

Growth and Carcass Results from the North and South Island Romney New Zealand Merial Ancare Saleable Meat Yield Trial

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16 April 2009**

Introduction

The purpose of the Romney New Zealand Progeny Test is to identify Registered Romney superior dual purpose sires that have improved growth characteristics and have higher saleable meat yield value than their contemporaries.

The South Island Romney New Zealand Progeny Test has successfully been run on the property of Hugh Taylor for three years (2006, 2007 and 2008 born), with Lincoln students doing the lambing and tagging. The North Island Romney New Zealand Progeny Test was run on the commercial property of Kerry Osborne for the 2008 born lamb crop, under the guidance of Romney breeder Ross Humphrey, with student Nicola Priest doing the lambing and tagging. The very generous support that Merial Ancare gave for the trial is also appreciated.

Linkages

One sire, Doughboy 41/06, was used in both years of the South Island progeny tests and therefore acts as a link sire between the two years enabling an across year evaluation to be completed. There were no link sires between the North and South Island progeny tests. This means that NO direct comparison can be made between the breeding values of sires from the North Island and South Island. As a result the North and South Island results are presented in separate tables and NO attempt should be made to compare or combine them.

One of the overall aims of the trial is to provide linkages between the sites and years to enable ongoing global analysis of the data. Although improved, the linkages achieved in 2008-2009 were still not adequate. Time has been spent with the organisers of the 2009-2010 Progeny Test to ensure that sufficient between year and between site linkages exist, in addition linkages between Manawatu/Northern Wairarapa breeders have been improved, including links to the CPT which provides a strong link to the ACE across flock evaluations carried out by SIL. Such strong linkages will enable ongoing global analysis of Romney breeders flocks to allow for discovery of elite sires for use by the breed.

Traits Considered in this Report

The ewe lambs are being retained in the trial to investigate maternal traits, these maternal traits will not be considered in this report. Ewe lamb information was, therefore, only used when considering birth weight and weaning weight.

This report summarises the results of the progeny test for liveweight traits, and carcass traits. Lamb survival data was also collected but will be presented separately.

Summary of the South Island Data Collection

- A total of 13 sires were used in both 2007 and 2008, with one sire (Doughboy 41/06) being a link sire, so 25 different rams have been evaluated across the two years
- Each sire was mated to 60 ewes via single sire mating
- All ewes were scanned and dry ewes removed
- Ewes were randomly lambled, with all lambs identified at birth and weighed
- In 2007 there was no draft at weaning, in 2008 there was a weaning draft
- Weaning took place on the 7th of December in 2007 and 8th of December in 2008.
- In 2007 there were three slaughter drafts on 15th January, 31st January and 21st February
- In 2008 there were three slaughter drafts on 8th December, 21st January and 23rd February
- Lambs were slaughtered at Alliance Smithfield, Timaru, all lambs were assessed using ViaScan which estimates the lean meat yield in the leg, loin and shoulder regions

Summary of the North Island Data Collection

- A total of 10 sires were used in 2008
- Each sire was mated to 60 ewes via single sire mating
- All ewes were scanned and dry ewes removed
- Ewes were randomly lambled, with all lambs identified at birth and weighed
- In 2008 there was no draft at weaning
- Weaning took place on the 15th of December in 2008
- In 2008 there were three slaughter drafts on 14th January, 10th February and 3rd March
- Lambs were slaughtered at Alliance Dannevirke, all lambs were assessed using ViaScan which estimates the lean meat yield in the leg, loin and shoulder regions

Summary of the Raw Data Collected

A summary of the raw data is in Table 1. What this table shows is that there is considerable variation for each of the traits between each of the Progeny Tests, whether between the years in the South Island, or between the Islands. These are the result of environmental and management differences. For example the average days to slaughter was greatly reduced between years in the South Island due to a weaning draft being included in the second year. The pre-slaughter weights, and hence carcass weights were heavier in the North Island due to the selection policy implemented on that property.

What this demonstrates is that sire breeding values can not be compared between different progeny tests unless link sires have been used to account for the differences that are due to environmental and management differences.

Table 1: Summary of the Raw Data Collected from the South Island Property in 2007-2008 and 2008-2009, and North Island Property in 2008-2009

	South Island				North Island	
	2007-2008		2008-2009		2008-2009	
	Number	Average (Range)	Number	Average (Range)	Number	Average (Range)
Birth Weight (kg)	1127	5.1 (1.5-9.3)	900	5.6 (2.3-9.0)	509	5.3 (2.3-9.0)
Weaning Weight (kg)	991	30.4 (12.5-49.5)	772	34.6 (17.0-53.5)	453	33.1 (12.8-48.2)
Age at Slaughter (days)	485	145 (116-180)	390	112 (79-173)	205	169 (134-200)
Pre Slaughter Weight (kg)	485	40.4 (25.0-51.5)	387	40.5 (26.5-53.5)	221	43.0 (27.0-55.5)
Carcass Weight (kg)	464	16.6 (9.6-23.3)	378	17.4 (9.3-24.4)	186	19.2 (15.1-24.5)
Dressing Out %	464	41.1 (34.4-50.1)	375	42.8 (31.0-51.7)	186	43.4 (34.6-53.6)
ViaScan GR (mm)	457	3.5 (1.0-12.1)	376	7.3 (1.0-17.6)	188	7.9 (1.4-14.9)
Leg Yield (%)	457	21.6 (16.8-25.6)	376	21.6 (17.6-24.6)	188	21.2 (18.4-25.0)
Loin Yield (%)	457	14.6 (10.3-16.9)	376	14.8 (10.9-17.2)	188	14.7 (12.2-16.4)
Shoulder Yield (%)	457	17.0 (13.1-19.0)	376	17.8 (14.4-20.0)	188	18.0 (16.2-19.7)
Total Yield (%)	457	53.1 (40.2-59.8)	376	54.1 (44.8-60.3)	188	53.9 (47.7-60.0)

Note Comparisons between North and South Island Sires CANNOT be compared as no link sire to eliminate environmental effects.

Birth Weight

For the South Island combined years there is a range of 1.08kg in the breeding values. There is a 0.57kg range in breeding values for the North Island. The birth weight data was adjusted for sex, birth rank and date of birth. The majority of North Island sires had progeny with similar birth weights, but there was significant variation in the South Island sires. No interpretation will be made as to which sire is the best given birth weight is actually a trait where there is an optimum, with research from other studies showing that lambs at either extreme are more susceptible to death around the time of birth. That said, however, in this trial to date there has been no evidence to support these findings with death rates lamb death rates generally low.

