



**Nutrien**  
Ag Solutions®



## 2021 AUSTRALIAN FLEECE COMPETITION 16<sup>th</sup> – 18<sup>th</sup> JULY

# FLEECE JUDGING SCHEDULE

### Competition Objectives

The aim of this fleece competition is to conduct a commercial fleece competition utilising current technology to assist both objective and subjective measurement criteria. To conduct a competition, that provides educational outcomes to competitors, woolgrowers and the industry at large, encompassing all main fleece types.

### Judges

The allocation of the maximum 100 points available is based on clean fleece weight (38 points), processing performance (38 points) and subjective values (24 points). All subjective attributes are appraised at the judges' discretion. The judging panel consists of 2 experienced industry personnel who represent an Australian wool processing or exporting company and a wool broking company.

### Reviewed Annually

All benchmarks are derived in consultation with the Australian sheep and wool industry. All benchmarks are surveyed annually and adjusted in June each year including the top five major Australian buyers of each micron section to determine the average Hauteur and Co-efficient of Variation of Hauteur.

### Acknowledgement

When using this fleece judging schedule, benchmarking program and point scoring system in any form, it is a condition that acknowledgement be made to the Australian Sheep Breeders Association, Australian Wool Testing Authority and Nutrien Ag Solutions. This is to be in the form of signage and printed acknowledgement and logos on score cards.

## Feedback

The committee welcomes all comments and suggestions on improving the competition to achieve the stated objectives. Please forward (by mid September) via fax (03) 5443 9354, mail to Australian Sheep Breeders Association, The Secretary, Unit 1/6 Merino Court, East Bendigo, Victoria 3550 or email:ceo@sheepshow.com

## Copies

This fleece judging schedule is available upon request through The Secretary, Australian Sheep Breeders Association and Nutrien Ag Solutions.

## Conditions of Entry and Judging

- Fleeces must be shorn from the current selling season. That is in the last 12 months (July to June).
- Fleeces will only be accepted which have been shorn from sheep owned by the exhibitor for at least 6 months prior to being shorn.
- Stud breeders are not permitted to enter commercial sections.
- Each fleece must be accompanied by a fleece card, specifying the name of the exhibitor with full contact and entry details.
- Fleeces should be intact and conventionally skirted and rolled to current industry standards. Any fleeces that are insufficiently skirted will have the excess removed by stewards. Judges reserve the right to deduct points for colour and uniformity of length for insufficiently skirted fleeces.
- All fleeces will be weighed and sampled for laserscan measurement at a set date prior to judging under AWTA standards in accordance with IWTO regulations.
- Fleeces will be allocated to their respective class according to test results.
- Vegetable Matter – A default value of 1% will be applied for all fleeces. For any fleece visually appraised to be carrying greater than 1% Vegetable Matter, the new value will be entered and clean weight adjusted accordingly. Vegetable Matter values will be appraised in 1% increments.
- Implied values will be based on AWEX wool types and the current selling season average (July to June) Eastern Market Indicator (EMI).
- The committee reserves the right not to issue Champion awards in any section subject to the overall judging criteria.
- The judges' decision is final and no discussions will be entered into.

At the completion of the show a full catalogue of results can be viewed or downloaded from the following websites.

[www.sheepshow.com.au](http://www.sheepshow.com.au)

[www.awta.com.au](http://www.awta.com.au)

[www.nutrienagsolutions.com.au](http://www.nutrienagsolutions.com.au)

## KEY TO JUDGES COMMENTS

<b>U</b>	Frib / Pieces / Belly Present	<b>H</b>	Pen Stain
<b>M</b>	Scourable Colour	<b>S</b>	Dark Stain
<b>V</b>	Skin Pieces	<b>K</b>	Medullated Fibre
<b>R</b>	Brand	<b>Y</b>	Black / Coloured Fibre
<b>L</b>	Clumpy Seed	<b>1</b>	Check Test Performed - Micron
<b>F</b>	Soft Cott	<b>2</b>	Check Test Performed - Yield
<b>A</b>	Dermatitis	<b>3</b>	Check Test Performed – Length
<b>N</b>	Water Stain	<b>4</b>	Check Test Performed – Strength

### Merino, Dohne & SAMM (Classes 1 - 28)

#### 1. Clean Fleece Weight Maximum 38 points

Allocation of points for clean fleece weight (CFW) are calculated as a percentage of benchmarks for micron range and sex of each section. If the benchmark CFW (for micron or breed and sex) is achieved, the maximum 38 points are awarded. Benchmark CFW's are incremented per point of micron in each category.

