CRC for Premium Quality Wool

The Impact of Pregnancy and Lactation on Wool Growth and Quality

Produced for the CRC for Premium Quality Wool undergraduate program by;
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Tender wool per 100 kg Merino combing wool sold in WA

David Masters
Source: Barton et al. (1994)

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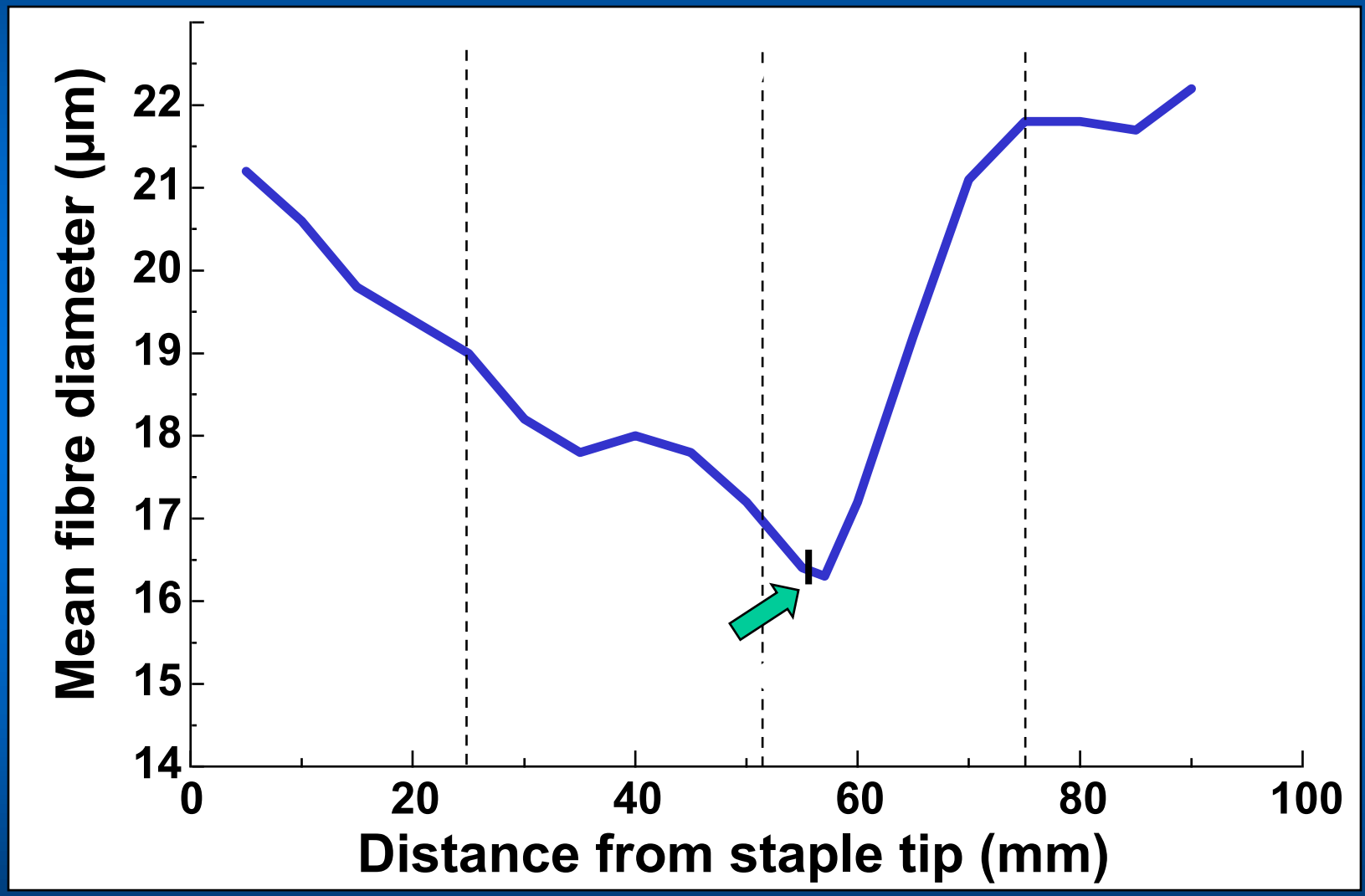
Fibre diameter profile during pregnancy and lactation



