Welcome to the Autumn edition of the Breeders Bulletin

2014 is shaping for a very busy year for the Sheep Genetics Team with a range of events on around Australia to help improve your genetic gain.

March saw the Leading Breeder forum run in Wagga Wagga, this was a successful event with around 80 attendees. There was some informative presentations with good ideas to assist your breeding enterprise. You will find the presentations from the forum available on our website.

2014 will also see Sheep Genetics hold the following events:
- **Service Provider Training:** Sheep Genetics will be running their annual training course for Genetic Service Providers from the 20th to the 22nd of May in Melbourne. More information for service providers can be found by contacting Luke Stephen on 02 6773 2948
- **LAMBEX breakfast:** Sheep Genetics will be hosting a breakfast prior to LambEx commencing on Thursday the 10th of July running from 7-8:30. More information available from the LambEx website [www.lambex.com.au](http://www.lambex.com.au)
- **Regional Forums:** four regional forums planned across the country throughout June. These are full day workshops looking at wide range of Sheep Genetics information. See page 4 for locations.

We look forward to catching up with you at one of the events throughout the year.

Reminder that if you would like to submit a profile of your breeding operation including a photograph to be included in future editions of Breeder’s Bulletins we will accept via email. The profile gives you a chance to showcase your operations and breeding objectives. Please email to info@sheepgenetics.org.au

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**Accredited Scanners**

All ultra-sound carcase data submitted for evaluation by LAMBPLAN or MERINOSELECT must be taken by an accredited scanner.

Accredited scanners are independent operators contracted by breeders to measure C site fat and eye muscle depth. Sheep Genetics requires the use of an accredited scanner to ensure that data meets the QA guidelines.

There is a list of currently accredited scanners on the back of this bulletin or on the Sheep Genetics website under the Service Provider menu.
Advisory Committee

We would like to welcome three new members to our Advisory committee, Ron Cullen, Mark Murphy and Sara Wilson commenced in April and will bring a wealth of knowledge and experience to the committee, below is an overview of their experience. December 2013 saw the departure of Don Pegler and Tom Silcock from the committee and we thank them for their contributions during their term.

A full list of current committee members can be found at the rear of this newsletter.

Ron Cullen

Ron has been actively engaged in agriculture all his working life, with the last 5 years as Chief Executive Officer, Sheepmeat Council of Australia. In that role he worked on a variety of issues, including the planning, implementation and evaluation of R&D, particularly genetic improvement. He was part of the successful Sheep CRC extension bid process. Animal welfare matters in the live export trade were also an important component of his work.

He was a driving force in the development of the Sheepmeat Industry Strategic Plan (SISP) 2010-15. After completing his time with Sheepmeat Council he now runs a small consultancy business offering services to the red meat industry.

His extensive career in meat and livestock began in 1973, as a sheep and wool extension officer with NSW Department of Agriculture, especially in the Cobar and Cootamundra districts.

He had ten years senior management experience in the NSW public sector in agriculture, water and natural resources. In 2000, he joined the Commonwealth Department of Agriculture, Fisheries and Forestry, working on red meat policy and programs, international trade and natural resource management. He also provided advice on agricultural trade issues to the Organisation for Economic Cooperation and Development (OECD).

He is a Graduate of the Australian Institute of Company Directors.

Mark Murphy

Mark has been in the sheep industry his whole life undertaking all aspects including breeding, shearing, classing and development of a stud.

Mark and his wife Vicki operate Karbullah and Boyanga Merino studs located at Goondiwindi QLD, without the teamwork of Vicki and their son Luke, Mark would be unable to get away to contribute to wider industry.

Mark commenced using genetic selection tools in 2003 and finds the principles of sheep genetics and the data generated has assisted in their stud and enhanced their breeding enterprise, increasing efficiency and profitability.

Mark is involved in numerous sheep industry organisations including Director of Agforce QLD Sheep & Wool, QLD representative on Sheepmeat Council of Australia, QLD Merino Stud Sheepbreeders committee member, CRC Evaluation forums and SAMRC Producer delegate. Mark promotes and encourages sheep breeders to utilise MERINOSELECT information to their best advantage.
Price Changes - July 2014

July 2014 will see a slight increase in Subscription charges, with database charges remaining the same as 2013-14 financial year.

