

Risk factors for Johne's Disease in young farmed deer in New Zealand

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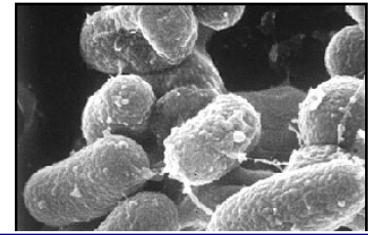
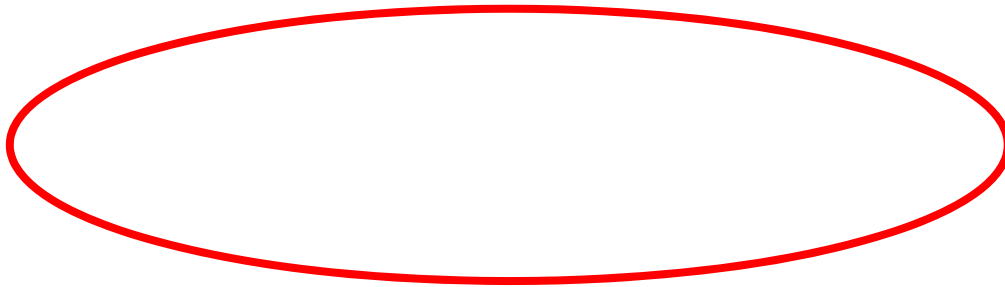
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Johne's Disease in deer

Mycobacterium avium subspecies
paratuberculosis (MAP)

Two strains: bovine and ovine



Alert & good appetite



Wasting

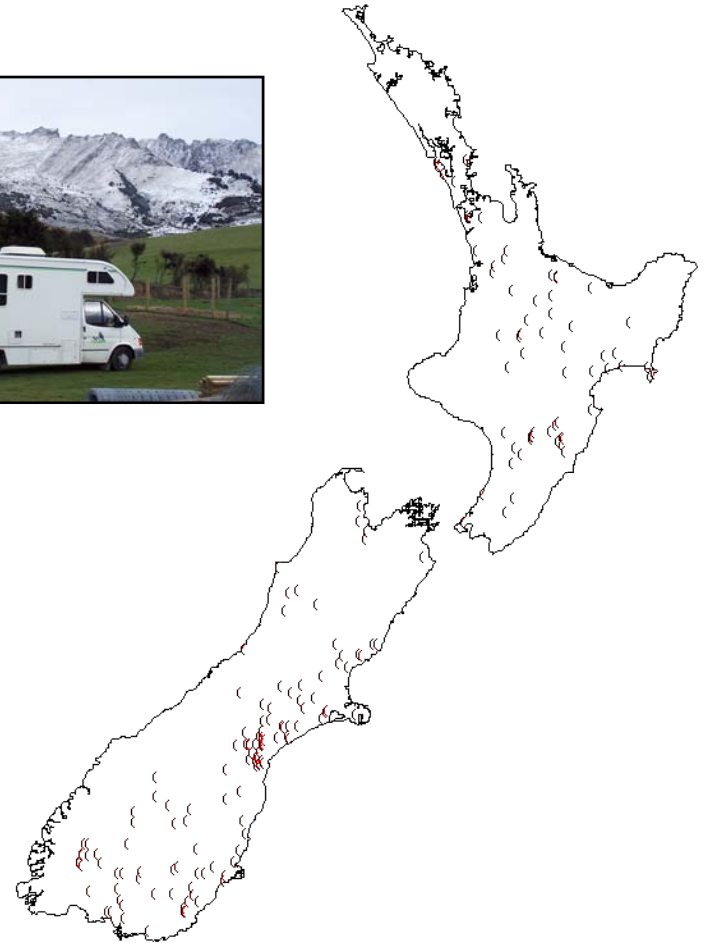
Diarrhoea

Moth-eaten appearance

Nationwide Case-control Study

- 174 deer herds
- Herd-level MAP status:
 - 59 MAP-positive
 - 115 MAP status unknown
- Pooled Faecal Culture
 - 6 pools of 10 samples
- 25-page retrospective questionnaire

(01 Jan - 31 Dec 2005)



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Nationwide case-control study

115 sampled herds: status unknown

Clinical status	<i>M.ptb</i> (faecal culture) Herd Status		
	Positive	Negative	TOTAL
Positive	36	8	44 (38%)
Negative	14	57	71 (62%)
TOTAL	50 (43%)	65 (57%)	115 (100%)



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Nationwide case-control study

