Peter Westblade Memorial Merino Challenge 2018-2020

Meat Challenge Report

Craig Wilson & Associates
1 Featherwood Road Wagga Wagga NSW 2650
P: 02 6926 2365 M: 0428 250 982
www.craigwilsonandassociates.com.au

Report Authors
Sally Martin, Sally Martin Consulting Pty Ltd, YOUNG NSW, M: 0400 782 477 E: sallymartin777@gmail.com
Craig Wilson, Craig Wilson & Associates
Tom Granleese Jizzy Genetics, Grafton NSW

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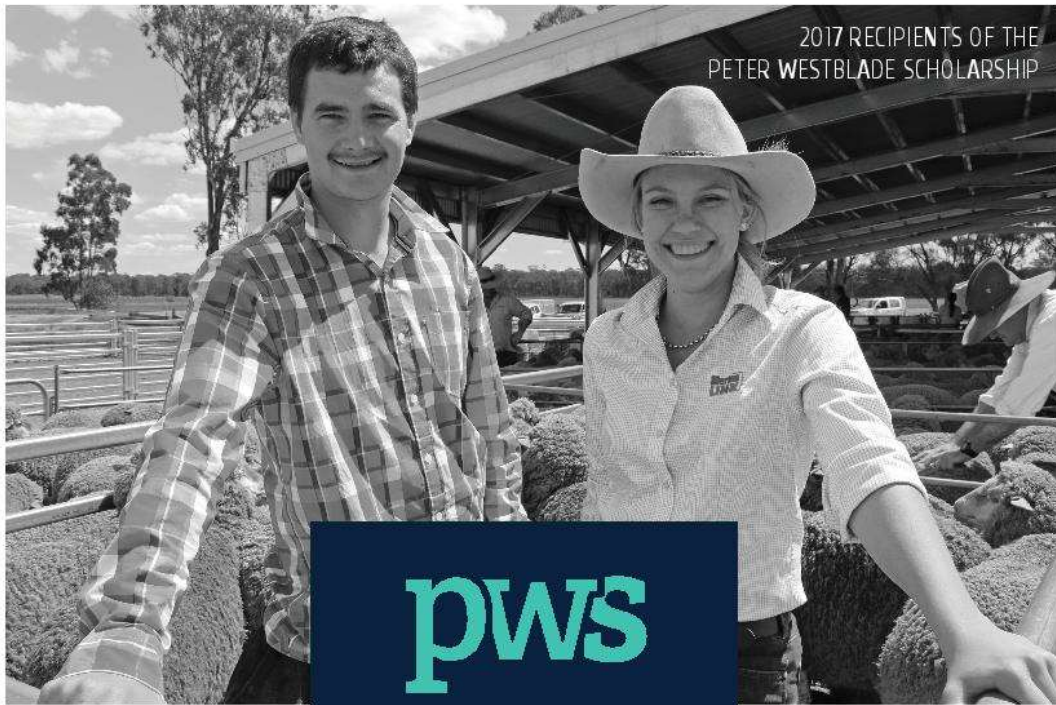
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The Peter Westblade Scholarship honors the Late Peter Westblade a true visionary passionate about breeding profitable sheep and a strong supporter of young people interested in agriculture.

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From the Challenge Convenor

The Peter Westblade Memorial Merino Challenge 2018 - 2020 follows on from similar trials co-ordinated by Craig Wilson and Associates since 2004. The concept of the PWMMC has been developed to assist Merino breeding operations make more informed decisions on their Merino genetics.

The Wool Challenge and Meat Challenge within the PWMMC provide a holistic view of the relative capacity of merino genetics to perform in both the meat and wool segments of the market. It has been deliberately designed to show the entrants in the Challenge and the wider sheep industry the genetic opportunities that exist for them to be more financially sustainable into the future.

Whilst expenses are not considered within this report, the 48% range in carcass values after being fully adjusted for age highlights the role genetics play in the profitability of lamb finishing operations.

The PWMMC 2018 Meat Challenge lambs as a group performed very well under feedlot conditions, the average quality of the lambs when processed at Fletcher International Exports at Dubbo, NSW was excellent.

All information contained within this report has been statistically analysed by Tom Granleese, Jizzy Genetics and fully adjusted for age. The age adjustments allows us to not only compare the teams within the Autumn, Winter and Spring age groupings but also across those groups. The compilation of results was carried out by Sally Martin Consulting Pty Ltd.

The relative performance of the wether lambs in the Challenge will be influenced by management and nutrition effects prior to the Challenge starting. Some very clear bloodline variations and sheep selection decisions have played out in the relative performance of the entrant's teams in this trial.

The results seen within this report match up well with link teams that have had their genetics previously analysed in the PWMMC Meat Challenge. The PWMMC has again attracted teams from across Australia with several of Australia's largest wool-growing businesses represented.
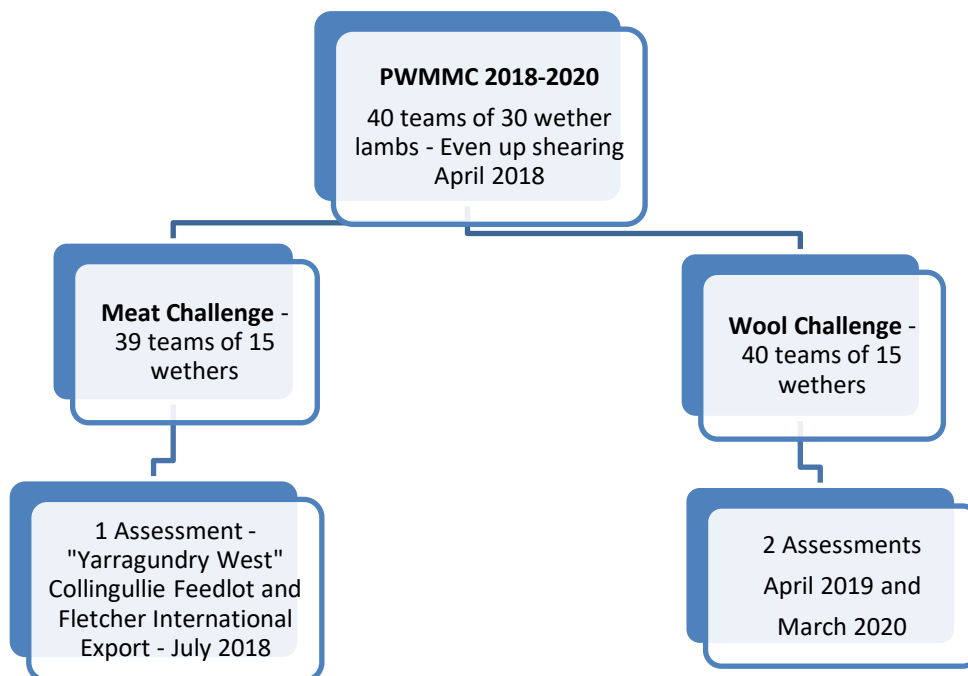
The continuation of PWMMC would not be possible without the support of Australian Wool Innovation, Fletchers International Exports and Sally Martin Consulting Pty Ltd who have partnered with me over a number of years to provide entrants with truly independent information to assist their businesses.

Craig Wilson

About the Peter Westblade Merino Challenge (PWMMC)

Australia's largest commercial evaluation of Merino genetics the Peter Westblade Memorial Merino Challenge (PWMMC) assists Merino breeding enterprise make more informed decisions on their Merino genetics. The PWMMC has two components consisting of a Meat Challenge and a Wool Challenge. The Meat Challenge is a unique initiative of the PWMMC measuring commercially relevant growth and carcase traits.

The information and data analysis presented in this report shows entrants and the wider sheep industry the financial opportunities that exist through high performance Merino genetics.

PWMMC 2018-2020
40 teams of 30 wether lambs - Even up shearing April 2018

Meat Challenge - 39 teams of 15 wethers

Wool Challenge - 40 teams of 15 wethers

1 Assessment - "Yarragundry West" Collingullie Feedlot and Fletcher International Export - July 2018

2 Assessments April 2019 and March 2020

Peter Westblade – 1949 to 2008

Peter Westblade (pictured right) has been described as a visionary, innovator and successful stud Poll Merino Breeder; he was also an inspiring sheep classer using objective measurement, a mentor to many and a champion of worthy causes.

Peter Westblade was born in Lockhart, NSW and left school at 16 years of age. Peter established himself by buying his grandfather's 400-hectare farm with 10 per-cent deposit and 90 per-cent borrowed money.

His involvement in sheep breeding began in the early 1970's when he identified his desired traits for a profitable sheep many years ahead of the industry.

Peter Westblade's son Tim and his wife Rachel now continue the dedication and passion for Merino's and the management of 'Pastora'.

1.0 Trial Design

The PWMMC 2018-2020 (Merino Challenge) evaluates both commercial carcase and wool attributes of randomly selected 2017 drop wether lambs. Most of the major wool growing regions in Australia are represented through the 39 teams of 30 wether lambs. Refer to pages 8 for entrant details.

1.1 How the wether lambs were selected?

The selection protocols for the Merino Challenge stipulate entrants must have either purchased rams directly from the ram breeder nominated as their bloodline source for a minimum of five years (in line with the NSW DPI National Wether Comparison Guidelines) or have bred their own rams and not be actively selling rams. A separate section has been included in the PWMMC 2018-2020 to accommodate Merino studs. Entrants that have not used a single source for their Merino genetics are known as a mixed bloodline.