Breed	Section		Class	
MERINO	Class 1	14.5 & Finer	1	Commercial Ewe or Wether
	Extra Ultrafine	14.6 – 15.5	2, 3, 4	Stud Ram, Ewe or Wthr, Commercial Ewe or Wthr
	Ultrafine	15.6 – 16.5	5, 6, 7	Stud Ram, Ewe or Wthr, Commercial Ewe or Wthr
	Extra Superfine	16.6 – 17.5	8, 9, 10	Stud Ram, Ewe or Wthr, Commercial Ewe or Wthr
	Superfine	17.6 – 18.5	11, 12, 13	Stud Ram, Ewe or Wthr, Commercial Ewe or Wthr
	Fine	18.6 – 19.5	14, 15, 16	Stud Ram, Ewe or Wthr, Commercial Ewe or Wthr
	Fine Medium	19.6 – 20.5	17, 18, 19	Stud Ram, Ewe or Wthr, Commercial Ewe or Wthr
	Medium	20.6 – 22.0	20, 21, 22	Stud Ram, Ewe or Wthr, Commercial Ewe or Wthr
	Strong	22.1 & Stronger	23, 24, 25	Stud Ram, Ewe or Wthr, Commercial Ewe or Wthr
DOHNE			26, 27, 28	Ram, Ewe or Wether
SAMM			-	Ram, Ewe or Wether

For example, for 18.0 micron Superfine Ram clean fleece weight benchmark is 6.94 kilograms greasy. If a Superfine Ram's fleece tests 18.0 micron and clean fleece weight is 4.9 kg, 11.2 points will be deducted from the total giving it a score of 26.8 (4.9/6.94\*38 points) for Clean Fleece Weight.

## 2. Processing Performance TEAM 3 Prediction Maximum 38 points

*(Updated 1<sup>st</sup> May, 2015 by Tim Steere - AWTA)*

The points are allocated as follows: 15 points for Predicted Hauteur, 7 points for Predicted CVH and 4 points for Predicted Noil, 8 points for Staple Strength and 4 points for Mid-Break

### Predicted Hauteur

A total 15 points are allocated to each fleece if they meet industry standards for Predicted Hauteur. In industry, if the Predicted Hauteur is shorter or longer than that specified in the contract, a claim for compensation will result. Therefore, a penalty is applied to fleeces shorter, slighter and excessively longer than the industry standard.

- If shorter than industry standard minimum, a deduction of 1 point per 1 mm.
- If up to 10 mm longer than the industry standard maximum, a deduction of 0.5 point per 1 mm.
- If over 10 mm longer than the industry standard maximum, a deduction of 1 point per 1 mm.

### Average Hauteur Ranges

Section	Category	Min (mm)	Max (mm)	Max +20% (mm)
Extra Ultrafine	12.5 & Finer	59	65	78
Extra Ultrafine	12.6 – 13.5	59	66	79
Extra Ultrafine	13.6 – 14.5	59	67	80
Extra Ultrafine	14.6 – 15.5	60	69	83
Ultrafine	15.6 – 16.5	61	70	84
Extra Superfine	16.6 – 17.5	62	72	86
Superfine	17.6 – 18.5	62	73	88
Fine	18.6 – 19.5	64	75	90
Fine Medium	19.6 – 20.5	65	76	91
Medium	20.6 – 22.0	66	78	94
Strong	22.1 – 24.0	68	81	97
Extra Strong	24.1 & Stronger	70	85	102

For example, for MFD group 17.6 – 18.5 µm and industry standard Predicted Hauteur 62 – 88 mm, if a fleece's Predicted Hauteur is 92 mm, 2 points (1 mm @ 0.5 point/mm) will be deducted from the total available points giving it a score of 13 for Predicted Hauteur.

