The Use of Hormones to Manipulate Annual Wool Production

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Autumn

- Weaners redistribute protein reserves from gut and skin to muscle
  - Improve wool production by shifting supply of amino acids back to wool
- Immunised sheep against GH releasing hormone
  - Decreased GH levels but did not affect wool growth
Autumn

• decrease BMR of animals by inhibiting noradrenaline
  
  – glucocorticoid receptor may become sensitised to catecholamines released by low nutrition and heat stress
• distribute nutrients to muscle growth rather than wool
  – when feed is limiting (summer and autumn) muscle can be used to improve wool growth
  • e.g. GH for 4 weeks improved wool for 6 months at the end of treatment (Wynn et al. 1988, A. J. Biol. Sci. 41:177)
Spring

- Possible alternative to ration grazing in spring to restrict fibre diameter
  - e.g. T4 may increase length compared to diameter (Williams, 1984; Proc. Aust. Soc. Anim. Prod. 15:631)