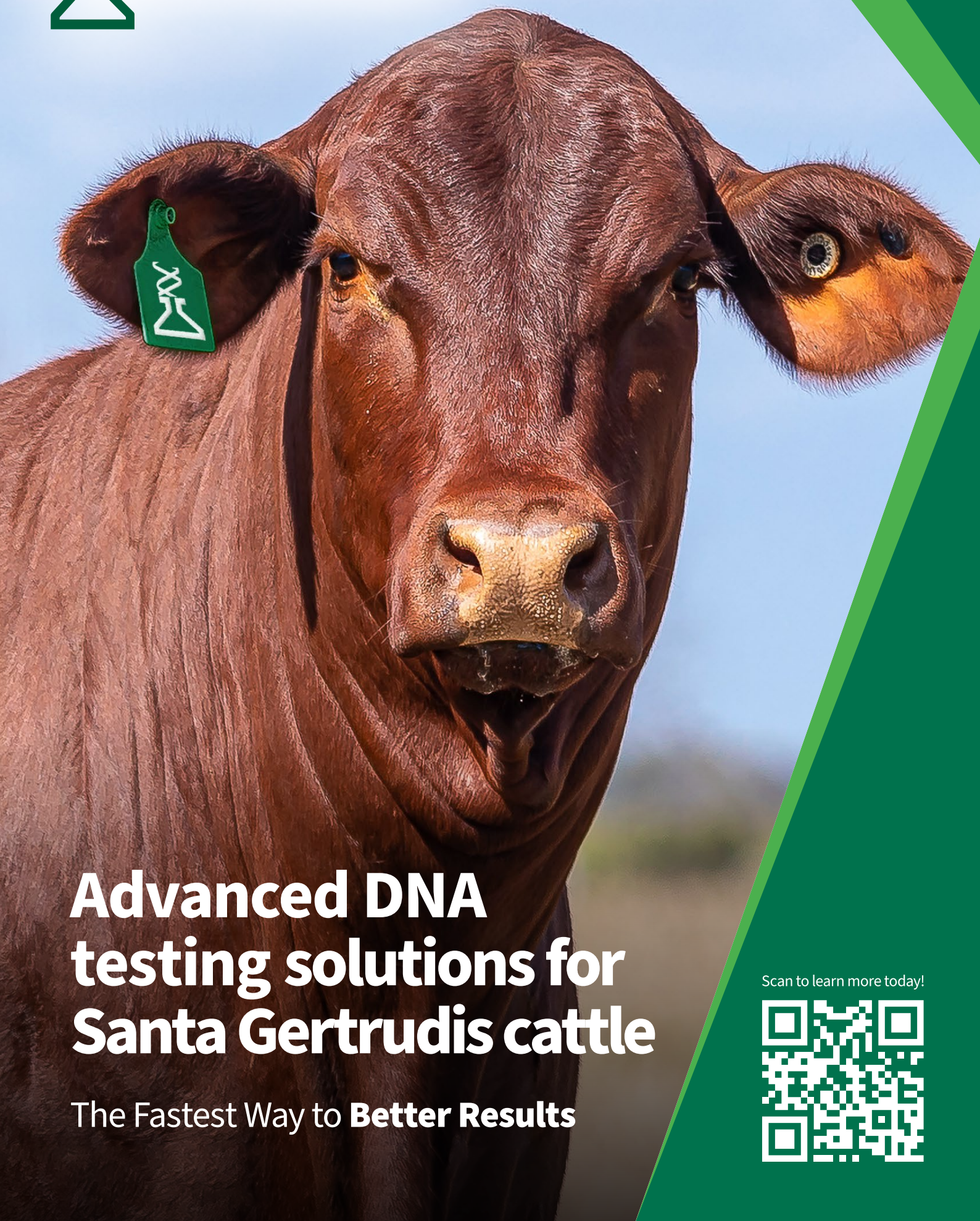




There *is* a Difference

NEOGEN®



Advanced DNA testing solutions for Santa Gertrudis cattle

The Fastest Way to **Better Results**

Scan to learn more today!



Premium Genomic Testing for the Australian Santa Gertrudis Industry

Neogen is proud to partner with the Santa Gertrudis Breeders Association to offer comprehensive and cost-effective genomic solutions tailored specifically for Santa Gertrudis seedstock cattle in Australia.

Our comprehensive suite of genomic tools provide valuable insights to help you:

- ✓ Assign parentage and/or reduce parentage errors
- ✓ Make faster rates of genetic gain in a breeding program
- ✓ Make more accurate selection decisions
- ✓ Make selection decisions earlier in an animal's life, and with more confidence
- ✓ Make selection decisions for traits that can't be routinely measured on-farm
- ✓ Fast track introgression of favourable qualitative traits into a herd
- ✓ Streamline the management of recessive genetic conditions
- ✓ Benchmark the genetics of a beef breeding enterprise, and track genetic progress over time



Premium genomic testing delivered in collaboration with



So why should you test with Neogen?...

