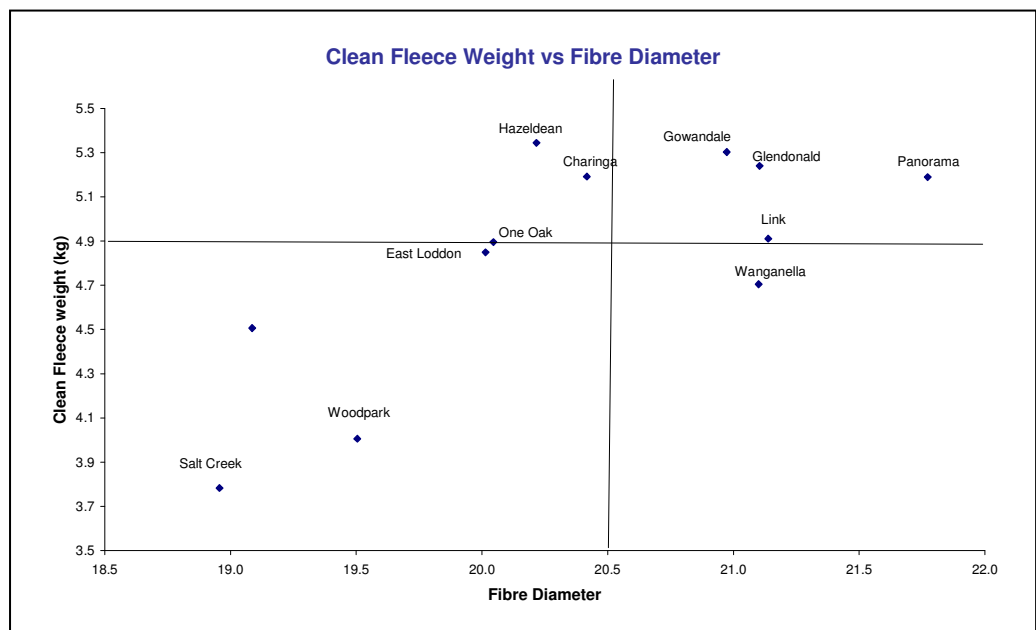


## Elmore Merinos to Match 2007 Results

Below are the final results for the Elmore Merinos to Match trial. These are raw figures (i.e. they haven't been through a statistical analysis as our original reports were). The sheep were off site over the scout Jamboree in summer and were in containments for a couple of months. The season is reflected in the low yield, lower clean fleece weights and staple length. Whilst fibre diameter has remained the same, the drop in curvature indicates a broadening 'look' of the wool. All fleeces were typed as MF5, a drop in grade from last year due purely to the dust penetration. The body weight is fleece free.

