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for

Premium

Quality

Wool

# **“Length After Carding” for Australian Carding Wools**

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

- **New Zealand standard NZS 8719**
  - currently used in trading deliveries of NZ scoured wool
- **no Australian standard**
  - AWTA offer report based on NZ standard
- **development of combined standard**
  - working group within TX/12 Raw Wool Standards Committee

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# Measurement Procedure

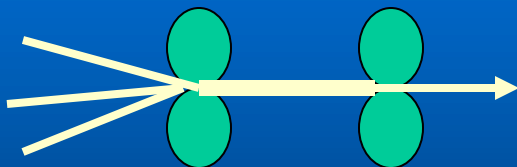
## 1. Clean wool



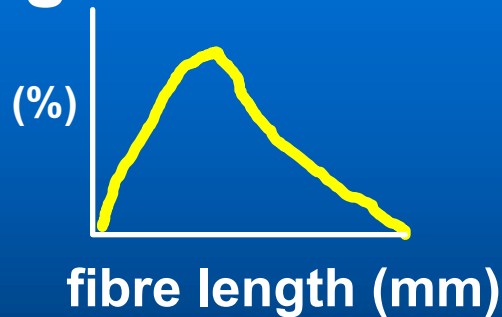
## 2. Carding action



## 3. Preparation for measurement



## 4. Measure fibre length distribution



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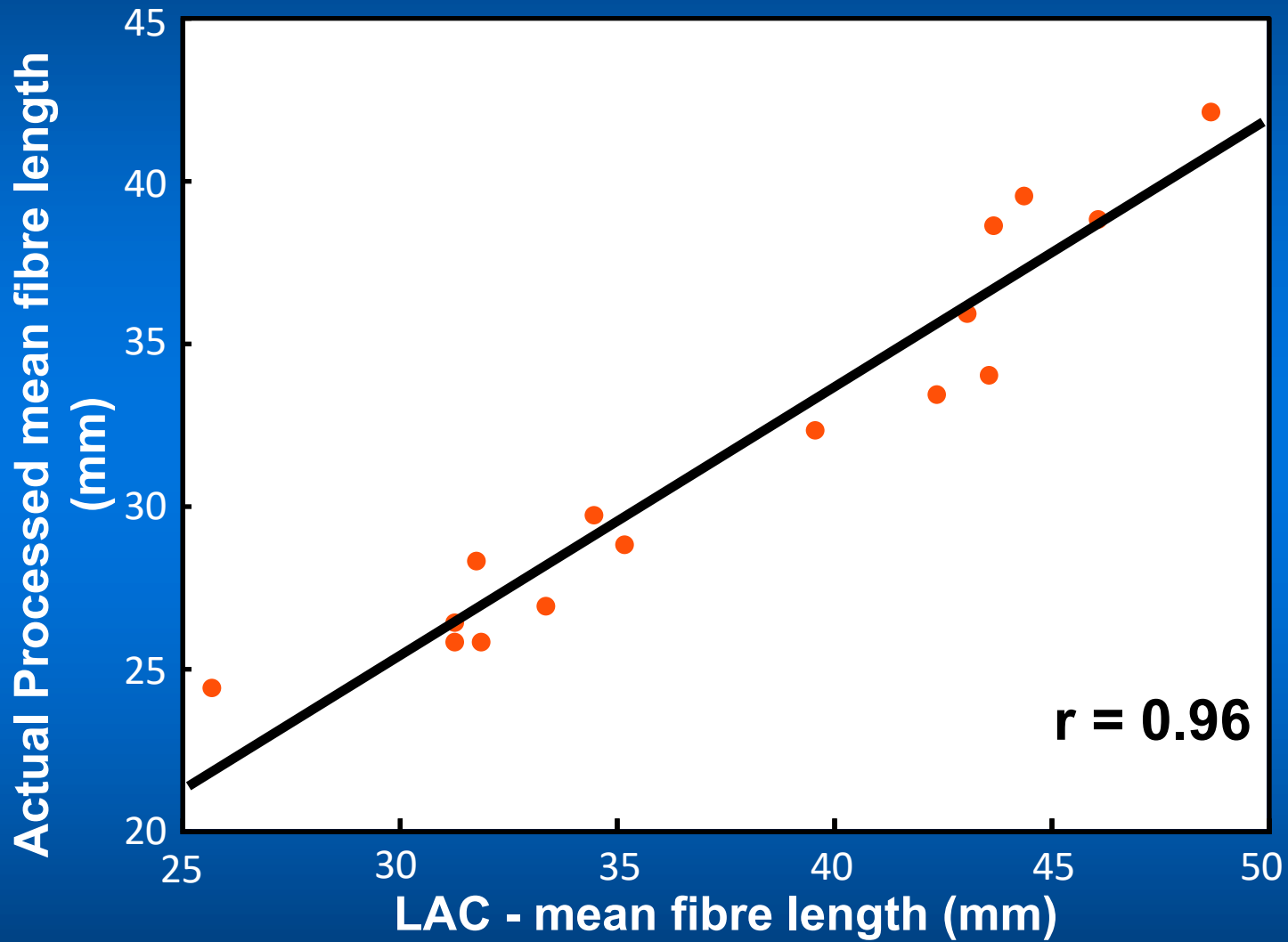
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# Comparison of Fibre Length



