



Tuesday 3 July: 8:00am - 5:00pm

8:00am **Registration**

8:30am **Welcome**

8:45am **Single Step: It's pretty much what Mendel said, but maybe not what you thought.** Dr Steve Miller, Angus Genetics Inc.

Dr Steve Miller is Director of genetic research at Angus Genetics in the States. If his name sounds familiar, it's because he was in charge of AgResearch's beef genomics programme until mid-2016. In this presentation, Steve shares the experience of US Angus and their adoption of Single Step. It's an eye-opening insight that will make you question what you thought you knew about genetics.

9:30am **The Single Step Sofa**

Dr Michael Lee, Otago University; Dr Annie O'Connell, B+LNZ Genetics & Beta Test Breeders

Join us on the sofa with Otago University's Dr Michael Lee as he gives a brief (and formula free) explanation of Single Step to be released this year. He's joined by Annie O'Connell and breeders from the beta test group who will explain what they've experienced with the Single Step testing. Facilitator Robert Peacock will ask some questions, before opening the discussion up to the floor.

10:00am **Morning tea**

10:30am **Next Generation data platforms: What's out there?**

Andrew Cooke, Rezare Systems

In an increasingly interconnected world, how are agriculture systems evolving to empower us? Andrew Cooke, from Rezare Systems takes us through a global perspective.

11:00am **A meet and greet with nProve**

David Campbell, B+LNZ Genetics

David Campbell is guiding the development of nProve - the new genetics tool that will gradually supersede SIL over the coming months. David will talk a bit about how nProve came to be, how its development is progressing, and a sneak preview into why it's better.

11:30am **SIL Meat Module Mk II: Goodbye 12kg carcass**

Dr Neville Jopson, AbacusBio

Dr Neville Jopson from AbacusBio has been working away behind the scenes, updating the SIL Meat Module. It was last calculated in 1990, when a 12-13kg carcass was the norm. Neville explains what we can expect to see in August, when the new module is launched.

12:00pm **Lunch**

1:00pm **Open mic session: Strategy discussion**

Dr Annie O'Connell, B+LNZ Genetics

What should B+LNZ Genetics and ram breeders be focusing on over the next 10 years? National Sheep Genetics Manager Dr Annie O'Connell will facilitate this interactive discussion on our future sheep genetics strategy. We've also asked three switched-on farmers - Hamish Craw, Paul Crick and Richard Scholefield - to get comfortable on the sofa to share their thoughts from a commercial farming perspective. We're expecting questions to flow thick and fast in both directions, so we've allowed generous time for some robust insights.

2:15pm **Bus to Invermay**



Tuesday 3 July (continued)

3:00pm Workshops (20min each)

1) Demo: SNPShot

Mike Gardner, SNPShot Technologies

SNPShot is hot-off-the-press technology, unveiled during February's World Congress for Genetics Applied to Livestock Production. SNPShot is a simplified system of DNA sampling and collection - from the farm right through to the lab - that adds efficiency and accuracy for all parties. Company owner Mike Gardner was formerly CEO at Zee Tags. He introduces us to the technology via a short demo.

2) Visual scores

Sharon McIntyre & Dr Annie O'Connell, B+LNZ Genetics

B+LNZ Genetics' Sharon McIntyre and Dr Annie O'Connell run through the visual scores for dag scoring, wool quality and more. This is an interactive session focusing on what we have now and what we may want in the future. All feedback will be very welcome.

3) Best practice DNA recording: Tips and tricks

Hamish Bibby, Kelso & Neville Amyes, AgResearch

Breeder Hamish Bibby and Neville Amyes from AgResearch reckon they've about nailed DNA recording. Hear their practice tips for making DNA testing a pain-free process.

4) Need a thick skin?

Professor Hugh Blair, Massey University

Professor Hugh Blair from Massey University gives a workshop on the trait of skin thickness and its relationship to lamb survival.