Table 2: Breeding Values and Predicted Progeny Means for Birth Weight (kg) for the South Island

Sire	Year Used	Number of Lambs	Breeding Value	Predicted Progeny Mean
Waidale 81/06	2008	55	0.68	5.7
Fernvale 1106/02	2007	89	0.33	5.5
Ram Hill 572/05	2008	72	0.25	5.5
Armidale 208/05	2007	85	0.24	5.5
Suddley 181/06	2007	78	0.24	5.5
View Hill 480/04	2008	71	0.22	5.4
Ram Hill 1264/03	2007	88	0.22	5.5
Tamlet 750/06	2008	60	0.18	5.4
Tresco 20/04	2008	66	0.16	5.4
Clifton Downs 497/04	2007	86	0.12	5.4
Annan Downs 143/02	2008	67	0.09	5.4
Gatton Park 29/06	2007	94	-0.01	5.3
Armidale 166/06	2008	78	-0.10	5.3
Doughboy 41/06	2007&2008	93	-0.10	5.3
	2007	76	-0.11	5.3
	2008	79	-0.11	5.3
	2007	82	-0.12	5.3
	2008	66	-0.13	5.3
	2007	76	-0.19	5.2
	2008	71	-0.25	5.2
	2007	92	-0.28	5.2
	2008	75	-0.28	5.2
	2007	93	-0.29	5.2
	2007	95	-0.36	5.2
	2008	76	-0.40	5.1

Table 3: Breeding Values and Predicted Progeny Means for Birth Weight (kg) for the North Island

Sire	Year Used	Number of Lambs	Breeding Value	Predicted Progeny Mean
TRIGG 403/06	2008	48	0.22	5.4
TRIGG 248/06	2008	58	0.20	5.4
Waio 408/07	2008	46	0.12	5.4
Holly 398/05	2008	65	0.07	5.4
TRIGG 32/05	2008	53	0.06	5.4
Pakaiiti 617/04	2008	25	-0.01	5.3
	2008	51	-0.05	5.3
	2008	52	-0.12	5.3
	2008	56	-0.13	5.3
	2008	55	-0.35	5.2

Note Comparisons between North and South Island Sires CANNOT be compared as no link sire to eliminate environmental effects.

Weaning Weight

For the South Island combined years there is a range of 3.91kg in the breeding values. There is a 3.04kg range in breeding values for the North Island. The weaning weight data was adjusted for sex, a combination of birth rank/rearing rank and date of birth. The majority of sires had progeny with similar weaning weights. Waidale 81/06 and View Hill 480/05 were the standout sires for the South Island, and TRIGG 32/05 the standout sire for the North Island.

Table 4: Breeding Values and Predicted Progeny Means for Weaning Weight (kg) for the South Island

Sire	Year Used	Number of Lambs	Breeding Value	Predicted Progeny Mean
Waidale 81/06	2008	44	2.00	33.4
View Hill 480/04	2008	61	1.93	33.4
Ram Hill 1264/03	2007	79	1.23	33.0
Fernvale 1106/02	2007	78	1.09	33.0
Tresco 20/04	2008	60	1.00	32.9
Sudeley181/06	2007	71	0.85	32.8
Tamlet 726/02	2007	69	0.60	32.7
Hermiston 100/06	2008	68	0.51	32.7
Armidale 166/06	2008	65	0.44	32.6
Clifton Downs 497/04	2007	76	0.36	32.6
Gatton Park 29/06	2007	79	-0.01	32.4
	2007	77	-0.07	32.4
	2008	66	-0.13	32.3
	2008	67	-0.28	32.3
	2007	68	-0.38	32.2
	2008	63	-0.44	32.2
	2008	52	-0.52	32.1
	2007	84	-0.56	32.1
	2008	63	-0.62	32.1
	2007	69	-0.68	32.1
	2008	52	-0.71	32.1
	2008	61	-0.88	32.0
Doughboy 41/06	2007&2008	84	-1.08	31.9
	2007	76	-1.74	31.5
	2007	81	-1.91	31.5

Table 5: Breeding Values and Predicted Progeny Means for Weaning Weight (kg) for the North Island

Sire	Year Used	Number of Lambs	Breeding Value	Predicted Progeny Mean
TRIGG 32/05	2008	45	2.16	33.5
Anui 229/06	2008	51	0.96	32.9
TRIGG 403/06	2008	42	0.12	32.5
Pahiwi 585/05	2008	48	-0.25	32.3
Waio 408/07	2008	39	-0.27	32.3
Paki-iti 617/04	2008	23	-0.31	32.3
	2008	46	-0.39	32.2
	2008	50	-0.52	32.1
	2008	54	-0.61	32.1
	2008	55	-0.88	32.0

Note Comparisons between North and South Island Sires CANNOT be compared as no link sire to eliminate environmental effects.

Age at Drafting

Only ram lambs were assessed for this trait. The age at drafting data was adjusted for a combination of birth rank/rearing rank and date of birth. Although there was a 16.3 day range in breeding values for the South Island sires these differences were not significant as there was large variation in the progeny for each sire. There was less variation for the North Island and again no significant differences. For the South Island this range is developing because of the introduction of a weaning draft in which considerable numbers of progeny from some sires were included (See Table 8). Despite the range, the fact that many of the differences are not significant is in part due to the fact that only 3 drafts were carried at 2-4 week intervals and so does not actually reflect the time at which the slaughter weight target was actually achieved, for example a lamb may have reached the target weight 2 days after the last kill, but its age at drafting is extended.

Table 6: Breeding Values and Predicted Progeny Means for Age at Drafting (days) for the South Island

Sire	Year Used	Number of Lambs	Breeding Value	Predicted Progeny Mean
Waidale 81/06	2008	22	-9.97	132.6
View Hill 480/04	2008	28	-7.80	133.7
Armidale 166/06	2008	35	-6.49	134.3
Tamlet 726/02	2007	32	-2.74	136.2
Ram Hill 1264/03	2007	38	-2.36	136.4
Glenleith 28/05	2007	35	-2.16	136.5
Round Hill 559/02	2008	30	-1.98	136.6
Annan Downs 180/04	2007	29	-1.50	136.8
Sudeley 181/06	2007	31	-0.13	137.5
Ram Hill 572/05	2008	23	-0.09	137.5
Annan Downs 143/02	2008	28	0.06	137.6
Fernvale 1106/02	2007	35	0.68	137.9
	2007	34	0.70	137.9
	2008	33	0.74	138.0
	2007	36	0.92	138.1
	2007	34	1.32	138.2
	2008	36	2.52	138.9
	2008	29	2.65	138.9
	2007	39	2.75	139.0
	2008	30	2.95	139.1
	2007	42	2.97	139.1
Doughboy 41/06	2007&2008	42	3.33	139.3
	2007	37	3.40	139.3
	2008	37	3.89	139.5
	2008	22	6.33	140.8

Table 7: Breeding Values and Predicted Progeny Means for Age at Drafting (days) for the North Island

Sire	Year Used	Number of Lambs	Breeding Value	Predicted Progeny Mean
TRIGG 248/06	2008	21	-0.25	137.5
Waio 408/07	2008	15	-0.23	137.5
Anui 229/06	2008	22	-0.20	137.5
Totaranui 987/05	2008	24	-0.03	137.6
Holly 398/05	2008	17	0.00	137.6
Paki-iti 617/04	2008	10	0.00	137.6
	2008	16	0.03	137.6
	2008	17	0.03	137.6
	2008	22	0.03	137.6
	2008	22	0.63	137.9

Note Comparisons between North and South Island Sires CANNOT be compared as no link sire to eliminate environmental effects.

