the diagnosis was correct, but that the corrective adjustments were too restrained to correct the problem. **Opinions are not usually given a second chance, but objective measurements can provide the means to progress to a satisfactory conclusion.**

References

1.Bertics, S. J., R. R. Grummer, C. Cadorniga-Valino, and E. E. Stoddard. 1992. Effects of prepartum dry matter intake on liver triglyceride concentration and early lactation. *J Dairy Sci* 75:1914. 2. Boosman, R., F. Nemeth, and E. Gruys. 1991. Bovine laminitis: clinical aspects, pathology and pathogenesis with reference to acute equine laminitis. *Vet Quarterly* 13:163. 3. Colam-Ainsworth, P., G.A. Lunn, R.C. Thomas, and R.G. Eddy. 1989. Behavior of cows in cubicles and its possible relationship with laminitis in replacement dairy heifers. *Vet. Rec.* 125:573. 4. Elam CJ. Acidosis in Feedlot Cattle: Practical Observations. 1976. *J An Sci* 43:898. 5. Garrett, E. F., M. N. Pereira, L. E. Armentano, K. V. Nordlund, and G. R. Oetzel. 1995. Comparison of pH and VFA concentration of rumen fluid from dairy cows collected through a rumen canula vs. rumenocentesis. *J Dairy Sci* 78 (Supp 1):229. 6. Greenough, P. R., and J. Vermunt. 1994. In search of an epidemiologic approach to investigating bovine lameness problems. *Proc 8th Int Symp Disorders Rumin Digit.* Banff, Canada, p. 189.7.Kelly, E. R. and J. D. Leaver. 1990. Lameness in dairy cattle and the type of concentrate give. *Anim Prod* 51:221. 8. Kertz, A.F,, L. F. Reutzel, and G. M. Thomson. 1991. Dry Matter Intake from Parturition to Midlactation. *J Dairy Sci* 74:2290. 9. Livesey, C. T. and F. L. Fleming. 1987. Nutritional influences on laminitis, sole ulcer and bruised sole in Friesian cows. *Vet Rec* 114:510. 10. Manson, R. J. and J. D. Leaver. 1988. The influence of concentrate amount on locomotion and clinical lameness in dairy cattle. *Anim Prod* 47:185. 11. National Research Council. 1988. *Nutrient Requirements of Dairy Cattle,* ed. 6. Washington, D.C., National Academy Press, p 147. 12. Nordlund K. V. and E. F. Garrett. 1994. Rumenocentesis: a technique for the diagnosis of subacute rumen acidosis in dairy herds. *Bov Practitioner* 28:104. 13. Nordlund, K.V., Garrett, E.F., and G. R. Oetzel. 1995. Herd-based rumenocentesis: a clinical approach to the diagnosis of subacute rumen acidosis in dairy herds. *Compend Contin Educ Pract Vet*, in press. 14. Oetzel, G. R., F. P. Villalba, W. J. Goodger, and K. V. Nordlund. 1993. A Comparison of On-Farm Methods for Estimating the Dry Matter Content of Feed Ingredients. *J Dairy Sci* 76:293. 15. Radostits, O. M., D. C. Blood, and C. C. Gay. 1994. *Veterinary Medicine,* ed. 8. London, Bailliere Tindall, p. 256. 16. Shaver, R. 1993. Troubleshooting problems with carbohydrates in dairy rations. *Vet Med* Oct:1001. 17. Wells, S.J., A. M. Trent, W. E. Marsh, and R. A. Robinson. 1993. Prevalence and severity of lameness in lactating dairy cows in a sample of Minnesota and Wisconsin herds. *JAVMA* 202:78. 18. Yun, S.K., and J. D. Han. 1989. Effect of feeding frequence of concentrate to milking cow in early lactation on pH and VFA-concentration in rumen fluid and on milk composition and milk yield. *AJAS* 2:418.

Abstract

Evaluation of an O-antigen ELISA for screening cattle herds for *Salmonella typhimurium*

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A total of 2585 serum samples from 62 dairy herds located in four different regions of Denmark were tested in an O-antigen (0:1,4,5,12)-based ELISA for the detection of antibodies against *Salmonella typhimurium*. Ten closed herds from an island with no reported occurrence of salmonellosis for several years, and 12 herds from a salmonella enzootic area which had had clinical outbreaks of *S typhimurium* were used to define a herd ELISA cut-off value. When herds with at least 5 per cent of the serum samples having an optical density of >0.5 were considered ELISA-positive, all 10 herds from the salmonellosis-free island were ELISA-negative, and all but one of the 12 *S typhimurium*-infected herds were ELISA-positive, which resulted in a herd test sensitivity of 0.92 and herd test specificity of 1.0. Eleven of the 12 *S typhimurium*-infected herds were negative in a blocking ELISA based on a monoclonal antibody to the 0:9 antigen of the serogroup D salmonellas, indicating the possibility of rapid serogroup-specific screening of herds by means of these two tests. Ten other randomly selected herds with clinical outbreaks of *S dublin* were all, to a large extent, positive in the 0:1,4,5,12-ELISA, whereas a *S dublin* (0:1,9,12)-ELISA described previously appeared to be more serogroup D-specific. Thus, the 0:1,4,5,12-ELISA appears to be useful for detecting herd infections with *S typhimurium*, and positive reactions may be further discriminated by the serogroup D-specific ELISA.