

ISSUE

06

# The Silver Bulletin

Newsletter of the New Zealand Murray Grey Society

January - April  
2025



## Welcome to our 1st Newsletter for 2025

*We hope that this finds all our members and readers in good form and coping well with another year.*

*The editor apologies for the lateness of this newsletter and for not completing an epistle prior to Xmas and the New Year. I trust that all negotiated the challenges of the festive season.*

*The season has been a challenging one for most across the motu. In the far south the spring could only be described as atrocious with on going repercussions. In the northern half of the island lack of rain and grass growth has dominated. Summer in the NI has seen some of the driest conditions ever in the top half. Is there any where having a reasonably decent time??*

*At least the prices for beef have been positive and that bodes well for the approaching weaner sales. With the dairy payout also in top form, cattle farmers could risk a bit of a smile.*

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### From The Presidents Paddock: Barry Macdonald

*Dear members*

While time inevitably just seems to keep ticking along at pace, there has been a few things happening that members need to be aware of.

Firstly, the main news is that single step analysis (genomics) will be utilised in the upcoming April Breedplan summary. An explanation of what this means for breeders is available on page 2 of this newsletter. This is a great step (no pun intended) forward for the breed and has been a long time in the pipeline. By SNP testing (DNA testing) even more animals, breeders can now directly contribute to a more sustainable breed evaluation over many traits. As outlined in the general explanation it is still important that breeders continue to measure and contribute raw data for as many traits as possible.

Another innovation to the way Breedplan information is displayed online and will be available for catalogues, is that the percentile figures for all traits can now be found in the line below the accuracy of each EBV. The figure reflects where that animal stands in the overall population for that trait, eg 1 = top 1%, 40 = top 40%. There will also be a few ongoing changes to our website to make it more user friendly. You can now use the website to order SNP tissue kits and fill out the form for processing.

This is available under the drop down menu heading 'Cattle', then 'Genomic

testing'. Also the results from SNP testing of animals submitted are available under the same drop down menu, 'MG SNP DNA results'. Displayed are the Animal rego number, Animal name, Neogen SNP case number, Myostatin (NT821 gene) result, CA result. That is all the information that will be available online, however the breeder will have a more extensive list of results for each animal submitted. This facility will also help breeders find the SNP case numbers of previously tested animals when submitting forms.

Recently while attending a Stud Cattle breeders forum in Christchurch, Hayden and I took the opportunity to have a meeting with a couple of representatives from Breedplan/ABRI. They were asking for feedback from societies. A common theme from us and other societies was the seeming lack of progress in moving to the promised "BreedLogic" system. We also raised concerns about the lack of communication to societies/members when changes are to be applied to the current system.

Council recently had a zoom meeting with the agenda mostly dealing with basic housekeeping issues. A date for the AGM will be sorted shortly.

Kind Regards

*Barry Macdonald*



# Murray Grey breeders set to benefit from the implementation of Single-Step BREEDPLAN

*Murray Grey breeders are set to benefit from several major enhancements in the Murray Grey BREEDPLAN analysis later this year, with the implementation of Single-Step BREEDPLAN and a new Calving Ease model anticipated for release in the April 2025 analysis.*

These enhancements will improve the predictive ability of the BREEDPLAN analysis, ensuring that Murray Grey BREEDPLAN is continuing to make the best use of data being collected by Murray Grey breeders across New Zealand, Australia, Canada, the UK and the USA.

## **What is Single-Step BREEDPLAN?**

Unlike the current Murray Grey BREEDPLAN analysis, which only uses pedigree and performance information, a Single-Step BREEDPLAN evaluation will also utilise genomic (DNA) information to calculate EBVs. In this sense, genomic information is providing an extra source of information for the BREEDPLAN analysis to use.

There are two ways in which DNA information can provide additional information for the Murray Grey BREEDPLAN evaluation. Firstly, when a Murray Grey animal is genotyped, the analysis can then take account of each animal's actual genetic relationship with all other genotyped animals in the population (see breakout box for more technical detail). Secondly, the analysis gains extra information by accounting for how the DNA information relates to the performance records for each trait in the analysis.

