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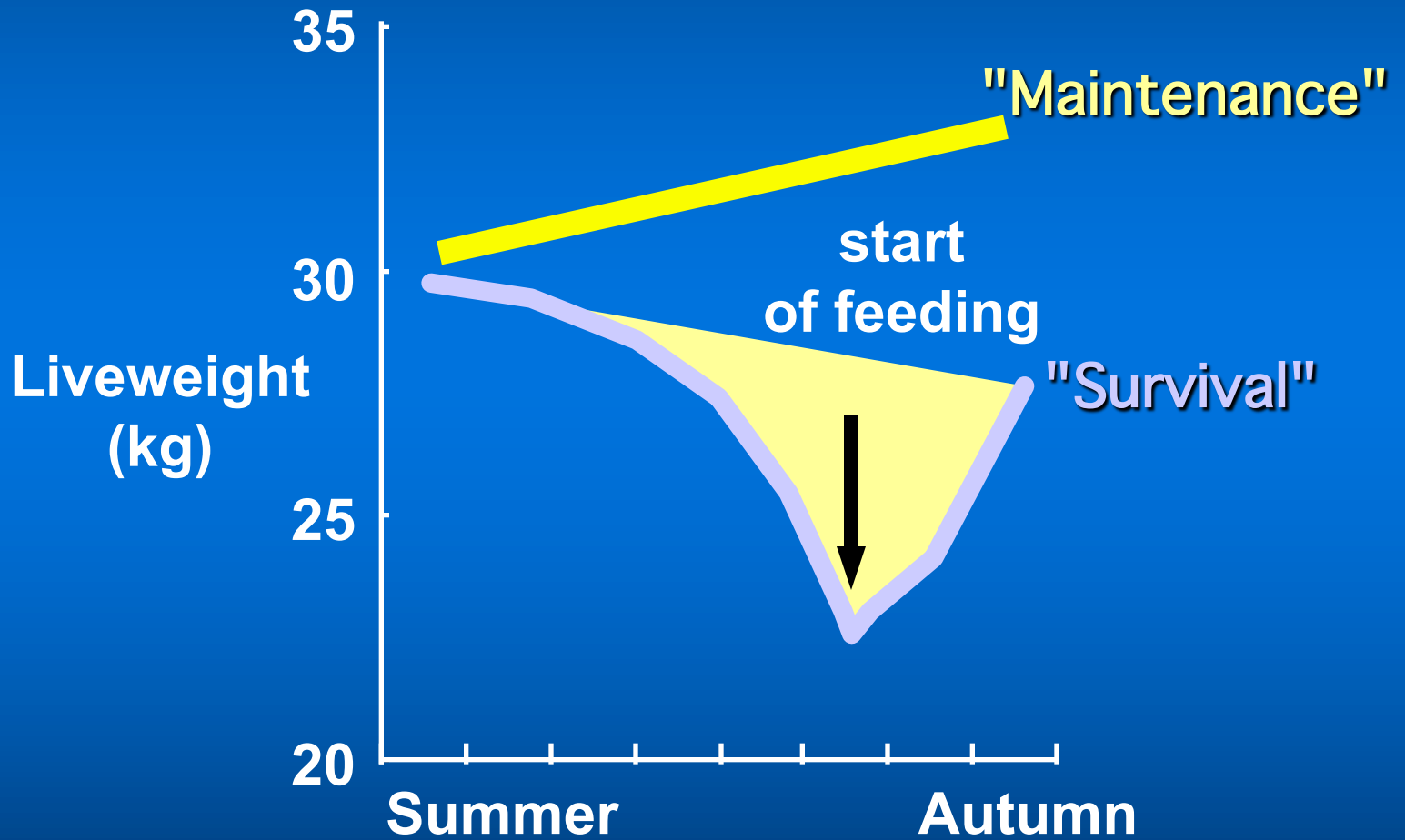
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# Managing Wool Quality in Young Sheep: Feeding Strategies

Produced for the CRC for Premium Quality Wool undergraduate program by;  
Dr. Stephen Gherardi & Andrew Peterson, Agriculture Western Australia.