5:00pm **Bus to Dunedin**

6:30pm **Pre-dinner drinks**

7:30pm **Dinner**

Wednesday 4 July: 8:30am - 4:00pm

8:30am **Where does phenotype fit in a genomic world?**

Dr Peter Amer, AbacusBio

What's the future for phenotypes? Is there a new model out there for using phenotypes alongside genomics? Dr Peter Amer from AbacusBio takes us through breeding scheme designs, in the era of genomic technology.

9:00am **Cooperation in practice: Sire referencing schemes.**

Steve Wyn-Harris, Marlow Coopworths & John Wilkie, Waione

A group of Coopworth breeders have been sharing rams for a long time in their own breed sire-referencing scheme. They share their experience and best practice tips.

9:45am **Gene editing: What it means for New Zealand sheep & beef production?**

Professor Dorian Garrick, Massey University

Massey University's Professor Dorian Garrick opens the lid on this technology. What are the pros? The cons? The implications for New Zealand and its global positioning, when it comes to marketing New Zealand agricultural products?

10:20am **Morning tea**

10:50am **Red Meat Origin Story**

Michael Wan, Beef + Lamb New Zealand

The Red Meat Origin Story has been launched. Michael Wan from B+LNZ's Market Development team re-caps the story to date. Find out why sheep breeding has a key role to play.



Wednesday 4 July (continued)

11:20am **Awash in a sea of data**
Gemma Milne, Alliance Group

Q: How many people does it take to collect carcase phenotypes?
A: About 20. Gemma Milne takes us inside the processing plant and explains the complexities of data collection. With more progeny testing and an increasing focus on meat quality traits, gathering good carcase data is critical. Gemma gives us some practical tips on making it work.

11:50am **SIL/nProve data access**
David Campbell, B+LNZ Genetics

As part of B+LNZ Genetics' stewardship role in data management for industry, where do we need to set the dial to empower breeders and the wider industry?

12:15pm **Lunch**

1:15pm **Workshops (20min each)**

1) What information do farmers really need at sale time?
Max Tweedie, B+LNZ Genetics

B+LNZ Genetics' National Beef Genetics Manager Max Tweedie discusses what information to include in catalogues and practical tools to present data well.

2) If the industry has carbon cost: where are the genetic solutions?
Mark Aspin, Pastoral Greenhouse Gas Research Consortium

Mark Aspin from the Pastoral Greenhouse Gas Research Consortium brings us up to speed with the BVs relating to GHGs. There's plenty of action and progress, so let's hear the latest.

3) Stop the bus: We need to talk about fat

Aimee Charteris, Aimee Charteris Genetics & Trevor Cook, Veterinarian

It's not a new topic, but it's yet to be resolved. How little fat is too little? This session with geneticist Aimee Charteris and vet consultant Trevor Cook takes an in-depth look at IMF and its relationship to BCS. What about animal welfare considerations, when breeding leaner sheep, particularly as flocks head into more challenging hill country environments? And what have we learnt so far from the Headwaters Maternal Ewe Project?

4) Wool Module: Production + Quality

Dr Cheryl Quinton & Sharon McIntyre

Dr Cheryl Quinton from AbacusBio and B+LNZ Genetics' Sharon McIntyre bring us up to speed with the new Wool Module. Where are we now? What did we learn from the wool survey? How will we combine evaluation for wool production and quality?

5) Uncomfortable family trees

Dr Ken Dodds, AgResearch

Inbreeding and relatedness: How inbred are your animals? What are the implications? AgResearch statistician Dr Ken Dodds take us on a tour of uncomfortable and unusual family trees - and discusses how to avoid them.

6) Best practice and tips: SIL recording, data loading & DNA parentage recording. Neville Amyes, AgResearch & Hamish Bibby, Kelso

The DNA duo from yesterday is back - this time talking about loading data into SIL. They even have a calendar to assist with recording data.

3:40pm

Closing summary