

to develop effective strategies to eliminate high-risk situations for SDS. The study will additionally contribute to the study of bovine physiology and nutrition; the definition of the risk factors associated with the occurrence SDS will provide insight into the physiologic responses of cattle to stressors while on high-energy rations. We propose that these insights will help nutritionists, microbiologists, physiologists and behaviorists refine their efforts to make beef production more efficient.

### References

1. In: *Proceedings of the Academy of Veterinary Consultants*, March 19, 1976. Cecil Reedy Workshop on Sudden Death, vol. IV, no. 1, pp.

1-65. 2. Pierson RE, Jensen R, *et al.* Sudden Deaths in Yearling Feedlot Cattle. *J Am Vet Med Assoc* 1976; 169:527-529. 3. Panciera RJ and Williams DE. Sudden Death Syndrome of Feeder Cattle. In: Howard JL, ed. *Current Veterinary Therapy. Food Animal Practice* 2. Philadelphia: WB Saunders Co, 1986; 955-956. 4. Anthony HD. Sudden Death Syndrome in Feedlot Cattle. *J Am Vet Med Assoc* 1972; 60:97. 5. Turner TN. The Sudden Death Syndrome in Feedlot Cattle. *Veterinary Medicine/Small Animal Clinician* 1971; 88:803-808. 6. Coleman JD, Hill JS, Bray HT, *et al.* Prevention of Sudden Death Caused by *Clostridium sordelli* in Feedlot Cattle. *Veterinary Medicine/Small Animal Clinician* 1975; 66:191-195. 7. In: *Proceedings of the Academy of Veterinary Consultants*, March 10, 1977. Cecil Reedy Workshop on Sudden Death, vol. V, no. 1, pp. 1-57. 8. In: *Proceedings of the Academy of Veterinary Consultants*, March 14, 1975. Sudden Death Syndrome Discussion, vol. III, no. 1, pp. 20-35. 9. Jensen R, Pierson RE, *et al.* Diseases of Yearling Feedlot Cattle in Colorado. *J Am Vet Med Assoc* 1976; 169:497-499.

## Abstract

### Increased reproductive losses in cattle infected with bovine pestivirus around the time of insemination

M.R. McGowan, P.D. Kirkland, S.G. Richards,  
I.R. Littlejohns

*Veterinary Record* (1993) **133**, 39-43

Unmated heifers seronegative to bovine pestivirus were used to investigate the effects on conception and embryo-fetal survival of pestivirus infection around the time of artificial insemination. The reproductive performances of three groups were compared; the control group did not become infected during pregnancy, group 1 heifers were infected by contact with a persistently infected cow and calf four days after insemination and group 2 heifers were infected intranasally nine days before insemination. Conception rates and embryo-fetal survival were monitored by serial serum progesterone assays, transrectal ultrasonography and manual palpation of the uterus. The conception rates (determined 20

days after insemination) of 60 per cent (nine of 15) and 44 per cent (eight of 18) for groups 1 and 2 were lower than the 79 per cent (11 of 14) achieved by the control group. The group 1 heifers subsequently experienced significant embryo-fetal loss, resulting in a pregnancy rate (determined 77 days after insemination) of 33 per cent (five of 15), significantly lower than the control group's 79 per cent (11 of 14). The pregnancy rate of the group 2 heifers (39 per cent, seven of 18) was also significantly lower than that of the controls, largely as a result of the group's poor conception rate. All the heifers diagnosed pregnant 275 days after insemination were induced to calve. No persistently infected calves were born.