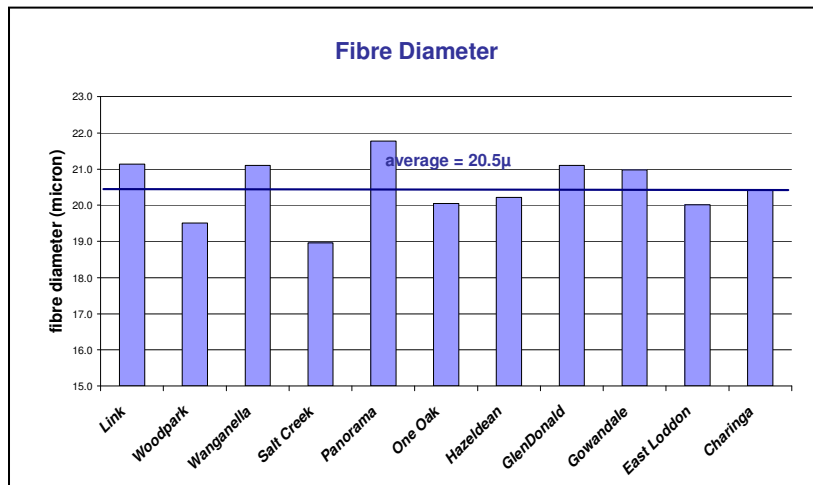
	Yield (%)	FD (μ)	GFW (kg)	CFW (kg)	SL (mm)	SS N/ktex	TIP (%)	MID (%)	BSE (%)	SD (μ)	CV (%)	CF (%)	Curv <sup>0</sup> /mm	SF (μ)	Body Weight (kg)
Link	55.5	21.1	8.9	4.9	85.5	40.3	15.0	39.5	76.2	3.9	18.4	97.8	59.1	20.1	81.2
Woodpark	59.9	19.5	6.7	4.0	83.6	45.3		55.0	57.3	3.2	16.4	99.4	53.4	18.3	81.0
Wanganella	62.7	21.1	7.6	4.7	89.0	43.6	10.5	65.0	60.6	4.0	19.0	97.4	50.6	20.2	83.1
Salt Creek	60.6	19.0	6.4	3.8	84.0	42.0	10.3	69.8	34.4	3.5	18.7	99.2	65.0	18.1	74.9
Panorama	67.3	21.8	7.8	5.2	96.5	42.5	10.0	63.4	50.7	4.0	18.4	97.4	51.5	20.8	84.6
One Oak	62.1	20.0	7.9	4.9	92.7	38.0	13.0	58.3	61.0	3.7	18.6	98.9	48.8	19.1	79.0
Hazeldean	62.1	20.2	8.7	5.3	94.4	41.8	15.8	63.4	58.2	3.7	18.2	98.4	50.4	19.3	79.7
GlenDonald	58.1	21.1	9.0	5.2	89.8	38.6	10.0	49.4	61.6	3.9	18.4	98.0	51.0	20.1	82.9
Gowandale	64.6	21.0	8.2	5.3	90.3	44.5	10.0	43.0	62.6	4.0	19.1	97.7	49.3	20.1	80.0
East Loddon	60.1	20.0	8.0	4.8	87.6	39.0	10.0	57.1	56.0	3.7	18.5	98.8	49.6	19.1	80.5
Charinga	62.9	20.4	8.3	5.2	94.2	44.0	10.5	49.5	53.9	3.5	17.3	98.8	45.9	19.3	84.3
<b>Average 2007</b>	<b>61.4</b>	<b>20.5</b>	<b>8.0</b>	<b>4.9</b>	<b>89.8</b>	<b>41.8</b>	<b>11.5</b>	<b>55.8</b>	<b>57.5</b>	<b>3.7</b>	<b>18.3</b>	<b>98.3</b>	<b>52.2</b>	<b>19.5</b>	<b>81.0</b>
<b>Average 2006</b>	<b>73.1</b>	<b>20.5</b>	<b>7.6</b>	<b>5.5</b>	<b>98.1</b>	<b>38.9</b>				<b>3.7</b>	<b>17.9</b>	<b>98.1</b>	<b>62.3</b>	<b>19.5</b>	<b>71.1</b>

**Clean fleece weight versus fibre diameter for all stud teams 2007**

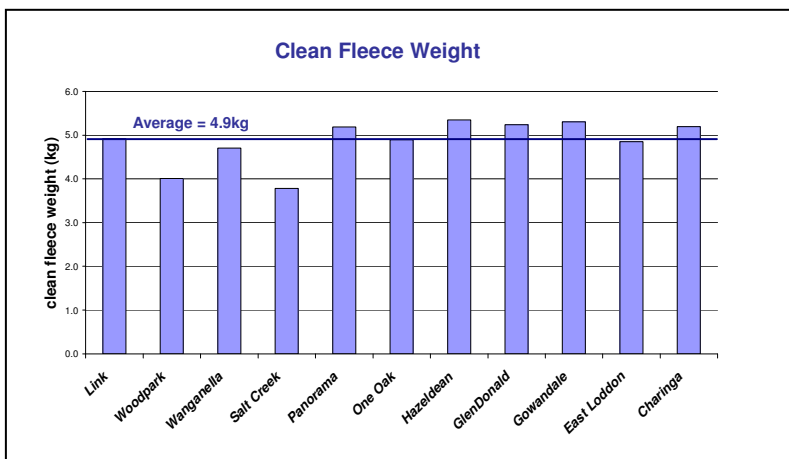


# Graphs

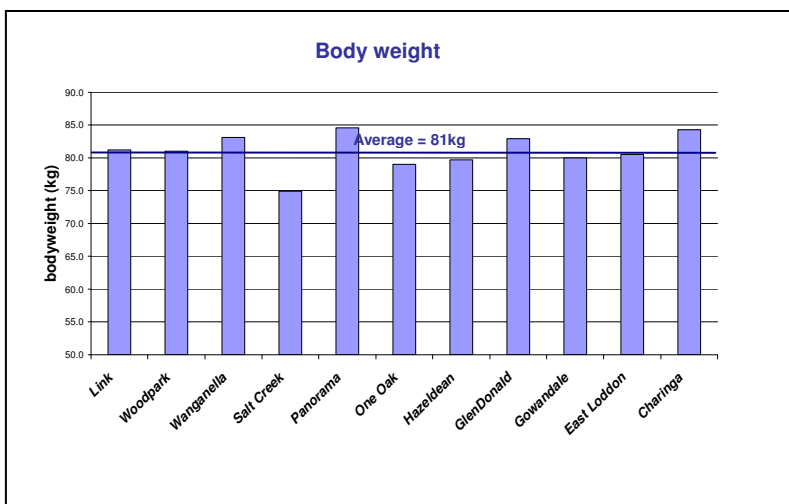
## 1. Fibre Diameter - average fibre diameters for stud teams 2007 shearing



