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# Using Skin Type as a Selection Criterion: Classing Outcomes

Produced for the CRC for Premium Quality Wool undergraduate program by;  
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# A comparison of skin types in breeding ewes in a commercial flock (n=150) and a stud flock (n=70)

	Commercial <sup>1</sup>			Stud <sup>2</sup>	
	SRS	HT	F	SRS	F
Density (per mm <sup>2</sup> )	86.1 <sup>a</sup>	84.4 <sup>a</sup>	74.1 <sup>a</sup>	83.6 <sup>a</sup>	73.2 <sup>a</sup>
S:P	23.7 <sup>a</sup>	25.6 <sup>a</sup>	17.9 <sup>b</sup>	39.4 <sup>a</sup>	26.6 <sup>b</sup>
DpDs	1.09 <sup>a</sup>	1.22 <sup>b</sup>	1.20 <sup>b</sup>	1.08 <sup>a</sup>	1.08 <sup>a</sup>
CVFD (%):					
Primary	13.1 <sup>a</sup>	16.8 <sup>b</sup>	14.0 <sup>a</sup>		
Secondary	18.2 <sup>a</sup>	24.3 <sup>b</sup>	21.6 <sup>b</sup>		

1. Commercial flock- Collinsville b'line in far western NSW (unclassified)  
 2. Stud flock - mainly Collinsville b'line, west. Victoria (classified)

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	Commercial <sup>1</sup>			Stud <sup>2</sup>	
	SRS	HT	F	SRS	F
CFW (kg)	3.1 <sup>a</sup>	2.9 <sup>b</sup>	2.7 <sup>c</sup>	6.6 <sup>a</sup>	5.7 <sup>b</sup>
Yield (%)	68.2 <sup>a</sup>	68.2 <sup>a</sup>	67.2 <sup>a</sup>	72.7 <sup>a</sup>	72.6 <sup>a</sup>
FD (µm)	18.4 <sup>a</sup>	19.5 <sup>b</sup>	19.3 <sup>b</sup>	20.4 <sup>a</sup>	21.8 <sup>b</sup>
CVFD(%)	26.4 <sup>a</sup>	28.6 <sup>b</sup>	27.5 <sup>ab</sup>	19.8 <sup>a</sup>	19.8 <sup>a</sup>

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	Commercial <sup>1</sup>			Stud <sup>2</sup>	
	SRS	HT	F	SRS	F
SL (mm)	75.0 <sup>a</sup>	71.0 <sup>b</sup>	75.6 <sup>a</sup>	73.3 <sup>a</sup>	70.3 <sup>b</sup>
SS (N/ktex)	20.3 <sup>a</sup>	18.4 <sup>b</sup>	18.3 <sup>b</sup>	48.3 <sup>a</sup>	51.0 <sup>a</sup>
Crimps per cm	3.1 <sup>a</sup>	3.0 <sup>a</sup>	3.1 <sup>a</sup>	3.8 <sup>a</sup>	3.8 <sup>a</sup>
Tip weather. (mm)	9.1 <sup>a</sup>	8.8 <sup>a</sup>	10.3 <sup>b</sup>	5.0 <sup>a</sup>	5.1 <sup>a</sup>
Dust penetrat. (%)	17.1 <sup>a</sup>	16.8 <sup>a</sup>	18.0 <sup>a</sup>	17.4 <sup>a</sup>	18.6 <sup>b</sup>

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Source: Brown (1995)



# Selection differentials resulting from SRS and index selection applied to 479 mature SA ewes: choosing the top 3%

	SRS	MP5% index	MP10% index
Clean fleece weight	+ 0.8	+ 1.7	+ 1.2
Fibre diameter	- 2.0	- 1.5	- 3.0
CVFD	+ 0.3	+ 0.2	+ 1.4
Staple length	- 3.4	- 2.0	- 6.7
Staple strength	0.0	- 5.7	- 6.7
Micron blow-out	+ 0.5	+ 0.7	+ 0.2

**Heritability of SRS = 0.29**