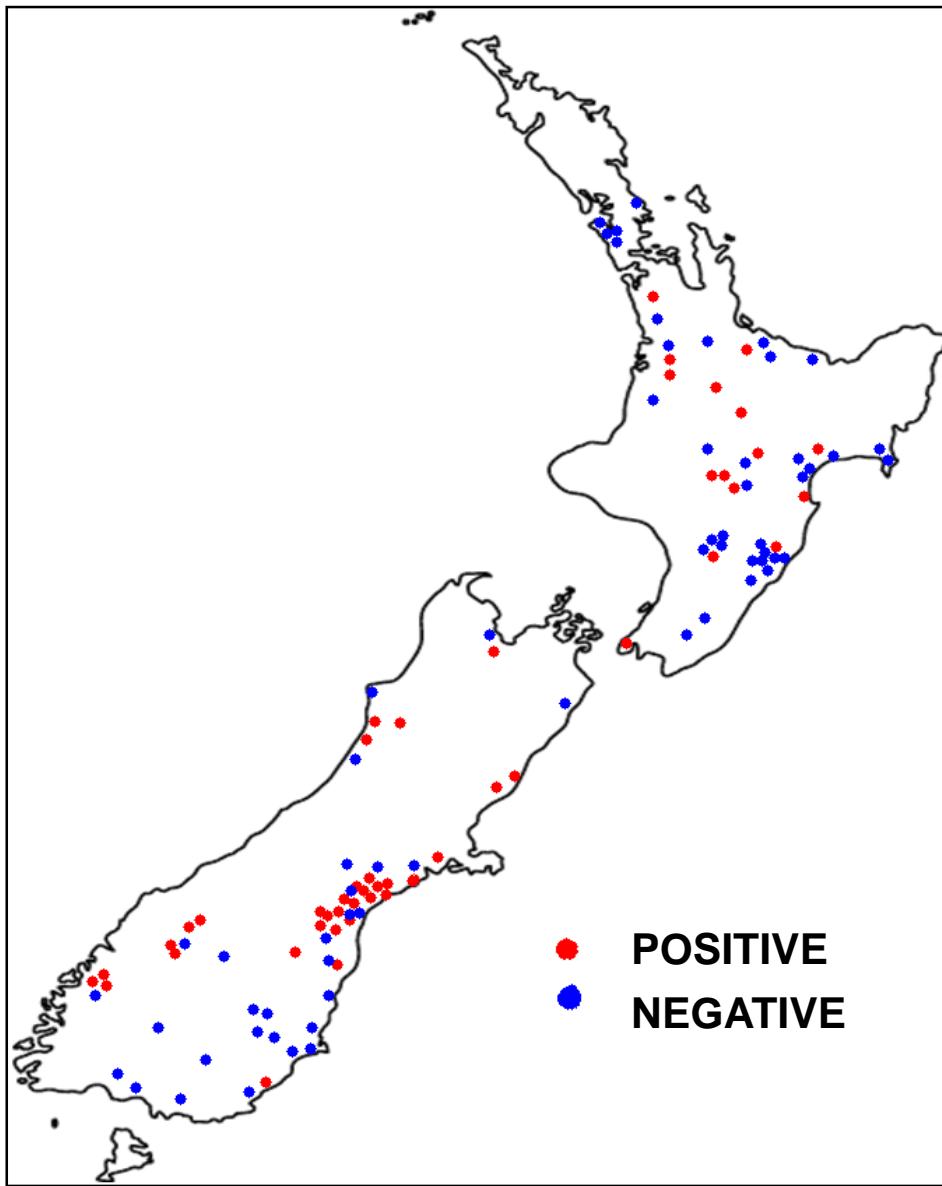
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**Geographic
distribution
of 115
sampled
properties:
MAP +/-**



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Nationwide case-control study

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Weaner (3-12 month old) deer with clinical JD

- **“Clinical JD” positive herd**
 - MAP positive
 - ≥ 1 deer with diarrhoea and/or wasting
 - Not copper deficiency or yersiniosis as diagnosed by the farmer
 - Non-responsive to anthelmintic if administered
- **107 Clinical JD positive herds with ≥ 20 weaner deer**
 - **53 case herds** = $\geq 0.4\%$ weaner deer with clinical JD
 - **54 control herds** = $<0.4\%$ weaner deer with clinical JD



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≥ 0.4% weaner deer with clinical JD

- **Sheep** present on deer fenced area
- High percentage of the **breeding herd < 5 years old**
- **Yearling deer** purchased in 2005



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≥ 0.4% weaner deer with clinical JD

