

# **Yield Determination**

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



## What is Yield?

 mass of usable wool fibre obtained from greasy wool after processing

- various processes
  - scouring
  - carbonising
  - carding
  - topmaking

**Scoured Yield** 

**Carbonising Yield** 

**Card Sliver Yield** 

**Top and Noil Yield** 

- various Yields
- various allowances



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### **Wool Fibre Yields**

- IWTO Clean Wool Content (CWC)
  - standard ash
  - standard alcohol extractables
  - standard regain
- IWTO CWC = WB x 117 97.73

What are the standard levels used in this determination?



# **Further Wool Fibre Yields**

- Japanese Clean Scoured Yield (JCSY)
- ASTM Clean Wool Fibre Present
- Theoretical Card Sliver Yield
- Theoretical Top and Noil Yields
  - Schlumberger Combed Dry (SCH DRY)
  - Schlumberger Combed in Oil
  - Noble Combed in Oil
  - Noble Combed Dry



# Wool and Vegetable Matter Yields

IWTO Scoured Yield at R% regain

• SCD (R%) = WB x 100+R 97.73



#### CRC

for

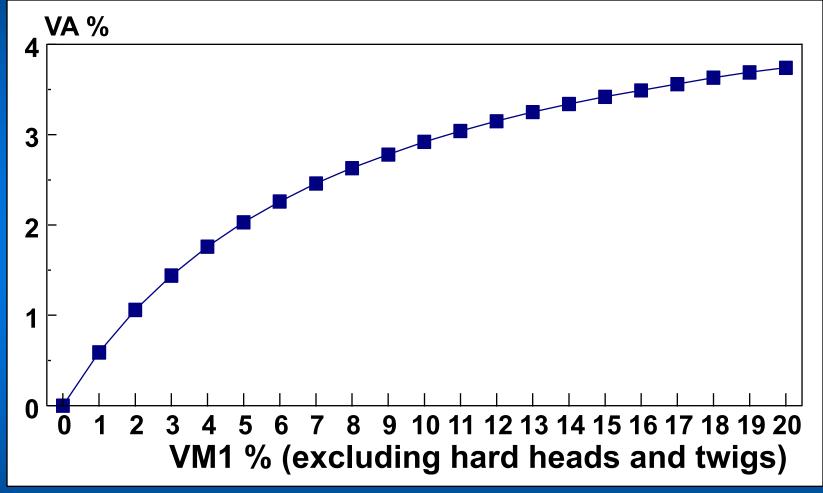
Premium

Quality

Wool

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# Fibre Loss (VA) vs. VM1





## **Commercial Yields**

= Theoretical Yield - Processing Allowance (PA)

- Schlumberger
  - PA % = 2.5 + VA
  - Noble

$$PA \% = 2.0 + VA$$

**Australian Carbonising Yield** 

ACY = 1.1972 WB + 0.162 V - 5.12

for

Premium

Quality

Wool



#### **Standards**

- IWTO -19 95 (E):
  - Determination of wool base & vegetable matter base of core samples of raw wool.
- AS/NZS 1134 (1997)
  - Determination of wool base & vegetable matter base of core samples of raw wool.
- IWTO Core Test Regulations