<table>
<thead>
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<th>Charges</th>
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<tr>
<td><strong>Australian services</strong></td>
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<tr>
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<tr>
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<tr>
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<td>2.50</td>
</tr>
<tr>
<td>Animal charge- small stud</td>
<td>10.00</td>
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</table>

- The financial cap of 1250 animals is still applicable.
- Cull & commercial animals are not charged.
- Small studs, relate to studs recording less than 50 progeny.

Sara Wilson

Sara and her husband Keith own Jilakin Downs Dorpers and White Dorpers at Kulin in Western Australia. The stud has 1300 breeding ewes. The Stud is part of a mixed farming enterprise including cropping and a commercial prime lamb flock of 4,000 cross bred ewes joined to White Dorpers.

Prior to farming in Kulin, Sara completed a Bachelor of Commerce at the University of Western Australia. On graduating, Sara completed the Graduate Retail Management Program with Myer Stores and went on to work in Mid-sized and top tier accounting firms in Perth. After qualifying as a Chartered Accountant, Sara worked for Arthur Andersen in London and Manchester for 4 years across a range of industries.

Sara returned to farming when she married Keith Wilson in 1996.

The sheep enterprise was 100% Merino. Extensive reproduction and wool production measurement and data analysis was completed in the Wilson’s Merino flock.

The commercial sheep enterprise was changed to Dorpers in 2004, with a focus on reproduction and meat quality and productivity. The stud was established to produce commercially relevant White Dorper and Dorper rams.

The Wilsons currently supply rams and breeding stock to other Dorper Stud and commercial producers in all sheep breeding states of Australia, and export breeding stock to Malaysia, Turkey and China.

Sara has established the recording systems and database at Jilakin Downs and works with other breeders to establish LAMBPLAN data collection, analysis and the decision making that can occur with LAMBPLAN information.

Education of future sheep breeders is a real interest, and Sara has delivered Ram Select training for Wool and Meat production systems and led training days at Farm Training Centres.

Outside of sheep breeding, Sara has been involved with various community groups and enjoys spending time with their three teenage children, watching the kids play sport and has played a season of hockey with each of the children. Sara is also currently enjoying the highs and lows of working with a very talented, young sheepdog.
Data Quality - Grouping

A key component of producing ASBVs is the process of separating environmental and genetic influences. LAMBPLAN & MERINOSELECT account for environmental effects through the use of Management Groups. Environmental effects are considered to be all non genetic factors that influence an animal’s performance. If all non genetic influences are kept equal throughout the Management Group then the difference in measured performance can be viewed as a difference in the genetic potential of the animal.

Making sure that your progeny are in the right management group cannot be emphasized enough because, if not done accurately, differences in animal performance due to environmental effects will be confused with genetic differences. The most common reason for ASBV changes amongst animals over time is incorrectly identifying management groups.

A Management Group is a group/mob of lambs with all of the following characteristics

- Born under similar management conditions at one site
- Born over a period that is no longer than 42 days
- Male or female progeny from one breed group

That’s the basics. To improve the accuracy and precision of ASBVs, the following characteristics are considered best practise:

- A number of sires (more than 2) are represented within the management group
- Equal numbers of progeny per sire within the management group for a more even comparison
- Accurate dam pedigree information to account for maternal differences
- Care is taken to ensure all animals within the Management Group have had the same opportunity to express their genetic potential.

Accurate recording of age, birth and rearing type and other measurements

Why these achieve greatest accuracy...

ASBVs are about comparing animals by looking at the measurement differences between progeny, where different sires represent different sets of genes within a mob. Having more sires represented by progeny in a group allows greater direct comparison between different sets of genes. Progeny from a single sire that are run together do not allow Sheep Genetics to separate genetic and environmental effects on performance. Having an even representation of progeny from each sire also ensure there is no bias towards one sires progeny when comparing the groups performance.
DNA Pedigree and Data Validation

Currently, any data that is added to the LAMBPLAN or MERINOSELECT analysis is screened for inconsistencies, and removed if it does not pass this validation check. This includes a number of "common sense" checks, such as whether a dam has two lambs on different days in the same month, or multiple lambs to different sires.