### Predicted CV Hauteur

A total 7 points are allocated to each fleece if they meet or have a lower CVH than the industry average.

Industry favours lower rather than higher CVH, therefore, a penalty is applied to fleeces where the CVH is higher than the industry average.

- If above CVH industry average, a deduction of 0.5 points per 1%.

### Average CVH Ranges

Section	Category	Max
Extra Ultrafine	12.5 & Finer	43
Extra Ultrafine	12.6 – 13.5	43
Extra Ultrafine	13.6 – 14.5	43
Extra Ultrafine	14.6 – 15.5	43
Ultrafine	15.6 – 16.5	43
Extra Superfine	16.6 – 17.5	43
Superfine	17.6 – 18.5	44
Fine	18.6 – 19.5	44
Fine Medium	19.6 – 20.5	44
Medium	20.6 – 22.0	44
Strong	22.1 – 24.0	45
Extra Strong	24.1 & Stronger	45

For example, for MFD group 17.6 – 18.5  $\mu\text{m}$  and industry standard CVH of 44%, if a fleece's Predicted CVH is 50%, 3 points (6% @ 0.5 points/%) will be deducted from the total available points giving it a score of 4 for Predicted CVH.

### Predicted Noil

A total 4 points are allocated to each fleece if they meet or have a lower Noil than the average of the MFD group. Industry prefers lower rather than higher Noil, as Top has a higher commercial value than Noil. Therefore, a penalty is applied to fleeces where the Noil is higher than the MFD group average.

- If higher than MFD group average a deduction of 1 point per 1%.

For example, for MFD group 17.6 – 18.5  $\mu\text{m}$  and industry standard Noil of 5%, if a fleece's Predicted Noil is 7%, 2 points (2% @ 1 point/%) will be deducted from the total available points giving it a score of 2 for Predicted Noil.

### Staple Strength

A maximum of 8 points are awarded for fleeces with a staple strength of 48 N/Kt or greater. Fleeces with a staple strength less than 48 N/ktex have 1 point deducted for each 3N/ktex.

For example, 36N/Kt = 4 points

#### Staple Strength Points

<b>N/Kt</b>	<b>≤24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>	<b>32</b>	<b>33</b>	<b>34</b>	<b>35</b>	<b>36</b>
<b>Points</b>	0.00	0.33	0.67	1.00	1.33	1.67	2.00	2.33	2.67	3.00	3.33	3.67	4.00
<b>N/Kt</b>	<b>37</b>	<b>38</b>	<b>39</b>	<b>40</b>	<b>41</b>	<b>42</b>	<b>43</b>	<b>44</b>	<b>45</b>	<b>46</b>	<b>47</b>	<b>≥48</b>	
<b>Points</b>	4.33	4.67	5.00	5.33	5.67	6.00	6.33	6.67	7.00	7.33	7.67	8.00	

### Mid-Break

A maximum of 4 points are awarded for fleeces with 20% or less staple mid-breaks. For fleeces with more than 20% mid-breaks, a point is deducted for each 20% greater than 20%.

<b>Mid-Break</b>	<b>&lt; 20</b>	<b>21 - 40</b>	<b>41 - 60</b>	<b>61 - 80</b>	<b>&gt;80</b>
<b>Points</b>	4	3	2	1	0

#### Strength (Nkt) above which mid break discounts do not apply

<b>Section</b>	<b>Category</b>	<b>Nkt</b>
Extra Ultrafine	12.5 & Finer	46
Extra Ultrafine	12.6 – 13.5	46
Extra Ultrafine	13.6 – 14.5	46
Extra Ultrafine	14.6 – 15.5	45
Ultrafine	15.6 – 16.5	44
Extra Superfine	16.6 – 17.5	43
Superfine	17.6 – 18.5	42
Fine	18.6 – 19.5	41
Fine Medium	19.6 – 20.5	41
Medium	20.6 – 22.0	40
Strong	22.1 – 24.0	40
Extra Strong	24.1 & Stronger	40

Note – Mid break discounts do not apply if a fleece achieves the above strength

For example if an 18.6 – 19.5 micron fleece has 55 % mid break and tests 45Nkt, no discount for mid breaks will apply, a score of 4 for mid breaks will be given.