Number of Lambs Per Draft

The number of lambs per sire per draft is given in Tables 8 and 9, with the % of lambs from each sire that made it into the first draft also given, these are non-adjusted values so do not take into account differences in date of birth and birth/rearing rank.

There were considerable differences between the two years for the South Island, where in 2008-2009 there was a weaning draft at which large percentages were drafted for most sires, with some sires not represented in the 3rd kill, with a range of 40.6 to 82.6% in the first draft. This in comparison to the previous year where the highest proportion was only 37.5%, when a weaning draft was not made and thus demonstrates the differences environmental and management conditions can make between years. In the North Island the range was 25 – 59.1%.

The tables are set out to show the proportions of each Birth/Rearing rank for each sire, where for example a 1 1 indicates that the lamb was born and raised as a single, but a 2 1 indicates that the lamb was born as a twin but raised as a single (sibling died).

Table 8: Number of Progeny Per Sire in Each Kill and % of Progeny Available for Each Birth Rearing Rank Sent in the First Draft Per Sire for the South Island (made 8th December for 2008-2009 and 15 January for 2007-2008).

	Year	No. 1st Draft	No. 2nd Draft	No. 3rd Draft	Total	% of Available Animals from Each Birth Rearing Rank Killed in 1st Draft					
						1 1	2 1	2 2	3 1	3 2	3 3
Waidale 81/06	2008	19	4	0	23	100	100	71		100	
View Hill 480/04	2008	19	9	0	28	75	100	63		50	
Armidale 166/06	2008	24	11	1	36	80	100	68		33	50
Round Hill 559/02	2008	18	10	2	30	100	100	45			
Tresco 20/04	2008	18	10	2	30	100		38			
Doughboy 41/06	2008	14	7	4	25	57	100	42	100	75	
Annan Downs 143/02	2008	15	10	3	28	100		41	100		
Ram Hill 572/05	2008	12	12	0	24	100	50	35			
Gatton Park 06/06	2008	15	16	2	33	88	100	38			
Tamlet 750/06	2008	10	9	3	22	71		36			
Hermiston 100/06	2008	16	16	5	37	100		24			100
Doughboy 67/07	2008	15	19	2	36	88	100	24		50	
Fernvale 671/06	2008	13	16	3	32	75	67	32			33
	2007	15	15	10	40	55	100	29		100	
	2007	10	15	9	34	67		16			20
	2007	8	19	6	33	50	33	25			
	2007	8	21	7	36	50		20			
	2007	8	19	13	40	38		15		20	
	2007	7	16	12	35	60		17			
	2007	7	19	10	36	33		14			33
	2007	5	17	7	29	50		11			
	2007	6	21	11	38	33		9.7			100
	2007	6	16	17	39	67		7.1			
	2007	5	23	10	38		33	14			
	2007	5	21	16	42	33		12			

Note Comparisons between North and South Island Sires CANNOT be compared as no link sire to eliminate environmental effects.

Table 9: Number of Progeny Per Sire in Each Kill and % of Progeny Available for Each Birth Rearing Rank Sent in the First Draft Per Sire for the North Island (made 14th January 2009)

	Year	No. 1st Draft	No. 2nd Draft	No. 3rd Draft	Total	% of Available Animals from Each Birth Rearing Rank Killed in 1st Draft					
						1 1	2 1	2 2	3 1	3 2	3 3
Trigg 32.05	2008	13	4	5	22	68					
Totaranui 987.05	2008	12	10	3	25	50	67				
Anui 229.06	2008	9	8	6	23	42			33		
Waio 408.07	2008	6	6	6	18	33	100	20			
Pahiwi 585.05	2008	8	7	10	25	35	50	17			
Paki-iti 617.04	2008	3	3	4	10	50	50				
	2008	7	9	8	24	32		20			
	2008	6	10	5	21	43					
	2008	5	6	7	18	36					
	2008	5	9	6	20	42					

Note Comparisons between North and South Island Sires CANNOT be compared as no link sire to eliminate environmental effects.

Liveweight at Slaughter

For the South Island combined years there is a range of 1.55kg in the breeding values. There is a 0.86kg range in breeding values for the North Island. Only ram lambs were assessed for this trait. Liveweight at slaughter data was adjusted for a combination of birth rank/rearing rank and slaughter group. There were no significant differences between sires for either Island. This was somewhat expected in that all progeny were drafted off based on a minimum liveweight for each Progeny Test.

Table 10: Breeding Values and Predicted Progeny Means for Liveweight at Slaughter (kg) for the North South

Sire	Year Used	Number of Lambs	Breeding Value	Predicted Progeny Mean
Fernvale 1106/02	2007	35	0.95	41.4
Glenleith 28/05	2007	35	0.41	41.2
Fernvale 671/06	2008	30	0.40	41.2
Tresco 20/04	2008	29	0.34	41.1
Waidale 81/06	2008	22	0.28	41.1
Tamlet 750/06	2008	22	0.27	41.1
Hermiston 100/06	2008	37	0.24	41.1
Sudeley 181/06	2007	31	0.19	41.0
Armidale 166/06	2008	35	0.14	41.0
Clifton Downs 497/04	2007	34	0.11	41.0
	2008	28	-0.02	40.9
	2007	32	-0.02	40.9
	2008	28	-0.03	40.9
	2008	23	-0.05	40.9
	2007	37	-0.07	40.9
	2007	34	-0.10	40.9
	2007	38	-0.11	40.9
	2007	42	-0.17	40.9
	2007	39	-0.20	40.8
Doughboy 41/06	2007	29	-0.28	40.8
	2008	30	-0.29	40.8
	2007&2008	42	-0.33	40.8
	2008	33	-0.51	40.7
	2008	36	-0.55	40.7
	2007	36	-0.60	40.7

Table 11: Breeding Values and Predicted Progeny Means for Liveweight at Slaughter (kg) for the North Island

Sire	Year Used	Number of Lambs	Breeding Value	Predicted Progeny Mean
Anui 229/06	2008	22	0.41	41.2
Totaranui 987/05	2008	24	0.34	41.1
TRIGG 32/05	2008	22	0.25	41.1
Waio 408/07	2008	15	0.08	41.0
Paki-iti 617/04	2008	10	0.06	41.0
TRIGG 403/06	2008	17	0.04	41.0
	2008	16	-0.08	40.9
	2008	21	-0.22	40.8
	2008	22	-0.42	40.7
	2008	17	-0.45	40.7

Note Comparisons between North and South Island Sires CANNOT be compared as no link sire to eliminate environmental effects.