However, the use of DNA parentage to determine who the sire and dam of a lamb in a syndicate mating has created some challenges to this validation procedure. Syndicate matings pose the obvious issue of incomplete pedigree information, and this can be overcome through the use of commercially available DNA tests to identify the parents.

Prior to DNA technology, the only way to reliably identify the sire was to single sire mate. When it was identified that there were different sires to twin born lambs from the same dam, it was treated as an error and the pedigree was removed. As DNA technology is increasing in use so too are the incidences of multiple sires to twins being identified.

It is possible for twins to be born to the same dam but to different sires, and under certain conditions this can be relatively common. The rate at which this can occur will be influenced by the number of rams used during syndicate mating and the size of the paddock they are run in. If a ewe has a high level of interaction with multiple sires during the mating period, there is a greater chance of twins being born to multiple sires.

The base premise for LAMBPLAN and MERINOSELECT is that data supplied by breeders is as accurate as possible. However, any system that has human interaction has the possibility of human error, and current methods for mothering up lambs are no exception. Use of DNA testing for determining pedigree may well be an option to return improved accuracy.

DNA parentage tests can be purchased via the Sheep CRC website for $18.70 a test. In flocks where DNA parentage has been used to identify progeny from naturally mated ewes, the DNA will be accepted as accurate. Therefore pedigree information will not be removed if twins are born to different sires, provided it has been communicated that a DNA test was used.

For further information on DNA Parentage tests as well as other Genotyping tests currently available please visit the Sheep CRC website www.sheepcrc.org.au and click on the Genotyping Tests link on the right hand side of the page.
2013 Annual Subscriber Survey

The annual survey was distributed electronically for the second year to all subscribers. It was sent out on 4/10/13 and was open until 1/11/13. Sent via email, it was successfully delivered to 843 email addresses. There was a greater response this year than the previous year.

Below is some excerpts from the survey and the full report will be made available online shortly.

Breeder Information

What type of breeder are you?

![Breeder Information Diagram]

<table>
<thead>
<tr>
<th>% of Respondents</th>
<th>3% Goat</th>
<th>8% Dohne</th>
<th>13% Maternal</th>
<th>24% Merino</th>
<th>52% Terminal</th>
</tr>
</thead>
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SIZE OF PERFORMANCE RECORDED FLOCK

<table>
<thead>
<tr>
<th>% of Respondents</th>
<th>0-50 animals</th>
<th>50-100 animals</th>
<th>100-300 animals</th>
<th>300-600 animals</th>
<th>600+ animals</th>
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<tr>
<td>Sum of 2009</td>
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<td>Sum of 2010</td>
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<td>Sum of 2011</td>
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<td>Sum of 2012</td>
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<tr>
<td>Sum of 2013</td>
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If never why not: The breeder is a Dohne breeder and could not get access under the current agreement with ADBA. (Which has now been made available)

Generally it can be seen that the majority of clients are visiting the website on a weekly to monthly basis, with around 75% of flocks responding thought the search area was good to excellent. Comments were generally positive but showed that people felt there were some features that could be tweaked to improve usability.

There was very similar results across LP and MS flocks in regards to use of sale and semen catalogues with both having only around one third of respondents trying the tool.
Communication and Online Training

If you answered yes to online training and Sheep Genetics having a social media presence, what is your preferred type? E.g. youtube, webinar, Facebook, Twitter

The preferred options if Sheep Genetics were to implement social media as a communication tool are shown above. Webinars being the preferred method and a tool which has been utilised over the last few years. Youtube also scores well, as from comments it can be accessed at any time that does not experience the connection speed delays. Email didn’t score as well, as people feel they can be flooded at times with too much information. Interestingly there was comment that email may be a good idea.

From the graph above regarding preferred social media, it is interesting to note that Webinar was the most popular choice, yet over the last few years that we have run them, we didn’t have a great attendance rate from breeders.
LAMBPLAN – ASBVs ASSIST IN ACHIEVING BREEDING OBJECTIVES

% of RESPONDENTS

Strongly Agree  Agree  neither (option removed 2013)  Disagree  Strongly disagree

MERINOSELECT – ASBVs ASSIST IN ACHIEVING BREEDING OBJECTIVES

% of RESPONDENTS

Strongly Agree  Agree  neither (option removed 2013)  Disagree  Strongly disagree

REPORTS CAN BE EASILY INTERPRETED

% of RESPONDENTS

Strongly Agree  Agree  Disagree  Strongly Disagree
Where are there opportunities for improvement?