### **3. Subjective Attributes Maximum 24 points**

All subjective attributes are appraised at the judges' discretion. Points are allocated as follows: 6 points for Colour, 8 points for Evenness and 10 points for Style/ Character.

#### **Colour**

A total of 6 points are awarded for Colour. The desired whiteness, brilliancy and lustre of the breed.

#### **Evenness**

A total of 8 points are awarded for Evenness and Uniformity of whole fleece. Including evenness and uniformity of length throughout the entire fleece. Co-efficient of Variation of Length (CVL) measurement is to be used as a guide. If any evidence of skirtings or wool faults appear, the judges will deduct points at their discretion.

#### **Style & Character**

A total of 10 points are awarded for Style/ Character. Even, regular and well-defined crimp from tip to butt. Co-efficient of Variation of Diameter (CVD) is to be used as a guide, as can the relevant AWEX type.

# Merino Performance (Classes 101-102)

## 6 – 8 Month Shearing

### Conditions of Entry and Judging

***These are stand alone classes and entries will not be eligible for the major Australian Fleece Competition awards.***

- Fleeces must be only from growers who shear their flock in 6-8 month cycles as a commercial practice.
- Date of current and previous shearing are to be stated by exhibitor.
- The committee or judges have the discretion to request wool test results of the flock from which the fleeces were selected
- Fleece weights will be assessed against a percentage of the current AFC benchmarks based on weeks of growth. An additional 10% will also be added to the benchmarks.
- Processing performance will be assessed against the AFC benchmarks for hauteur, CV of hauteur, noil, strength and mm growth per week.
- A visual appraisal will determine points awarded for colour, evenness, style and handle.
- If an exhibitor owns a registered stud all fleeces will be entered in stud classes.
- Ram fleeces will not be accepted in the performance classes.

Exhibitors, wool industry participants and the public are invited to provide written feedback and input into how to improve or grow this section and provide relevant information to the wool industry.

### Allocation of Points

<b>Fleece Attribute</b>	<b>Point Allocation</b>
Clean Fleece Weight	38
Hauteur	15
CV Hauteur	7
Noil	4
Mid Breaks	4
Growth Rate	8
Colour	6
Evenness	8
Style / Character	10
<b>Total Points</b>	<b>100</b>



## Merino Performance Benchmarks

The same benchmarks as the Australian Fleece Competition Merino section are applied to entries in the Merino Performance classes, with the following exceptions.

The first exception being, points for weight which are allocated based on weeks growth as a percentage of the benchmark figures for full wool Merino fleeces. An example of this percentage benchmark application is a fleece representing 26 weeks growth would need to meet 50% (26/52 weeks) of the weight benchmark figure to obtain full points for this characteristic.

The clean fleece weight benchmarks are applied at 10% over the published benchmarks based on data that sheep should produce more wool if shorn at more regular intervals.

The other exception being that eight points are allocated to staple strength in the Merino classes of the Australian Fleece Competition, in place of these eight points, there is an allocation for mm growth per week.

### Length

A maximum of eight points are available for weekly growth rate. Maximum points are awarded for a growth rate of 3mm per week or greater. One point is deducted for each 0.2mm of growth less than 3mm per weeks.

<b>Growth Rate (mm)</b>	<b>3.0</b>	<b>2.8</b>	<b>2.6</b>	<b>2.4</b>	<b>2.2</b>	<b>2.0</b>	<b>1.8</b>	<b>1.6</b>	<b>1.4</b>
<b>Points</b>	8	7	6	5	4	3	2	1	0

## Polwarth, Corriedale, British & Other Breeds (Classes 29 - 39)

### 1. Clean Fleece Weight Maximum 38 points

Classes 29 - 39 are judged on a modified subjective basis using objective measurements as a guide for processing performance.

Allocation of points for clean fleece weight (CFW) are calculated as a percentage of benchmarks for micron range and sex of each section. If the benchmark CFW (for micron or breed and sex) is achieved, the maximum 38 points are awarded. Benchmark CFW's are incremented per point of micron in each category.

All other point scoring remains the same as Merino classes.