Because ‘There *is* a Difference’



1. Australia Based Genotyping Laboratory

Why send your samples offshore for testing when you can utilise a world-class genomic laboratory based right here in Australia?

Neogen is the only option available to Santa Gertrudis Breeders Association members who wish to genotype their animals in a laboratory located within the Australasia region.

Neogen's new, \$11 million, state-of-the-art genomics laboratory is located at Ipswich, west of Brisbane in Queensland, and is the largest livestock genomics laboratory in the southern hemisphere.



2. Complete & Cost-Effective Product Range

Neogen offers a comprehensive range of premium genomic solutions, ensuring Santa Gertrudis breeders can find a genomic testing option that suits their individual needs.

Rather than rely on generic genotyping platforms, Neogen's genomic test offering for Santa Gertrudis cattle includes the genomic profiling of animals with Neogen's premium, proprietary genotyping array, GGP TropBeef 50K.

The GGP TropBeef 50K was built specifically for Bos indicus cattle, and delivers highly informative markers in tropical cattle for genomic prediction, parentage analysis, and the management of important genetic traits and conditions.

Neogen also retails sample collection equipment, such as Allflex TSUs and TSU applicators, offering customers a 'one-stop-shop' for all their genomic testing needs.



3. Unparalleled Testing Turnaround Times

Neogen understands that time is money and prides itself on offering the fastest testing turnaround times of any livestock genomics laboratory.

By leveraging the operational strength, size and efficiency of our state-of-the-art genotyping laboratory in Ipswich, Queensland, coupled with utilisation of the latest high-end genomic analysis tools and robotic processing, the vast majority of genomic testing is completed within 3-4 weeks of when samples arrive at the lab.



4. Nationwide Network of Territory Managers

Neogen's genomic solution portfolio is supported by our experienced sales, technical support and customer service teams who are on hand to offer guidance and support every step of the way.

Our national team of genomic territory managers are located geographically across Australia, and are available to provide Neogen customers with day-to-day assistance, either on- farm or remotely, in the design and execution of their genomic testing program.



5. Long Term Partner of Santa Gertrudis Breeders Association

Neogen is proud to be a long term provider of genotyping services to the Santa Gertrudis Breeders Association.

Neogen continues to be the Australian Santa Gertrudis industry's genotyping laboratory of choice for research and commercial genotyping services, with many thousands of Santa Gertrudis animals in the Northern Beef Information Nucleus (BIN) project, the Repronomics project and the Northern Genomics project being genotyped through the Neogen laboratory.

To find out more about the 'Neogen Difference', and how we can help your business grow, contact your local Neogen territory manager today, or visit neogenaustralasia.com.au.

Genomic Solutions for Santa Gertrudis Cattle

Neogen's comprehensive range of genomic tests for Santa Gertrudis Breeders Association (SGBAA) members include:

- ✓ Genomic profiling
- ✓ Parentage assignment
- ✓ Screening for genetic conditions and traits of relevance to the Santa Gertrudis breed
- ✓ Incorporation of genomic profiles into Santa Gertrudis BREEDPLAN for the calculation of genomically enhanced breeding values.

Neogen's genomic test bundles simplify decisions about what genomic tests to order, and include all genomic tests of relevance for Santa Gertrudis cattle in Australia.

Genomic Testing Options

SeekSire Cattle Parentage

Includes parentage verification

GGP TropBeef 50K

Includes genomic profiling (GGP TropBeef 50K), parentage verification and genomically enhanced breeding values*

Santa Gertrudis Standard Bundle

Includes genomic profiling (GGP TropBeef 50K), parentage verification, bovine horn/poll, myostatin and genomically enhanced breeding values*

*Analysis completed by BREEDPLAN

Standalone Genetic Traits & Conditions

Bovine Horn-Poll

Myostatin

Tenderness

BVDV (PI)

Must be requested in association with a genomic test



GGP TropBeef 50K

Designed specifically for *Bos indicus* and *Bos indicus* influenced cattle.

Contains approx. 50,000 Single Nucleotide Polymorphisms (SNPs).

Genomic Profiling With A Difference

Rather than utilising generic genotyping platforms, Neogen's genomic test offering for Santa Gertrudis cattle includes the genomic profiling of animals with Neogen's premium, proprietary genotyping array, GGP TropBeef 50K.

