CRC for Premium Quality Wool

Mechanisms of Generalised (Systemic) Disease: The Immune Response

Produced for the CRC for Premium Quality Wool undergraduate program by;
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Effects of the immune response

Components of the immune response

- Inflammation
- Increased leucocyte numbers
- Cytokine production
- Fever
- Antibody production

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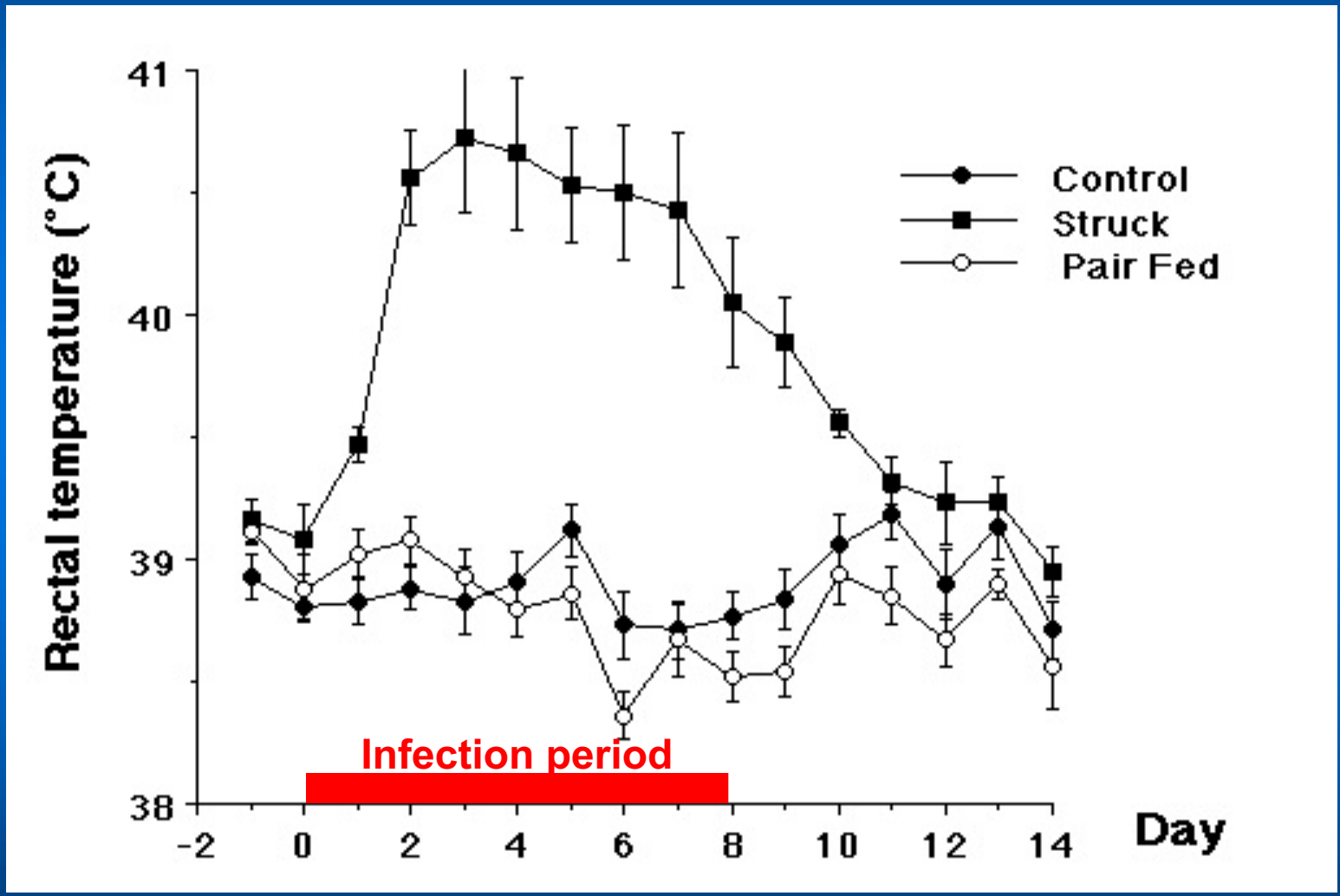
Effect of infection with 500 1st instar *Lucilia cuprina* larvae daily for 8 days on body temperature in merino wethers