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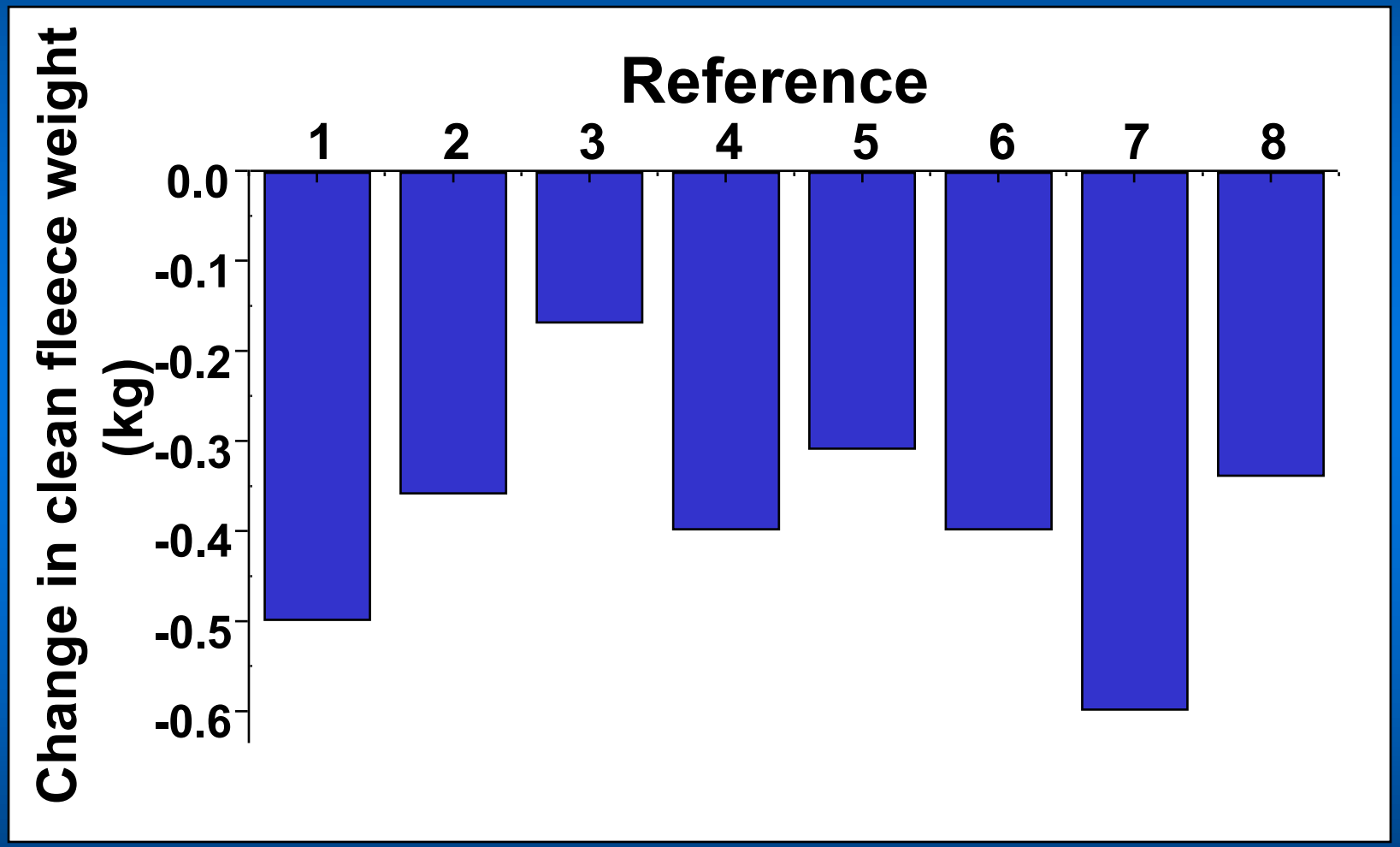
Source: Hansford and Kennedy (1988)

