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Findings
- In a survey conducted on 21 dairy farms an average pre-weaning mortality rate of 3.4% was calculated from records from January 2011-2012.
- The average disease incidence of pneumonia and diarrhoea was found to be 7.7% and 11.4% respectively.
- A large variation in calf management practices existed between farms.

Introduction
Calf health and management is an area of bovine medicine that is important for the future productivity and health of any dairy herd rearing their own replacements.

Methods
A survey was conducted of 21 dairy farms in South East England using a structured questionnaire to determine the different pre-weaning management practices (colostrum and feed management, housing and cleanliness). Farm records were also examined to determine disease and pre-weaning mortality rates (defined from 24 hours after birth to the point of weaning).

Results
Pre-weaning calf mortality records were available on 20 of the farms with an average pre-weaning mortality of 3.4%, (range: 0.7% to 7.1%). Records of disease were available from 18 farms and an average pneumonia rate of 7.7% (range 2%-22%) and average scour rate of 11.4% (range 3% - 38%) were observed (figure 1). Data from the questionnaire identified a large variation in the management practices across the farms surveyed.

Whilst 53% of the farms surveyed maintained separate facilities for calving cows; the remaining 47% housed calving cows in the same location as sick animals. The majority of farms left their calves with their respective dams for 24hrs before they were moved to separate rearing pens (figure 3).

Discussion
The level of pre-weaning calf mortality is similar to that reported by Wathes et al. which showed an average neonatal mortality (0-28 days) 3.4%, range from 0 to 12%. Calf mortality is an indicator of calf health that requires improvement alongside the incidence of calf diseases. Pneumonia and diarrhoea had an average incidence of 7.7% (range 2-22%) and 11.4% (range 3-38%) respectively. This large variability in disease incidence may be associated with the large range of calf management practices across the farms surveyed.

Whilst it was evident through the presence of colostrum management protocols on 90% of units that colostrum was viewed by the majority as an important component of calf management; variation existed between farms on the timing, method and volume administered. The management of the calf and cow in the immediate post-partum period is a key point in ensuring long-term health, the survey identified a number of practices (such as co-housing sick animals with the calving cows) which represented a risk for disease.

Farmers should be encouraged to work with their veterinary surgeons to ensure the health and welfare of their youngstock; this can be done through management changes alongside ongoing monitoring and recording of calf mortality and diseases to enable prompt identification and intervention of a problem. Following completion of the questionnaires the clients were invited to training events to present the findings of the survey, which outlined the variability in management practices. The meetings also included education and discussion on best calf management practices, disease identification and the benefits of improved calf health.

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References