The standard protocol for all sheep entering the Merino Challenge required entrants to yard a minimum of 90% of their 2017 drop wether lambs. From this group, a nominated independent person randomly drafted off 54 wether lambs from which 30 wether lambs were selected and tagged with two unique permanent tags. Entrant teams were then transported to a property near Collingullie, where they were inducted and shorn (even-up).

1.2 How the wether lambs were allocated to the Wool Challenge and Meat Challenge?

A body weight was taken prior to the even-up shearing (April 2018) and was used to randomly allocate wethers to the Wool Challenge and Meat Challenge. The allocation was within team, subsequently the wool length of individual teams did not need to be taken into consideration.

The random allocation of each team of 30 wether lambs enables an even distribution of body weights to either the Wool Challenge or Meat Challenge.

1.3 How to read and interpret this report?

The 2018 Meat Challenge report is a snap shot of the meat productivity drivers of the participating entrant teams. When the 2018-2020 PWMMC commenced there was an age spread from May to October 2017.

2.0 Entrant Details

The PWMMC has operated in the current format since 2010. The 2018-2020 PWMMC is the fifth trial of its kind. 2018-2020 trial has seen 40 breeders have enter teams from NSW (34), Victoria (5) and Western Australia (1). Since the PWMMC inception there have been 210 teams evaluated from 5 states of Australia, Table 1 shows the distribution of teams.

Of the 250 teams entered since 2010, 50 percent of entrants have entered more than once either entering a team in all five PWMMC or at varying intervals over the past 8 years to benchmark progress and breeding program changes. There are 62 bloodlines or ram sources represented across all the PWMMC trials and currently there are 26 bloodlines represented by two or more teams. The repeat entrants provide excellent linkage between years and trials and will allow across year analysis in the future that will include both carcase and wool data. Table 3 presents the entrant details, location, bloodline and age group.

Table 1 - Number of teams represented by State

States	2010-12	2012-14	2014-16	2016-18	2018-20	Total
NSW	45	50	46	43	34	217
VIC	4	7	3	4	5	23
WA	1		1	2	1	5
SA		2			-	2
TAS		1		1	-	2
Total	**50**	**60**	**50**	**50**	**40**	**250**

Table 2 - Summary of entrant details of the PWMMCs

250 teams (entrants)
50% repeat entrants
52% new entrants over the five trials (2010-12; 2012-14; 2014-16; 2016-2018; 2018-20)
62 Bloodlines/Ram Sources (2010-12; 2012-14; 2014-16; 2016-18; 2018-20)
26 bloodlines represented by two teams or more (2010-12; 2012-14; 2014-16; 2016-18; 2018-20)

Above: Entrants David and Erica Shorter assisting with the 2018 PWMMC Meat Challenge processing at Fletchers International Export

Above: PWMMC Meat Challenge Wethers prior to processing (30th July 2018)

Table 3 - PWWMC 2018-2020 Entrant Details

Team No.	Trading Name	Town	State	Bloodline	Yrs on BL	Age Group
1	Paling Yards Trading Co	Taralga	NSW	Paling Yards	60	Spring
2	C & M Morton	Stockinbingal	NSW	Pastora	12	Winter
3	GJ & DN Bahr / CR & CA Bahr	The Rock	NSW	Pastora	30	Autumn
4	One Tree Past Co	Taralga	NSW	Mixed	-	Spring
5	Rockview Ag	Yerong Creek	NSW	Pastora	20	Winter
6	RB Corkhill and Sons	Boorowa	NSW	Grassy Creek	-	Spring
7	Lorne Past Co	Gunning	NSW	Collingwood	20	Autumn
8	BJ, EA & PR Dwyer	Alectown	NSW	Greendale	14	Winter
9	DJ & GR Rowan	Coleambally	NSW	Woodpark Poll	20	Winter
10	Jimenbuen Past Co	Dalgety	NSW	Mixed	5	Spring
12	SR & MC Beasley	Lindenow South	VIC	Emu Park	40	Winter
13	McGufficke Partners	Cooma	NSW	Greendale	40	Spring
14	Goorama Partnership	Galong	NSW	Hazeldean	8	Spring
15	E. J Kitto and Co	Beckom	NSW	Pastora	15	Autumn
16	JA and BE Kilpatrick	Great Western	VIC	Pastora/Emu Park	5	Winter
17	McGuiness Bros	Bigga	NSW	Mixed/Grassy Creek	4	Spring
18	Bigga Pastoral - Clonalton	Reids Flat	NSW	Mixed	-	Winter
19	McCorkell Pastoral Company	Hamilton	VIC	Mixed	-	Spring
20	TA Field Estates – Wyvern Stn	Carrathool	NSW	Hazeldean	18	Autumn
21	Kreutzberger Ag	Rand	NSW	Woodpark Poll	10	Winter
22	TA Field Estates - Benangaroo	Jugiong	NSW	Hazeldean	9	Winter
23	Syd Dickens	Berrigan	NSW	Roseville Park	29	Autumn
24	Cavan Station	Yass	NSW	Bogo	20	Winter
25	Tupra Past Co	Hay	NSW	Tupra	40	Autumn
26	Habnary Station	Lightning Ridge	NSW	Mixed	-	Winter
27	Gundibri Pty Ltd	Merriwa	NSW	SRS	20	Winter
28	Wallambee Past CO	Tallimba	NSW	Pastora	24	Autumn
29	EJ Nash Pty Ltd	Goonumbla	NSW	Centreplus	15	Autumn
30	Woolaroo	Yass	NSW	Woolaroo	38	Winter
31	Yeumburra	Yass	NSW	Tallawong	7	Winter
32	Agstern Pastoral Company	Harden	NSW	Bundilla/Demondrille	5	Spring
33	Vandenberghe Partners	Scadden	WA	Wattledale	28	Autumn
34	Coolringdon Past Co	Cooma	NSW	Hazeldean	30	Winter
35	Paraway Past Co Merrimba Stn	Warren	NSW	Pooginook	6	Autumn
36	BM & HP Mulquiny	Wooroonook	Vic	Woodpark Poll	6	Autumn
37	J.A.B. Shorter & Son	Burren Junction	NSW	Hazeldean	29	Spring
38	Gregory Pastoral	Boorowa	NSW	Winyar	3	Spring
39	CJ & SJ Croker	Golspie	NSW	Thalabah	15	Winter
40	Andshara	Berrimal	Vic	Charinga	20+	Autumn

3.0 Merino Challenge Management

The PWMMC 2016-2018 commenced in April 2018 when the wether lambs were shorn to a standardised wool length (even-up shearing). Post even-up shearing the Wool and Meat Challenge wether lambs were split into their respective Challenge mobs. The Wool Challenge wethers have been run together on improved and annual pastures near Lockhart, New South Wales. The Meat Challenge wethers were run at "Yarragundry West" Collingullie on Lucerne pastures and in the lamb feedlot on a pellet ration, supplied by Conqueror Milling.

3.1 What traits were measured in the Meat Challenge?

Table 4 lists all the meat traits that were measured over the duration of the Meat Challenge (April to July 2018).

Table 4: Traits measured in the Meat Challenge	
Live weight and growth	
BWT	Body weight (shorn body weight) (kg) – 5 in total Final body weight (kg)
Carcase	
CWT	Carcase weight (kg)
FAT	Fat depth (mm) – ultra sound prior to slaughter
EMD	Eye muscle depth (mm) – ultra sound prior to slaughter
DRESS	Dressing percentage – derived from the final body weight and carcase weight

4.0   2018-2020 Meat Challenge Results

The 2018 Meat Challenge again highlight the variation that exists in the Merino industry for meat and growth traits. As highlighted in the 2010, 2012, 2014 and 2016 Meat Challenges, entrants that place emphasis on meat and growth traits within their breeding programs have performed well in the 2018 Meat Challenge.

For entrants that have not specifically focused on meat traits within their breeding selections, the Meat Challenge provides the opportunity to gauge the potential and scope of what their flock is capable of.

There is a large age range between teams (6 months). To accommodate the age range the results have been reported in age groups (Autumn, Winter and Spring drops). The results presented in this report have been adjusted for age unless specified.

The carcase variation between teams for carcase value was **48%** between the top and bottom teams.

Growth rates averaged 148grams/head/day adjusted for age. The growth rates were consistent with other years.

The average final body weight was 52.2kg. The wether lambs average dressing percentage was 50% with an average carcase weight of 25.9kg.

Overall the 2018 Meat Challenge results have been consistent with past year results (2010, 2012, 2014 and 2016). There was a very high correlation between carcase value, carcase weight and start weight consistent with previous years.

A key message for the Merino industry is that while for some traits there is little variation, there are traits with considerable variation and excellent opportunities for economic gain, highlighted by the 48% difference in carcase value when adjusted for age.

4.1   Body weight and growth rate

Body weights were obtained on the wether lambs six (6) times over the duration of the Meat Challenge, the average at each weighing event is shown in Table 5.

Table 5 - Body weight recording dates

Data collection date	Average Body weight (kg)	Comment
19.04.2018	37.0	Starting Body Weight
10.05.2018	42.1	
31.05.2018	47.0	
22.06.2018	50.0	
21.07.2018	54.4	
30.07.2018	52.3	Final Body Weight (Curfewed)
31.07.2018	25.9	Carcase Weight

4.2   Growth Rate relative to Age

The lambing dates of the wether lambs range from May 2017 to October 2017 with the average birth date 10th July 2017. Figures 1a, 1b and 1c show the average growth rate per team relative to the age of the team reported in their respective age groups. The results show there is a similar range in growth rates across all the age groups.