# "Maintenance" vs "Survival"



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# Hypothesis

Differences in staple strength responses to supplementation are due to:

- timing of the start of supplementation
- short-term climatic events
- genetic differences between sheep

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# Supplementary Feeding

- ***Survival*** - lupins for survival (20.5kg/hd)
- ***Traditional*** - lupins from mid-February (28kg/hd)
- ***Recommended*** - lupins from clover wilting (32.5kg/hd)
- ***Tactical*** - as per Recommended but with extra hay or lupins following rainfall events

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# Staple strength for low, medium and high rainfall sites: 1992-93

## Staple strength (N/ktex)

- **Low** 28.6 <sup>a</sup>
- **Medium** 26.6 <sup>b</sup>
- **High** 20.9 <sup>c</sup>

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Stephen Gherardi & Andrew Peterson  
Source: Gherardi et al. (1996)





# Staple strength for feeding treatments: 1992-93

## Staple strength (N/ktex)

- **Survival** 23.8<sup>a</sup>
- **Traditional** 24.2<sup>a</sup>
- **Recommended** 26.2<sup>b</sup>
- **Tactical** 27.3<sup>b</sup>

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# Staple strength for fine and medium wool hoggets: 1992-93

## Staple strength (N/ktex)

- Fine wool 29.4<sup>a</sup>
- Medium wool 21.4<sup>b</sup>

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# Clean fleece weights for feeding treatments

## Clean fleece weight (kg)

- **Survival** 3.2
- **Traditional** 3.5
- **Recommended** 3.6
- **Tactical** ?

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# Mean fibre diameter for feeding treatments

## Mean fibre diameter ( $\mu\text{m}$ )

- **Survival** 18.2
- **Traditional** 18.0
- **Recommended** 18.2
- **Tactical** ?

