



# Peter Westblade Memorial

## Merino Challenge

2012 –2014

It is with pleasure that we are able to conduct the second Peter Westblade Memorial Merino Challenge commencing in April 2012.

The following document sets out the rules, conditions and guidelines that the PWMMC is conducted. Significant consultation has gone into the design and structure of The Challenge to ensure entrants and the wider sheep industry has up to date commercially relevant production and genetic information.

### **The Challenge background**

Peter Westblade was a true visionary, he epitomised the real Australian spirit of hard work, compassion and devotion to a cause. Peter was passionate about breeding profitable sheep. Being a strong supporter of a balanced approach to all things, his legacy lives strongly amongst those who had the fortune to know such a great man.

The PWMMC has been developed to assist merino breeding operations make more informed decisions on their merino genetics. It has been deliberately designed to show the entrants in the trial and the wider sheep industry the genetic opportunities that exist for them to be more financially sustainable into the future.

The PWMMC is designed to encompass all of the various strains and bloodlines of merino sheep. It is unique in that it will fully examine both the wool and meat components of the entrants' teams.

### **The value to the entrant**

Wether trials and in particular the PWMMC are significant commercial production evaluations providing a key source of genetically benchmarked information.

As an entrant you will receive comprehensive analysis and reports on your flock's performance for all the traits listed in Table 1. Three reports will be produced over the duration of The Challenge, including the Meat Challenge report; Wool Challenge report; and Combined Challenge report. Entrants will be invited to attend field days and seminars where The Challenge teams will be on display and results presented.

The information generated from both the Meat and Wool Challenge results are extremely relevant to your self replacing ewe flock. The Challenge is a vehicle to show what is possible in a Merino breeding flock. This is supported by positive correlations with reproduction with eye muscle depth, fat depth, body wrinkle and growth traits.

The first shearing results of the current PWMMC 2010-12 show a **doubling of net profit per hectare** due to superior genetics.

### **Report timetable**

Meat Challenge Report (October 2012)	Detailed explanation of the Meat Challenge data collection process
Wool Challenge Report First Year Shearing (June 2013)	First year shearing report. Detailing the wool valuation process; team economic performance reported – per head, per DSE and per hectare. Wool and mutton results for the wethers participating in the Wool Challenge component.
Wool Challenge Report Second Year Shearing (May 2014)	Second year shearing report. Detailing the wool valuation process; team economic performance reported – per head, per DSE and per hectare. Wool and mutton results for the wethers participating in the Wool Challenge component.
Final PWMMC Report (June 2014)	Combined report of the Meat and Wool Challenge results.

**Table 1 Trait measured in the PWMMC Meat and Wool Challenge**

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<b>Liveweight and growth traits</b>
Liveweights (7 in total)
Growth rate (grams/head/day)
Final body weight (kg)
Age (mouthed – lamb/hogget) – prior to slaughter and at slaughter

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<b>Carcase traits</b>
Carcase weight (kg)
Dressing percentage – derived from final body and carcase weight
Fat depth at GR (12 <sup>th</sup> rib) (mm)
Eye muscle area (12 <sup>th</sup> rib) (cm <sup>2</sup> ) – by measuring the depth and length at the same position as Fat C
pH – of the longissimus at the 12 <sup>th</sup> rib (an ultimate pH) – 24 hour
Colour - Meat colour ( <i>L*</i> , <i>a*</i> and <i>b*</i> )

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<b>Skin</b>
Skin length (mm)
Wool Grade (fine [1], medium [2], broad [3])
Body wrinkle (external – 1 to 5)
Skin wrinkle (internal – 1 to 5)
Body length (cm)

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<b>Wool</b>
Fiber Diameter (um)
Coefficient of Variation of Fiber Diameter
Standard Deviation (FD)
Comfort factor (% > 30 micron)
Washing Yield (%)
Schaumberg Yield (%)
Greasy fleece weight (kg)
Clean fleece weight (kg)
Staple length (mm)
Staple strength (N/ktex)
Bin Line (AAAM; AAAE; AAAC)
AWEX Identification – style (MF4; MF5)
Colour – Nil, H1, H2, H3

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<b>Conformation – Wool Challenge</b>
Fat Score (1 to 5)
Off shearing body weight (kg)
Body wrinkle (1 to 5)
Fleece rot (1 to 5)