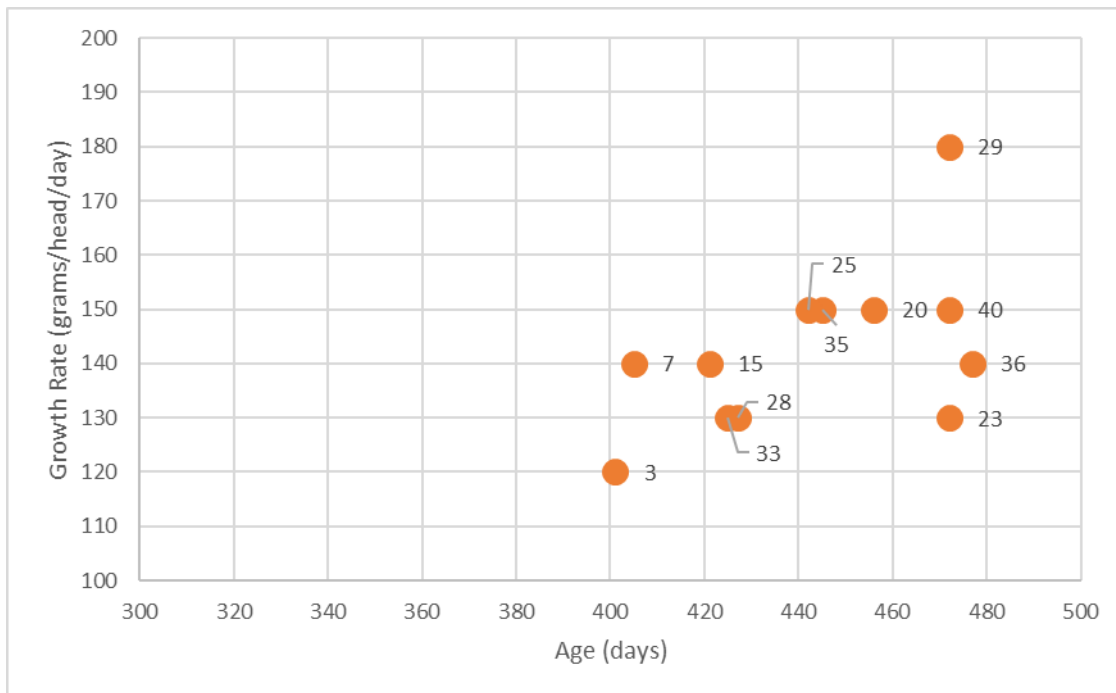*Figure 1a: Growth Rate relative to Age (Autumn Drop), age adjusted*

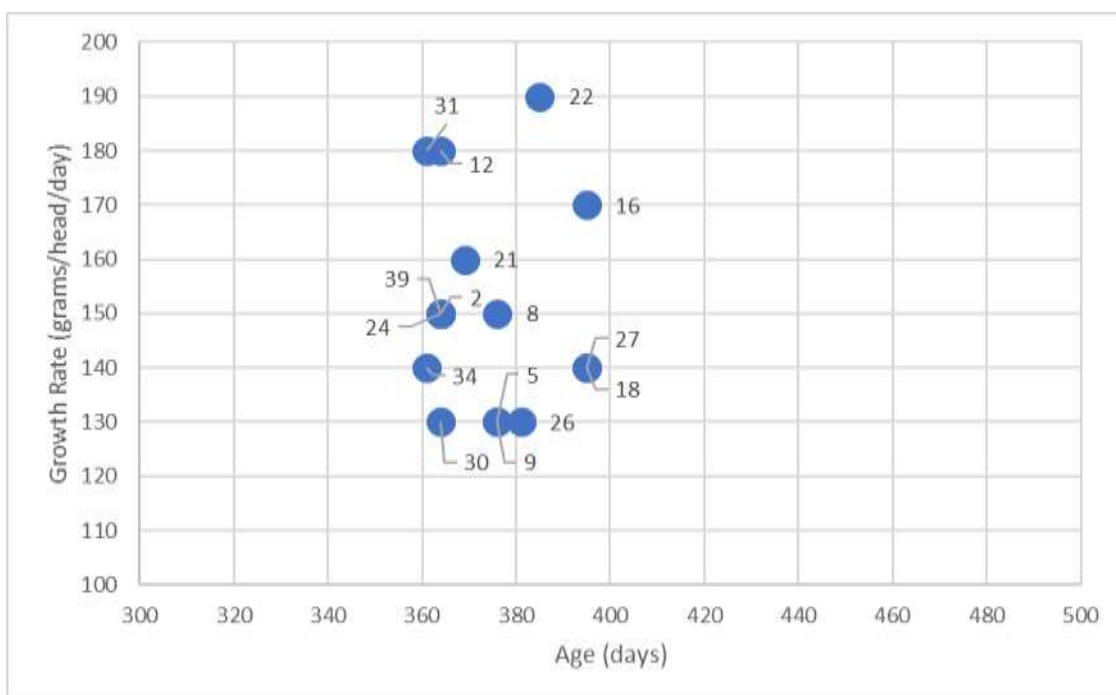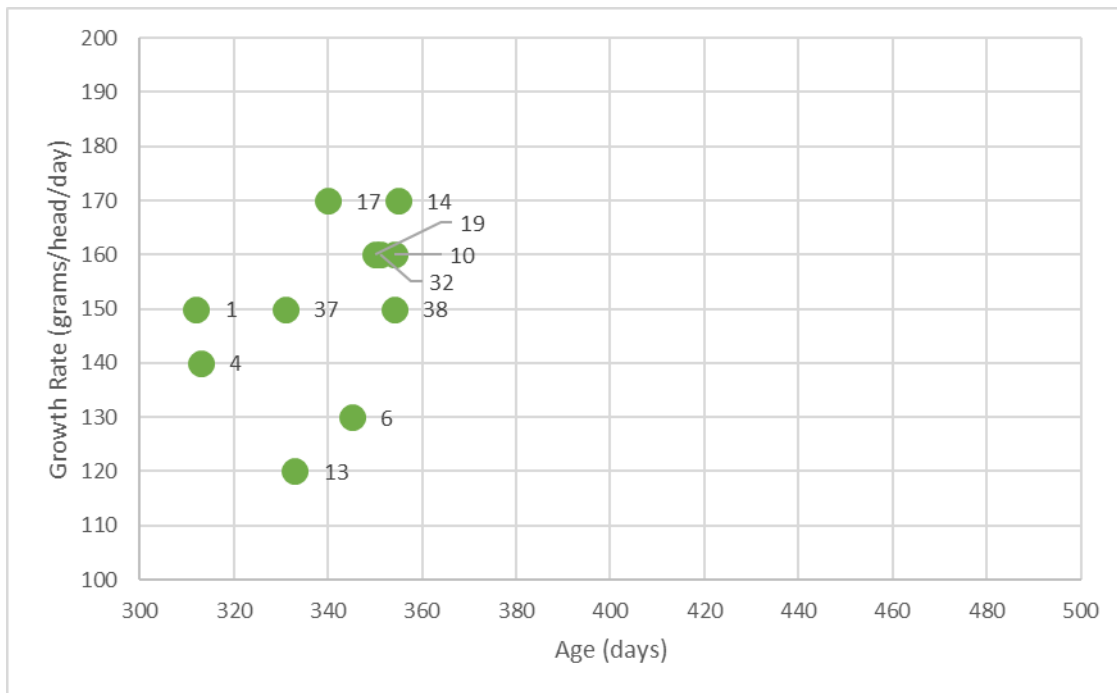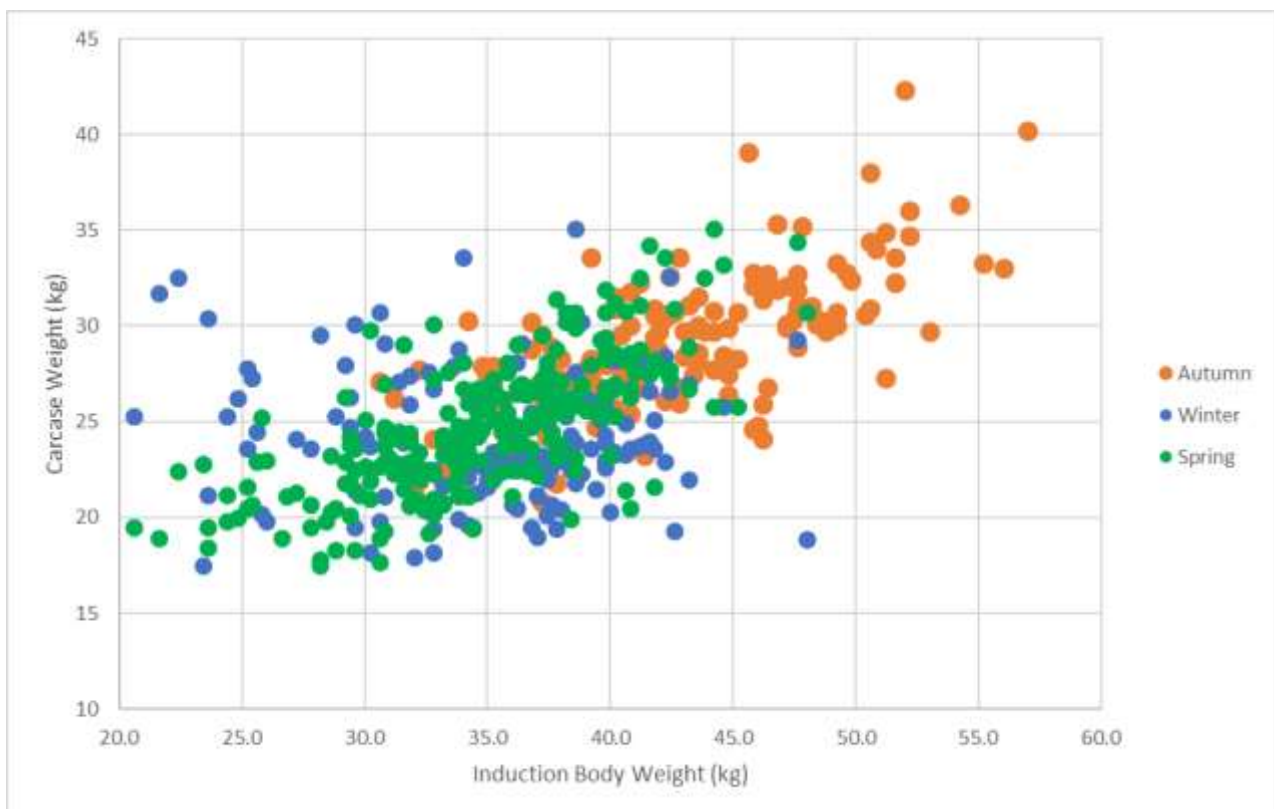*Figure 1a: Growth Rate relative to Age (Winter Drop), age adjusted*