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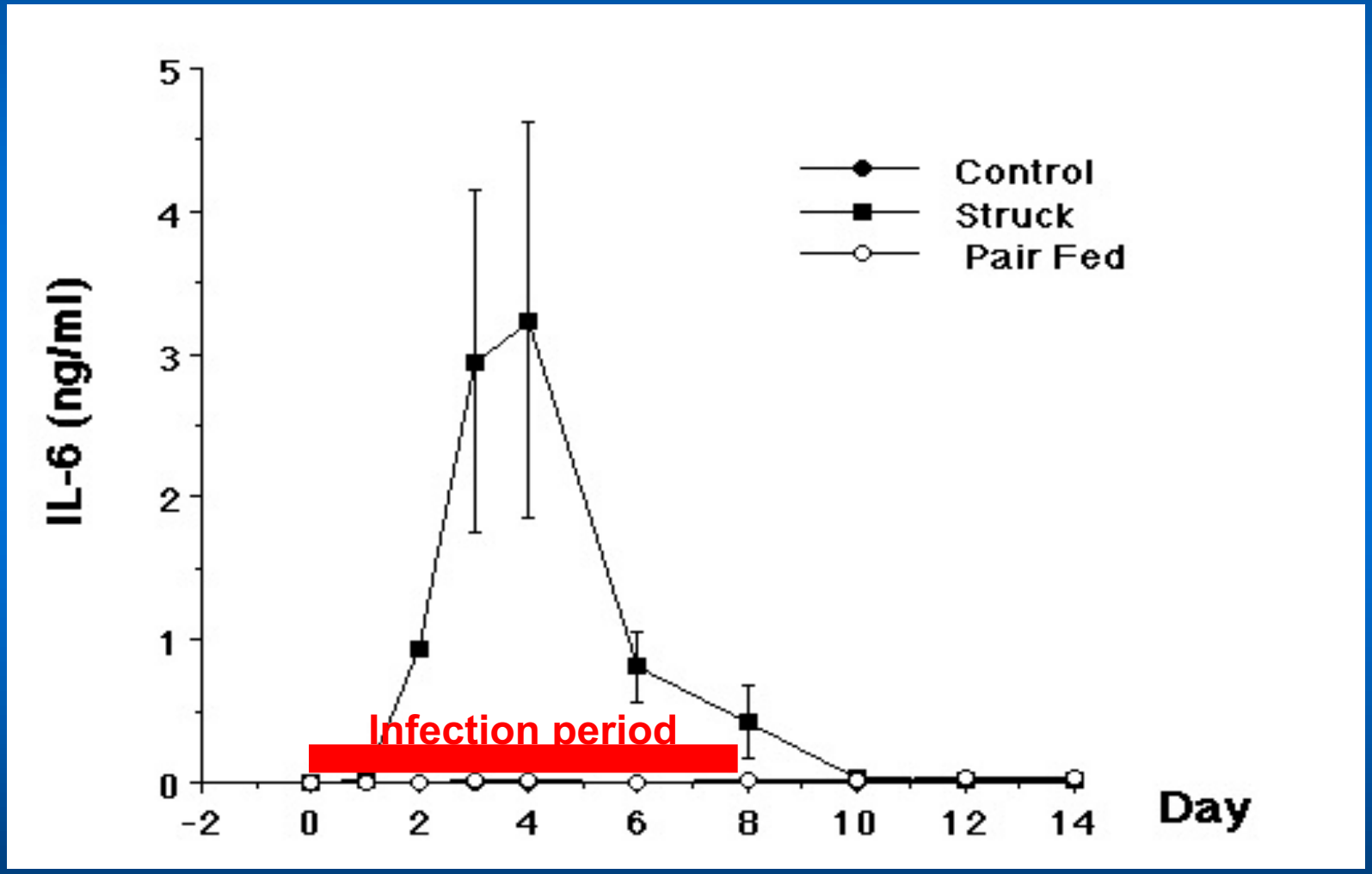
Source: Walkden-Brown et al. (2000)

Effect of infection with 500 1st instar *Lucilia cuprina* larvae daily for 8 days on interleukin-6 concentrations in Merino wethers