Carcass Weight

For the South Island combined years there is a range of 1.65kg in the breeding values. There is a 0.52kg range in breeding values for the North Island. Only ram lambs were assessed for this trait. Carcass weight data was adjusted for a combination of birth rank/rearing rank and slaughter group. For the South Island Sire Fernvale 1106/02 produced lambs with heavier carcasses, which would have been in part due to his progeny having slightly higher liveweights at slaughter, but as is shown below differences in carcass weight are also due to differences in Dressing Out %. There were no significant sire differences for the North Island.

Table 12: Breeding Values and Predicted Progeny Means for Carcass Weight (kg) for the South Island

Sire	Year Used	Number of Lambs	Breeding Value	Predicted Progeny Mean
Fernvale 1106/02	2007	35	1.01	17.9
Fernvale 671/06	2008	30	0.58	17.6
Gatton Park 29/06	2007	42	0.41	17.6
Tresco 20/04	2008	29	0.28	17.5
Glenleith 28/05	2007	35	0.26	17.5
Tamlet 726/02	2007	32	0.20	17.5
Armidale 166/06	2008	35	0.19	17.4
Waidale 81/06	2008	22	0.14	17.4
Tamlet 750/06	2008	22	0.13	17.4
Hermiston 100/06	2008	37	0.03	17.4
View Hill 480/04	2008	28	0.03	17.4
	2007	31	0.01	17.4
	2007	34	0.01	17.4
	2007	37	-0.01	17.3
	2007	29	-0.01	17.3
	2008	28	-0.08	17.3
	2008	36	-0.20	17.2
	2007	34	-0.22	17.2
	2008	23	-0.22	17.2
	2008	30	-0.27	17.2
Doughboy 41/06	2007&2008	42	-0.29	17.2
	2007	38	-0.34	17.2
	2007	39	-0.41	17.1
	2008	33	-0.58	17.1
	2007	36	-0.64	17.0

Table 13: Breeding Values and Predicted Progeny Means for Carcass Weight (kg) for the North Island

Sire	Year Used	Number of Lambs	Breeding Value	Predicted Progeny Mean
TRIGG 403/06	2008	17	0.27	17.5
Totaranui 987/05	2008	24	0.20	17.5
Waio 408/07	2008	15	0.07	17.4
Holly 398/05	2008	17	0.04	17.4
Anui 229/06	2008	22	0.02	17.4
	2008	22	-0.06	17.3
	2008	21	-0.06	17.3
	2008	22	-0.08	17.3
	2008	10	-0.15	17.3
	2008	16	-0.25	17.2

Note Comparisons between North and South Island Sires CANNOT be compared as no link sire to eliminate environmental effects.

Dressing Out %

Dressing Out % (DO%) is the ratio between carcass weight and liveweight. A higher dressing DO% means that lambs can be slaughtered at a lighter liveweight yet still achieve a set carcass weight. For the South Island combined years there is a range of 2.30% in the breeding values. There is a 0.89% range in breeding values for the North Island. Only ram lambs were assessed for this trait. Dressing Out % data was adjusted for a combination of birth rank/rearing rank and slaughter group. For the South Island Sires Gatton Park 29/06, Fernvale 671/06 and Fernvale 1106/02 produced lambs with stand out DO%. There were no significant sires differences for the North Island. A high DO% means that for a given liveweight of an animal more of that liveweight is made up of “carcass” vs “non-carcass” components such as internal organs (liver, guts etc) or wool. Given we do not measure these non-carcass components we can not conclude what weight might be being substituted.

Table 14: Breeding Values and Predicted Progeny Means for Dressing Out % (Carcass Weight/Liveweight) (%) for the South Island

Sire	Year Used	Number of Lambs	Breeding Value	Predicted Progeny Mean
Gatton Park 29/06	2007	42	1.45	42.9
Fernvale 671/06	2008	30	1.00	42.6
Fernvale 1106/02	2007	35	0.89	42.6
Annan Downs 180/04	2007	29	0.56	42.4
Tamlet 726/02	2007	32	0.56	42.4
Doughboy 67/07	2008	36	0.48	42.4
Armidale 166/06	2008	35	0.19	42.2
Merrydowns 894/05	2007	34	0.13	42.2
View Hill 480/04	2008	28	0.13	42.2
Totaranui 367/03	2007	37	0.02	42.1
Glenleith 28/05	2007	35	0.00	42.1
Round Hill 559/02	2008	30	-0.12	42.1
	2008	28	-0.13	42.1
	2008	29	-0.14	42.1
Doughboy 41/06	2007&2008	42	-0.18	42.0
	2008	37	-0.25	42.0
	2008	22	-0.29	42.0
	2008	22	-0.31	42.0
	2007	31	-0.34	42.0
	2008	23	-0.41	41.9
	2008	33	-0.60	41.8
	2007	36	-0.61	41.8
	2007	39	-0.61	41.8
	2007	38	-0.68	41.8
2007	34	-0.75	41.8	

Table 15: Breeding Values and Predicted Progeny Means for Dressing Out % (Carcass Weight/Liveweight) (%) for the North Island

Sire	Year Used	Number of Lambs	Breeding Value	Predicted Progeny Mean
Trigg 403/06	2008	17	0.35	42.3
Totaranui 987/05	2008	24	0.26	42.3
Holly 398/05	2008	17	0.19	42.2
Trigg 248/06	2008	21	0.15	42.2
Pahiwi 585/05	2008	22	0.14	42.2
	2008	10	-0.07	42.1
	2008	22	-0.07	42.1
	2008	16	-0.17	42.0
	2008	15	-0.24	42.0
	2008	22	-0.54	41.9

Note Comparisons between North and South Island Sires CANNOT be compared as no link sire to eliminate environmental effects.

ViaScan measured GR

GR is measure of fat 11cm from the midline on the 12th rib, and has traditionally been used by meat companies to grade lambs for payment. The ViaScan imaging system also estimates fat depth on the carcass, taking an average of estimates at 9 positions across the carcass (from the shoulder through to the leg). There are likely to be differences between the existing GR measurements and ViaScan GR as fat distribution across the carcass is not uniform. Alliance plan to start grading on their ViaScan GR next season.

