

Colostrum: coliform bacteria standards for calf health

Implications for enteric health of selected coliform counts:

- Less than 5,000 cfu/ml – low impact, minor scours problems in less than one-third of the calves.
- 5,000-20,000 cfu/ml – moderate scours problems in up to three-quarters of the calves, tend to last 7 to 10 days rather than only 2-4 days.
- 21,000-50,000 – occasional deaths at 3-5 days, usually severe scours between 7 and 21 days in nearly all the calves.
- 51,000-250,000 – very severe scours problems, enterotoxemia starting to be a problem causing rapid onset of death, bloated calves in 2-6 day range, scours problems that just won't stop up to three weeks of age affecting nearly all calves, respiratory illness frequently a secondary infection.
- Over one-quarter million – frequent mortality associated with enterotoxemia, nearly all the calves have severe scours, most of the calves require antibiotic treatment, many require IV or SQ fluids.
- Technically, all coliforms are not equal when it comes to causing enteric problems. Evidence points at fecal coliforms as the worst problem. The implications above, therefore, have to be interpreted with some caution when other strains are identified.

These standards are based on “on-farm” observations by Dr. Leadley. Dr. Sheila McGuirk, University of Wisconsin School of Veterinary Medicine, has done field studies that matched colostrum coliform counts with actual scour scores of calves. She prefers to use 10,000 as a lower threshold for calves beginning to have enteric health problems. Their web resources:

<http://www.vetmed.wisc.edu/dms/fapm/fapmtools/calves.htm>.