## 2. Clean Fleece Weight – average clean fleece weight for stud teams 2007



## 3. Body weight – average body weight (fleece free) for stud teams 2007



## Micron Blow Out and Lifetime Production

There is always pressure from producers and the stud industry to run these trials for more than the standard 2 years to look at maturity and micron ‘blow out’. Elmore agreed to shear these sheep for their fourth shearing (the first shearing was not reported due to various intake times) so we can look at the results over the last 3 years. The poor season will have played a part in keeping fibre diameter down, but all teams have remained very consistent.

As an indication of their lifetime production, I have included a measure of total wool cut (total of the annual per head cut) over the trial (excluding the shear in and first shearings as these represented different amounts of wool depending on the intake time) as well as the final body weight (sale weight). For example, the Wanganella team cut 15.9 kg of 21 micron wool over 3 years with a final sale weight of 83kg.

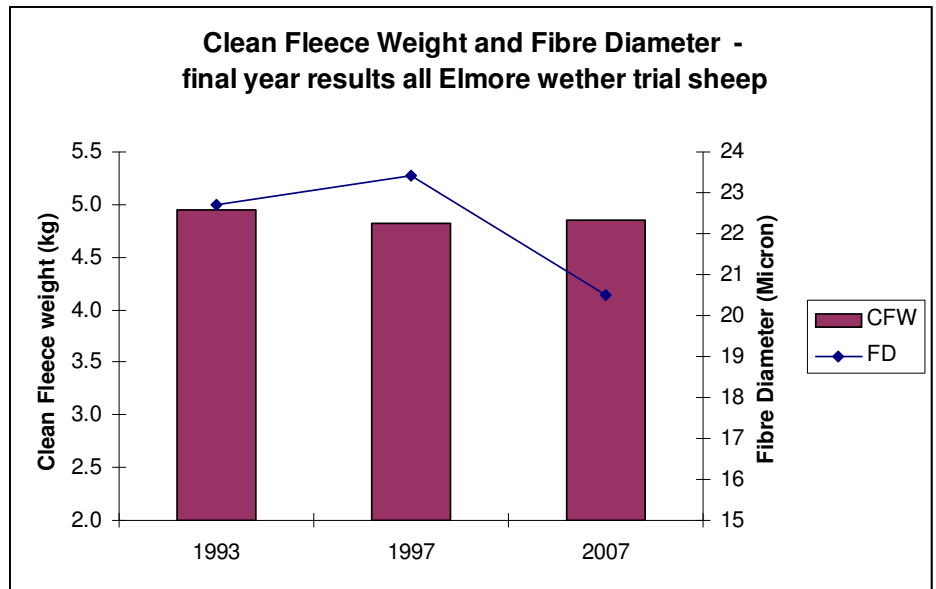
	Fibre Diameter			3 year TOTAL		2007
	2005 ( $\mu$ )	2006 ( $\mu$ )	2007 ( $\mu$ )	GFW (kg)	CFW (kg)	Final Body weight (kg)
Link	20.9	20.9	21.1	25.3	16.4	81.2
Woodpark	20.5	20.9	19.5	22.6	15.4	81.0
Wanganella	21.1	21.2	21.1	22.8	15.9	83.1
Salt Creek	19.3	19.5	19.0	19.2	13.4	74.9
Panorama	21.4	21.4	21.8	23.5	16.8	84.6
One Oak	19.9	19.9	20.1	23.6	16.5	79.0
Hazeldean	19.9	20.0	20.2	25.2	17.3	79.7
Gowandale	21.1	21.2	21.0	24.9	17.9	80.0
GlenDonald	21.2	21.1	21.1	26.3	17.2	82.9
East Loddon	20.3	20.3	20.0	23.6	16.4	80.5
Charinga	20.6	20.5	20.4	24.8	17.6	84.3
<b>Average</b>	<b>20.6<math>\mu</math></b>	<b>20.6 <math>\mu</math></b>	<b>20.5 <math>\mu</math></b>	<b>23.8 kg</b>	<b>16.4 kg</b>	<b>81 kg</b>