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### Rules & Guidelines

#### 1.0 Entry

- 1.1 Nominations to participate in the Peter Westblade Memorial Merino Challenge 2012 - 2014 will be accepted from self replacing sheep operations and are expected to be received from across Australia. Should nominations exceed the required number, preference will be given to businesses that use the services of Craig Wilson & Associates, Moses & Son Woolbrokers and/or Bluechip Livestock.
- 1.2 The Merino Challenge will be conducted at the Temora Agricultural Research and Advisory Station and “Yarragundy West” lamb feedlot, Collingullie. Craig Wilson will continue to assist in the coordination of all activities with the assistance of Moses & Son staff and NSW Department of Primary Industries (DPI) Sheep and Wool Officer Sally Martin.
- 1.3 The Merino Challenge will accommodate a maximum of fifty (50) teams of wethers each team to comprise thirty (30) wethers. Nominations will be accepted from any commercial self replacing strain of sheep or their crosses including, Horn, Poll, SRS, Bond, MPM, Mega Merino, Dohne and South African Meat Merino (SAMM).
- 1.4 The Merino Challenge will commence in April 2012 after the wethers have been shorn to standardize wool length (even up shearing). At shearing each team of wethers will be randomly split into 2 groups of 15. This will give 2 groups of 750 wethers. These 2 separate mobs will be known as the Meat Challenge and the Wool Challenge sheep.
- 1.5 The entrant must either purchase rams directly from the stud nominated as their bloodline source, or have bred their own rams and not be actively selling rams. The entrant must have bred all sheep nominated, with the wethers carrying the entrants registered ear mark and NLIS tag. Studs nominating their own commercial flocks are ineligible.
- 1.6 Entrants will be required to select their team of thirty (30) wethers by the following process: -
  - 1.6.1 The Entrant will yard a minimum 90% of his/her wether drop, **born after April 1, 2011. Ideally July, August, September 2011. A minimum of 300 wether lambs must be yarded.**
  - 1.6.2 A PWMMC representative will at random, draft fifty four (54) wethers from the above group.
  - 1.6.3 The Entrant will immediately select his/her team of thirty (30) from the random group of 54 wethers. The selection of the 30 wethers will be in line

with the entrants breeding objectives and will occur without the use of objective data.

**1.6.4** After selection the team of thirty (30) wethers will immediately be ear-tagged, with two permanent tags, under the guidance of the PWMMC representatives.

**1.7** The Entrant will liaise with Craig Wilson or a coordinator in their region for the delivery of his/her team of thirty (30) wethers to a central location for trucking to the trial site. All teams must be on-site prior to the even up shearing anticipated to be in the first week of April 2012.

**1.8** If any form of footrot is present in a flock, this flock is ineligible to participate. A National Vendor Declaration and Animal Health Statement will be required to support the footrot free status of an entrants flock.

**1.9** Wethers are expected to arrive unshorn to allow for the even up shearing. Entries may be accepted from teams that have been shorn prior to Jan 1st 2012.

**1.10** Merino Challenge wethers may be mulesed, clipped or non mulesed.

**1.11** Flocks that have previously tested positive to Ovine Johnes Disease must show a strong history of Gudair Vaccinations. If OJD positive flocks are entered in the Merino Challenge wethers must have been vaccinated with Gudair by 16 weeks of age. All other teams that have not been vaccinated as lambs will be vaccinated with the Gudair vaccine on arrival.

## **2.0 Management**

**2.1** The Merino Challenge will commence in April 2012 following the even up, shearing of all teams. The Meat Challenge will conclude with the slaughter of lambs in August 2012. The Wool Challenge will conclude with the second measurement shearing in March 2014.

**2.2** At entry to the Merino Challenge site all sheep become the property of Craig Wilson & Associates. As bloodline data will be generated from the Merino Challenge potential entrants may consider approaching their ram breeder to assist with the cost of supply of the sheep. Merino Challenge entrants are not expected to contribute any finances toward the running of the Merino Challenge.

**2.3** On arrival a full animal health induction program will be implemented. Should any individual team fail the initial feet inspection the team will be removed from the Merino Challenge. Craig Wilson & Associates will meet all costs involved in the Merino Challenge husbandry, management, testing and reporting.

**2.4** The Wool Challenge wethers will be run as a commercial wool growing operation and will be de-pastured together and managed under identical conditions.

**2.5** Prior to the Meat Challenge lambs entering the feedlot will be run together on pasture and a grain/pellet introductory program implemented to accustom lambs.