Changes in fleece weights due to pregnancy and lactation



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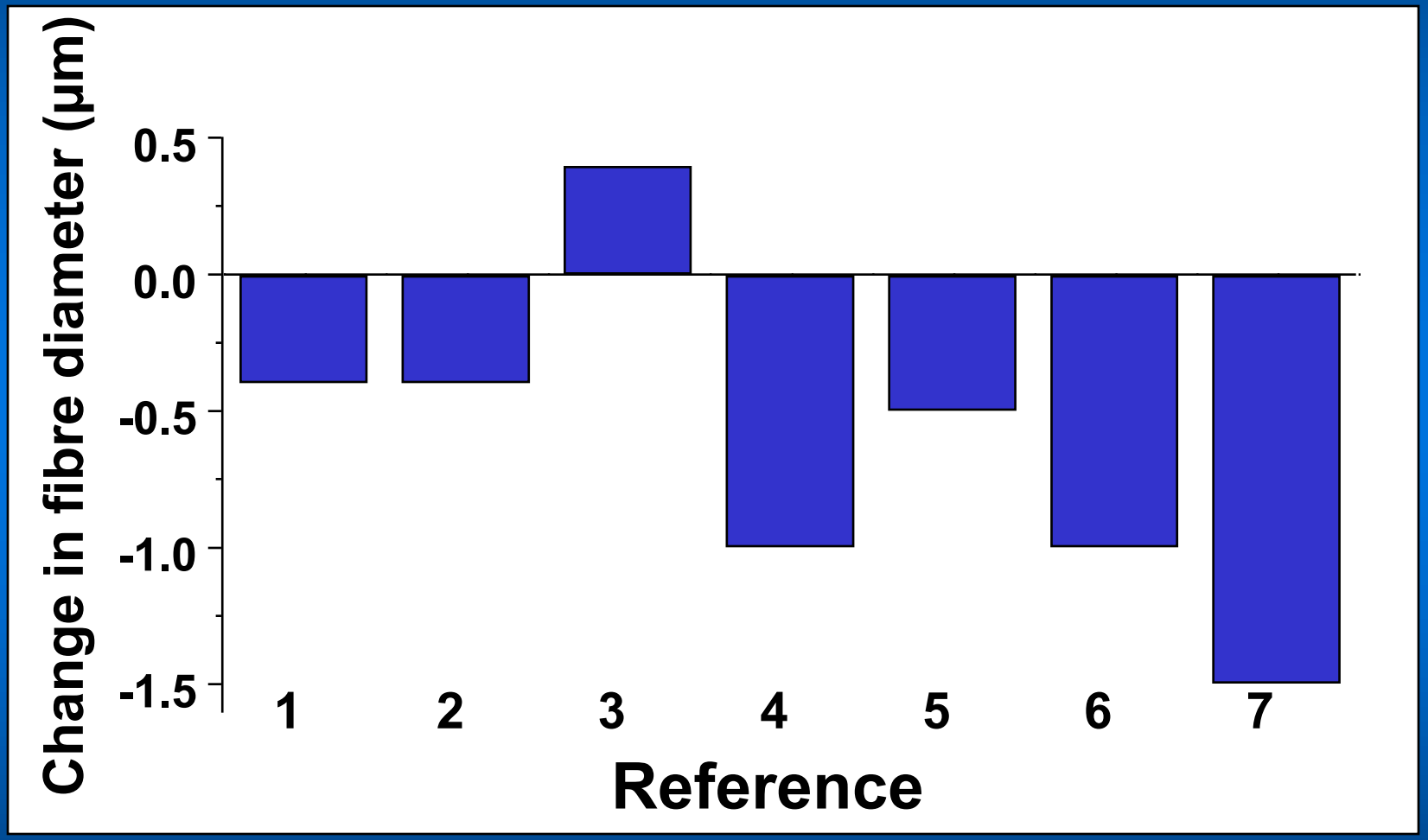
Source: Masters and Stewart (1990)

Changes in fibre diameter due to pregnancy and lactation



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Source: Masters and Stewart (1990)