Murray Grey breeders should note that the use of genomic information as an additional data source to calculate EBVs does not diminish from the use of performance data in

Murray Grey BREEDPLAN. Indeed, a reference population (animals with both performance data and genomic information) is critical to the ongoing success of Single-Step BREEDPLAN, and Murray Grey breeders are strongly encouraged to continue to collect performance data for all traits that are of importance to their and/or their clients breeding objectives.

## **What are the benefits of Single-Step BREEDPLAN?**

There are several advantages of Single-Step BREEDPLAN that will be applicable for Murray Grey breeders. If animals are genotyped early in life, and their DNA information included in the Single-Step BREEDPLAN analysis, then this can "boost" their EBV accuracy. Having

## Murray Grey breeders set to benefit from the implementation of Single-Step BREEDPLAN cont.

higher levels of EBV accuracy earlier in life means that Murray Grey breeders can make more informed selection decisions earlier in an animal's life (e.g. for mating yearling heifers). In turn, this may assist to drive rates of genetic gain both in the individual herd and for the breed as a whole.

In addition, for Murray Grey breeders with smaller herds and/or undertaking ET programs, EBV accuracy levels are often limited by small contemporary group sizes even when pedigree and performance records are available. If calves are genotyped, however, they can accumulate additional information – and EBV accuracy – via their relationship to the wider genotyped and performance recorded population.

### What about the new Calving Ease model?

The new Calving Ease model will include a number of improvements, including the implementation of a **Single-Step Calving Ease** analysis. This will be particularly beneficial for Murray Grey breeders who have low incidences of assisted calvings for their herds, as genomic information will provide an additional source of information for the Calving Ease analysis to utilise.

Additionally, there will be changes to how **contemporary groups for Calving Ease are formed**. As a result, there will be changes to the animals analysed for Calving Ease – some animals will no longer be analysed,

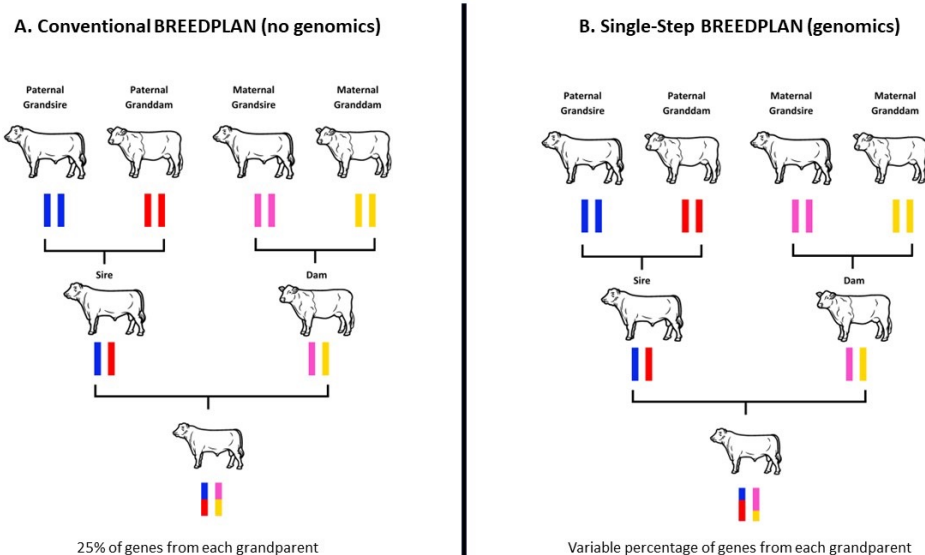
while others will be analysed for the first time.

### What changes can Murray Grey breeders expect?

Murray Grey breeders can expect to see changes to EBVs, associated EBV accuracies and selection indexes as a result of the introduction of Single-Step BREEDPLAN and the new Calving Ease model. In particular, genotyped animals that had a low EBV accuracy prior to the introduction of Single-Step will likely see the biggest increases in EBV accuracy following release of Single-Step BREEDPLAN, although the magnitude of EBV accuracy increases will vary by trait.

