



for

Premium

Quality

Wool



A Fabric for the Future

Produced for the CRC for Premium Quality Wool undergraduate program by; Dr. Barry Holcombe, CSIRO Textile & Fibre Technology.

www.woolwise.com

© 1999, Wool CRC





Clothing in the 90's



www.woolwise.com



www.woolwise.com

© 1999, Wool CRC



Diameter and Tactile Appeal



www.woolwise.com



for

Wool

© 1999, Wool CRC

Wool Fabric Tactile Ratings



www.woolwise.com



for

Premium

Quality

Wool

© 1999, Wool CRC

Summary

- Consumer preferences
 - comfortable clothing
 - tactile appeal
 - microclimate control
 - clothing for many occasions

Tactile appeal

- important in consumer preferences
- fibre diameter is fundamental to tactile appeal
- finer wool fibres are better

New fabrics must meet these needs

www.woolwise.com



for

Premium

Quality

 \bigcirc

Wool

© 1999, Wool CRC

What is SPORTWOOLPRO



- Two-layer composite construction
 - new knitted technology
 - superfine wool against the skin
 - strongly wicking outer face
- Both faces completely independent
 - Specific fabric finishing processes







 Moisture management is the current focus in active sportswear market

Premium

for

CRC

Quality

0

Wool

© 1999, Wool CRC

SPORTWOOLPRO

provides

- Natural fibre against skin
 - **Two level moisture management**
 - controls microclimate humidity
 - wicking gradient inside to outside



Wicking Mechanism - 1



Premium

for

Quality

Wool



During vigorous produces sweat. inner wool layer.

Sweat is picked up activity, the body from the skin by the

© 1999, Wool CRC

www.woolwise.com



for

Premium

Quality

Wool

Wicking Mechanism - 2



It is then rapidly pulled through to the outer layer. There it spreads out to increase the area of evaporation.

© 1999, Wool CRC www.woolwise.com



Research to Identify Benefits

- Trials in controlled climate
 - elite athletes
 - compared with polyester equivalent
 - Coolmax ™
 - subjective differentiation

Premium

CRC

for

Quality

0

Wool

© 1999, Wool CRC

Related activities measured

- physical measurement of microclimate
- physiological measurement



Subjective Preference



CRC

for

Premium

Quality

Wool

© 1999, Wool CRC

Microclimate Humidity



www.woolwise.com

© 1999, Wool CRC



Skin Microclimate Discomfort





Research Outcomes

SPORTWOOLPRO

- subjectively preferred
 - less damp
 - less clingy
 - more comfortable
- Microclimate humidity buffering
 - lower rate of humidity rise
 - smaller fluctuations

SUPPORTED BY HARD SCIENTIFIC DATA

CRC

for

Premium

Quality

Wool

© 1999, Wool CRC

www.woolwise.com



Consumer Benefits

- Cooler during exercise
- Drier when sweating
- Warmer in the cold
- Natural moisture buffering

Pay-off for consumers is superior comfort in all conditions

CRC

for

Premium

Quality

Wool

© 1999, Wool CRC WWW.WOOlWise.com



Flexible Technology

- easy-care
- wide weight range
- appearance and handle can be tailored to end use
- stretch fabric under development
- socks already trialed

A fabric for many occasions

CRC

for

Premium

Quality

Wool

© 1999, Wool CRC

www.woolwise.com



Further Information



http://www.sportwool.com

Premium

for

CRC

Quality

Wool

© 1999, Wool CRC

www.woolwise.com