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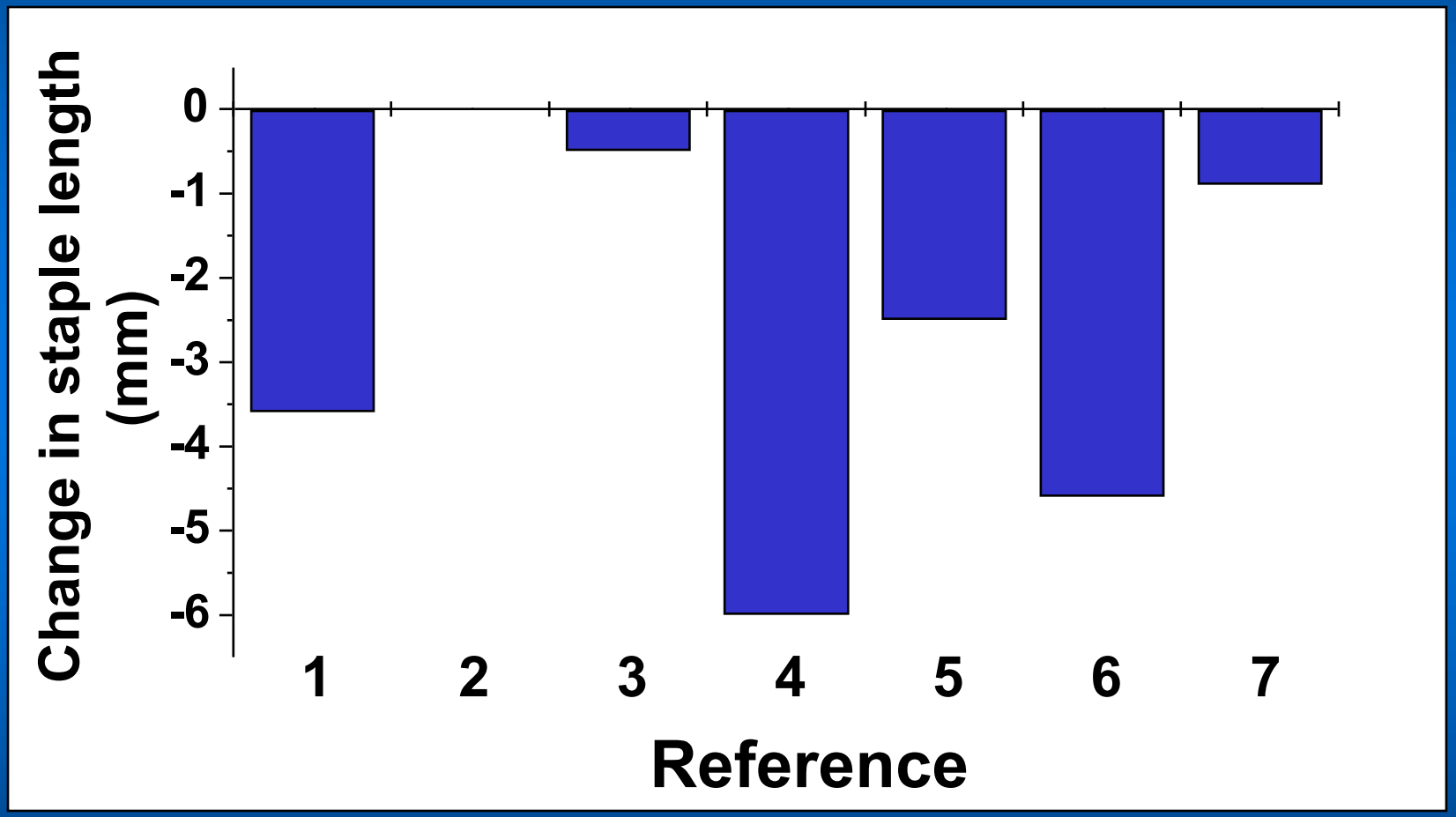
Changes in fibre length due to pregnancy and lactation



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Source: Masters and Stewart (1990)

Efficiency of feed conversion to wool

Feed intake of ewes:

Dry ewes	consumed 1.19 kg/day for 210 days
Ewes rearing 1 lamb	consumed 1.6 kg/day for 210 days

Wool growth

Dry ewes	17.3 g/day for 210 days
Ewes rearing 1 lamb	14.0 g/day for 210 days

1. Estimate wool growth in g/kg feed intake and total wool grown over 210 days for each group

2. How much wool would have been grown if the feed for ewes rearing a lamb was fed to dry ewes?

3. What is the cost in lost wool production (kg) of rearing a lamb?

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Source: Oddy (1985)

Efficiency of conversion of feed to wool

Dry ewes = 17.3 g wool/1.19 kg feed
= 14.5 g/kg feed

Ewes rearing 1 lamb = 14 g wool/1.6 kg feed
= 8.8 g/kg feed

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Wool growth during the experimental period