## Breakout Box

When an animal is genotyped, Single-Step BREEDPLAN takes account of each animal's actual genetic relationship with all other genotyped animals in the population. This is demonstrated in Figure 1. Under a conventional BREEDPLAN (no genomics) analysis, the example animal is assumed to share 25% of its DNA with each of its grandparents (Figure 1A). However, genotyping reveals the true genomic relationship between this animal and each of its grandparents. The example animal shares more than 25% of its DNA with both its paternal granddam (red) and maternal grandsire (pink), and less than 25% of its DNA with both its paternal grandsire (blue) and maternal granddam (yellow; Figure 1B).



**Figure 1.** A) Conventional BREEDPLAN (no genomics) assumes that each animal shares 25% of its DNA with each of its grandparents. B) However, if the animals are genotyped, Single-Step BREEDPLAN takes into account the actual genetic relationship between an animal and its grandparents.

## BIRTH ANNOUNCEMENT!

Caitlin Brooks and Ethan celebrate the arrival of Angus George Garrett on 20th March, weighing 10lbs 11oz

*congratulations!*



# Looking to the future

It is pleasing to see some new young breeders coming up the ranks for the future of the breed. Charlotte Hunt, age 15, who lives in Gore on her parents' farm, has started up her own herd of Murray Greys with females from Yorkvale, Waimak, and Torrisdale. Her first Coleraine calves were born in 2024. Alongside breeding and showing the animals, she is also an avid handler/herdsperson who has had great success at many shows this season. Of nine herdsperson competitions entered, she won eight of them!

Starting with handling Yorkvale Ulex at the Canterbury Show in November 2024 for Caitlin Brooks, which went on to be the Junior Meat and Wool Cup yearling winner, Charlotte won the Overall Junior Parader as well as 3rd in the Junior Stock Judging. This then led to her being 1st in the Intermediate Herdsperson competition.

At South Otago Show, she won Overall Handler leading a commercial Belgian Blue and won Overall Supreme Exhibit with Torrisdale Viable T85 and her heifer calf, Coleraine Vera.

## Right photo.

Charlotte and her sister with yearling heifers at Wanaka Show

At Wyndham Show, she repeated the double with Overall Handler and Reserve Champion Female with T. Viable and her calf, C. Vera. Next, at Tokomiro Show at Milton, she won Intermediate Handler, and at Otago Taieri Show in January, she won Overall Handler with Waimak WG Fay 18.

At Southland Show in early March, she won Overall Handler leading Yorkvale Una U7. She was 1st Intermediate Handler at Central Otago Show, again with Y. Una U7. Finishing up with the Wanaka Show in mid-March, Charlotte again won the Overall Handler after winning her own Intermediate age group, leading Yorkvale Una.

Other notable wins in the Livestock All Breeds Beef classes have been Waimak WG Fay, 2nd in the Southland On-Farm Senior Yearling Heifer class, and Yorkvale Nemesia, 3rd in the Senior Cow and Calf class of 16 entries at the same show. Her calf, Coleraine Nancy V1, placed 3rd in another big class of heifer calves.

Also to be commended is that Charlotte has broken her animals in to lead herself and exposed them to the show situation at an early stage of handling, still managing to impress a variety of judges with her handling skills as well as her animals.



## REMINDER: THE YEAR TATTOO FOR 2025 IS W

The recording system does not allow for an animal to be registered if the year tattoo does not correspond to the year of birth. **2024** the year tattoo is **V**, **2025** the year tattoo is **W**.

While animals **don't** have to be physically tattooed, they still have to be registered with a tattoo. (it's just the way the system works). You also don't have to tag your calves with the year letter if you don't want to or name them according to the year letter.

## WANTED - CONTENT FOR OUR NEWSLETTER!

The only way we can keep this Newsletter interesting and informative is to have contribution from our members – photos, articles on bulls/cows, updates from around the country – please make sure you drop the editor a line (and a few Murray Grey Photos!)

**Deadline for the next Newsletter is 20th June:**

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