

for

Premium

Quality

Wool

Fibre Marketing

Produced for the CRC for Premium Quality Wool undergraduate program by; Dr. Peter Auer, The University of New South Wales.

www.woolwise.com

© 1999, Wool CRC



for

Premium

Quality

Wool

Demand & Supply (all fibres)

Fig. 1 Demand: supply curve of all fibres (Source: J. Jackson pers. comm.)



Quantity of all fibres

commodity price falls over time

Peter Auer Source: Carnaby, G. A. (1998)

www.woolwise.com

Price of all fibres

© 1999, Wool CRC



for

Premium

Quality

Wool

© 1999, Wool CRC

Demand & Supply: NZ wool

Fig. 2 Demand: supply curve of NZ wool (Source: J. Jackson pers. comm.)



demand falls (substitute fibres) •

www.woolwise.com

Peter Auer Source: Carnaby, G. A. (1998)



for

Premium

Quality

Wool

© 1999, Wool CRC

Substitution Fundamentals

- synthetics as "new product" cf. natural products
 - innovation drivers
- Ikely to substitute natural products:
 - technology to approximate natural products
 - favourable cost of synthetic & naturalsynthetic blends
 - value related properties improved by synthetic or natural-synthetic blend
 - more suited to mass production
 - favourable pricing for synthetic or blends
 - consumer acceptance of synthetic or blends



for

Premium

Quality

Wool

© 1999, Wool CRC

Opportunities for Wool

- technology
 Optim[™]?
- favourable cost
 - farm productivity
 - marketing efficiency
- value related
 - apparel performance
 - blends
 - improved fibres
 - WRONZ

- mass production
 - processing technology
 - fibre specification
- favourable pricing
 - blends
 - lower wool prices
- consumer acceptance

SUBSTITUTION WORKS BOTH WAYS!!

www.woolwise.com

Peter Auer



Premium

for

Quality

Wool

© 1999, Wool CRC

Inter-fibre Competition

consumption (kg) 0 regional differences

wool

- 1992
- (mn tons)
- Western Europe (0.6)
- USSR & Eastern Europe (0.2)
- Japan (0.2)
- North America (0.1)

- Drivers \mathbf{O}
 - product innovation
 - growth of blends
 - income growth
 - consumer preference
 - relative price
 - wool > synthetics
 - synthetic unit prices keep falling
 - rapid price rises
 - inelastic supply



for

Premium

Quality

Wool

© 1999, Wool CRC

Synthetic Fibre Marketing

General

- fibre processing optimised
- fibres developed to meet market
 - eg. blend fibres
- fibres developed to meet consumer needs
 - eg. microfibres

Dupont

- staple & tow markets
- world divided into regions
- joint ventures with partners in each region
- tailor-made factories
 - 90 to 900 tonnes / day



Dupont R&D

- Fibre
 - polymers
 - fundamentals
 - synthesis
 - modifications
 - multi-component
 - recycling
 - fabrication
 - composites
 - coatings
 - fibre science
 - color science

- Process
 - process development
 - modeling, simulation
 - hazard control
 - optimisation
 - measurement & control
- \$US 1 bn p.a. TOTAL R&D

CRC

for

Premium

Quality

Wool



Cotton R&D

- Cotton Inc.
 - \$US 30 miliion p.a.
 - U.S. based
- Agricultural Research
- **Fabric Development** •
- **Fibre Quality** •
- Textile Research
- Fibre Management Research
 - EFS® System
 - facilitation of HVI data transfer and usage

Peter Auer Source: www.cottoninc.com (1999)

© 1999, Wool CRC

www.woolwise.com

for

CRC

Premium

Quality

Wool



for

Premium

Quality

Wool

Fibre Marketing Examples

- Artificial (cellulosic)
 - Rayon
 - first marketed against silk
 - poor image, performance related
 - Nylon predominated
 - re-launched as Tencel in 1980's
- Wool
 - Optim[™]
 - Sirospun, Solospun

- Synthetic
 - Nylon
 - military
 - parachutes, rope
 - consumer
 - hosiery, clothing, tyres, carpets
 - new products
 - Antron
 - Holofil
 - microfibres
 - Tactel
 - » ICI to DuPont



for

Premium

Quality

Wool

New Synthetic Fibre Products

- DuPont
 - polyester
 - microfibres
 - Micromattique[™]
 - blend fibres
 - Comferel
 - polyurethane
 - Lycra®
 - Lycra® 3D
 - nylon
 - Tactel®
 - Micro
 - bicomponent

- ICI
 - nylon
 - Coolmax®
 - Alta
 - Holofil®
 - Supriva®
- Courtaulds
 - rayon
 - Tencel®