The top 5 areas identified in the survey are

- Updated materials and presentation of reports
- Website, ease of use, searching and catalogues
- Education of producers/commercial growers and agents
- Customer Service
- Updated materials and presentation of reports and Promotion

A full version of the survey results will be available on our website. As you can see there are some very positive feelings from respondents about ASBVs and their use in breeding objectives, with a large rise in the MERINOSELECT area. Some useful suggestions to improve both the service and website were also provided which can assist with the daily operations of Sheep Genetics. We would like to thank everyone that responded and look forward to improving the response rate again in 2014.

Service Provider Profile

Catriona Moffat - Data Management, WA

I’m told I was running after sheep as soon as I found my feet so nothing much has changed in that respect! However that couldn’t be applied to other areas of my life.

Originally from Scotland, I moved to Australia in 2004 and have been working primarily within the sheep artificial breeding industry until recently. I am now self employed and plan to focus on building up my business as a service provider for Data Management. I enjoy meeting new people, outdoor life and love a challenge; one of my strengths is communication both written and verbal.

Before my move to WA, I was employed for 8 years in the agricultural sector of Quality Assurance (developing and implementing new programs) so I am well practiced in providing accurate and quality information. My interest in sheep genetics is long standing particularly how breeders can improve these for every market.

Contact details are: Home: 08 98816424 Mobile: 0439 925496

If you would like to submit a Service Provider or Breeder profile for future Breeder’s Bulletins, please email your article and a photo to info@sheepgenetics.org.au
Sheep Genetics Organisational Setup

MLA/AWI

Executive Committee
Peter Vaughan (MLA)
Sam Gill (MLA)
Dr Paul Swann (AWI)
Geoff Lindon (AWI)

Advisory Committee

Philip Attard (Chair)
Ron Cullen
Murray Long - 230324
Pendarra White Suffolks, NSW
Mark Mortimer - 601250
Centre Plus Merinos, NSW
Mark Murphy - 601365
Karbullah Merinos, QLD
Dale Price - 161886
Majardah Poll Dorsets, SA
Warren Russell - 501704
Melrose Merinos, VIC
Sara Wilson - 470169
Jilakin Downs Dorpers WA

Sheep Genetics

Hamish Chandler
Manager

Stephan Field
Tom Hooke
Fiona McLoughlin
David Rubie
Luke Stephen
Nicole Williams

Technical Committee

Dr Rob Woolastong (Chair)
Dr Rob Banks - AGBU
Dr Daniel Brown - AGBU
Dr Andrew Swan - AGBU
Dr Kim Bunter - AGBU
Mr Geoff Lindon - AWI
Dr Alex Ball - MLA
Dr Julius Van Der Werf - UNE
Dr Sam Clark - UNE
Mr Sam Gill - MLA
Dr Ben Hayes - VIC DPI
Dr Sue Mortimer - NSW DPI
Dr Matthew Kelly - U of QLD
Mr Mark Mortimer - Industry
Mr Hamish Chandler - Sheep Genetics

The Sheep Genetics Manager or Staff should always be the initial contact point for all communication

- The Sheep Genetics Executive is a joint MLA and AWI management group responsible for the operations of Sheep Genetics.
- The Sheep Genetics Advisory Committee has been established to assist in communication and representing to MLA and AWI the views and requirements of current and potential clients and the wider sheep industry. The Committee has an active role in business planning and annual review of the operational performance of Sheep Genetics.
- The Sheep Genetics Technical Committee comprises representatives from MLA, AWI, AGBU, UNE, DPI, industry and Sheep Genetics. The role of the Sheep Genetics Technical Committee is to guide and lead the development of the Sheep Genetics analytical engine, OVIS, to continually refine the analysis procedures and develop new ASBVs to meet industry demand.
## Accredited Scanners

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<thead>
<tr>
<th>Name</th>
<th>Location</th>
<th>Telephone</th>
<th>Email</th>
</tr>
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<tbody>
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<td>Ian Bradtke</td>
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