Breed	Section		Class	
POLWARTH			29, 30, 31	Stud Ram, Ewe or Wthr, Commercial Ewe or Wthr
CORRIEDALE			32, 33, 34	Stud Ram, Ewe or Wthr, Commercial Ewe or Wthr
BRITISH & OTHER BREEDS	Long Wool		35, 36	Ram, Ewe
BRITISH & OTHER BREEDS	Downs Wool		37	Fleece
BRITISH & OTHER BREEDS	Crossbred	29.5 & Finer	38	Commercial Fleece
BRITISH & OTHER BREEDS	Crossbred	29.6 & Stronger	39	Commercial Fleece

#### Clean Fleece Weight Benchmark Adjustments for Classes 37 & 38

Adjustment From British Long Wool Benchmarks	
Romney	Nil
English Leicester	Nil
Border Leicester	Nil
Gro Mark	Nil
Lincoln	- 30%
Cheviot	+ 35%
East Friesian	+ 30%
Perendale	+ 30%
Coopworth	+ 30%
Texel	+ 30%
Adjustment From Crossbred Benchmarks	
Finn	+ 70%
Ile De France	+ 60%

Note – AWEX Sheep Breed Compendium used as a guide for benchmark adjustments

## **2. Subjective Attributes            Maximum 62 points**

### **Commercial Value for Breed**

A total of 14 points are awarded for Commercial Value for Breed. Commercial value for breed possessing the best visual characteristics of the breed. The AWEX Sheep Breed Compendium can be used as a guide.

### **Conformity to length**

A total of 8 points are awarded for Conformity of Length. Conformity of length for breed with additional measurement (millimetres) to be used as a guide.

### **Soundness**

A total of 10 points are awarded for Soundness. Possessing soundness for breed with additional measurement (Newtons/ Kilotex) to be used as a guide.

### **Evenness**

A total of 8 points are awarded for Evenness and Uniformity of whole fleece. Including the desired evenness and uniformity of length throughout the entire fleece. Co-efficient of Variation of Length (CVL) measurement is to be used as a guide. At the judges' discretion, points may be deducted for fleeces that are over long for type. If any evidence of skirtings or wool faults appear the judges will deduct points at their discretion.

### **Colour**

A total of 6 points are awarded for Colour. The desired whiteness, brilliancy and lustre of the breed.

### **Handle**

A total of 6 points are awarded for Handle. The handle and density necessary for optimum spinning results. Comfort Factor (CF) measurement is to be used as a guide.

### **Style & Character**

A total of 10 points are awarded for Style and Character. Even, regular and well-defined crimp from tip to butt. Co-efficient of Variation of Diameter (CVD) is to be used as a guide.

**CLEAN FLEECE WEIGHT BENCHMARKS**     *(Graduated to .1 of a Micron)*

*The Australian Fleece Competition uses washing yields*

MERINO & DOHNE	RAM		EWE/WETHER	
	Micron	Clean kg	Clean kg	Micron
Extra Ultrafine (15.5 & finer)	13.0	4.13	3.30	13.0
Extra Ultrafine (15.5 & finer)	14.0	4.69	3.75	14.0
Extra Ultrafine (15.5 & finer)	15.0	5.25	4.20	15.0
Ultrafine (15.6 - 16.5)	16.0	5.81	4.65	16.0
Extra Superfine (16.6 - 17.5)	17.0	6.38	5.10	17.0
Superfine (17.6 - 18.5)	18.0	6.94	5.55	18.0
Fine (18.6 - 19.5)	19.0	7.50	6.00	19.0
Fine Medium (19.6 - 20.5)	20.0	8.06	6.45	20.0
Medium (20.6 - 22.0)	21.0	8.62	6.90	21.0
Strong (22.1 & Broader)	22.0	9.19	7.35	22.0
Strong (22.1 & Broader)	23.0	9.75	7.80	23.0
Strong (22.1 & Broader)	24.0	10.31	8.25	24.0
Strong (22.1 & Broader)	25.0	10.88	8.70	25.0
Strong (22.1 & Broader)	26.0	11.44	9.15	26.0

\*\* 50% weight increase applied to fleeces in class 1, that are deemed to be double skirted fleeces