Figure 1a: Growth Rate relative to Age (Spring Drop), age adjusted

4.3 Growth Rate relative to Carcase Weight

Figure 2 shows the relationship between the induction (entry) body weight and carcase weight of the individual wethers in the Meat Challenge. Figures 2a, 2b and 2c show the variation that exists between the different age groups for growth relative to carcase weight.

Figure 2: Relationship between individual induction (entry) body weight and individual carcase weight
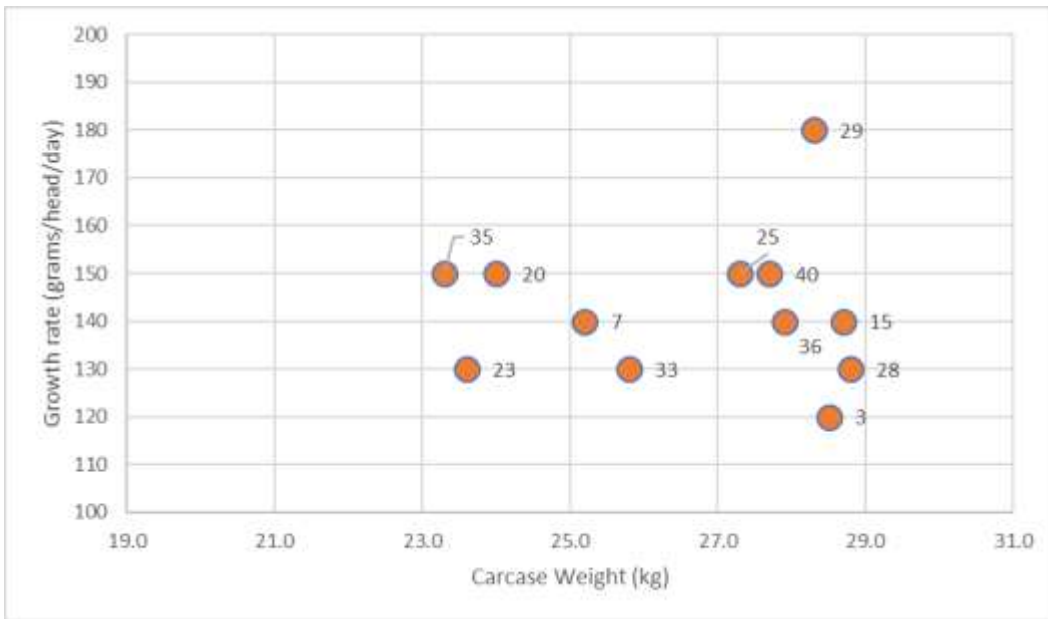
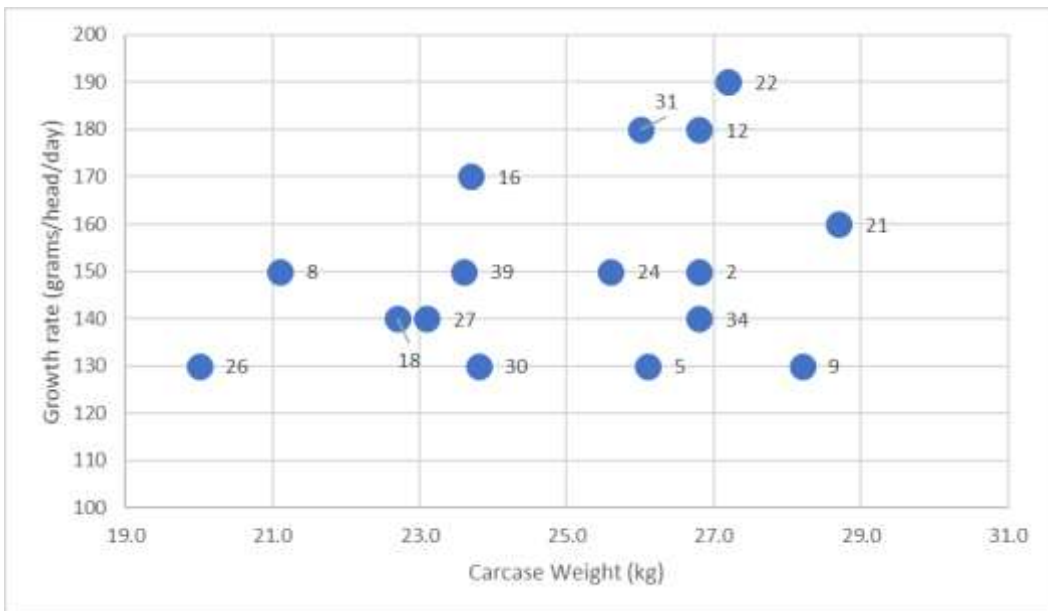*Figure 2a: Growth Rate relative to Carcase Weight (Autumn Drop), adjusted for age*

Figure 2b: Growth Rate relative to Carcase Weight (Winter Drop), adjusted for age
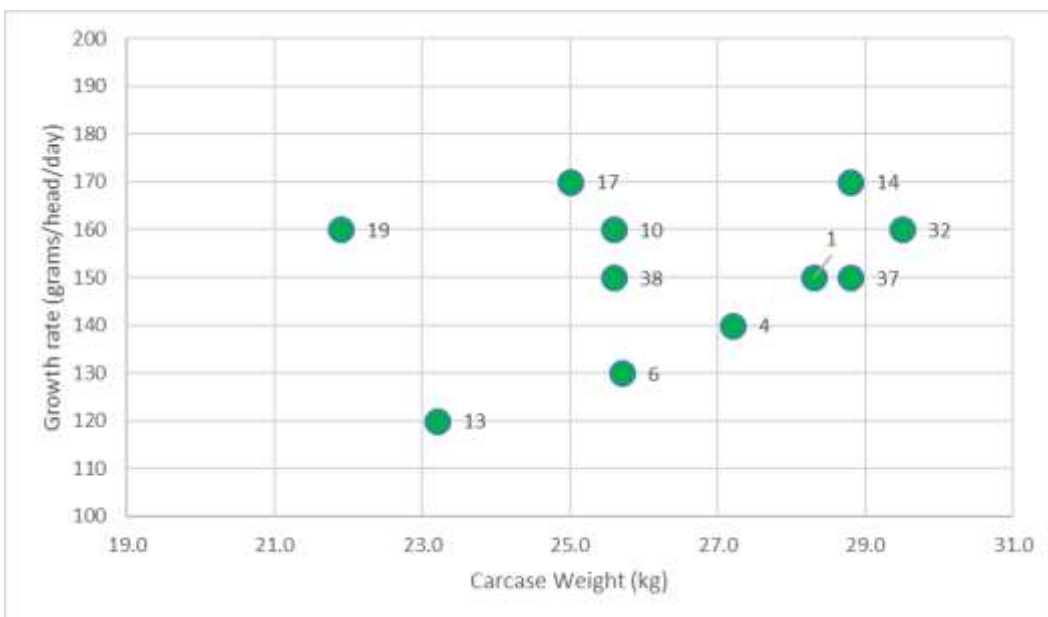

Figure 2c: Growth Rate relative to Carcase Weight (Spring Drop), adjusted for age

4.4   Carcase Weight relative to Age

Figures 4a, 4b and 4c show within age groups the range in carcase weights relative to age. Across all age groups there is a range in carcase weight at similar ages.

