
**Is *Lawsonia intracellularis* infection associated with disease
in selected populations of New Zealand foals?**

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Background: *Lawsonia Intracellularis* has been traditionally associated with gastro-intestinal disease in pigs. The bacterium has also been isolated from 4 to 7 month-old foals with various non-specific clinical signs including weight loss, lethargy, diarrhoea, colic and potentially death. Very few samples from New Zealand foals suspected of *Lawsonia* infection are sent for laboratory confirmation. As such, the true involvement of *L.intracellularis*, in causing health problems among foals in this country, is poorly understood.

Objectives: The aim of this project was to identify whether or not *L. intracellularis* infections are associated with clinical disease in selected equine studs.

Methods: A real-time PCR assay was optimised for detection of *L. intracellularis* DNA in faecal samples. The assay was then applied for detection of *Lawsonia* DNA in samples collected from foals with gastro-intestinal disease suggestive of *L. intracellularis* infection, and from healthy controls.

Results: *Lawsonia* DNA was detected in samples collected from 6/14 (43%) suspected *L. intracellularis* cases and from 1/11 (9%) healthy controls. The results of the study suggest that *L. intracellularis* may be involved in development of gastro-intestinal disease in foals on selected stud farms. Larger numbers of samples would be required for more conclusive disease association studies.