# **Deer leptospirosis**

- National prevalence survey: 110 farms
  - ~80% farms, ~50% deer positive
  - Throughout NZ
- Serovars
  - Hardjo (~75%) Pomona (~15%) and (Copenhageni)
  - A new serovar in NZ???: Arborea
- Epidemiology
  - Infection patterns
    - Early infection young animals
  - Transmission to/from sheep and cattle





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## **Deer leptospirosis**

- Subclinical effects
  - Weaning % reduced by 6% ave. (0 11%)
  - Growth rate reduced up to 6.4kg ave. (~\$35/carcass)
- Vaccination is effective
  - Prevents shedding

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- Prevents growth and reproduction losses
- Deer slaughterhouse workers
  - ~19% blood test positive







## Is deer vaccination "economic"?

#### • Mortalities:

Yes if >0.7% weaners, >0.3% hinds

Growth				
Sero prevalence %	19	50	100	
\$ return %	0	262	518	

Reproduction				
Weaning % gain	1.3	5.6	10	
\$ return %	0	400	714	





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### Effectiveness of long-term vaccination? Urine shedding in vaccinated dairy herds



	No.	%
Herds	44	30
Cows in pos.		
herds	18/134	13.5



Age at 1st vaccination (weeks)

- Result prompted vet/industry review
  - What is needed to achieve a better result?
  - Best practice guidelines (NZVA)
    - More research needed!!!!