Figure 3a: Carcase Weight relative to Age (Autumn Drop), adjusted for age

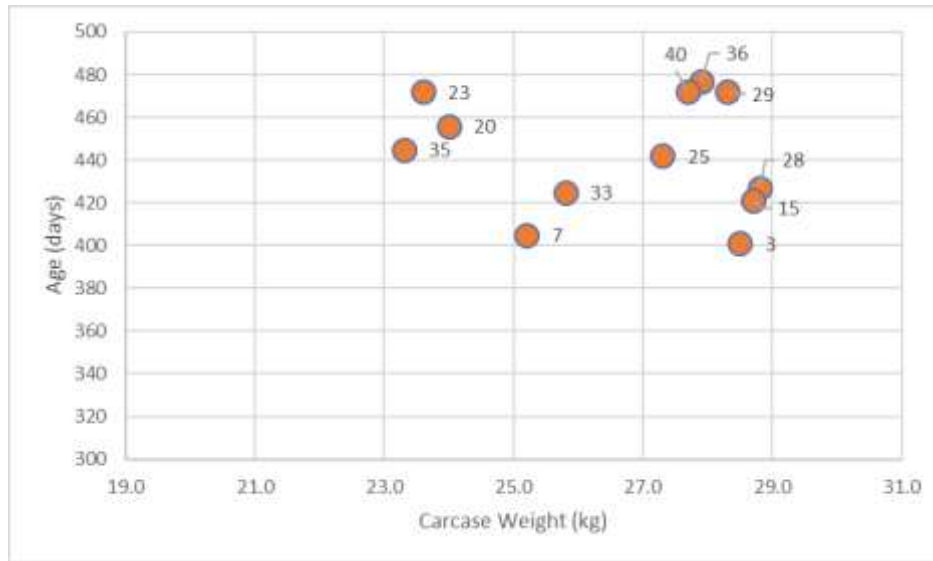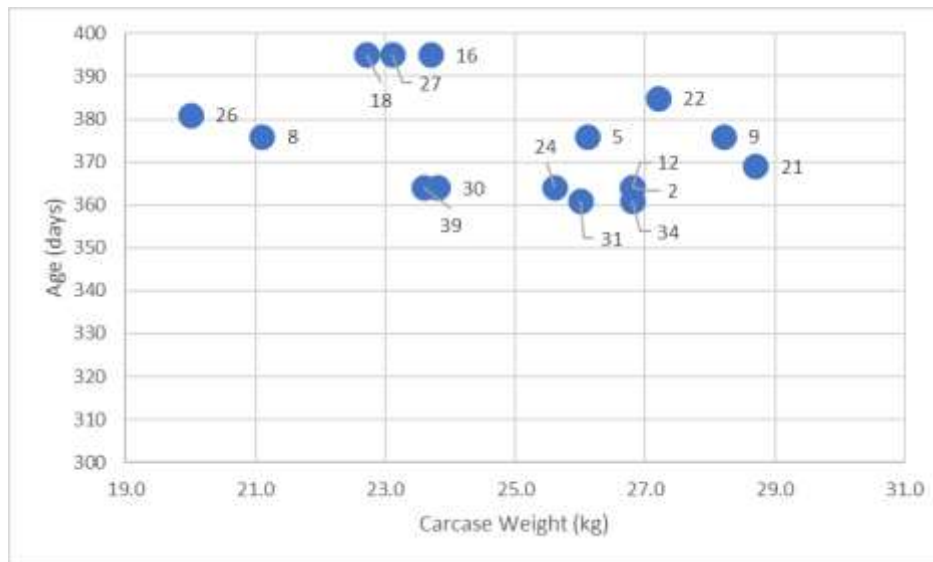*Figure 3b: Carcase Weight relative to Age (Winter Drop), adjusted for age*
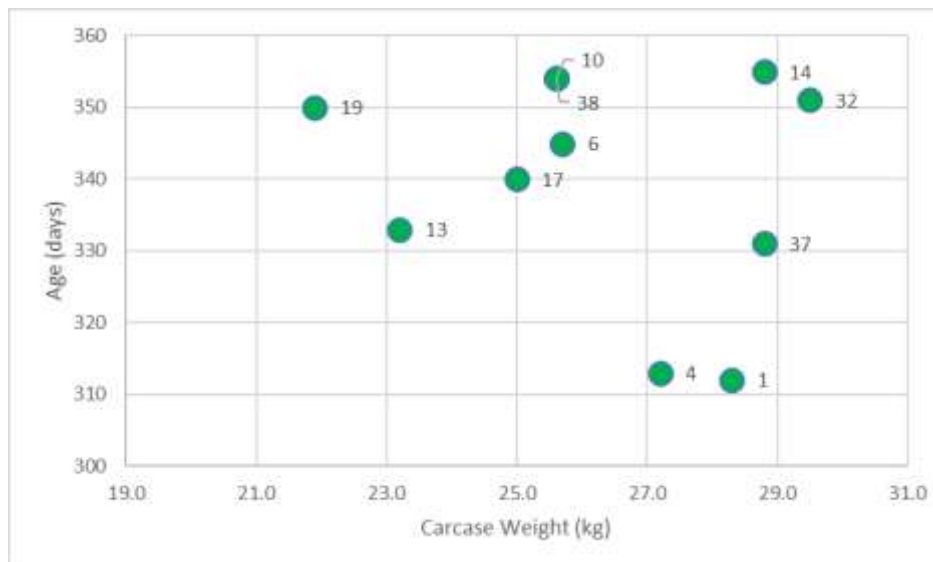

Figure 3c: Carcase Weight relative to Age (Spring Drop), adjusted for age

17 April 2018 - "Yarragundry West", Collingullie, NSW.

28 May 2018 - "Yarragundry West", Collingullie, NSW.

5 June, 2018 - "Yarragundry West", Collingullie, NSW.

21 July, 2018 - "Yarragundry West", Collingullie, NSW.

4.5　Team Production Trait Results

Tables 6a, 6b and 6c show the team production traits within age group (% of lambs and hoggets, induction live weight, final live weight, growth rate, carcase weight, scanned eye muscle depth, scanned fat depth, dressing percentage, percentage of hoggets and lambs at the time of processing). There is a large variation in the time of permanent incisor eruption. The variation can be influenced by breed, strain, environment and nutrition. Observations at Trangie Research Station showed a range between 12 months and 19 months from the first eruption of permanent incisors. The distribution of lambs and hoggets within each age group, not adjusted for age.

Table 6a: Team production traits adjusted for age and deviations (Autumn Drop)

| | Analysis data | | | | | | | | | Deviations | | | | | | |
Team #	Induction Wt	Final Wt	Carcase Wt	Wt Gain g/hd/day	EMD mm	Fat mm	Dressing %	Hogget %	Lamb %	Induction Wt	Final Wt	Carcase Wt	Wt Gain g/hd/day	EMD mm	Fat mm	Dressing %
3	45.7	58.0	28.5	120	27.0	4.1	49	23	77	117.1	108.2	110.2	-22.50	1.1	0.4	-0.75
7	35.4	49.4	25.2	140	25.6	3.4	51	13	87	90.7	92.1	97.4	-2.50	-0.3	-0.3	1.25
15	42.7	57.2	28.7	140	25.8	3.9	50	7	93	109.4	106.7	111.0	-2.50	-0.1	0.2	0.25
20	33.9	49.2	24.0	150	24.7	3.4	49	27	73	86.9	91.8	92.8	7.50	-1.2	-0.3	-0.75
23	34.9	48.1	23.6	130	24.0	2.7	49	73	27	89.4	89.7	91.2	-12.50	-1.9	-1.0	-0.75
25	38.2	53.5	27.3	150	26.9	3.9	51	38	62	97.9	99.8	105.5	7.50	1.0	0.2	1.25
28	46.0	59.5	28.8	130	28.1	3.7	50	23	77	117.9	111.0	111.3	-12.50	2.2	0.0	0.25
29	36.6	55.0	28.3	180	27.0	3.8	52	65	35	93.8	102.6	109.4	37.50	1.1	0.1	2.25
33	39.3	52.8	25.8	130	24.2	3.5	49		100	100.7	98.5	99.7	-12.50	-1.7	-0.2	-0.75
35	32.2	47.8	23.3	150	25.1	3.1	49	38	62	82.5	89.2	90.1	7.50	-0.8	-0.6	-0.75
36	44.0	57.8	27.9	140	26.1	4.3	48	92	8	112.7	107.8	104.9	-2.50	0.2	0.6	-1.75
40	39.4	55.0	27.7	150	26.5	4.2	50	50	50	101.0	102.6	107.1	7.50	0.6	0.5	0.25
Avg	**39.0**	**53.6**	**26.6**	**143**	**25.9**	**3.7**	**49.8**	**38**	**62**							
	kg	kg	kg	g/hd/day	mm	mm	%	%	%	**%**	**%**	**%**	g/hd/day	mm	mm	%

Table 6b: Team production traits adjusted for age and deviations (Winter Drop)

