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The Use of Hormones to Manipulate Annual Wool Production

Produced for the CRC for Premium Quality Wool undergraduate program by;
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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

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Autumn

- decrease BMR of animals by inhibiting noradrenaline
 - glucocorticoid receptor may become sensitised to catecholamines released by low nutrition and heat stress

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Spring

- **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)**

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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)

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