

questioning revealed that the milkers had been routinely opening the valve to obtain cold milk from the tank. Draining milk through the valve allowed a small volume of milk to be trapped inside the valve but outside the cooling portion of the tank. The milk film inside the valve was incubating at high ambient temperatures for several hours. When the health inspector collected a small sample from the tank through the valve, a large number of microorganisms

were flushed into the sample bag. Bacterial counts on samples taken from the top of the tank following agitation of the tank milk compared to samples taken from the milk valve gave the following results: Samples from the top of the tank 20,000 CFU/ml, samples from the tank valve 2,000,000 CFU/ml. The State Health Department was informed of these findings. Collection of samples by the proper sampling technique resulted in no further SPC problems.

Abstracts

Haematogenous osteomyelitis in cattle

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The examination of 70 cattle with haematogenous osteomyelitis resulted in the classification of the bone lesions into two main groups: the physeal type, in which an infection, usually of metaphyseal bone, originated at or near the growth plate, usually in the distal metacarpus, metatarsus, radius or tibia, and the epiphyseal type, in which an infection originated near the junction of the subchondral bone and the immature epiphyseal joint cartilage, most often in the distal femoral condyle epiphysis, the patella and the distal radius. Combinations of physeal and epiphyseal defects and even diaphyseal involvement were occasionally seen. Epiphyseal osteomyelitis was mostly caused by salmonella infection, physeal by *Corynebacterium pyogenes*, salmonella and other bacteria. The salmonella affected animals were with one exception less than 12 weeks old and the majority had had some previous illness or came from a problem herd. The *C. pyogenes* affected calves were in almost all cases more than six months old. The prognosis of the metaphyseal infection was in general satisfactory, and surgical intervention (osteotomy or sequestrectomy) was often required. The prognosis of the epiphyseal type was grave but two of the three animals in which physeal and epiphyseal defects were accompanied by diaphyseal lesions recovered.

A reassessment of the dual vaccine against rinderpest and contagious bovine pleuropneumonia

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In the light of the recent outbreaks of rinderpest in Africa a further assessment of the efficacy of the simultaneous inoculation of rinderpest virus vaccine and contagious bovine pleuropneumonia vaccine was undertaken. Groups of cattle were inoculated with a dual preparation of rinderpest vaccine virus and *Mycoplasma mycoides* subspecies *mycoides* or *M. mycoides* alone. These groups were then challenged with *M. mycoides*, first unsuccessfully by an in-contact challenge method and then by subcutaneous challenge. All animals were examined clinically after challenge for evidence of contagious bovine pleuropneumonia and serologically for rinderpest virus and *M. mycoides mycoides* antibodies. There was no evidence that the serological response to the dual vaccine was in any way less than that to either agent given alone and no clinical disease was detected in these animals after in-contact challenge. However, after subcutaneous challenge, the dual vaccinated groups reacted similarly to an unvaccinated control group and unlike the group vaccinated only with *M. mycoides*. This would indicate that the rinderpest virus component of the dual vaccine interfered with the ability of the *M. mycoides* component to induce a fully effective immune response. In the pan African rinderpest campaign the use of the dual vaccine in areas where contagious bovine pleuropneumonia occurs should be carefully considered; in areas where the disease does not occur it is contraindicated.