



CPT *Central Progeny Test*

FIELD DAY JUNE 2003

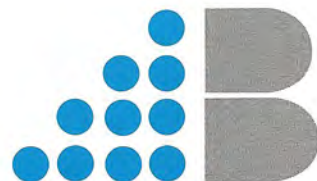


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PROJECT OUTLINE

The Alliance Central Progeny Test (CPT) was established in 2001 with the aim of determining the genetic links between various breeds and sheep strains to allow valid comparisons to be made of individual ram performance.

The trial covered breed values (BV) ;

<u>Indices</u>	<u>Individual EBVs</u>
<ul style="list-style-type: none">▪ Meat value index▪ Days to kill index▪ Overall net value index▪ Market Choice index	<ul style="list-style-type: none">▪ Dressing percentage▪ Meat colour▪ Fat colour▪ pH▪ Lamb survival▪ FEC

The Central Progeny Test is led by a group consisting of Alliance Group Ltd, AgResearch, Sheep Improvement Ltd (SIL) and Abacus Biotech Ltd.

WHAT DOES THE ALLIANCE CPT MEAN FOR THE NZ SHEEP INDUSTRY?

- Sire reference groups will be able to compare rams with those in other sire reference groups – both within and across breeds with the use of SIL
- Producers will be able to compare rams on the basis of performance across breeds when purchasing rams, rather than choosing a breed and then selecting from a breeder within that breed

Year 1 (2002 – 2003)

- First mating carried out at the AgResearch Woodlands Farm
- 22 terminals from 9 different breeds selected by the various breed societies

Mating

- Each sire randomly allocated 30 mixed aged ewes (total of 660 ewes) for mating – mainly Coopworth ewes and some East Friesian X Coopworths
- Ewes were synchronised using CIDR's prior to mating
- 22 rams were used (rams with ewe for 1 week)
- 12 were mated using AI

Lambing

- Lambing and lambed ewes were mobbed to achieve 5 groups of around 75 to 80 ewes – all sires represented in each mob
- Smallest triplet was mothered onto a single bearing ewe

Docking

- Lambs vaccinated for scabby mouth, B12 and given a smartshot for preventing B12 deficiency
- All male lambs made crypts
- Liveweight recorded on all lambs and docking group recorded

Animal Health

- Ewes vaccinated
- Drenched with a preventative oral parasite drench at docking
- Potassium iodide pre mating and pre lambing
- Ewes with triplets were run separately – fed barley at 300g/ewe/day

Weaning

- 16 December 2002
- WormFec taken prior to weaning drench on remaining lambs (Ivomec)
- WormFec sample on 10 lambs per sire

Drafting

- Animals drafted at minimum 35 kg L/W for 1st slaughter (17 December 2002)
- 2nd and 3rd slaughter at 36 kgs L/W (15 January 2003 and 11 February 2003 respectively)
- Final slaughter (11 March 2003) – all remaining lambs sent

- Visual score based on hindleg, loin and GR
- Dag score recorded

Slaughter – Bone Outs

- Data collected for :
 - Pelts
 - Hot carcass weight and GR
 - Yield grading (ViaScan)
 - Carcass conformation

- Chiller – pH & fat colour

- Boneout – measurement of eye muscle – width and depth and fat depth

- Weights of cuts – leg, loin, saddle, standard rack and forequarter

Meat & Growth index (\$)

ID	Flock	BREED	Net	Rank
106/99	Ohio	Polled Dorset	3.26	1
400/00	Brandes Burton	Texel	2.50	2
299/00	Waikite	Texel	2.12	3
211	Kurralea	Polled Dorset	1.71	4
4012/99	Bilberry	Hampshire	1.44	5
154/99	Ivadene	Polled Dorset	1.14	6
xa2/99	The Burn	Texel	1.00	7
t533/01	Wharatoa	Composite	0.69	8
77/95	Douglas Downs	Dorset Horn	0.69	9
L140/00	Turnberry	Composite	0.31	10
s419/96	Punchbowl	Suffolk	0.21	11

Range: -\$4.16 to \$3.26

Days to Kill (\$)

ID	Flock	BREED	Days to kill (\$)	Rank
4012/99	Bilberry Oak	Hampshire	1.99	1
400/00	Brandes Burton	Texel	1.54	2
s419/96	Punchbowl	Suffolk	1.38	3
51/00	Trackly	Dorset Down	1.37	4
211	Kurralea	Polled Dorset	1.32	5
299/00	Waikite	Texel	1.01	6
106/99	Ohio	Polled Dorset	0.80	7
41/00	Tasvic Downs	Southdown	0.72	8
t533/01	Wharatoa	Composite	0.51	9
77/95	Douglas Downs	Dorset Horn	0.41	10
929/00	Craig-Annat	South Suffolk	0.18	11

Range: -\$2.35 to \$1.99

Market Choice index

ID	Flock	Breed	Market	Rank
400/00	Brandes Burton	Texel	1.521	1
xa2/99	The Burn	Texel	1.032	2
299/00	Waikite	Texel	0.983	3
2855/00	Mount Linton	Texel	0.667	4
211	Kurralea	Polled Dorset	0.604	5
1144/99	Teviotdale	Hampshire	0.417	6
41/00	Tasvic Downs	Southdown	0.288	7
165/00	Torresdale	Suffolk	0.219	8
140/00	Turnberry	Composite	0.195	9
2165/97	Wairere	Romney	0.189	10
77/95	Douglas Downs	Horned Dorset	0.154	11

Range: -2.34 to 1.52

Meat index (\$)