For the South Island combined years there is a range of 3.28mm in the breeding values. There is a 3.05mm range in breeding values for the North Island. Only ram lambs were assessed for this trait. ViaScan GR data was adjusted for a combination of birth rank/rearing rank, slaughter group and carcass weight. In general when considering carcass traits low GR's are desirable, however, this has to be taken in context of Romney's being dual purpose and the ewes actually requiring fat for condition.

Table 16: Breeding Values and Predicted Progeny Means for ViaScan measured GR for the South Island

Sire	Year Used	Number of Lambs	Breeding Value	Predicted Progeny Mean	
Gatton Park 06/06	2008	33	-1.29	5.0	
Ram Hill 1264/03	2007	37	-1.04	5.2	
Merrydowns 894/05	2007	34	-0.86	5.3	
Waidale 81/06	2008	22	-0.82	5.3	
Glenleith 28/05	2007	35	-0.73	5.3	
Armidale 166/06	2008	35	-0.58	5.4	
Round Hill 559/02	2008	30	-0.56	5.4	
Annan Downs 143/02	2008	28	-0.35	5.5	
Tamlet 726/02	2007	32	-0.32	5.5	
Tresco 20/04	2008	29	-0.17	5.6	
Hermiston 67/05	2007	35	-0.14	5.6	
Hermiston 100/06	2008	36	-0.12	5.6	
	2007	37	-0.05	5.7	
	2007	34	-0.05	5.7	
	2008	23	-0.04	5.7	
	2008	36	0.00	5.7	
	Doughboy 41/06	2007&2008	40	0.12	5.7
		2008	28	0.35	5.9
		2008	21	0.41	5.9
2007		30	0.63	6.0	
2007		35	0.67	6.0	
2007		37	0.90	6.1	
2007		42	1.00	6.2	
2007		29	1.05	6.2	
	2008	30	1.99	6.7	

Table 17: Breeding Values and Predicted Progeny Means for ViaScan measured GR for the North Island

Sire	Year Used	Number of Lambs	Breeding Value	Predicted Progeny Mean
River Run 307/06	2008	17	-1.39	5.0
Waio 408/07	2008	14	-0.95	5.2
TRIGG 32/05	2008	22	-0.83	5.3
TRIGG 403/06	2008	18	-0.18	5.6
Anui 229/06	2008	23	0.07	5.7
Pahiwi 585/05	2008	22	0.09	5.7
	2008	10	0.19	5.8
	2008	17	0.36	5.9
	2008	21	0.98	6.2
	2008	24	1.66	6.5

Note Comparisons between North and South Island Sires CANNOT be compared as no link sire to eliminate environmental effects.

Lean Meat Yield in the Leg as Assessed by ViaScan

Only ram lambs were assessed for this trait. For the South Island combined years there is a range of 1.54% in the breeding values. The data was adjusted for a combination of birth rank/rearing rank, slaughter group and carcass weight. There is a 1.67% range in breeding values for the North Island. Sires Merrydowns 894/05 and Doughboy 41/06 are the stand out sires for the South Island. Sires TRIGG 403/06 and TRIGG 32/05 are the stand out sires for the North Island. The industry average is 20.4%, so all sires averaged above this value. The % of lambs per sire reaching the Alliance premium targets for this trait are in Table 26. The Alliance target for receiving premiums is 20.7%.

Table 18: Breeding Values and Predicted Progeny Means for Lean Meat Yield in the Leg as Assessed by ViaScan (%) for the South Island

Sire	Year Used	Number of Lambs	Breeding Value	Predicted Progeny Mean
Merrydowns 894/05	2007	34	0.93	22.0
Doughboy 41/06	2007&2008	40	0.80	21.9
Tamlet 750/06	2008	21	0.59	21.8
Ram Hill 572/05	2008	23	0.51	21.8
Doughboy 67/07	2008	36	0.49	21.7
Ram Hill 1264/03	2007	37	0.49	21.7
Annan Downs 143/02	2008	28	0.23	21.6
Clifton Downs 497/04	2007	34	0.20	21.6
Armidale 208/05	2007	37	0.17	21.6
Waidale 81/06	2008	22	0.09	21.5
Fernvale 1106/02	2007	35	0.06	21.5
	2007	35	0.02	21.5
	2007	35	-0.01	21.5
	2008	33	-0.14	21.4
	2008	30	-0.21	21.4
	2007	37	-0.30	21.4
	2007	29	-0.31	21.3
	2008	28	-0.36	21.3
	2007	32	-0.38	21.3
	2007	30	-0.39	21.3
	2008	29	-0.44	21.3
	2008	30	-0.47	21.3
	2008	36	-0.47	21.3
	2007	42	-0.51	21.2
	2008	35	-0.61	21.2

Table 19: Breeding Values and Predicted Progeny Means for Lean Meat Yield in the Leg as Assessed by ViaScan (%) for the North Island

Sire	Year Used	Number of Lambs	Breeding Value	Predicted Progeny Mean
TRIGG 32/05	2008	22	0.90	21.9
TRIGG 403/06	2008	18	0.88	21.9
River Run 307/06	2008	17	0.21	21.6
Waio 408/07	2008	14	0.20	21.6
Paki-iti 617/04	2008	10	-0.03	21.5
	2008	22	-0.14	21.4
	2008	23	-0.18	21.4
	2008	17	-0.28	21.4
	2008	21	-0.70	21.2
	2008	24	-0.87	21.1

Note Comparisons between North and South Island Sires CANNOT be compared as no link sire to eliminate environmental effects.

Lean Meat Yield in the Loin as Assessed by ViaScan

Only ram lambs were assessed for this trait. The data was adjusted for a combination of birth rank/rearing rank, slaughter group and carcass weight. For the South Island combined years there is a range of 1.27% in the breeding values. There is a 1.17% range in breeding values for the North Island. Sires Merrydowns 894/05, Doughboy 41/06 and Ram Hill 572/05 are the stand out sires for the South Island. Sires TRIGG 403/06 and TRIGG 32/05 are the stand out sires for the North Island. The industry average is 14.04%, so all sires averaged above this value. The Alliance target is 13.5%.