Dry ewes = 17.3 g/d for 210 days
= 3633 g wool

Ewes rearing 1 lamb = 14.0 g/d for 210 days
= 2940 g wool

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Wool growth expected if all feed given to dry ewes

Wool grown if:

1.6 kg/d fed to dry ewes for 210 days

= (14.5*1.6)*210 = 4872 g wool

Cost of producing 1 lamb

= 4.87-2.94

= 1.93 kg wool

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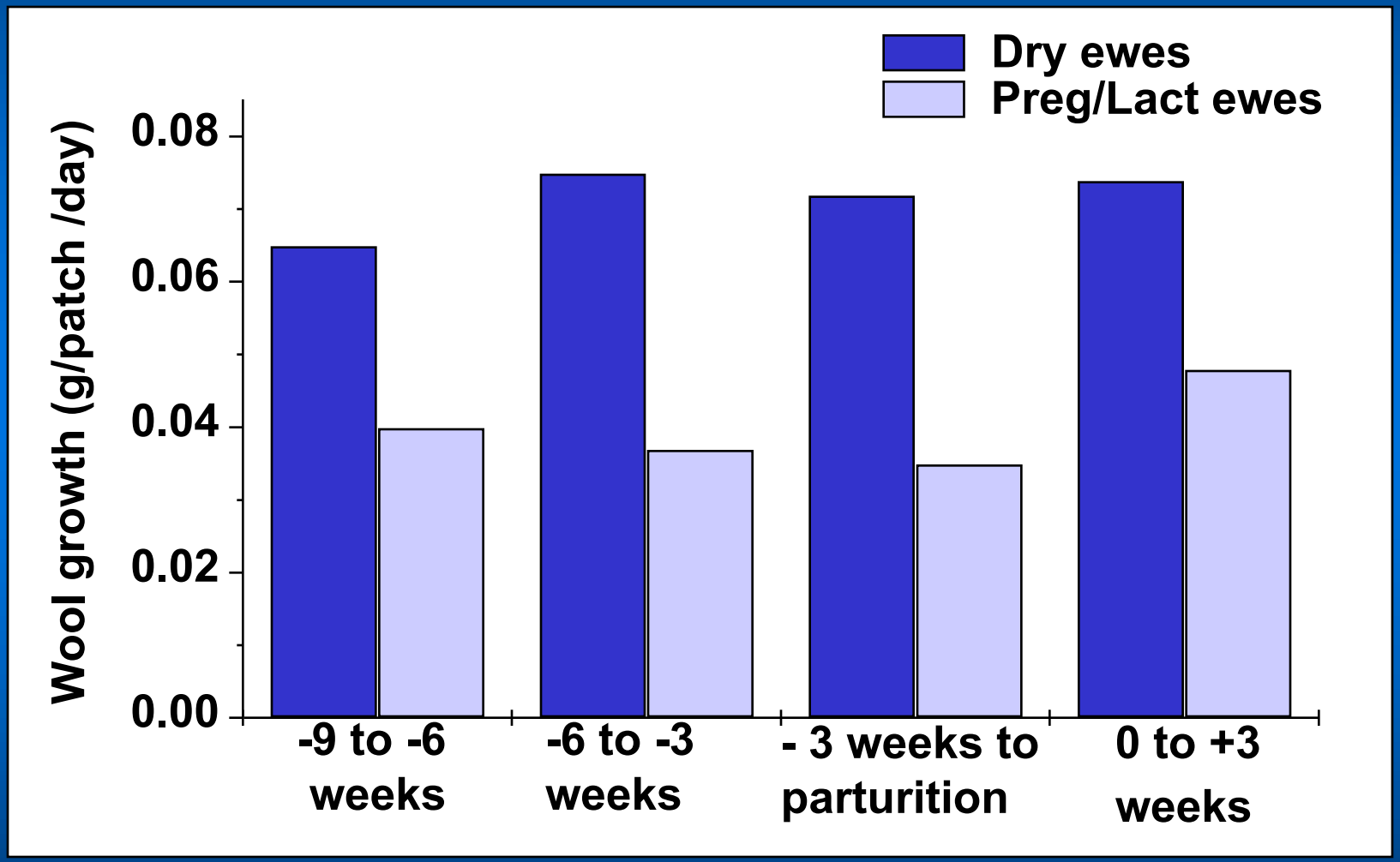
Wool growth during pregnancy and lactation