## The Merino Industry has the Capacity to Change?

The wool industry receives criticism for its low adoption of quantitative genetics and consequential poor genetic progress, compared to the other grazing industries. Firstly we need to accept that the wool industry has not had a consistent breeding objective over its history. There have been trends for big sheep, big wool cuts, improved wool quality, reduced fibre diameter and now there is a trend to either a dual purpose merino that can rear prime lambs as well as specialist fine wool production. If the objective changes then this needs to be taken into account in monitoring progress. Broadly speaking the objectives in the red meat industry have not changed greatly over the years; new trends may come in, but they don't necessarily impede progress of other traits. For interest, we thought we would look at the changes in the sheep in all Elmore wether trials over the years they have been run. Elmore has a history of random selection trials with reasonable sheep numbers in a team so some comparison is valid. There were two trials of note before Merinos to Match, both were random selection teams of 15 wethers from commercial flocks. These results are a guide only and cannot be viewed as true genetic progress. Firstly because seasonal conditions have a big impact and this is only 3 measures over 15 years and secondly because the sheep have been selected differently for the Merinos to Match trial which was designed as a stud evaluation trial as opposed to flock comparisons. However we can look at the trend as reflecting how sheep used in the area have changed. The averages for all sheep in the final shearing for each of the 3 trials run at Elmore are given in the table below and illustrated in the 2 graphs. These results are the fourth shearing for each trial and so reflect similar maturity and age of sheep, although body weight may also reflect short term nutrition close to shearing.

Final year of trial	Average results for all sheep shorn in the final year					
	FD ( $\mu$ )	Yield (%)	GFW (kg)	CFW (kg)	Body Wt (kg)	Fleece rot score
1993	22.7	73.3	7.0	5.0	64.0	0.5
1997	23.4	71.1	7.0	4.8	64.2	0.8
2007	20.5	61.4	8.0	4.9	81.0	0.0

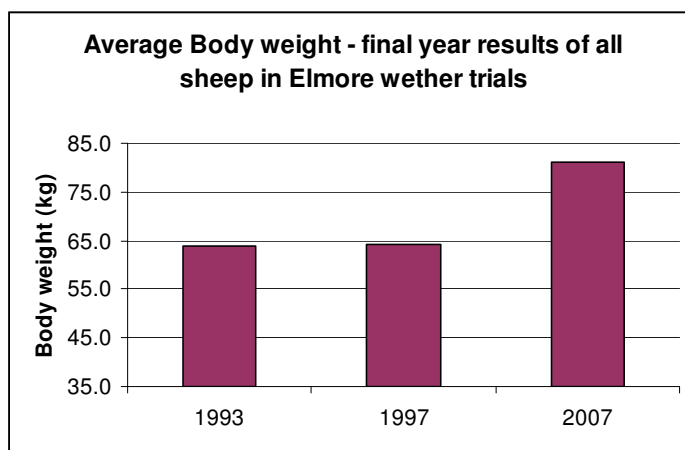
The drought of 2006/07 is reflected in the lower yield and the lack of any fleece rot in the Merinos to Match 2007 shearing. However if fleece weight (clean) is a reflection of nutrition, this shows that there has been no real drop in clean fleece weight and this has coincided with a drop of nearly 3 microns and a significant increase in body weight. I also looked at teams that were recorded as a single bloodline in the 1993 and 1997 trials to see if individual stud teams showed a similar trend – and they did. Hazeldean, One Oak and Woodpark were represented in all 3 trials. Wanganella, East Loddon and Gowandale were in 2.



Generally most teams showed a similar trend to decrease fibre diameter by 2 to 4 micron, maintain fleece weight and to significantly increase body weight.

A drop of 2-3 microns with no drop in fleece weight is no mean feat. The increase in mature body weight may reflect the trend in wanting big meaty sheep but it can also be viewed as a drop in wool production efficiency as stocking rate (and how much the animal will eat) is dependant on the size of the animal, not the wool cut. Hence these wethers in 2007 would cut less wool per hectare, despite the wool cut per head staying the same, as you would have to run less of them. However the finer micron will make it more valuable and the larger body weights may have positive impacts on reproduction and lamb turn off weights. Although the sheep are always shorn in mid spring to coincide with the field days, the final body weight may still be effected by short term nutrition pre shearing so be careful in making too many conclusions about the large increase in body weight.

**The success of what is achieved depends on what you were trying to achieve.**



**Jane Court**  
**DPI Seymour**  
**Phone 57 354 351/0427 200 451**

