



# GenomicTest

## Product Information

### Background

The Genomic test has been developed by the Sheep CRC and AGBU (Animal Genetics and Breeding Unit) and Neogen Australasia.

### Product Description

The Genomic Test is the standard test used by industry to genotype animals. It is available for the four major breeds – Merino, Poll Dorset, White Suffolk and Border Leicester.

To test your animals, you need to be a member of Sheep Genetics and the individual animals need to be entered into either the LAMBPLAN OR MERINOSELECT databases with a minimum of sire pedigree recorded and one phenotypic measurement.

The Genomic Test will predict genomic breeding values for the traits listed in Table 1 provided accuracy thresholds are met. The genomic information is included in the single-step analysis to generate ASBVs. The Genomic Test increases the accuracy of ASBV estimates and is particularly useful for traits that are measured later in life (e.g. adult wool weight) or hard to measure in the animal (e.g. intramuscular fat or shear force). Increased ASBV accuracy increases the rate of genetic gain. Refer to the Practical Wisdom case studies and videos on our website for evidence of the benefit.

Genomic Test results can also be used to undertake Parentage analysis. Please contact the SHEEPDNA Office for more information.

When undertaking a Genomic Test, you can also request a Marker Report for SNPs predicting major effects and defects (Check the box when completing your DNA testing form). This report will be provided to you directly from the SheepDNA office. For more information on the specific markers in the report, please refer to the Marker Report Information Sheet.

### Product use guidelines

#### 1. Buy a SheepDNA sampling kit

- Use the SheepDNA online ordering portal to buy SheepDNA sampling kits - blood cards or TSUs. TSUs are also available through Allflex Australia Pty Ltd - [www.allflex.com.au](http://www.allflex.com.au).

#### 2. Selecting sheep to sample

- Identify animals to be tested. Refer to the Practical Wisdom case studies on our website for guidance on how many and which animals to test.

#### 3. Taking DNA samples

- Please consult the sampling collection information sheet supplied with your Collection Kit or available at [www.sheepdna.com.au](http://www.sheepdna.com.au);

- Help desk: for any information on the correct sampling methods contact the SHEEPDNA office. It is essential to submit samples that they are correctly collected and clearly labelled.

#### 4. Submitting samples

- Send your samples to the SHEEPDNA office along with a completed and signed SheepDNA testing form supplied with your sampling kit or available at [www.sheepdna.com.au](http://www.sheepdna.com.au);
- Upload the sheep data file (if available) via your SheepDNA account;
- Ensure you have placed an order for your tests through our online portal.

#### 5. Sample confirmation & test payment

- Samples are checked and confirmed by our trained team;
- An email will be sent to you requesting payment for your tests;
- Note: Tests will not be processed until payment is made.

#### 6. Results generated

- The Genomic Test will provide genomic estimates for the following traits, provided accuracy thresholds are met;
- Refer to our Practical Wisdom case studies for guidance on ways to increase the likelihood of meeting accuracy thresholds.

Trait	Name	Unit	Merinos	Terminals	Maternals
BWT	Birth weight	Kg	Y	Y	Y
WWT	Weaning weight	Kg	Y	Y	Y
PWT	Post Weaning weight	Kg	Y	Y	Y
PEMD	Post Weaning eye muscle depth	mm	Y	Y	Y
PFAT	Post Weaning GR fat depth	mm	Y	Y	Y
GFW	Greasy fleece weight	%	Y		
FD	Fibre diameter	μ	Y		
FDCV	Fibre diameter CV%	%	Y		
SL	Staple length	mm	Y		
SS	Staple strength	N/ktex	Y		
EBWR	Early breech wrinkle	score	Y		
FEC	Worm egg count	%	Y	Y	Y
HCWT	Hot carcass weight	kg	Y	Y	Y
CEMD	Carcass eye muscle depth	mm	Y	Y	Y
CFAT	Carcass fat depth	mm	Y	Y	Y
LMY	Lean meat yield	%	Y	Y	Y
IMF	Intra muscular fat	mm	Y	Y	Y
SHEAR5	Shear force at 5 days	kg	Y	Y	Y
DRESSPERC	Dressing Percentage	%	Y	Y	Y
Poll/Horn	Poll horn	PP, PH or HH	Y		