- 2.6 In the feedlot teams will be randomly allocated to pens using a pre feedlot bodyweight. Each feedlot pen will have three lambs from each team consisting of a high, medium and low body weight lamb. The pen allocation is important to remove any potential “pen effect” from the final analysis.
- 2.7 The Meat Challenge lambs will be in the feedlot a maximum of 10 weeks (3 weeks induction and 7 weeks full ration) and be fed *ad lib* a ration that has been approved as a finishing ration in accordance with best practice lamb finishing. NSW DPI Sheep & Wool Officer(s) will oversee the feedlot management and data collection in the feedlot and processing.
- 2.8 Any individual Meat Challenge sheep that are deemed to be shy feeders and have not gained weight prior to the fourth weighing (Day 42) will not be included in the assessments. Any team that has more than 3 wethers which have not gained weight or have died prior to day 42 will not be published in the results. Teams will need a minimum of 12 wethers at slaughter to be published and included in the results.
- 2.9 The Meat Challenge wethers will be slaughtered in August 2012 at a commercial abattoir and meat trait data collected.

### **3.0 MEASUREMENT – Wool Challenge**

- 3.1 Prior to shearing, each year a sample of fleece will be taken from the midside of each sheep and tested for fibre diameter, coefficient of variation fibre diameter, staple length, staple strength (finances dependant) and washing yield.
- 3.2 Wethers will be body weighed and scored for fleece rot and wool colour.
- 3.3 At shearing, all wool from each sheep will be weighed and commercial values will be calculated using long term (5 year) average prices.
- 3.4 Commercial wool values will take into account each fleece’s tested fibre diameter, staple length, staple strength, yield and wool type (AWEX ID) as determined by independent AWEX-ID accredited wool valuer(s).
- 3.5 Using the fleece values determined in 3.4, team average results will be calculated each year, by dividing the sum of the individual wool values by the number of wethers present in the team at shearing. The total number of sheep in each team, plus the proportional oddment values will determine the team total value of wool production. If less than 8 sheep in the team, the information becomes unrepresentative and the results may be withheld from the public and not published (information will be given to the entrant)
- 3.6 The value of the carcass in the Wool Challenge will be estimated each year using average body weight and fat score to estimate a dressing percentage multiplied by the current mutton price.
- 3.7 Using the carcass values determined in 3.6, team average results will be calculated each year, by dividing the sum of the individual carcass values by the number of wethers present, in the team.

#### **4.0 MEASUREMENT –Meat Challenge**

- 4.1** At entry to the feedlot all lambs will be body weighed. Adjustments for age will be made in the analysis. Body weights will be collected every two to three weeks during the Meat Challenge.
- 4.2** Prior to slaughter lambs will be held without feed and water for 12 hours and body weighed prior to trucking to the abattoir. The Meat Challenge wethers will be mouthed prior to slaughter.
- 4.3** At slaughter lambs will have the following traits assessed and measured - hot carcass weight, skin score, eye muscle depth and width, depth at the GR and C sites, body length, meat colour, pH and potentially lean meat yield and allocated an individual price per head.

#### **5.0 Results**

- 5.1** Results of the Peter Westblade Memorial Merino Challenge will remain the property of Craig Wilson & Associates and will be presented to the participants after the completion of slaughter for the Meat Challenge and after each shearing for the Wool Challenge. Results will be used by NSW DPI Merino Bloodline Comparison. Craig Wilson & Associates reserve the right to use the results from the PWMMC in presentations and other publications.
- 5.2** Analysis of results will be completed by NSW DPI and Craig Wilson & Associates.

#### **6.0 Calender of Events**

- October 2011 to December 2011 – Acceptance of nominations.
- November 2012 to late March 2012 – Tagging of teams.
- April 2012 – Teams arrive, full animal health induction, even up shearing and allocation to Wool and Meat Challenge.
- April 2012 – Meat Challenge sheep trucked to Collingullie, NSW feedlot.
- April 2012 – May 2012 – Backgrounding Meat Challenge sheep.
- May/June 2012 - Entry to feedlot for Meat challenge.
- July 2012 – Meat Challenge field day – prior to slaughter.
- August 2012 - Slaughter Meat Challenge wethers.
- October 2012 – Presentation of Meat Challenge report.
- March 2013 – Sampling and scoring Wool Challenge
- April 2013 – Shearing and display Wool Challenge wethers.
- June 2013 – Presentation of Year 1 data for Wool Challenge.
- February 2014 – Sampling and scoring Wool Challenge
- March 2014 – Shearing and display Wool Challenge sheep.
- June 2014 – Presentation of combined Wool and Meat Challenge report.