of cows that have been scored and seasonal lameness prevalence in spring, summer, autumn and winter, were 3170 cows (35.3% lame), 3179 cows (36% lame), 3051 cows (37.7% lame) and 3105 cows (40.6% lame) respectively. Average annual lameness prevalence in 4 groups of herds was 35.6% in small herds, 40.6% in medium herds, 43.4% in relatively large herds and 32.5% in large herds. There are large variations in present reports about the rate of lameness prevalence in different countries and herds around the world; so It has been reported from 5% to more than 50%. These variations may be due to several factors such as; housing system, herd management system, herd size, climate, season, breed, nutrition, amount of milk production, quantity and quality of hoof care programs, and etc. With regard to direct and indirect large economic loses due to lameness in dairy cattle herds, it is necessary that farmers, Managers, veterinarians and other related persons to take more attention to this problem.

Key Words: Kermanshah province, dairy cow, Lameness prevalence

Solar horn hardness in different digital zones of the cows

Amin Khaghani[1], Shabnaz Mokhtarnazif [2], Ahmadreza Mohamadnia [3]

[1] Behboud Dam Sepahan Co., Esfahan., Iran.aminkha@gmail.com
[2] DVM. student, Faculty of Veterinary Medicine, Ferdowsi University of Mashhad, Iran.
[3] Department of Clinical Sciences, Faculty of Veterinary Medicine, Ferdowsi University of Mashhad, Iran.

Lameness is a crucial welfare issue in modern dairy husbandry that could result in serious economic losses to dairy producers because of decreased milk yield, reduced fertility, and increased treatment costs and culling rates. Quality of the cow's claws, especially their hardness, may influence the likelihood that the cow will suffer from claw lesions. Although various factors (i.e., nutrition, genetics, etc.) affect claw quality, the environment in which the cow is housed is very important. Resistance of claw horn to environmental effects likely depends on its hardness because hardness influences rate of horn wear and erosion. Some researchers claim that this relationship puts cows with wet claws at a higher risk of developing claw problems because the horn resistance is diminished.

This current study was done in a dairy herd with total of 5800 dairy cows and 2780 milking cows. The average annual daily milk production of the farm recorded as 36 lit/day, cows milked three times a day and housed in free stall barns. Hoof care program were done on the following basis: monthly locomotion scoring, hoof bathing (3-4 days a week), regular hoof trimming at least two times a year by a professional veterinarian hoof trimmer, data recording and analysis.

Two groups of cows were selected. Group one on days in milk 120 and group two before drying were referred to trimming chute. Hardness recorded by shore D durometer. Data analyzed in each group and between the groups using two way ANOVA and p values under 0.05 consider significant. Hardness of the solar area in zones one and five (area of toe ulcers and necrosis), four (area of sole ulcer) and three (area of white line disease) were measured. The hardest area (mean ± SD) of the hoof in group one was located in zone 5 (37.11 ± 6.18) that

was significantly harder than area 2-4. And the hardest area in group two was located in zone 5 (49.43 ± 4.94) that didn't show any significant difference with the other area of the sole. All area of the hooves were significantly harder in group II than group I (P<0.05).

Days in milk plays an important role in hoof hardness that may be the reason for more claw horn lesions in 100 days after parturition. This may be a result of negative energy balance, peak production, less comfort, loosing body condition score and so many other problems that may originate in transition period.

Evaluation of the culling rate in cows with interdigital necrobacillosis

Mojtaba Mohamaddoust[1], Marzieh Faezi[2], Darya Fazel[2], Majid Jaididi[3], Ahmadreza Mohamadnia[4]

[1]Private practitioner, professional hoof trimmer, Mashhad, Iran.Moji_friends@yahoo.com
[2] DVM. student, Faculty of Veterinary Medicine, Ferdowsi University of Mashhad, Iran.
[3] Private practitioner, professional hoof trimmer, Mashhad, Iran.
[4]Department of Clinical Sciences, Faculty of Veterinary Medicine, Ferdowsi University of Mashhad, Iran.

Culling in cows is a complicated condition. Many factors such as, age (parity), milk production, fertility, health, season, feed price, and other variables may influence severity of this condition. Infectious foot diseases are common in dairy herds, causing welfare reduction and financial losses. Interdigital Necrobacillosis (INB) which is a painful condition is one of the most important infectious causes of lameness. Fusobacterium necrophorum has been isolated from over 90% of clinical cases of INB in cattle. When the organism enters subcutaneous tissue through interdigital skin after traumatic damage or the action of irritant agents in slurry this condition may happen. Lack of micronutrients, genetics and disturbances in the local immune system are known as predisposing factors.The overall incidence of INB is probably less than 5%, but in epidemic outbreaks the incidence of the disease can be as high as 20% of the milking cows in a herd.

This current study was done in a dairy herd with 910 productive cows (including milking and dry cows), during 12 month period started from March 2014 till February 2015. All cows housed in free stall barns and milk three times a day. The average production of the cows during this period recorded as 36.5 lit/day. Hoof care programs including regular hoof trimming by veterinary practitioners and skilled hoof trimmers was done as the cows at least trimmed two times a year and total 4 times including different inspections and treatments referred to hoof trimming chute. Days in milk (DIM), milk production, parity recorded in all cows in addition to the records of the diseases. The INB located in zone 0 of the hooves selected as treatment group and in addition to the above mentioned records culling rate in these animals in comparison to the control (the cows without any digital disorder 6 month before to 6 month after case occurrence) were recorded. In treatment group total of 94 (annual incidence of 10.32%) cases recorded and 40.42% of them were culled in average of 8.97 days after detection. This number were significantly higher than culling rate of the control group (23.3%)(Chi square test, P=0.009). No significant difference between culling rate of the cows with lower production