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#### S.I.L.



# nProve: Where are we at?

The first release of nProve – the new genetics tool that will ultimately replace SIL – will begin to be rolled out within the next two months. nProve is an entirely new genetic tool for New Zealand. It includes new software and back-end technology that will provide greater transparency and the ability to utilise your own data more easily.

We are running a series of industry workshops during 2018 – each involving small groups comprising industry support, bureaus, breeders and commercial farmers. During these workshops, we are testing design ideas and collecting real-world feedback for the development team. Workshop participants are rotated which minimises the commitment and keeps fresh ideas coming in. Responses have been very positive to date and we are grateful for the great ideas and feedback received.

## nProve timeframes

Early 2018: Kick off industry workshops

Mid 2018: Feedback being collected on first design concepts

Improved basic search functionality

**Late** Further nProve updates (at approx 6-8 week intervals): You will experience

2018-2019: increasingly greater levels of functionality, brand new functionality and more

direct access to your information

**2019:** Next year, we plan to visually "re-skin" the existing SIL website to nProve,

reflecting that the transition is complete



# **Update on the new Single Step genetic evaluation system**

The single step pilot testing is progressing as per timelines. Results to date show improved accuracy and better use of available information.

A handful of ram breeders are acting as a pilot test group, providing feedback and identifying issues along the way. July's Sheep Breeder Forum will include a panel discussion on single step and a couple of these breeders will be on that panel.

#### <u>Timeframes around single step's introduction</u>

**April:** BVs informed by single step were reviewed

**Early May:** Results of that review shared with breeder pilot group

June: Single-step process will run in parallel with NZGE to identify any bugs or

discrepancies

July-Sept: Extensive validation phase

Re-ranking of sires will be reviewed to ensure accuracy

Late 2018: Launch

# Single step: Commonly-asked questions

Q: What is single step?

A: Single step is a genetic evaluation method that incorporates genomic information from SNP chip genotyping. It is faster and more accurate, because it processes all genotype, pedigree, performance and progeny data simultaneously.

## Q: What's the difference between single step and whole-flock genomics?

A: Genomics is DNA testing using SNP chip genotyping. It provides an additional layer of information to help your selection. Single step is the process, whereby this DNA information is included in animals' breeding values at the same time as their family and performance information. Whole flock genomics is the best way to maximise the benefit of the new single step evaluation.

# Q: What is the main practical benefit to breeders?

A: Single step provides more accurate breeding values in young animals, which – in turn – enables more reliable use of younger breeding animals in seed-stock breeding programmes – i.e. faster genetic gain. Internationally, other species are taking advantage of single step to advance the rate of genetic gain.

## Q: As a breeder, will I even notice the change over to single step?

A: No, you won't necessarily notice any change. Single step is an "under the bonnet" improvement that will increase the accuracy of your genetic data and deliver information back to you very quickly. If you do use genomics, you may see some minor re-ranking initially. Any future changes will be incremental. If you don't use genomics, you won't see any change, except if:

- a) You have rams that are closely related to genomic-tested sires, and/or
- b) Your rams are tested elsewhere (e.g. post sale or in progeny tests).

In both cases, the genomic information from the tested sires will flow across to you and benefit your breeding programme.



# **April Leader Lists online**

Sire Leader List reports for April are available on the SIL website. These lists identify the top 200 high genetic merit sires for a number of indexes and goal traits. All performance-recording SIL flocks are automatically considered for NZGE reporting, unless they "opt out". If you do not want data from your flock included, please contact us.

View April Leader Lists

PEOPLE



# **B+LNZ Genetics sponsored PhD student commended**

As part of its government-funded programme, B+LNZ Genetics supports postgraduate university students working on projects relevant to its genetic programme. The benefits are two-fold: progressing science specific to B+LNZ Genetics; and expanding the pool of scientists available in the future.

One of B+LNZ Genetics' postgraduates is John Holmes. His thesis – "Modelling strategies to improve genetic evaluation in New Zealand sheep" – was of such a high quality that it was deemed "exceptional" by the University of Otago's Science Division. This commendation is awarded to less than 10% of PhD projects.

As part of his work, John derived new equations to better estimate genetic connectedness between flocks. The aim is to include them in the software that runs the NZGE and many European genetics evaluations.

John is now at the University of Melbourne completing a postdoctoral fellowship in statistical genomics. He was co-supervised by B+LNZ Genetics' lead scientist Dr Michael Lee. "It's great to see a young local lad make good. We need to show our young students there are good opportunities and interesting roles in agriculture."



# **New Vacancy: Genetics Systems Analyst**

B+LNZ Genetics is recruiting for the new position of Genetics Systems Analyst.

This role will take care of the day-to-day operation of SIL's evaluation systems and administer the sheep and beef progeny tests. Reporting to IT Programme Manager David Campbell, the Genetics Systems Analyst will ensure data integrity, the importing and extracting of data for analysis and use by the B+LNZ Genetics team, and by breeders in supporting decision making in their breeding programmes.

More information

**BEEF** 



# **Bull selection tools**

Point your bull-buying clients towards this easy-to-use guide. As you know, the decision they make about which bull to buy affects their business for four cow generations. Taking 10 minutes to read this five-step guide has the potential to yield them exceptional returns.

Download guide



# **Beef Progeny Test Campaign**

B+LNZ Genetics has been running a campaign this month in Farmers Weekly and on social media to commercial farmers about the Beef Progeny Test. The campaign features key messages for farmers from the perspective of some of the managers involved in the day-to-day operations on the progeny test sites.

Hamish Gibb - Mendip Hills: Farmers Weekly | Facebook

James van Bohemen - Rangitaiki: <u>Farmers Weekly</u> | <u>Facebook</u>

#### **EVENTS**



# **Beef Events April/May**

Beef Focus Field Day: Mendip Hills, Canterbury

Tuesday 1 May

B+LNZ Better Beef Breeding Workshop: Raupuha Studs, Mahoenui

Thursday 3 May

Beef & Dairy Beef Progeny Test Field Day: Rangitaiki Station, Taupo

Tuesday 8 May

# **Sheep Progeny Test Field Day**

# Otiwhiti Station, Hunterville Monday 7 May, 1pm-3pm

In partnership with facial eczema (FE) breeders and Otiwhiti Station, this sheep progeny test focuses on best practice use of existing genomic and RamGuard tools to identify rams that produce FE-tolerant progeny.

# Find out more



The team (from left): General Manager Graham Alder, IT Programme Manager David Campbell, Lead Scientist Dr Michael Lee, Science Manager Eleanor Linscott, Genetic Evaluation Technical Manager Sharon McIntyre, Sheep Genetics Manager Dr Annie O'Connell, Beef Genetics Manager Max Tweedie and Office Administrator Pam Schofield.

#### More information about team







# The future's in the genes



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