Team #	Analysis data									Deviations						
	Induction Wt	Final Wt	Carcase Wt	Wt Gain g/hd/day	EMD mm	Fat mm	Dressing %	Hogget %	Lamb %	Induction Wt	Final Wt	Carcase Wt	Wt Gain g/hd/day	EMD mm	Fat mm	Dressing %
2	37.9	53.1	26.8	150	26.7	3.7	50		100	102.3	101.7	103.6	-1.25	1.2	0.2	0.63
5	39.4	52.3	26.1	130	26.3	3.7	50	7	93	106.3	100.2	100.9	-21.25	0.8	0.2	0.63
8	28.1	43.9	21.1	150	22.8	2.5	48		100	75.8	84.1	81.6	-1.25	-2.7	-1.0	-1.38
9	42.8	55.6	28.2	130	26.3	3.7	51		100	115.5	106.5	109.0	-21.25	0.8	0.2	1.63
12	36.0	54.5	26.8	180	26.5	3.1	49	7	93	97.1	104.4	103.6	28.75	1.0	-0.4	-0.38
16	32.1	49.3	23.7	170	23.8	3.1	48		100	86.6	94.5	91.6	18.75	-1.7	-0.4	-1.38
18	31.6	45.8	22.7	140	23.3	3.2	50	7	93	85.3	87.8	87.8	-11.25	-2.2	-0.3	0.63
21	39.2	56.0	28.7	160	27.1	3.8	51		100	105.8	107.3	111.0	8.75	1.6	0.3	1.63
22	35.4	54.5	27.2	190	25.9	3.5	50		100	95.5	104.4	105.2	38.75	0.4	0.0	0.63
24	36.3	51.7	25.6	150	25.2	3.6	50		100	97.9	99.1	99.0	-1.25	-0.3	0.1	0.63
26	28.4	41.9	20.0	130	22.8	2.7	48		100	76.6	80.3	77.3	-21.25	-2.7	-0.8	-1.38
27	31.5	46.3	23.1	140	25.2	3.3	50	7	93	85.0	88.7	89.3	-11.25	-0.3	-0.2	0.63
30	35.4	48.4	23.8	130	23.3	3.0	49		100	95.5	92.7	92.0	-21.25	-2.2	-0.5	-0.38
31	35.5	53.6	26.0	180	25.4	3.0	48		100	95.8	102.7	100.5	28.75	-0.1	-0.5	-1.38
34	40.5	54.7	26.8	140	25.2	4.0	49		100	109.3	104.8	103.6	-11.25	-0.3	0.5	-0.38
39	33.5	48.4	23.6	150	23.9	2.5	49		100	90.4	92.7	91.2	-1.25	-1.6	-1.0	-0.38
Avg	35.2	50.6	25.0	151	25.0	3.3	49.4	2	98							
	kg	kg	kg	g/hd/day	mm	mm	%	%	%	%	%	%	g/hd/day	mm	mm	%

Table 6c: Team production traits adjusted for age and deviations (Spring Drop)

| Team #	Analysis data									Deviations						
	Induction Wt	Final Wt	Carcase Wt	Wt Gain g/hd/day	EMD mm	Fat mm	Dressing %	Hogget %	Lamb %	Induction Wt	Final Wt	Carcase Wt	Wt Gain g/hd/day	EMD mm	Fat mm	Dressing %
1	40.6	55.7	28.3	150	27.1	4.2	51	8	92	109.6	106.7	109.4	-0.91	1.6	0.7	1.27
4	39.9	54.3	27.2	140	25.7	4.1	50		100	107.7	104.0	105.2	-10.91	0.2	0.6	0.27
6	38.4	51.8	25.7	130	25.8	3.5	50		100	103.6	99.3	99.4	-20.91	0.3	0.0	0.27
10	35.8	52.1	25.6	160	25.6	3.5	49		100	96.6	99.8	99.0	9.09	0.1	0.0	-0.73
13	36.1	48.1	23.2	120	24.1	3.4	48		100	97.4	92.2	89.7	-30.91	-1.4	-0.1	-1.73
14	39.7	57.5	28.8	170	25.7	3.5	50	19	81	107.1	110.2	111.3	19.09	0.2	0.0	0.27
17	34.0	51.3	25.0	170	26.3	3.4	49		100	91.7	98.3	96.7	19.09	0.8	-0.1	-0.73
19	27.9	43.9	21.9	160	24.9	3.3	50		100	75.3	84.1	84.7	9.09	-0.6	-0.2	0.27
32	42.4	58.9	29.5	160	27.1	4.6	50	9	91	114.4	112.9	114.0	9.09	1.6	1.1	0.27
37	41.2	56.5	28.8	150	27.2	3.9	51		100	111.2	108.3	111.3	-0.91	1.7	0.4	1.27
38	37.3	52.2	25.6	150	24.7	3.4	49	7	93	100.6	100.0	99.0	-0.91	-0.8	-0.1	-0.73
Avg	37.6	52.9	26.3	151	25.8	3.7	49.7	4	96							
	kg	kg	kg	g/hd/day	mm	mm	%	%	%	%	%	%	g/hd/day	mm	mm	%

4.6   Scanned Eye Muscle Depth relative to Carcase Weight

Fat and eye muscle depth measures were done by LAMBPLAN accredited ultra sound scanner, Trevor Pearce Scanning Services. The ultra sound is taken at the C Site (45mm from the midline at the 12/13th rib) and is used in the seed stock industry to generate Australian Sheep Breeding Values for FAT and EMD (Eye muscle depth).

The variation between teams for EMD ranged 22.8 to 28.1mm (adjusted for carcase weight). The range between individual lambs was 17 to 35mm. This year there was a high correlation between EMD and Carcase Weight (adjusted for age) of 0.86, shown in Figure 4.

Figure 4a, 4b and 4c show the EMD relative to carcase weight for the three age groups.

Figure 4: Eye muscle depth relative to carcase weight, adjusted for age (across the Meat Challenge)
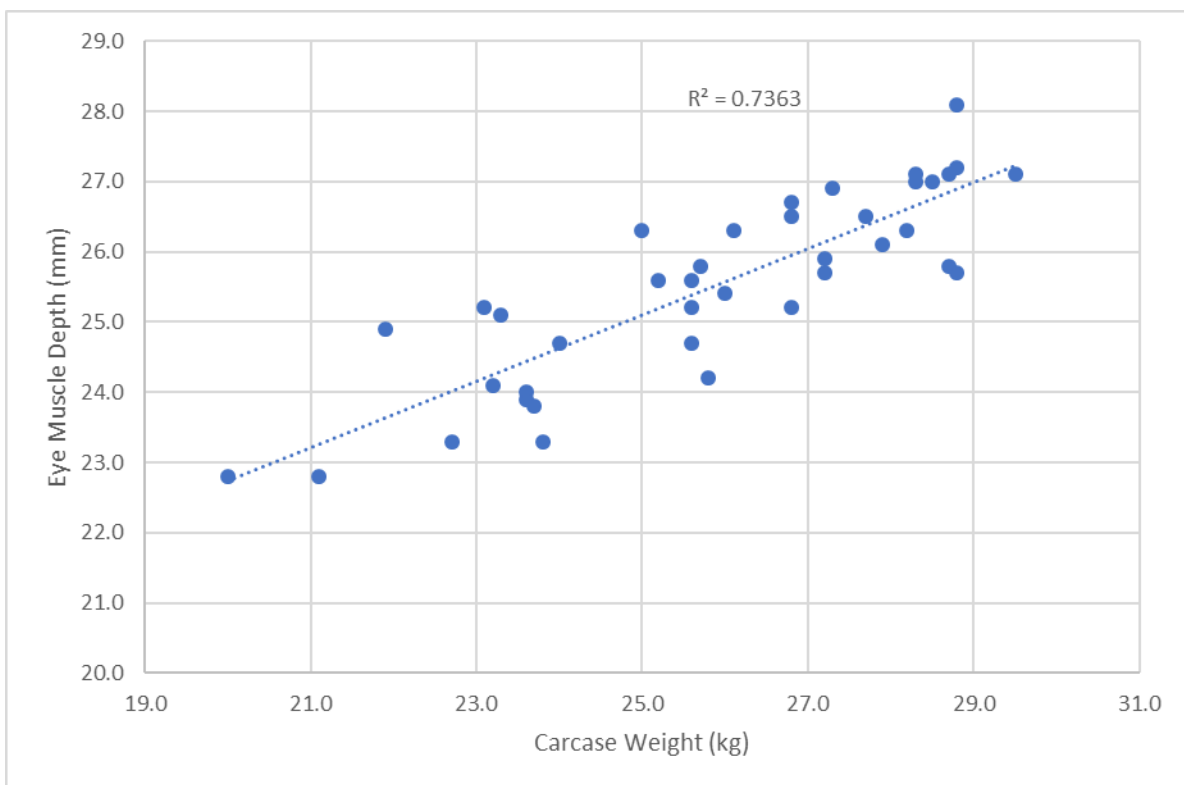
Above: 2018 Meat Challenge Wethers in the Feedlot
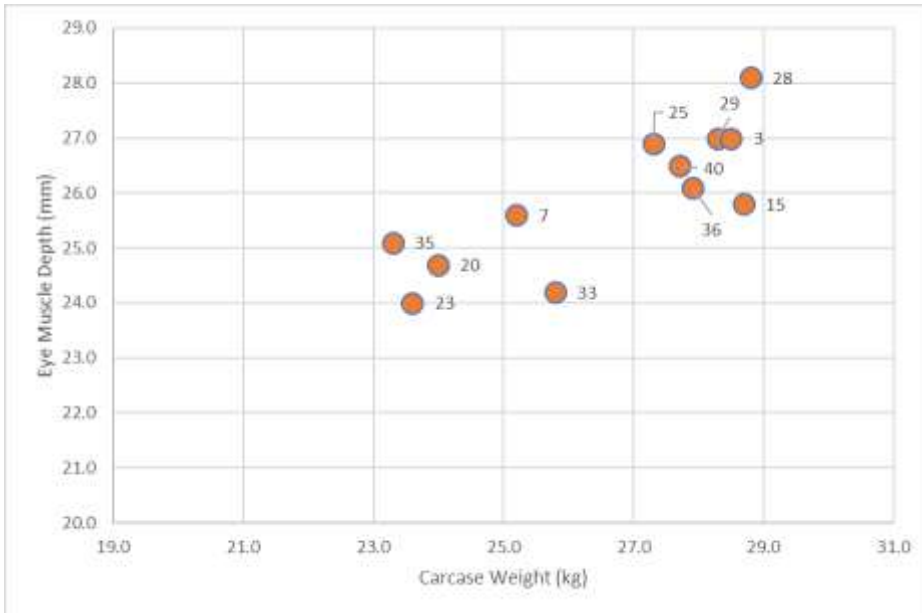
Figure 4a: Eye muscle depth relative to carcase weight (Autumn Drop)
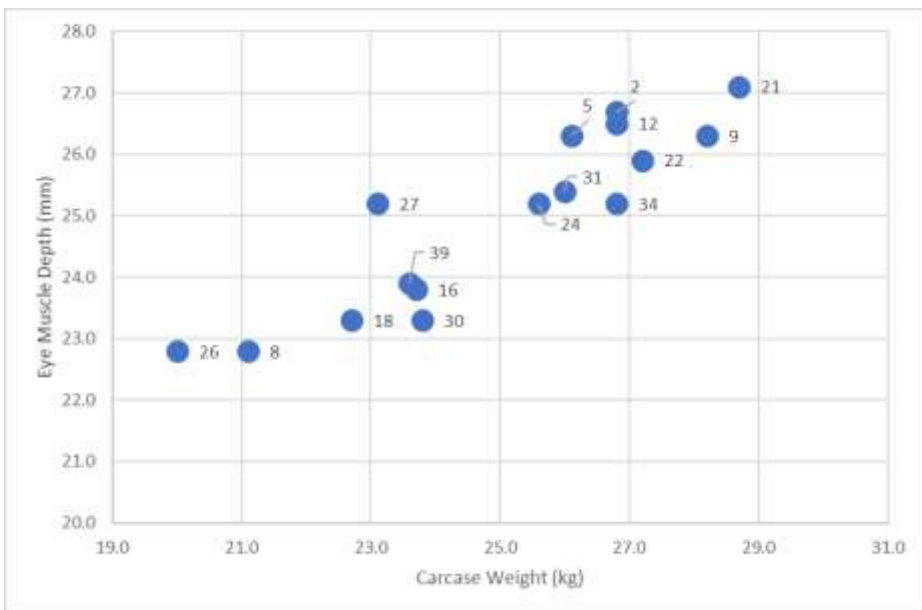
Figure 4b: Eye muscle depth relative to carcase weight (Winter Drop)
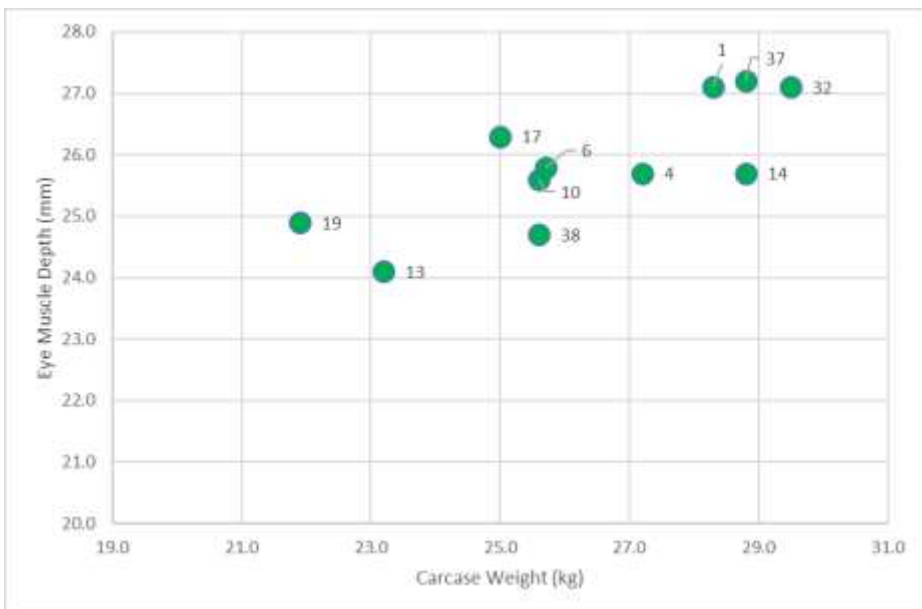
Figure 4c: Eye muscle depth relative to carcase weight (Spring Drop)