David Masters
Source: Masters et al. (1993)

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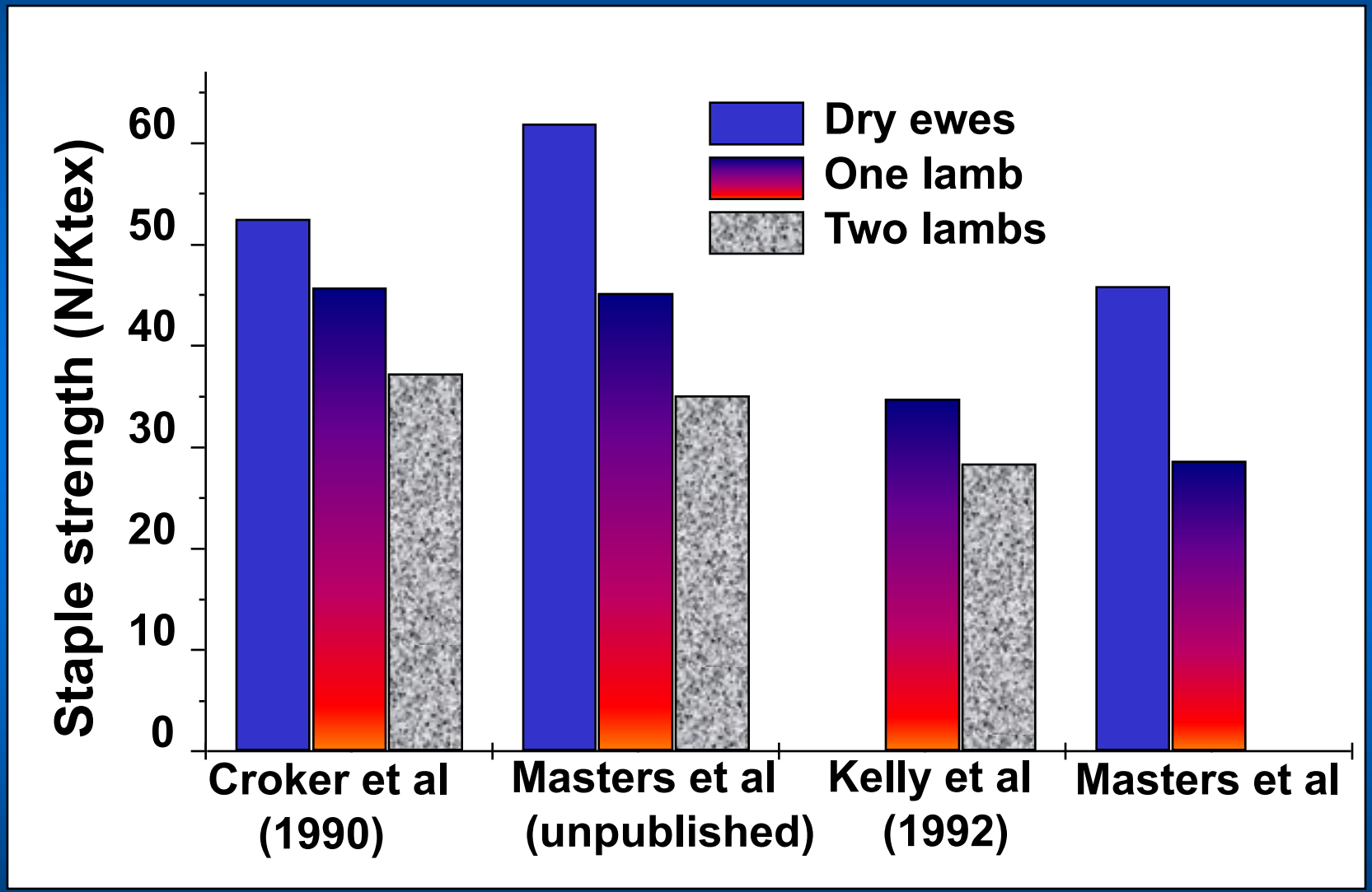
Staple strength in reproducing ewes



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