



CRC

for

Premium

Quality

Wool

Consignment Processing Example

Produced for the CRC for Premium Quality Wool undergraduate program by;
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The situation

- You are a wool processor and must process 2 consignments of equal size in the most efficient way - longest top, least noil
- Assume that it is possible to change processing machine settings and speeds etc.

	<u>Consignment 1</u>	<u>Consignment 2</u>
• diameter	23 μm	18 μm
• length	80-85 mm	60-65 mm
• strength	35 N/ktex	35 N/ktex
• VM	medium	low

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1. What is different about these consignments?

- diameter
- length
- VM

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2. How would you vary each processing stage to cope with the differences in these consignments?

- **Blending / Sorting**
 - bale subsets
 - engineering bale selection

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2. How would you vary each processing stage to cope with the differences in these consignments?

- **Scouring**
 - minimise entanglement
 - detergent levels
 - scouring rates

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2. How would you vary each processing stage to cope with the differences in these consignments?

- **Carding**
 - feed rate
 - lubricant
 - fresh fibre density
 - settings
- **Gilling**
 - number of gillings
 - ratch setting
 - draft

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2. How would you vary each processing stage to cope with the differences in these consignments?

- **Combing**
 - loading
 - speed
 - nip setting
 - top comb
- **Finishing**
 - speed
 - ratch setting

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3. Which consignment would process with the least trouble?

- Consignment 1

4. What do you think you could be doing differently in 20 years time?

- scouring systems
- ultra high speed cards
- gill drafts
- comb speed

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5. What are your main priorities when processing these consignments?

Do these properties change if you are a commission comber or topmaker?

- Top & noil
- Hauteur
- CVH
- VM
- Neps
- Evenness

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6. What else would you like to know about the properties of the consignments?

- **Wool types**
 - relative proportions
- **Greasy staple length, strength & POB**
- **Estimated top length**
- **VM description**
- **Top & noil yield**

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7. What sort of tests would you perform on the wool during and after processing?

- **During processing**
 - regain
 - residual grease
 - sliver weight
 - Total Fatty Matter (TFM)
 - evenness
 - top weight
- **After processing**
 - regain
 - diameter & CVD
 - Hauteur & CVH
 - evenness
 - dark /coloured fibres
 - pH, TFM
 - silver weight
 - neps, slubs
 - VM

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8. How do you think the ideal processing situation may differ in the commercial world?

- **Card clothing and settings**
 - not considered variables
- **Cost factors**
 - settings, speed, pinning
- **Type of wools**
 - require no adjustments

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