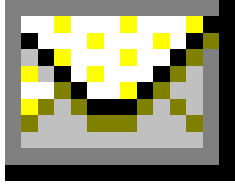
- Yearling beef cattle present on deer fenced area
- Irrigated pasture



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Multispecies grazing: Postal Questionnaire

802 New Zealand deer farms

14: address invalid

Response rate: 382 herds
(/788)

48.4%

38: not deer farming

4: questionnaires incomplete

Study population: 340 herds

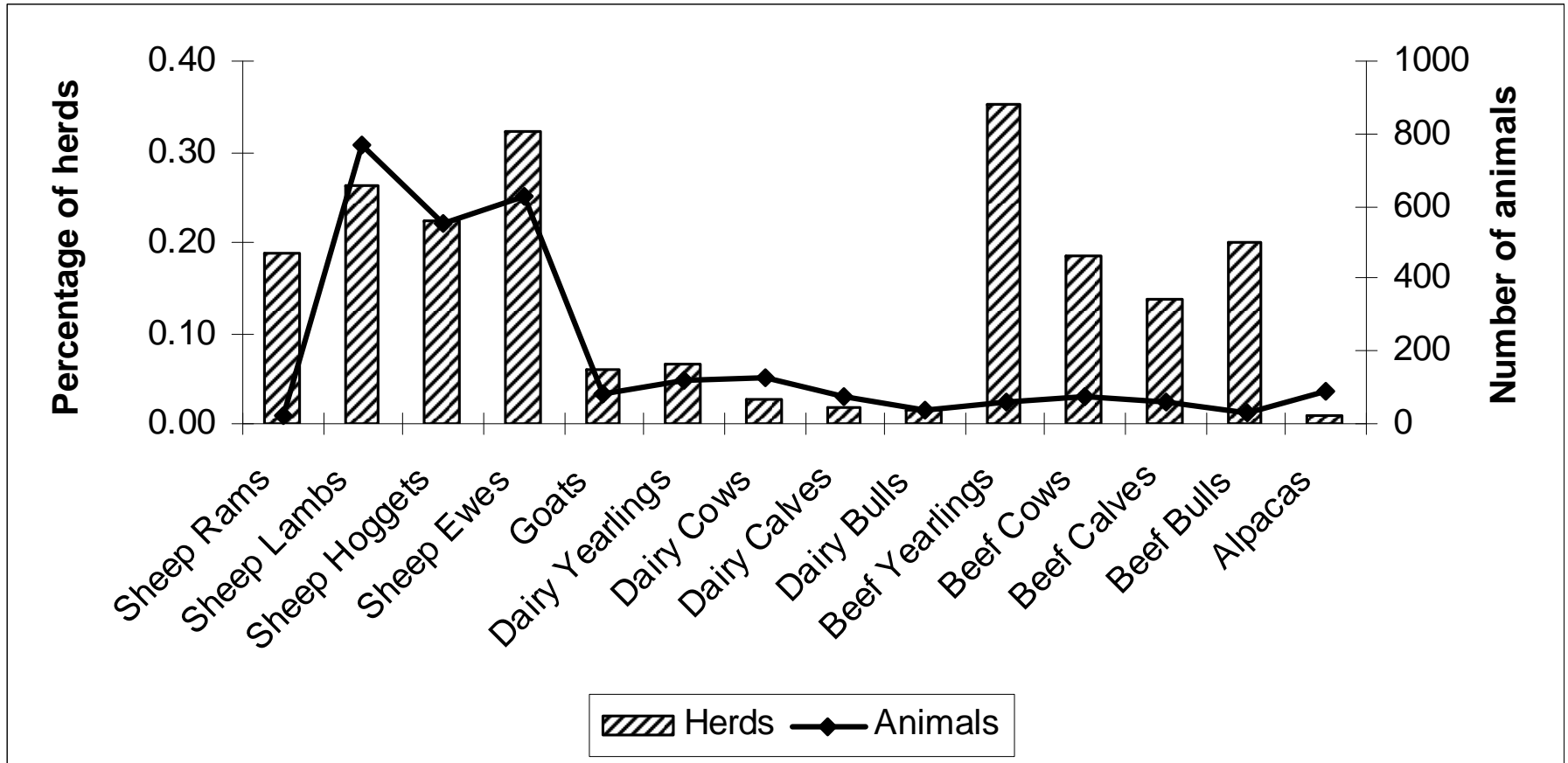
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number: 1

Multispecies grazing and presence of clinical JD

- Focus on **sheep, beef cattle, dairy cattle and goats grazing on:**

Multispecies grazing on New Zealand deer farms



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Thankyou



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