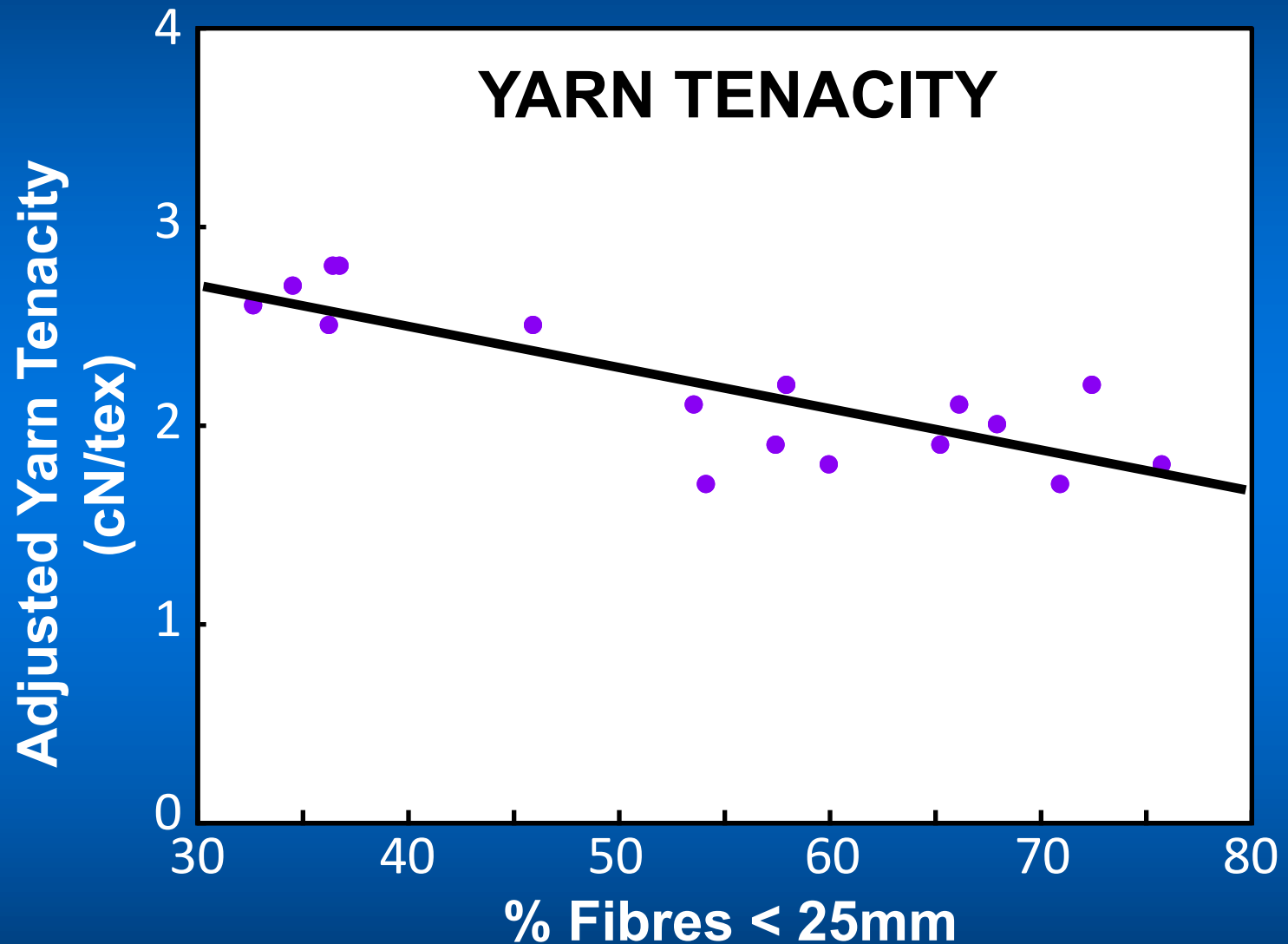
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Source: Mahar, T. J. et al. (1996)



# LAC and Yarn Strength



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# Prediction of LAC

$$\text{LAC} = 0.65\text{SL} - 0.20\text{CVsl} + 0.94\text{D} - 3.9\text{CF}$$

## Parameters:

SL - staple length

CVsl - coefficient of variation of SL

D - fibre diameter

CF - carbonised factor: yes = 1, no = 0

**Predicted LAC vs Measured LAC  $R^2 = 0.86$**

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