for improvement nationally. Operators keeping written records are also viewed more favorably by regulatory agencies in the event of an antibiotic residue violation. Under provisions of AMDUCA, which are still being clarified at press time, it may be of regulatory importance that all food animal producers keep on-farm records of all treatments resulting in meat or milk withholding. Approximately two-thirds of producers felt that more training and information on proper drug use would be beneficial. However, in the experience of the authors, many dairy producers are not enthusiastic about

group meetings or other opportunities to discuss milk quality assurance. The herd health veterinarian is a major source of information, can improve drug labelling, and can promote use of on-farm treatment records.

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## **Abstract**

## Effects on calves less than one month old of feeding or not feeding them during road transport of up to 24 hours

T.G. Knowles, P.D. Warriss, S.N. Brown J.E. Edwards, P.E. Watkins, A.J. Phillips Veterinary Record (1997) 140, 116-124

Two trials, each involving 56 calves less than one month old, demonstrated that the responses of calves to food and water deprivation during 24 hours of transport were similar to those observed in older cattle and lambs. There was increasing utilisation of body reserves and a measurable increase in dehydration, coupled with an increased loss of liveweight. Feeding 1 litre of glucose/electrolyte solution at eight-hour intervals did reduce the effects of food and water deprivation, but it is suggested that the minor benefits of mid-transport feeding during a 24 hour journey would not justify the disruption that would be caused by unloading and feeding. It would be better to complete the journey in as short a time as possible, providing the calves were carried under suitable conditions. Liveweight and the levels

of plasma beta-hydroxybutrate, non-esterified fatty acids, total protein and albumin had all returned to approximately pre-transport values after 24 hours of recovery. However, the calves had not started to gain in liveweight until some time after 24 but before 72 hours of recovery. The calves did not show the same marked responses in heart rate, plasma cortisol and plasma glucose that are observed in older cattle in other species. They also appeared to be unable to regulate their body temperature closely, when they were transported during the winter. It is suggested that their lack of response to transport was not because they were unaffected but because they were physiologically unadapted to coping with transport.

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