4.7   Scanned Fat Depth relative to Carcase Weight

Figure 5 shows the scanned fat at the C Site relative to carcase weight across the Meat Challenge and Figures 5a, 5b and 5c show the same information within age groups. The results show a high correlation overall across the trial between C Fat and carcase weight (0.80).

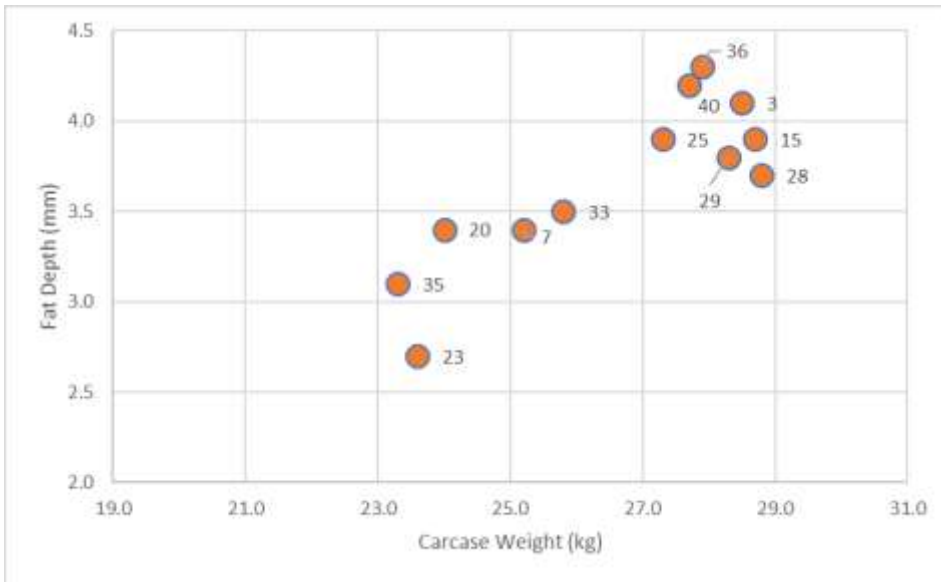*Figure 5: Fat depth relative to carcase weight, adjusted for age (across the Meat Challenge)*

Figure 5a: Fat depth relative to carcase weight (Autumn Drop)
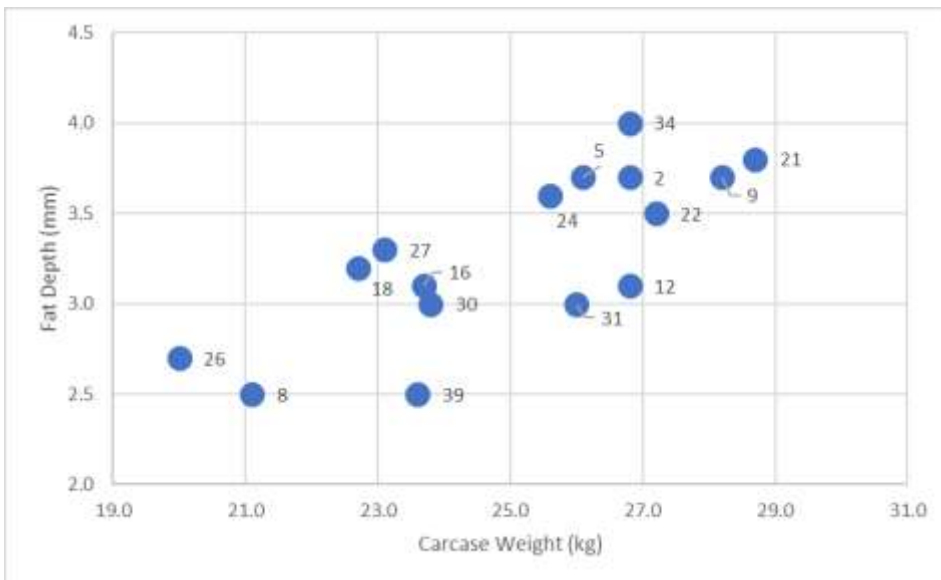

Figure 5b: Fat depth relative to carcase weight (Winter Drop)
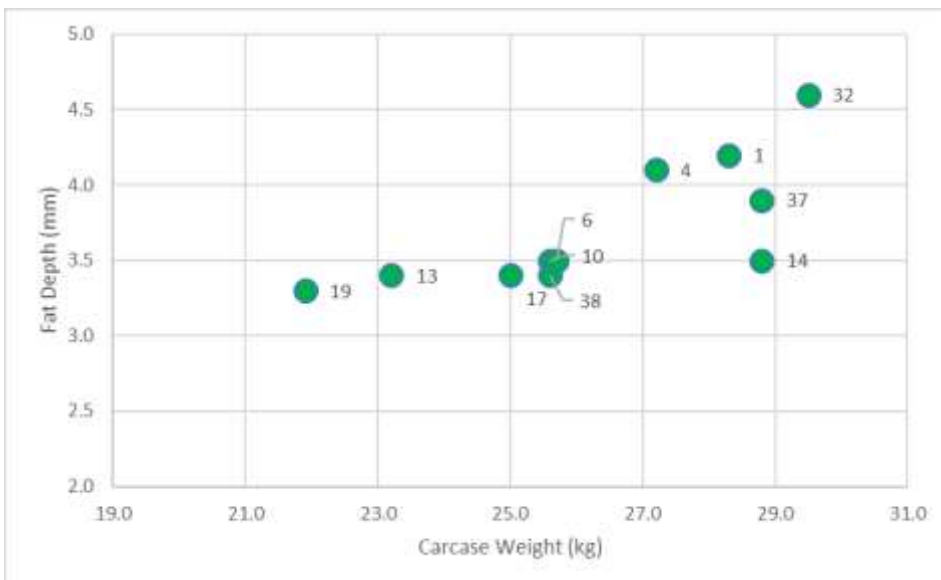

Figure 5c: Fat depth relative to carcase weight (Spring Drop)

4.8   Carcase Value

The Meat Challenge carcase value for each team has been calculated using a rolling five year average Merino Lamb price and a spot price (30th July 2018). Table 7 presents the price grid used. Discounts were applied to carcase that did not meet the market specification of 22 to 26kg (adjusted for age) and 2 to 4 fat score. No discounts have been applied for hoggets. A skin value has not been included in the carcase value.

