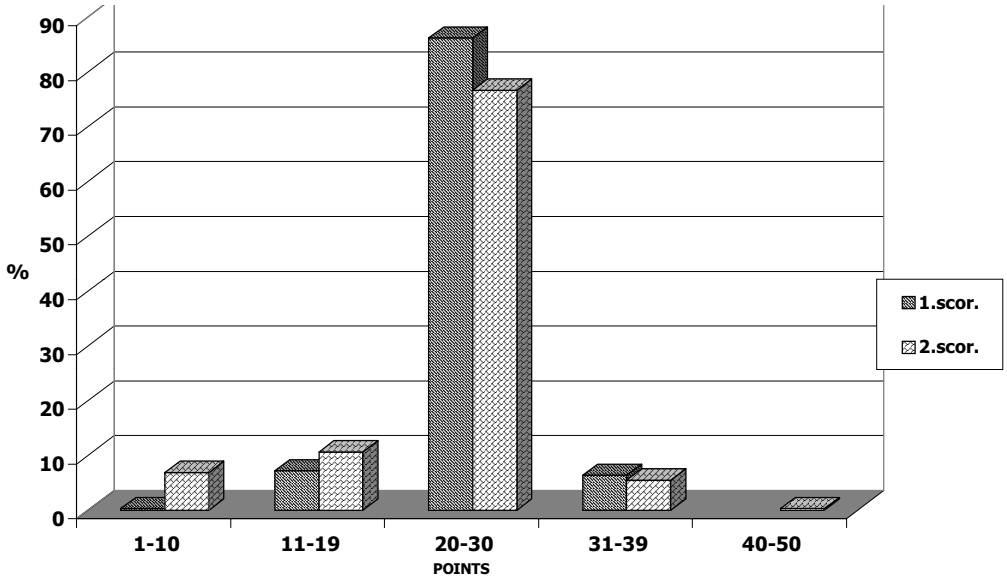

Figure 5. The distribution of udder placement in two scorings.

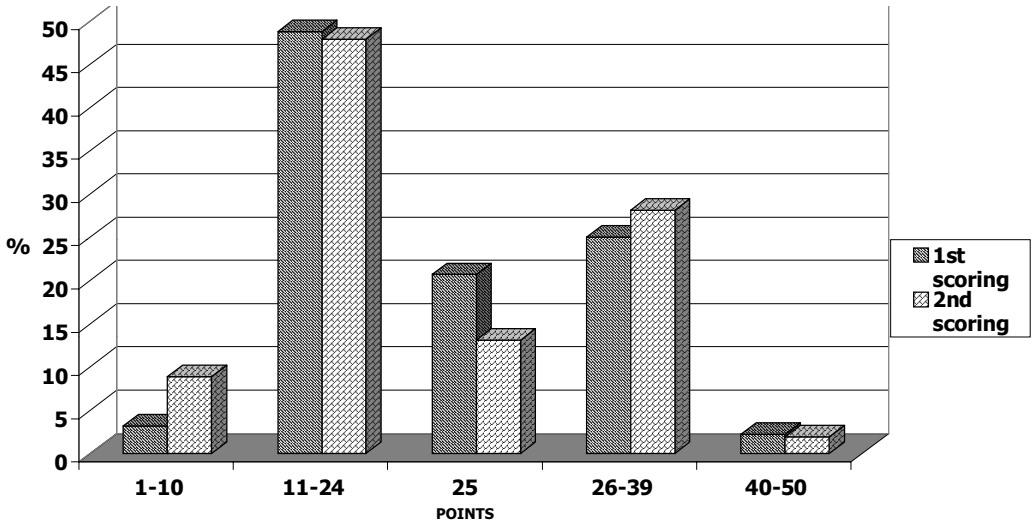

Figure 6. The distribution of teat placement in two scorings.

Fore udder attachment were worse at the second evaluation because the rate of evaluated cows with extremely loose attachment were increased by 7% and the number of cows with loose udder increased by 3%. The number of evaluated cows with intermediate scored were decreased by 10% and there were a few cows with very strong udder (Figure 5).

Teat placement also changed during lactations, centrally placed were decreased (by 5%) and inside teats were increased (by 3%) (Figure 6).