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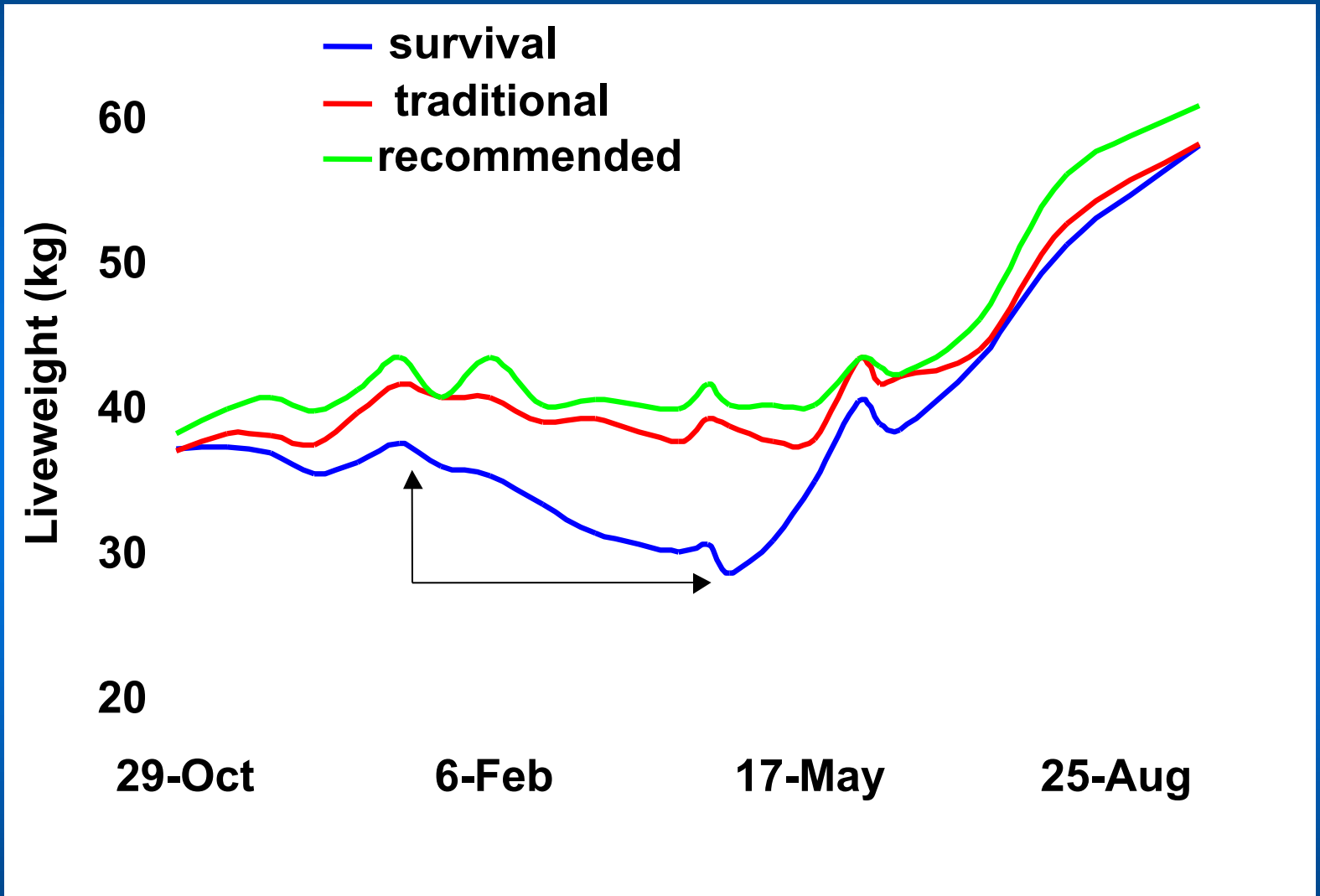
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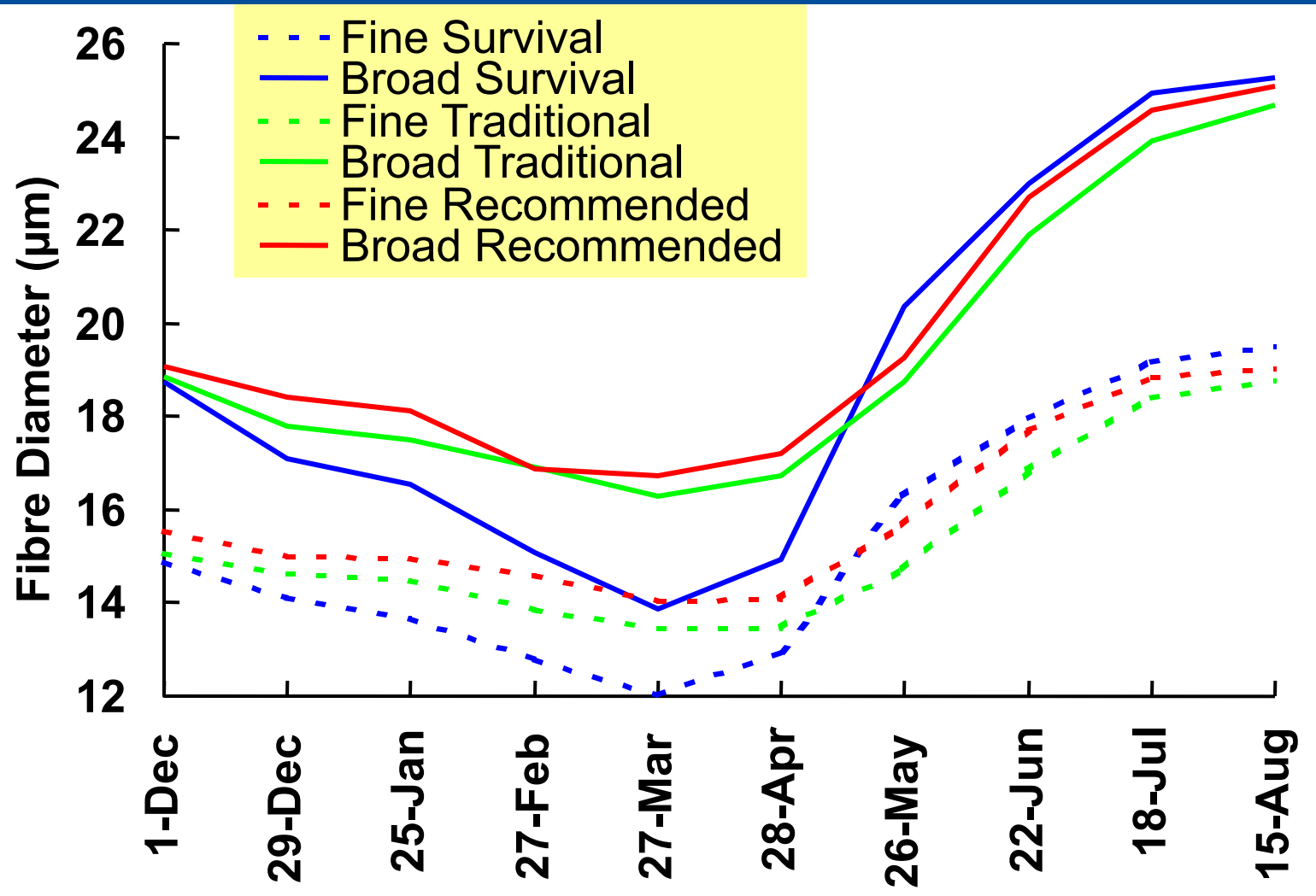
# Liveweights - Kojonup