CROSSBRED	RAM/EWE/WETHER		
	Micron	Clean kg	Micron
	22.0	5.66	22.0
	24.0	6.06	24.0
	26.0	6.45	26.0
	28.0	6.84	28.0
	30.0	6.96	30.0
	32.0	7.07	32.0
	34.0	7.18	34.0
	36.0	7.29	36.0
	38.0	7.39	38.0
	40.0	7.50	40.0

BRITISH LONG WOOL	RAM/EWE/WETHER		
	Micron	Clean kg	Micron
	31.0	7.02	31.0
	33.0	7.13	33.0
	35.0	7.15	35.0
	37.0	7.47	37.0
	39.0	7.79	39.0
	41.0	8.11	41.0
	43.0	8.43	43.0
	45.0	8.75	45.0

DOWNS	RAM/EWE/WETHER		
	Micron	Clean kg	Micron
	25.0	2.38	25.0
	30.0	2.90	30.0
	35.0	3.50	35.0
	40.0	3.75	40.0
	45.0	4.00	45.0

<b>SAMM</b>	<b>RAM</b>		<b>EWES/WETHER</b>	
	Micron	Clean kg	Clean kg	Micron
	18.0	4.18	3.22	18.0
	19.0	4.70	3.62	19.0
	20.0	5.22	4.02	20.0
	21.0	5.75	4.43	21.0
	22.0	6.27	4.83	22.0
	23.0	6.79	5.23	23.0
	24.0	7.05	5.43	24.0
	25.0	7.29	5.61	25.0
	26.0	7.53	5.80	26.0

<b>POLWARTH</b>	<b>RAM</b>		<b>EWES/WETHER</b>	
	Micron	Clean kg	Clean kg	Micron
	18.0	5.55	4.44	18.0
	19.0	6.00	4.80	19.0
	20.0	6.45	5.16	20.0
	21.0	6.90	5.52	21.0
	22.0	7.35	5.88	22.0
	23.0	7.80	6.24	23.0
	24.0	8.25	6.60	24.0
	25.0	8.70	6.96	25.0
	26.0	9.15	7.32	26.0

<b>CORRIEDALE</b>	<b>RAM</b>		<b>EWES/WETHER</b>	
	Micron	Clean kg	Clean kg	Micron
	22.0	8.70	6.70	22.0
	24.0	9.22	7.10	24.0
	26.0	9.83	7.57	26.0
	28.0	10.10	7.78	28.0
	30.0	10.37	7.98	30.0
	32.0	10.64	8.19	32.0
	34.0	10.91	8.40	34.0
	36.0	11.18	8.61	36.0
	38.0	11.45	8.82	38.0

**AUSTRALIAN FLEECE COMPETITION**  
**TEAM 3 Processing Prediction Points Scheme**  
**V5.0**

The TEAM 3 Processing Prediction Points Scheme determines 38 out of a total of 100 points for the Australian Fleece Competition. The points are allocated as follows: 15 points for Predicted Hauteur, 7 points for Predicted CVH, 4 points for Predicted Noil, 8 points for Staple Strength and 4 points for Mid-Break.

The TEAM 3 regression formulas for prediction of Hauteur, CVH and Noil use the following raw wool parameters: mean fibre diameter (MFD), vegetable matter base (VMB), staple length (SL), staple strength (SS), mid-breaks (M), CV Diameter (CVD) and CV Length (CVL).

**TEAM 3 Pred Hauteur** ( $H$  (mm) =  $0.43 \times SL + 0.35 \times SS + 1.38 \times MFD - 0.15 \times M - 0.45 \times VMB - 0.59 \times CVD - 0.32 \times CVL + 21.8$ )