Table 20: Breeding Values and Predicted Progeny Means for Lean Meat Yield in the Loin as Assessed by ViaScan (%) for the South Island

Sire	Year Used	Number of Lambs	Breeding Value	Predicted Progeny Mean
Doughboy 41/06	2007&2008	40	0.67	15.0
Merrydowns 894/05	2007	34	0.57	15.0
Ram Hill 572/05	2008	23	0.49	15.0
Tamlet 750/06	2008	21	0.34	14.9
Doughboy 67/07	2008	36	0.33	14.9
Armidale 208/05	2007	37	0.27	14.8
Fernvale 671/06	2008	30	0.26	14.8
Waidale 81/06	2008	22	0.18	14.8
Totaranui 367/03	2007	37	0.16	14.8
Hermiston 67/05	2007	35	0.08	14.7
Ram Hill 1264/03	2007	37	0.08	14.7
	2008	33	0.03	14.7
	2007	35	0.01	14.7
	2007	34	0.00	14.7
	2007	30	-0.03	14.7
	2007	35	-0.05	14.7
	2008	35	-0.25	14.6
	2007	29	-0.25	14.6
	2008	28	-0.28	14.6
	2008	30	-0.32	14.6
	2008	29	-0.33	14.5
	2007	42	-0.39	14.5
	2007	32	-0.43	14.5
	2008	28	-0.53	14.4
	2008	36	-0.60	14.4

Table 21: Breeding Values and Predicted Progeny Means for Lean Meat Yield in the Loin as Assessed by ViaScan (%) for the North Island

Sire	Year Used	Number of Lambs	Breeding Value	Predicted Progeny Mean
TRIGG 403/06	2008	18	0.69	15.1
TRIGG 32/05	2008	22	0.53	15.0
Waio 408/07	2008	14	0.14	14.8
Paki-iti617/04	2008	10	0.00	14.7
River Run 307/06	2008	17	-0.02	14.7
Pahiwi 585/05	2008	22	-0.03	14.7
	2008	23	-0.03	14.7
	2008	24	-0.36	14.5
	2008	21	-0.43	14.5
	2008	17	-0.48	14.5

Note Comparisons between North and South Island Sires CANNOT be compared as no link sire to eliminate environmental effects.

Lean Meat Yield in the Shoulder as Assessed by ViaScan

Only ram lambs were assessed for this trait. For the South Island combined years there is a range of 1.66% in the breeding values. There is a 1.46% range in breeding values for the North Island. The data was adjusted for a combination of birth rank/rearing rank, slaughter group and carcass weight. Sire Merrydowns 894/05 is the stand out sire for the South Island. Sires TRIGG 403/06 is the stand out sire for the North Island. The industry average is 17.17%, so most sires averaged above this value. The Alliance target for premiums is 16.4%.

Table 22: Breeding Values and Predicted Progeny Means for Lean Meat Yield in the Shoulder as Assessed by ViaScan (%) for the South Island

Sire	Year Used	Number of Lambs	Breeding Value	Predicted Progeny Mean
Merrydowns 894/05	2007	34	1.04	18.0
Doughboy 67/07	2008	36	0.75	17.8
Doughboy 41/06	2007&2008	40	0.55	17.7
Fernvale 671/06	2008	30	0.41	17.6
Tamlet 750/06	2008	21	0.39	17.6
Armidale 208/05	2007	37	0.22	17.5
Annan Downs 180/04	2007	29	0.16	17.5
Tamlet 726/02	2007	32	0.09	17.5
Annan Downs 143/02	2008	28	0.07	17.5
Waidale 81/06	2008	22	0.03	17.5
Glenleith 28/05	2007	35	0.02	17.4
	2007	34	0.02	17.5
	2008	28	-0.07	17.4
	2008	23	-0.15	17.4
	2007	42	-0.18	17.4
	2008	29	-0.19	17.3
	2007	35	-0.20	17.3
	2007	37	-0.21	17.3
	2008	36	-0.22	17.3
	2007	37	-0.26	17.3
	2007	35	-0.27	17.3
	2008	33	-0.42	17.2
	2007	30	-0.47	17.2
	2008	35	-0.48	17.2
	2008	30	-0.62	17.1

Table 23: Breeding Values and Predicted Progeny Means for Lean Meat Yield in the Shoulder as Assessed by ViaScan (%) for the North Island

Sire	Year Used	Number of Lambs	Breeding Value	Predicted Progeny Mean
TRIGG 403/06	2008	18	0.67	17.8
TRIGG 32/05	2008	22	0.32	17.6
River Run 307/06	2008	17	0.28	17.6
Anui 229/06	2008	23	0.13	17.5
Waio 408/07	2008	14	0.02	17.4
Pahiwi 585/05	2008	22	-0.01	17.4
	2008	10	-0.03	17.4
	2008	17	-0.18	17.4
	2008	21	-0.40	17.2
	2008	24	-0.79	17.0

Note Comparisons between North and South Island Sires CANNOT be compared as no link sire to eliminate environmental effects.

Lean Meat Yield in the Total Carcass as Assessed by ViaScan

Only ram lambs were assessed for this trait. For the South Island combined years there is a range of 4.12% in the breeding values. The data was adjusted for a combination of birth rank/rearing rank, slaughter group and carcass weight. There is a 4.53% range in breeding values for the North Island. Sires Merrydowns 894/05 and Doughboy 41/06 are the stand out sires for the South Island. Sires TRIGG 403/06 and TRIGG 32/05 are the stand out sires for the North Island.

Table 24: Breeding Values and Predicted Progeny Means for Total Carcass Lean Meat Yield as Assessed by ViaScan (%) for the South Island

Sire	Year Used	Number of Lambs	Breeding Value	Predicted Progeny Mean
Merrydowns 894/05	2007	34	2.65	55.0
Doughboy 41/06	2007&2008	40	2.08	54.7
Doughboy 67/07	2008	36	1.61	54.5
Tamlet 750/06	2008	21	1.38	54.3
Ram Hill 572/05	2008	23	0.94	54.1
Armidale 208/05	2007	37	0.70	54.0
Fernvale 671/06	2008	30	0.44	53.9
Ram Hill 1264/03	2007	37	0.42	53.9
Waidale 81/06	2008	22	0.31	53.8
	2007	34	0.24	53.8
	2007	35	0.04	53.7
	2008	28	0.00	53.6
	2007	35	-0.08	53.6
	2007	35	-0.24	53.5
	2007	37	-0.40	53.5
	2007	29	-0.44	53.4
	2008	33	-0.54	53.4
	2007	32	-0.77	53.3
	2007	30	-0.90	53.2
	2008	29	-1.03	53.1
	2008	28	-1.04	53.1
	2007	42	-1.11	53.1
	2008	36	-1.37	53.0
	2008	35	-1.41	52.9
	2008	30	-1.47	52.9

Table 25: Breeding Values and Predicted Progeny Means for Total Carcass Lean Meat Yield as Assessed by ViaScan (%) for the North Island

Sire	Year Used	Number of Lambs	Breeding Value	Predicted Progeny Mean
TRIGG 403/06	2008	18	2.40	54.8
TRIGG 32/05	2008	22	1.88	54.6
River Run 307/06	2008	17	0.49	53.9
Waio 408/07	2008	14	0.39	53.8
Paki-iti 617/04	2008	10	-0.07	53.6
Anui 229/06	2008	23	-0.11	53.6
	2008	22	-0.21	53.5
	2008	17	-1.01	53.1
	2008	21	-1.64	52.8
	2008	24	-2.13	52.6

Note Comparisons between North and South Island Sires CANNOT be compared as no link sire to eliminate environmental effects.