Table 7 – Five year rolling average Merino lamb price grid

Grid	1 (0-5 mm)	2 (6-10 mm)	3 (11-15 mm)	4 (16-20 mm)	5 (21-25+ mm)
<16 kg	-$1.80	-$1.60	-$1.60	-$1.60	-$1.80
16.1-18.0	-$0.60	-$0.40	-$0.40	-$0.40	-$0.60
18.1-20.0	-$0.40	-$0.20	-$0.20	-$0.20	-$0.40
20.1-22.0	-$0.30	-$0.10	-$0.10	-$0.10	-$0.30
22.1-24.0	-$0.20	$5.25	$5.25	$5.25	-$0.20
24.1-26.0	-$0.20	$5.25	$5.25	$5.25	-$0.20
26.1-28.0	-$0.40	-$0.20	-$0.20	-$0.20	-$0.40
>28 kg	-$0.40	-$0.20	-$0.20	-$0.20	-$0.40

Table 8 presents the Merino Lamb prices as a percentile band table. The average five year price was $5.25 (55th Percentile). The current 12 month average Merino Lamb price is $5.85 (15th Percentile) and the spot price at the time of processing was $7.00/kg and is the highest price on record during the five year period.

Table 8 – NSW Merino Lamb Price Percentile Band Table

NSW Merino Lamb Prices (5 years) Percentile Band Table Data Included 1 July 2013 to 31 July 2018	
	c/kg
Highest Price on Record	700
10%	602
20%	578
30%	555
40%	536
50% (median price)	517
60%	493
70%	473
80%	427
90%	384
100% of the time prices were above	283

The Meat Challenge team carcase values (adjusted for age) ranged between $101 to $149 using the 5 year rolling average Merino Lamb Price. Using the Spot price (30th July 2018) the range was from $136 to $201. Tables 9a, 9b and 9c present the carcase values and deviations for the three age groups.

Table 9a: Carcase values and deviations – Autumn Drop

Team Number	Carcase Wt kg	Carcase Value 5 Yr Ave Price	Carcase Value Spot Price	Carcase Value 5 Yr Ave Price Dev	Carcase Value Spot Price Dev
3	28.5	$143.93	$193.80	$7.61	$10.95
7	25.2	$132.30	$176.40	-$4.02	-$6.45
15	28.7	$144.94	$195.16	$8.62	$12.31
20	24.0	$126.00	$168.00	-$10.32	-$14.86
23	23.6	$123.90	$165.20	-$12.42	-$17.66
25	27.3	$137.87	$185.64	$1.55	$2.79
28	28.8	$145.44	$195.84	$9.12	$12.99
29	28.3	$142.92	$192.44	$6.60	$9.59
33	25.8	$135.45	$180.60	-$0.87	-$2.26
35	23.3	$122.33	$163.10	-$13.99	-$19.76
36	27.9	$140.90	$189.72	$4.58	$6.87
40	27.7	$139.89	$188.36	$3.57	$5.51
Avg	**26.6**	**$136.32**	**$182.86**		
	kg	$/head	$/head		

Table 9b: Carcase values and deviations – Winter Drop

Team Number	Carcase Wt kg	Carcase Value 5 Yr Ave Price	Carcase Value Spot Price	Carcase Value 5 Yr Ave Price Dev	Carcase Value Spot Price Dev
2	26.8	$135.34	$182.24	$6.92	$10.05
5	26.1	$131.81	$177.48	$3.39	$5.29
8	21.1	$106.56	$143.48	-$21.86	-$28.71
9	28.2	$142.41	$191.76	$13.99	$19.57
12	26.8	$135.34	$182.24	$6.92	$10.05
16	23.7	$124.43	$165.90	-$3.99	-$6.29
18	22.7	$119.18	$158.90	-$9.24	-$13.29
21	28.7	$144.94	$195.16	$16.52	$22.97
22	27.2	$137.36	$184.96	$8.94	$12.77
24	25.6	$134.40	$179.20	$5.98	$7.01
26	20.0	$101.00	$136.00	-$27.42	-$36.19
27	23.1	$121.28	$161.70	-$7.14	-$10.49
30	23.8	$124.95	$166.60	-$3.47	-$5.59
31	26.0	$136.50	$182.00	$8.08	$9.81
34	26.8	$135.34	$182.24	$6.92	$10.05
39	23.6	$123.90	$165.20	-$4.52	-$6.99
Avg	**25.0**	**$128.42**	**$172.19**		
	kg	$/head	$/head		

Table 9c: Carcase values and deviations – Spring Drop

Team Number	Carcase Wt kg	Carcase Value 5 Yr Ave Price	Carcase Value Spot Price	Carcase Value 5 Yr Ave Price Dev	Carcase Value Spot Price Dev
1	28.3	$142.92	$192.44	$7.69	$11.14
4	27.2	$137.36	$184.96	$2.13	$3.66
6	25.7	$134.93	$179.90	-$0.30	-$1.40
10	25.6	$134.40	$179.20	-$0.83	-$2.10
13	23.2	$121.80	$162.40	-$13.43	-$18.90
14	28.8	$145.44	$195.84	$10.21	$14.54
17	25.0	$131.25	$175.00	-$3.98	-$6.30
19	21.9	$110.60	$148.92	-$24.63	-$32.38
32	29.5	$148.98	$200.60	$13.75	$19.30
37	28.8	$145.44	$195.84	$10.21	$14.54
38	25.6	$134.40	$179.20	-$0.83	-$2.10
Avg	**26.3**	**$135.23**	**$181.30**		
	kg	**$/head**	**$/head**		

Above: 2018 Meat Challenge wethers in the Feedlot at Collingullie

Side: 2018 Meat Challenge wethers wool growth in the Feedlot

Department of Primary Industries

Extensive Livestock Unit

The Extensive Livestock Unit is one of five units (including Intensive Livestock, Soils, Pastures and Climate) that constitute the Livestock Systems Branch of NSW DPI Agriculture.

Key areas of R&D focus:

- Undertaking R&D that improves the productivity and profitability of the extensive livestock sector
- Providing R&D solutions to problems affecting producers within NSW, nationally and internationally

Key R&D Program and sub program areas:

Increase productivity and innovation in agriculture

Livestock Productivity

- Livestock Genetics and Breeding
- Livestock Production
- Livestock Health and Welfare

Increase capacity of the agricultural sector to respond to risks & adapt to change

Climate resilience

- Climate Adaptation & Mitigation

Increase market access and development

Agricultural competitiveness

- Supply Chains and Market Access

Capacity and capability

The Extensive Livestock unit has three operational sub units: Animal Production, Genetics, and Value Chain, with a total of 37 full time equivalent staff located in 9 offices around the state:

- Livestock Industries Centre, University of New England, Armidale
- Animal Breeding and Genetics Unit, University of New England, Armidale
- CSIRO FD McMaster Laboratory, Chiswick, Armidale
- Wagga Wagga Agricultural Institute
- Elizabeth Macarthur Agricultural Institute, Menangle
- Trangie Agricultural Research Centre
- Cowra Agricultural Research and Development Station
- Orange Agricultural Institute
- NSW DPI Office, Dubbo

Examples of current R&D projects:

- 3D camera imaging for phenotypic trait estimation of beef and sheep carcase yield
- Phenotypic and genetic relationships between retail beef yield, live animal and carcase traits
- Welfare benchmarking and management for the beef cattle industry
- Productivity and efficiency at pasture – identifying improved cattle intake, productivity and efficiency
- Updating Australian feeding standards - to better reflect modern body composition and include yield and quality specification
- Genetics of Merino meat value and lifetime performance - identifying sires to improve meat yield and quality as well as favourable wool production and maternal traits in progeny
- Can on-site beef dark cutting evaluation (monitoring) be improved and value added?

Contact details for further information

Siôn Jones	Director Extensive Livestock	sion.jones@dpi.nsw.gov.au	0456 417 462
Paul Arthur	Leader Genetics	paul.arthur@dpi.nsw.gov.au	0439 621 203
Edwina Toohey	Leader Value Chain	edwina.toohey@dpi.nsw.gov.au	0447 218 040
Steve Exton	Leader Animal Production	steve.exton@dpi.nsw.gov.au	0429 309 997