ID	Flock	Breed	Meat value (\$)	Rank
154/99	Ivadene	Polled Dorset	3.49	1
106/99	Ohio	Polled Dorset	2.46	2
xa2/99	The Burn	Texel	1.60	3
299/00	Waikite	Texel	1.11	4
400/00	Brandes Burton	Texel	0.96	5
c57/99	Charleston	Southdown	0.69	6
140/00	Turnberry	Composite	0.42	7
211	Kurralea	Polled Dorset	0.39	8
77/95	Douglas Downs	Horned Dorset	0.28	9
t533/01	Wharatoa	Composite	0.19	10
2855/00	Mount Linton	Texel	0.13	11

Range: -\$2.27 to \$3.49

Dressing Percentage

ID	Flock	Breed	Dress%	Rank
299/00	Waikite	Texel	2.9	1
400/00	Brandes Burton	Texel	2.5	2
xa2/99	The Burn	Texel	1.9	3
140/00	Turnberry	Composite	1.2	4
t533/01	Wharatoa	Composite	1.2	4
211	Kurralea	Polled Dorset	0.9	6
106/99	Ohio	Polled Dorset	0.6	7
165/00	Torresdale	Suffolk	-0.1	8
c57/99	Charleston	Southdown	-0.2	9
41/00	Tasvic Downs	Southdown	-0.2	9
77/95	Douglas Downs	Horned Dorset	-0.3	11

Mean: 44.1% Range: -1.8% to 2.9%

Meat Colour BV (a*)

ID	Flock	Breed	Meat colour	a* rank
2165/97	Wairere	Romney	1.37	1
c57/99	Charleston	Southdown	1.26	2
41/00	Tasvic Downs	Southdown	1.09	3
1144/99	Teviotdale	Hampshire	0.75	4
140/00	Turnberry	Composite	0.56	5
t533/01	Wharatoa	Composite	0.43	6
400/00	Brandes Burton	Texel	0.32	7
2855/00	Mount Linton	Texel	0.18	8
u33	Mornish	Suffolk	0.04	9
125/98	Pohiwi	South Suffolk	-0.02	10
299/00	Waikite	Texel	-0.05	11

Mean: 18.65 Range: -1.61 to 1.37

Fat Colour BV (b*)

ID	Flock	Breed	Fat colour	Rank
140/00	Turnberry	Composite	-2.03	1
4012/99	Bilberry Oak	Hampshire	-1.80	2
1144/99	Teviotdale	Hampshire	-1.65	3
154/99	Ivadene	Polled Dorset	-1.51	4
106/99	Ohio	Polled Dorset	-1.46	5
s419/96	Punchbowl	Suffolk	-0.93	6
41/00	Tasvic Downs	Southdown	-0.84	7
xa2/99	The Burn	Texel	-0.62	8
u33	Mornish	Suffolk	-0.35	9
435/98	Kelso	Composite	-0.23	10
400/00	Brandes Burton	Texel	-0.14	11

Mean: 12.3 Range: -2.03 to 2.92

pH BV

ID	Flock	Breed	pH	Rank
77/95	Douglas Downs	Horned Dorset	-0.078	1
t533/01	Wharatoa	Composite	-0.067	2
106/99	Ohio	Polled Dorset	-0.049	3
c57/99	Charleston	Southdown	-0.040	4
125/98	Pohiwi	South Suffolk	-0.034	5
41/00	Tasvic Downs	Southdown	-0.032	6
4012/99	Bilberry Oak	Hampshire	-0.022	7
1144/99	Teviotdale	Hampshire	-0.021	8
2165/97	Wairere	Romney	-0.020	9
xa2/99	The Burn	Texel	-0.019	10
s419/96	Punchbowl	Suffolk	-0.010	11

Mean: 5.58 Range: -0.078 to 0.14

Lamb Survival BV (lambs)

ID Rank	Flock	Breed	Lamb survival	
77/95	Douglas Downs	Horned Dorset	3.7	1
229/00	Waikite	Texel	3.1	2
U33/97	Mornish	Suffolk	2.7	3
41/00	Tasvicdowns	Southdown	2.5	4
154/99	Ivadene	Polled Dorset	2.5	4
*419/96	Punchbowl	Suffolk	2.5	4

Mean: 88.8% Range: -5.2 to 3.7

WormFec BV (%)

ID	Flock	BREED	FEC1BV	Rank
140/00	Turnberry	Composite	-37.3	1
299/00	Waikite	Texel	-25.9	2
xa2/99	The Burn	Texel	-21.9	3
435/98	Kelso	Composite	-18.1	4
106/99	Ohio	Polled Dorset	-14.3	5
t533/01	Wharatoa	Composite	-13.3	6

Range: -37.3 to 71.4

Top 6 rams: Meat & Growth index (\$)

Flock	Breed	Meat & growth index (\$)	Meat index (\$)	Days to kill (\$)	Market choice	Dress %	Worm Fec %
Ohio	PD	3.26	2.46	0.80	-0.31	0.6	-14.3
Brandes Burton	Tex	2.50	0.96	1.54	1.03	2.5	5.7
Waikite	Tex	2.12	1.11	1.01	0.98	2.9	-25.9
Kurralea	PD	1.71	0.39	1.32	0.60	0.9	11.8
Billberry Oak	Hamp	1.44	-0.55	1.99	-0.43	-0.3	71.5
Ivadene	PD	1.14	3.49	-2.35	-0.29	-0.4	-5.3

Above average for farm type

Below average for farm type

SECOND TRIAL

The second trial of the Alliance CPT commenced with mating in April 2003. The emphasis again is evaluating sires for breeding and all progeny will be slaughtered.

Rams chosen for the second cycle are mostly dual purpose breeds (15) while 8 new terminal sires and 2 link terminal sires complete the section.

This programme will provide valuable information to aid Alliance suppliers with their sire selection as well as ram breeders themselves.

Secondly, it will act as a vehicle to refine economic weighting of the selection criteria for meat breeds.