% of Lambs Reaching Alliance Premium Targets

Alliance set yield targets, the premium system used is incremental, but the highest premiums are given to mobs of lambs where 80% or more from a given property achieve the minimum targets for ALL three regions.

The raw data was used to determine the progeny of which sires would achieve Alliances targets, these results therefore don't take into account the management and environmental differences that exist and were obvious between the years in the South Island. The progeny from 5 2008 South Island sires would have achieved the premium, and only 1 2007 South Island Sire and 1 North Island sire. Although over 80% of the progeny of some sires reached the targets for individual regions of the carcass, the same progeny were not achieving the targets for other cuts, meaning that overall they did not qualify for the premiums, as the targets must be achieved for each region.

Table 26: % of Progeny per Sire Reaching the Alliance Premium Targets for Lean Meat Yield independently for the Leg, Loin and Shoulder and for All Three Regions for the South Island

	Year	% Leg Target	% Loin Target	% Shoulder Target	% All Three Regions Target
Doughboy 67/07	2008	94	97	100	94
Ram Hill 572/05	2008	91	100	100	91
Merrydowns 894/05	2007	91	94	91	88
Tamlet 750/06	2008	86	95	95	86
Gatton Park 06/06	2008	85	88	88	82
Waidale 81/06	2008	82	100	100	82
Annan Downs 143/02	2008	89	82	96	79
Armidale 208/05	2007	84	100	86	78
Doughboy 41/06	2007&2008	92	95	83	75
View Hill 480/04	2008	82	93	100	75
Glenleith 28/05	2007	80	91	83	71
Annan Downs 180/04	2007	72	90	90	69
Hermiston 100/06	2008	72	83	89	67
	2008	70	83	80	67
	2007	80	89	71	66
	2007	84	86	76	65
	2008	63	89	94	63
	2007	73	95	73	62
	2008	66	86	93	62
	2007	76	85	76	62
	2007	71	83	66	57
	2008	60	97	93	57
	2007	70	90	57	53
	2007	67	90	62	50
	2007	66	72	78	50

Thresholds for premiums: Leg $\geq 20.7\%$; Loin $\geq 13.5\%$ and Shoulder $\geq 16.4\%$. To qualify for the premium 80% of lambs within a line must reach the targets for all three regions.

Table 27: % of Progeny per Sire Reaching the Alliance Premium Targets for Lean Meat Yield independently for the Leg, Loin and Shoulder and for All Three Regions for the North Island

	Year	% Leg Target	% Loin Target	% Shoulder Target	% All Three Regions Target
Paki-iti 617/04	2008	80	100	100	80
TRIGG 403/06	2008	78	100	100	78
TRIGG 32/05	2008	82	96	100	77
River Run 307/06	2008	77	94	100	77
Waio 408/07	2008	71	93	100	71
Anui 229/06	2008	70	100	100	70
	2008	59	100	100	59
	2008	47	94	100	47
	2008	42	92	88	42
	2008	33	100	100	33

Thresholds for premiums: Leg \geq 20.7%; Loin \geq 13.5% and Shoulder \geq 16.4%. To qualify for the premium 80% of lambs within a line must reach the targets for all three regions.

Economic Analysis

The profit of a lamb is a function of the value of the lamb relative to the costs associated with producing the lamb. In a “normal” kill season the value per kilogram of an 18kg carcass weight lamb declines from early December through till mid March at which stage it plateaus (Note the current season is not normal due to the exchange rate, supply issues and world demand which have seen the value per kilogram of lamb remain static or increase over this time). Simply considering the value per kilogram of the lamb then, a lamb that can achieve an 18kg carcass weight at weaning is the most profitable lamb. In addition a lamb that can be slaughtered at weaning incurs no additional costs such as those associated with drenching/crutching or shearing and the opportunity cost of the lamb consuming additional dry matter to get to its 18kg carcass weight when the dry matter could have been used for alternative purposes.

A simple calculation can be made to quantify the “costs” of having to keep a lamb past weaning. The values used in this simple calculation are ESTIMATES only, but clearly demonstrate the differences that can occur.

The values per kilogram of lamb used in this analysis are the averages for a “Y” grade lamb from the 2006-2007, 2007-2008 kill season, although these values are much lower than those being currently experienced in the industry, they are values that follow the “normal” kill season trend, because the values are lower it will actually underestimate the differences in value.

Early December Lamb \$4.20/kg

Early January Lamb \$3.45/kg

Late January Lamb \$3.25/kg

Early February Lamb \$3.10/kg

Early March Lamb \$3.05/kg

A more complete analysis would factor in the different grades as the value per kilogram within any time point can vary depending on the carcass weight and level of fatness that is achieved.

The optimum value of the lamb is when it is killed at weaning in early December.

A lamb that is killed at weaning incurs zero additional costs and therefore the loss is zero.

At weaning lambs that do not go to the works are generally drenched, and then subsequently drenched after every draft that it does not make it to the works at a cost of ~\$0.50 per drench.

Additional feed costs are estimated based on the maintenance and growth requirements of growing lamb from the publication “Pasture and Supplements for Grazing Animals, Page 156”.

- The energy content of the pasture is assumed to be 11MJ ME/kgDM which is realistic given the lambs are on a “finishing” diet.
- The cost of 1kg of dry matter is assumed to be 12c/kg which may not fully represent the opportunity costs but is still relative for all animals.
- The average daily maintenance cost of a lamb for the pasture it consumes is assumed to be 8 cents per day (7.0MJME per day, if pasture is 11MJME = 0.63kgDM/day).
- The total maintenance cost of a lamb was the number of additional days post-weaning it was on the property before it was slaughtered multiplied by 8 cents/day.

- The average cost per kg of growth for the pasture it consumes is assumed to be 38 cents per kg (35MJME per kilogram growth, if pasture is 11MJME = 3.2kgDM/kg).
- The total growth cost of a lamb was the number of kilograms it put on from weaning till its pre-slaughter liveweight multiplied by 38 cent per kg.

The loss in lamb value as a result of schedule changes was estimated by subtracting the value of the lamb at its time of sale from the optimum value it could have achieved if it had been slaughtered at the same liveweight at weaning.