- Total Points = 15
- 15 points are allocated to each fleece if they meet industry standards for Hauteur. For example, for a fleece within MFD group 17.6 – 18.5 µm, if its Predicted Hauteur is 70 – 81 mm (inclusive), it will receive 15 points.
- In industry, if the Hauteur is shorter than that specified in the contract, a claim for compensation will result. Therefore, a strong penalty is applied to fleeces shorter than the industry standard, ie. a deduction of 1 points/1 mm Predicted Hauteur.
  - For example, for MFD group 17.6 – 18.5 µm and industry standard Hauteur 70 – 81 mm, if a fleece's Predicted Hauteur is 66 mm, 4 points (4 mm @ 1 points/mm) will be deducted from the total available points giving it a score of 11 for Predicted Hauteur.
- A lesser penalty is applied to fleeces that are slightly longer than the industry standard (up to 10 mm longer than the industry standard maximum), ie. a deduction of 0.5 point/1 mm Predicted Hauteur.
  - For example, for MFD group 17.6 – 18.5 µm and industry standard Hauteur 70 – 81 mm, if a fleece's Predicted Hauteur is 85 mm, 2 points (4 mm @ 0.5 point/mm) will be deducted from the total available points giving it a score of 13 for Predicted Hauteur.
- Industry does not favour over-long tops, hence a strong penalty is applied to fleeces with a Predicted Hauteur 10 mm longer than the industry standard maximum ie. a deduction of 1 points/1 mm Predicted Hauteur is applied after applying the original length penalty.
  - For example, for MFD group 17.6 – 18.5 µm and industry standard Hauteur 70 – 81 mm, if a fleece's Predicted Hauteur is 93 mm, 7 points (10 mm @ 0.5 point/mm and 2 mm @ 1 points/mm) will be deducted from the total available points giving it a score of 8 for Predicted Hauteur.
- A point score of Zero (0) is possible for Predicted Hauteur.

**TEAM 3 Pred CV Hauteur** ( $CVH (\%) = 0.30xSL - 0.37xSS - 0.88xMFD + 0.17xM^* + 0.38xCVL + 35.6$ )

- Total Points = 7
- 7 points are allocated to each fleece if they meet or have a lower CVH than the industry average.
  - For example, for a fleece within MFD group 17.6 – 18.5  $\mu$ m, if its Predicted CVH is equal to or less than 42%, it will receive 7 points.
- Industry favours lower rather than higher CVH, therefore, a penalty is applied to fleeces where the CVH is higher than the industry average, ie. a deduction of 0.5 points/1% Predicted CVH.
  - For example, for MFD group 17.6 – 18.5  $\mu$ m and industry standard CVH of 42%, if a fleece's Predicted CVH is 52%, 5 points (10% @ 0.5 points/%) will be deducted from the total available points giving it a score of 2 for Predicted CVH.
- A point score of Zero (0) is possible for Predicted CVH.

**TEAM 3 Predicted Noil** ( $Noil (\%) = 0.78xVMB - 0.13xSL - 0.18xSS - 0.63xMFD + 38.6$ )

- Total Points = 4
- Industry standards for Noil are not available; therefore, the average predicted Noil for each diameter group was used as the basis for determining the points awarded for % Noil. It is not possible to use an average Noil for all MFD groups, as the percentage of Noil is largely dependent on MFD. Hence, to facilitate penalties for Noil, comparisons are based on the average Noil for each MFD group.
- The TEAM predictions for Noil sometimes produce a value of zero (0) or 1% when the predicted Noil values for the MFD group are very low. Obviously, these values are not commercially possible; therefore, where this occurs, the values of 0 and 1% will be adjusted to 2%. Thus, the lowest Noil value for any fleece should be 2%. This adjustment will not penalise fleeces capable of producing low levels of noil as the value of 2% will be equal or lower than the MFD group average.
- 4 points are allocated to each fleece if they meet or have a lower Noil than the average of the MFD group.
  - For example, for a fleece within MFD group 17.6 – 18.5  $\mu$ m and a group average of 5% Noil, if its Predicted Noil is equal to or less than 5%, it will receive 4 points.
- Industry prefers lower rather than higher Noil, as Top has a higher commercial value than Noil. Therefore, a penalty is applied to fleeces where the Noil is higher than the MFD group average, ie. a deduction of 1 point/1% Predicted Noil.
  - For example, for MFD group 17.6 – 18.5  $\mu$ m and industry standard Noil of 5%, if a fleece's Predicted Noil is 8%, 3 points (3% @ 1 point/%) will be deducted from the total available points giving it a score of 1 for Predicted Noil.
- A point score of Zero (0) is possible for Predicted Noil.

Prepared by Dr Kerry Hansford on 17<sup>th</sup> February 2004.