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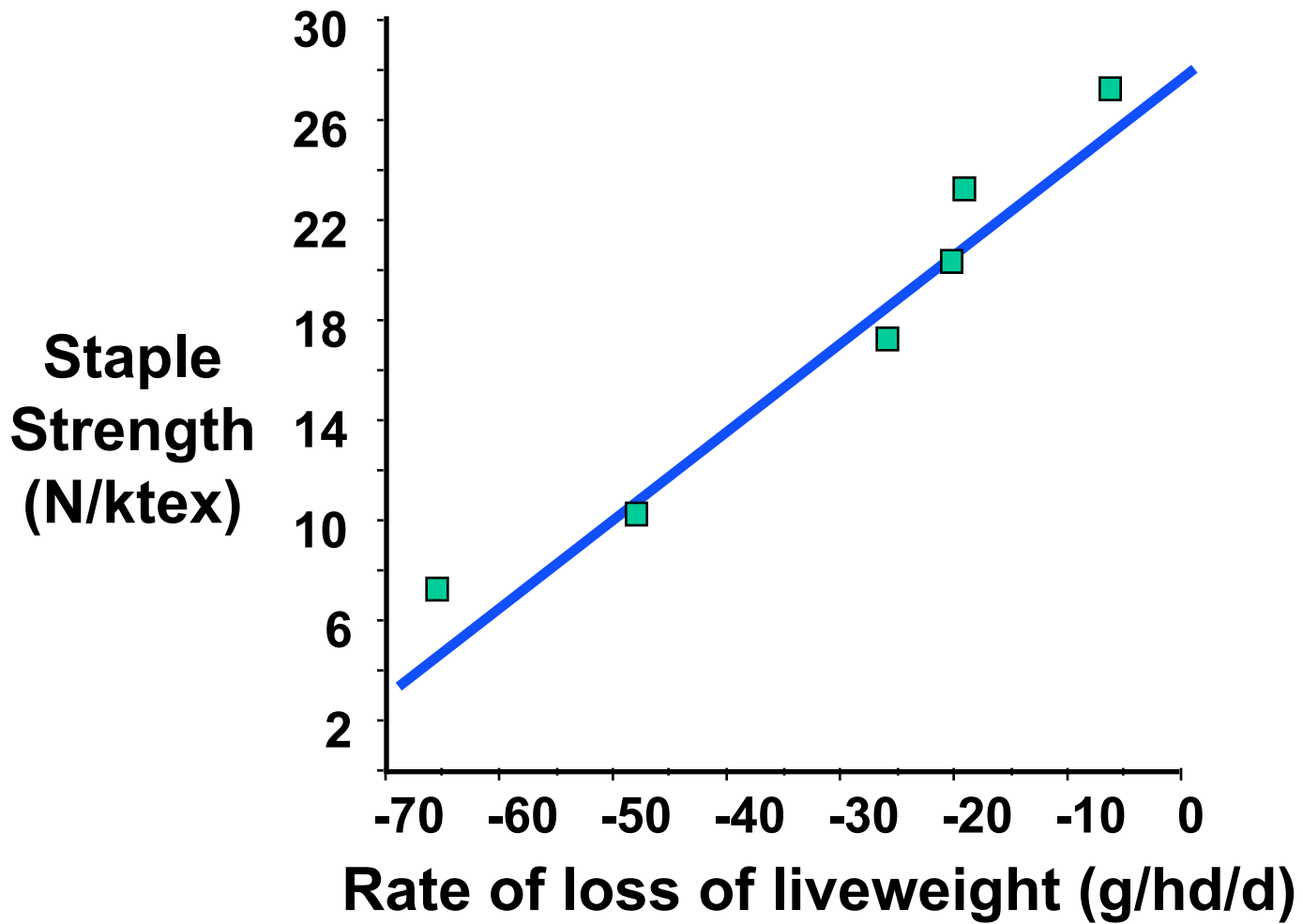
# Diameter Profiles - Kojonup