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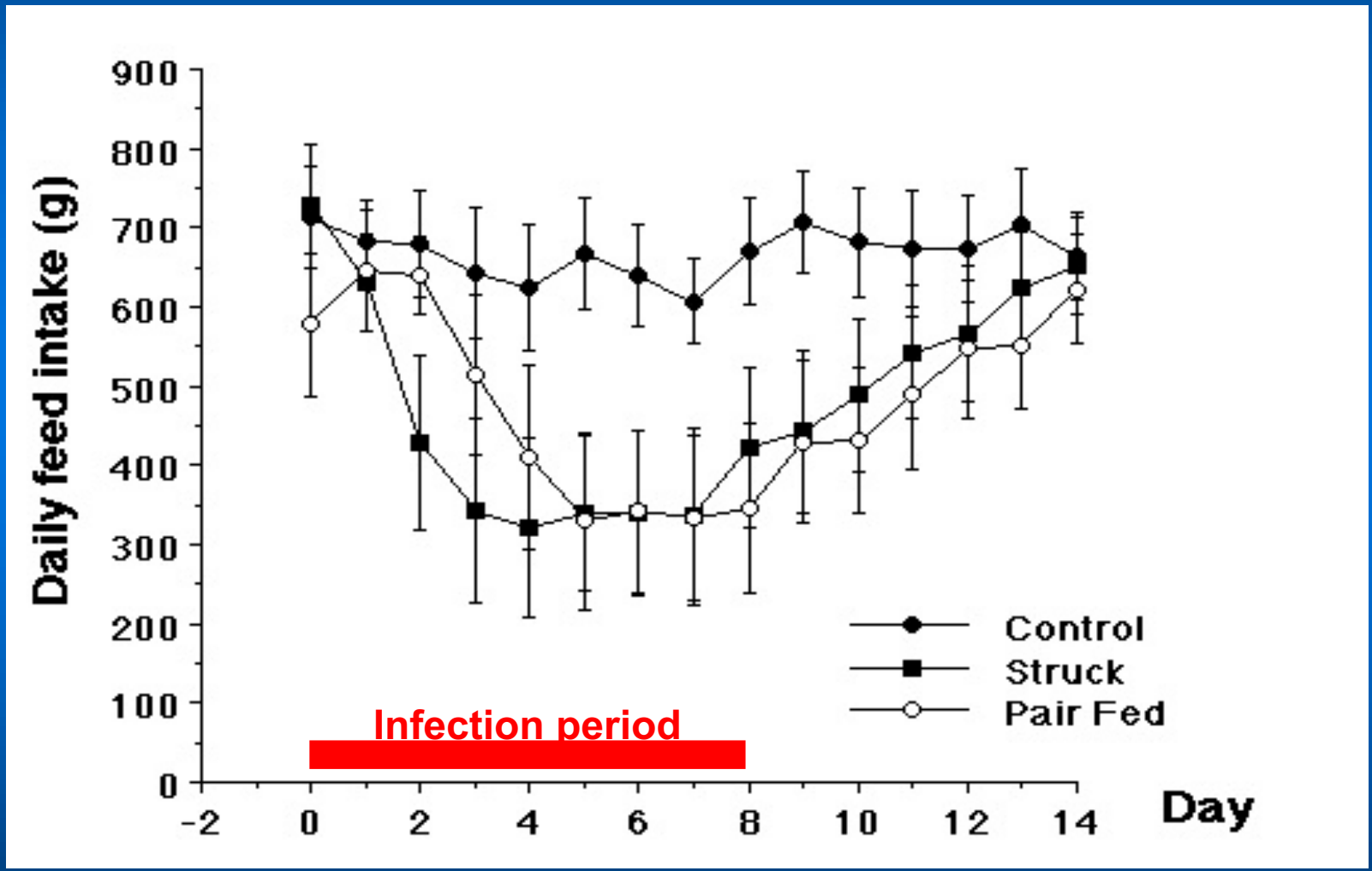
Source: Walkden-Brown et al. (2000)

Effect of infection with 500 1st instar *Lucilia cuprina* larvae daily for 8 days on voluntary feed intake in merino wethers



Source: Walkden-Brown et al. (2000)

Effects on wool growth

- Severe skin inflammation (dermatitis) is associated with localised shedding of fibres
- High fever can induce a generalised break in the wool
  - This appears to be due more to the direct effects of cytokines or stress hormones rather than the decline in feed intake
- The metabolic costs of mounting immune responses are probably low and unlikely to influence wool growth

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