been measured in routine joint evaluation. The purpose of the present study is to determine the physical, cellular and biochemical parameters of the synovial fluid of distal sesamoid bursa (DSB) and distal interphalangeal joint (DIPJ) of clinically normal Holstein cattle and comparison of measured parameters with obtained samples from those spaces of freshly normal cadaver feet collected from slaughter house. The mucinous precipitate quality was graded as good in predominant cadaver and alive samples. Viscosity of main specimens in both groups was in good grade. Predominant percents of both groups were transparent and remaining had transparent yellow color. Erythrocytes were not observed in both synovial fluid groups. Total nucleated cell counts (TNCC) of synovial fluid were 59.45±4.25 and 55.93±3.89 cells/µl (mean±SD) in DSB and DIPJ respectively in cadaver specimens. Also, TNCC in alive specimens were 69.80±4.74 and 67±6.25 cells/µl respectively in synovial fluids of DSB and DIPJ. So, there was no significant difference between specimens of DBS and DIPJ in each group and also there is no significant difference between TNCC of synovial fluids of mentioned joints in each group. Lymphocytes were the predominant cell type in cadaver and alive groups. The present results reveal that there is no significant increase or decrease in enzyme activities of synovial fluids of both groups. There were no significant differences between mean concentrations of total protein in slaughter and alive specimens. The glucose concentration of synovial fluids of both groups had no significant differences.

supplemental dietary Biotin on the severity of heel horn erosion. Trial was designed for a 4 month (June to September 2009) in a dairy located in Varamin in the Vicinity of Tehran consisted of 75 first lactating heifers as well as 210 milking Holstein Cows. Historically, the herd had a prevalence (>45%) of clearly visible heel horn erosion in cows in their 2nd or later lactation. Seventy and five heifers assigned to a Biotin-supplemented (20 mg/head/d) and the 210 older cows on an alternating basis. Supplemented and control groups were housed in separate but identical free-stall barn with the same management. In every 7 day interval each cow was restrained in a trimming chute and the sole area of each digit was examined for heel horn erosion. Scores for lesions were considered as: 0) Heel horn grossly normal, 1) Mild pitting or loss of integrity of heel horn, 2) Sever pitting of heel horn or shallow oblique V-shaped grooves, 3) Deep oblique V-shaped grooves, 4) Sever coalescing oblique grooves with heel horn nearly or completely absent. Chi-square fisher exact test was used to compare composited scores between groups. Heel horn erosion composite score were significantly different between Biotin-supplemented and control groups (1.01 ± 0.20 and 3.10 ± 0.15 respectively). Results suggest that supplemented dietary Biotin have prevention effect on the severity of lesions and the prevalence of heel horn erosion on herd levels.

The effect of lameness on husbandry records in very large scale dairy farms of Khorasan Razavi province-Iran

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Heel horn erosion "Slurry Heel" is a progressive destruction of heel horn commencing on the axial surfaces of the bulbs of the heels. It is one of the most common claw lesions and has been found that at least 50% of a herd can be affected with erosion of the heel. B-Vitamin, Biotin is one of a number of nutrients that are required for epidermal differentiation, production of keratin, and production of intracellular cementing substance within the claw wall. Administration of supplemental dietary Biotin has been shown to have a beneficial effect on hoof health and also has been suggested as a method of prevent lameness in cattle. This study was aimed to evaluate the effects of

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loss of hoofing trimming managerial, concrete and inappropriate litters, BCS increase and other determining factors helps to more lameness occurrence which results in increasing importance of the study. Different climates of Iran besides managerial troubles contributes to having lameness more than normal rate. Due to the such fact, that Khorasan razavi province is considered as one of the countries livestock pole, the study has been done in this province. This study has been done in four industrial farms in Khorasan razavi province and all suspicious cases along with hoof trimming groups considered. Farther more after determining with cook method were ranked. Cases which are more than 3 recorded as clinical lameness, cases with 2 months interval or lower recorded as repeatedly statistic and removed from statistical population. Reproductive indices recorded with same format and final results considered through qui square statistical test and T student. Results show that digital dermatitis incidence rate has the most lameness occurrence (52.42). The morbidity rate of digital dermatitis, days open which is considered as the most important reproductive indices with numeral means (175.42) and (131.83) in control group determined, which the difference was not significant through T student statistical test (P>0.05). In case of parturition to first service interval in lameness group mean was (72.68) days and (58.26) in control group (P<0.0001). The service per pregnancy index with T student statistical test. Pregnancy occurred through more than ones for all cows and pregnant ones but difference was not significant (P>0.05). In lameness group 68.3% showed heat before 90 days at lactating which such rate in control groups is 88.83%. The correction of result determined by qui square (P<0.0001). This study shows that there is a significant communication between occurrence of lameness and increasing some of the reproductive indices like days open and parturition to first service interval. Also in suffering group, heat observes less than others in industrial farms.

Treatment response of using wooden block along with various antimicrobials in sole lesions of dairy cows

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Lameness is a major cost to the dairy herd. Sole lesions such as ulcer, white line disease and foreign body penetrations are the most reasons for lameness. An important part of the treatment of these lesions is using of sole shoes (block) with antimicrobials and other agents in the cases of infection and abscesses. The aims of this retrospective case study were to evaluate percentage of cows that recover from lameness by using both block and various antimicrobials and analysis of some related aspects. One year 220 hospital records from a dairy farm in North West Iran were obtained. All of the cows were treated by wooden block in sound claw with an antibiotic including Penicillin, Noflur, Oxytetracycline, Excenel, and Amoxicillin (recommended doses). Data were analyzed by SPSS (ver.17) with related tests. 72.3% of cows were treated completely that was significant in T test (P<0.001). The most affected limb was left hind. The kind of antibiotic did not have significant effect on treatment response by using Chi-square test. Recovered cows had higher milk production record in next month significantly (Independed T test, p=0.003). Although the most recovery was in Mordad, the month of treatment had not significant effect on treatment response. Parturition to lameness interval in all cows were 6±0.2 month and had negative correlation with compensated milk yield (r=-0.36, p=0.01). Parturition to insemination interval in all cows was 6.5±0.2 month. Mean parturition to culling interval in not treated cows were 4.48±0.46 month. The mean parity in all cows was 3.26±0.1 and had a negative correlation with parturion- lameness interval (r=-0.2, p=0.04). Using block along with antimicrobials is effective and causes elevation of milk yield very soon.

Use, abuse and misuse of orthopedic wooden blocks in lame Cattle

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The application of wooden block often provides a sufficient difference in height between the claws to relieve weight bearing and promote recovery of claw lesions. There is no published report on the consequence of abuse and misuse of wooden block in lame cow to the authors' knowledge. This paper describes the fate of wooden block which were applied to lame cows by one practitioner in general veterinary practice. Twenty-five dairy farms in Iran were studied between 2005 and 2010. The number of cows on each farm ranged from 30 to 2000. All were Holstein cow. Monitoring were arranged in an order that reflected the sequence in which procedures are carried out when foot blocking and treating lame cows. Most farms had at least one cow's foot trimmed in the past and foot