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# Staple strength vs liveweight change



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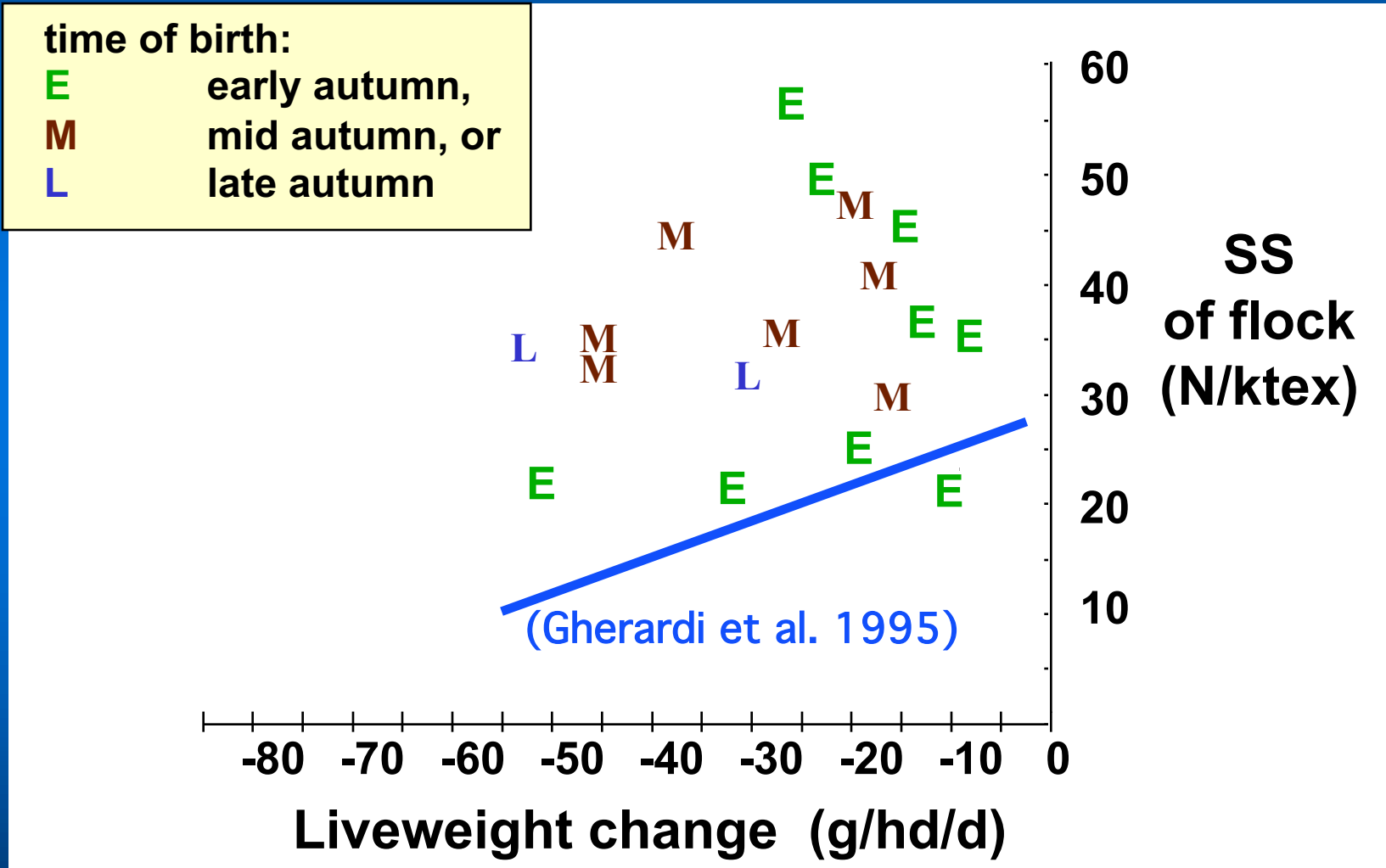
Stephen Gherardi & Andrew Peterson  
Source: Gherardi (unpubl.)



# The relationship between staple strength and rate of live weight change among 19 weaner flocks in 1995

time of birth:

- E** early autumn,
- M** mid autumn, or
- L** late autumn



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