The GeneSeek Genomic Profiler (GGP) TropBeef 50K was developed in partnership with researchers in the USA, Brazil and Australia, and is suitable for a wide range of tropical breeds including Brahman, Droughtmaster, Santa Gertrudis, Brangus and Tropical Composites.

This highly optimised 50K SNP panel is comprised of approximately 50,000 single nucleotide polymorphisms (or SNPs) that have been optimally selected for *Bos indicus* and *Bos indicus* influenced cattle

The GGP TropBeef 50K delivers highly informative markers in tropical cattle for genomic prediction, parentage analysis, and the management of important genetic traits and conditions.

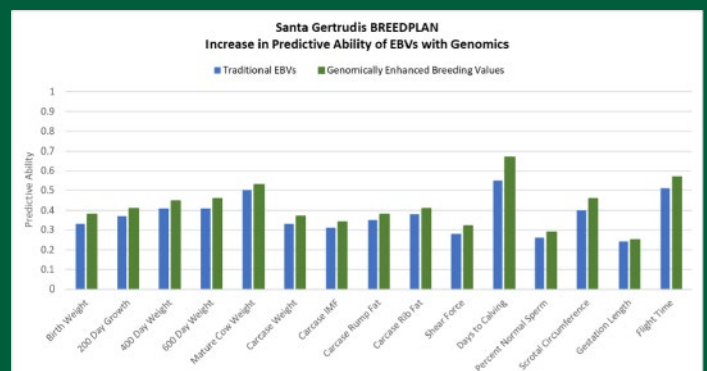
Traits Evaluated

GGP TropBeef 50K genomic profiles are incorporated into the calculation of genomically enhanced breeding values in Santa Gertrudis BREEDPLAN for the following traits.

BIRTH	Birth Weight, Gestation Length
GROWTH	200 Day Growth, 400 Day Weight, 600 Day Weight, Milk
FERTILITY	Scrotal Size, Days to Calving, Percent Normal Sperm
MATERNAL	Mature Cow Weight
CARCASE	Carcase Weight, Eye Muscle Area, Rib Fat, Rump Fat, Retail Beef Yield, IMF, Shear Force
TEMPERAMENT	Flight Time

Genomically Enhanced Breeding Values Are More Accurate

Research conducted by the Animal Genetics & Breeding Unit (AGBU) has shown that the inclusion of genomic information in Santa Gertrudis BREEDPLAN improves the predictive ability of EBVs, particularly for hard-to-measure traits like Days to Calving, clearly demonstrating the benefit of undertaking a genomic testing program in a Santa Gertrudis seedstock breeding enterprise.



The Genomic Testing Process

Genomic testing for Santa Gertrudis seedstock cattle should be ordered using the process below:

Get Organised

- Contact the relevant Neogen Australasia Territory Manager to identify the genomic testing that best fits the needs of your breeding program.
- Purchase your TSU applicator and TSUs from Neogen Australasia
- Check whether your animals are recorded with the SGBAA. Recording animals with the SGBAA prior to genomic testing is recommended. Genomic testing can still be ordered for animals that have not yet been recorded, but in this circumstance, the registration number that will be assigned to the animal when it is registered needs to be specified when ordering genomic testing.

Collect DNA Samples

- Collect DNA samples from your animals.
- TSUs are the most common form of DNA sample, however tail hairs or semen straws can also be submitted for testing.

Submit Your DNA Order

- Complete the Excel based 'DNA Request Form'. Forms are available on request by contacting either the SGBAA or the Neogen office. On your request form, make sure you complete the animal's registration number and the test required, and if parentage verification is required, the registration number of the possible sire/s and dam/s. If sires and dams are not nominated, parentage verification will not be conducted.
- Email an electronic copy of the request form to both naa-lab@neogen.com and sg@santagertrudis.com.au
- Print and mail a hard copy of the application form, along with your DNA samples to Neogen Australasia, 14 Hume Drive, Bundamba QLD 4304.

Genotyping & Analysis

- Genotyping of your samples will be undertaken, any subsequent analysis of the genomic profiles conducted (e.g. parentage verification), and results (e.g. genomic profiles, parentage and genetic condition results) will be returned to the SGBAA.
- Where applicable, genomic profiles will be provided to ABRI for inclusion in the Santa Gertrudis BREEDPLAN genetic evaluation.

Access results

- Results will be provided to you via email by the SGBAA.
- Parentage and genetic condition results are usually available within 3-4 weeks.
- Subject to the Santa Gertrudis BREEDPLAN genetic evaluation schedule, genomically enhanced EBVs are usually available within 6-8 weeks.

To find out how we can help your business grow, contact your local Neogen territory manager today.

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