The total cost of taking a lamb past weaning is the sum of the loss in lamb value, the maintenance and growth costs and drench costs.

Table 28 contains examples of calculating these costs for different scenarios modelled on the South Island kill dates from 2008-2009 when there was a weaning draft and 2007-2008 when there was not weaning draft. Although these are only simple calculations and do not take into account all factors (shearing costs?, differences in grade prices?), it provides a starting point to consider the value of a ram in terms of how much of the potential profit (a lamb killed at weaning) a ram can deliver.

Table 28. Costs of different scenarios for lambs reaching target slaughter weight at different times, modelled on the South Island kill dates from 2008-2009 when there was a weaning draft and 2007-2008 when there was not weaning draft.

	Draft at Weaning			No Draft at Weaning		
	Draft 1	Draft 2	Draft 3	Draft 1	Draft 2	Draft 3
1. Liveweight at weaning (kg)	41	35	31	39	35	31
2. Liveweight at slaughter (kg)	41	41	41	41	41	41
3. Carcass weight at slaughter (kg)	18	18	18	18	18	18
4. \$/kg/CW	4.20	3.45	3.10	3.45	3.25	3.10
5. Actual Carcass Value (\$)	\$75.60	\$62.10	\$55.80	\$62.10	\$58.50	\$55.80
6. Optimum Carcass Value (\$)	\$75.60	\$75.60	\$75.60	\$75.60	\$75.60	\$75.60
7. Days from weaning till slaughter	0	44	78	37	52	73
8. Liveweight gain from weaning till slaughter	.	6	10	2	6	10
9. Maintenance cost (\$)	.	\$ 3.52	\$ 6.24	\$ 2.96	\$ 4.16	\$ 5.84
10. Liveweight gain cost (\$)	.	\$ 2.28	\$ 3.80	\$ 0.76	\$ 2.28	\$ 3.80
11. Drench costs	.	\$ 0.50	\$ 1.00	\$ 0.50	\$ 1.00	\$ 1.50
12. Loss in carcass value (\$)	.	\$13.50	\$19.80	\$13.50	\$17.10	\$19.80
13. Total Cost	\$0	\$19.80	\$30.84	\$17.72	\$24.54	\$30.94

6. is 3.*4.20

9. is 7.*0.08

10. is 8.*0.38

12. is 6.-5.

13 is 9.+10.+11.+12.

Using the above calculations the average loss in potential profit of each ram is given in Table 29. These calculations were based on the raw data for each ram and DO NOT take into account differences in dates of birth, or birth/rearing rank as is done in the breeding value calculations which could influence the results. It is quickly evident that the biggest factors affecting the potential profit a ram can deliver are the weaning weights and subsequent growth rates of his progeny as indicated by days to draft. And the results generally reflect the weaning weight breeding value trends, and also the proportion of progeny that are drafted early (whenever the first draft is).

Table 29. Average lost potential profit per progeny for each sire through slaughter at weaning not being achieved. Takes into account the lost value of the carcass through schedule prices lowering through the season, and added feeding and animal health costs.

Average Lost Potential Profit Per Progeny	
<u>South Island 2007 Born</u>	
Ram Hill 1264/03	\$19.77 ± \$2.82
Sudeley181/06	\$20.63 ± \$3.39
Hermiston 67/05	\$20.68 ± \$2.81
Tamlet 726/02	\$20.96 ± \$3.61
Glenleith 28/05	\$21.22 ± \$3.13
Annan Downs 180/04	\$21.22 ± \$3.23
Clifton Downs 497/04	\$21.26 ± \$3.06
	\$21.33 ± \$3.55
	\$21.47 ± \$3.72
	\$21.53 ± \$3.13
	\$22.22 ± \$3.43
	\$22.54 ± \$3.35
	\$22.63 ± \$4.10

<u>South Island 2008 Born</u>	
Waidale 81/06	\$3.05 ± \$6.64
View Hill 480/04	\$5.32 ± \$8.36
Armidale 166/06	\$6.53 ± \$8.83
Doughboy 41/06	\$7.03 ± \$9.06
Round Hill 559/02	\$7.32 ± \$9.22
Tresco 20/04	\$7.45 ± \$9.07
Annan Downs 143/02	\$8.07 ± \$9.24
Ram Hill 572/05	\$8.45 ± \$8.67
	\$8.83 ± \$8.79
	\$9.40 ± \$9.30
	\$9.79 ± \$9.20
	\$10.52 ± \$8.80
	\$11.17 ± \$9.41

<u>North Island 2008 Born</u>	
TRIGG 32/05	\$22.01 ± \$5.17
Totaranui 987/05	\$22.86 ± \$4.98
Anui 229/06	\$23.45 ± \$5.13
Holly 398/05	\$23.73 ± \$4.85
Waio 408/07	\$24.16 ± \$5.03
	\$24.23 ± \$4.69
	\$24.32 ± \$5.42
	\$24.56 ± \$5.09
	\$24.60 ± \$5.58
	\$25.02 ± \$4.79

Lamb values used are the averages for a "Y" lamb from the 2006-2007, 2007-2008 kill season, when the value characteristically lowered over the season. Sires can only be compared within the year and island within which they were born, as for the South Island

there was a weaning draft for the 2008 born but not the 2007 born and the environments resulted in different kill patterns.

Recommendations for the 2009-2010 Progeny Test

LINKAGES, there needs to be linkages between years and sites that are secure enough that if any one fails there is a backup, therefore, ideally two sires should be used between the years and sites. Although this potentially limits the number of new rams that can be tested, the linkages are of equal importance. I have seen evidence that there will be improved linkages for the coming year, but it is definitely something that needs to be emphasised as being very important. Why? As outlined in the introduction we can see the benefits of the South Island between year linkage in that it has allowed for a global analysis including rams from both years, this global analysis needs to include the North Island rams which allow global analysis through SIL ACE.

From next year all of the data needs to be entered into and analysed through SIL, although the format of the results will be different it is important that the analysis moves to SIL so that all of the linkages being developed can be used to incorporate breeders flocks into global analysis and also allow linkages through SILACE for across breed comparisons too.

Overall Summary

This year the data was generated slower than last year, in part because of the March Slaughter in North Island. Unfortunately this has meant that the results were not available in time for breeders to make mating decisions. This needs to be addressed next year and considerable of kill dates must take subsequent data analysis into consideration.

With more rams being included in the South Island more variation is emerging, with no one standout sire for both growth and meat traits. For the North Island TRIGG 32/05 ranked highly for nearly all traits measured, but most other sires ranked well for at least a couple of the traits measured. So it depends on what traits you are targeting to improve.