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for

Premium

Quality

Wool

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Vitamins and Wool Growth

Produced for the CRC for Premium Quality Wool undergraduate program by; Prof Phil Hynd, The University of Adelaide.

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 Radiolabelled Vitamin D3 accumulates in ORS and bulb

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D3 receptors found in papilla and ORS – D3 receptor no. varies through hair cycle

alopecia occurs in patients with type II rickets

a defect in the D3 receptor

 D3 alters fibre growth in culture

 low levels stimulated growth and high levels depressed growth

Phil Hynd



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Vitamin A

 Varied responses to vitamin A supplementation in sheep

 Retinoids have direct effects on keratinocyte growth and differentiation

 Retinoic acid receptors present in bulb, ORS and keratinising zone

 Vitamin A alters production of IGF binding proteins