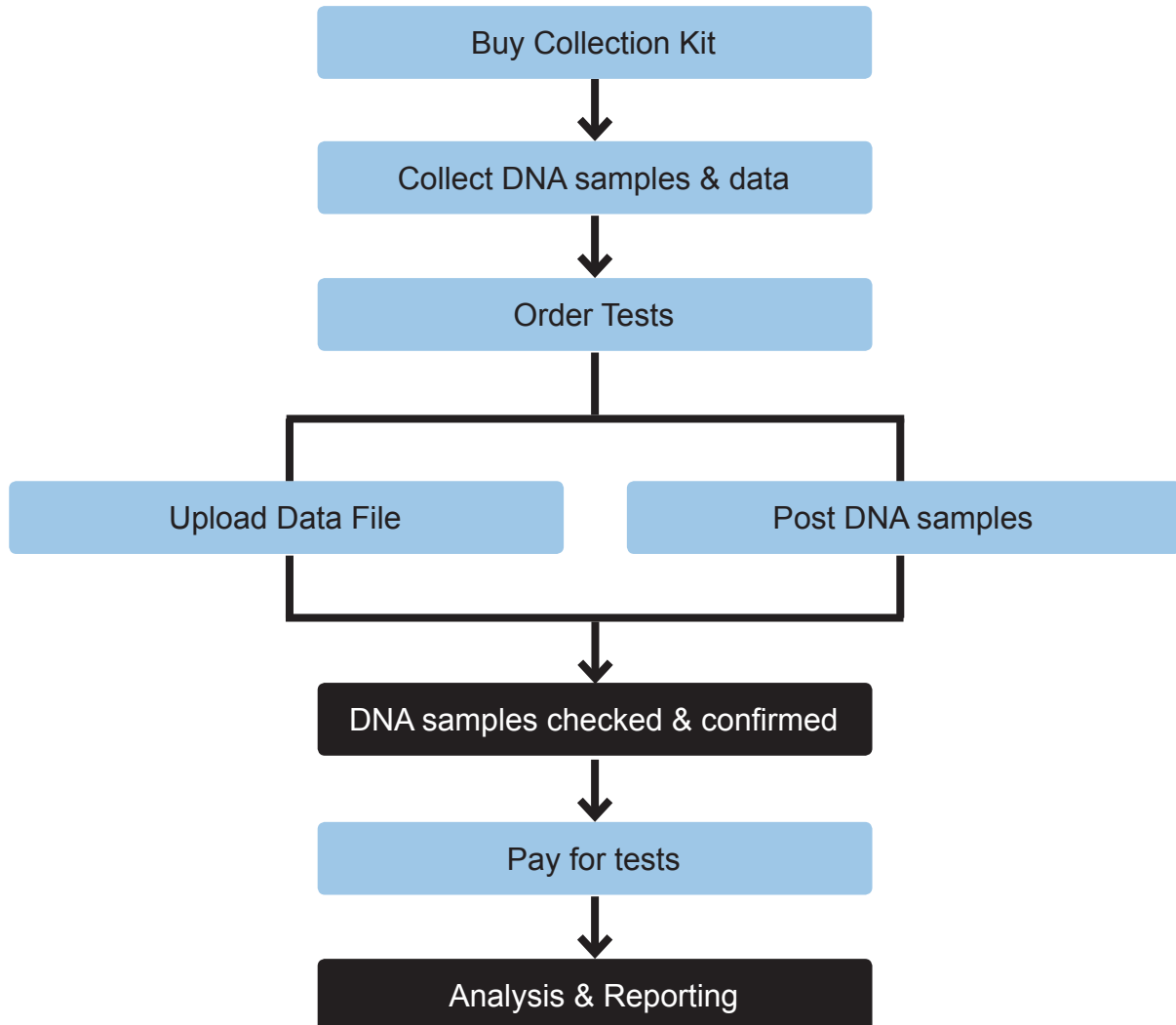
#### 7. Reports received

- Genomic Test results are combined with data in Sheep Genetics, using Single Step analysis, to increase the accuracy of ASBVs. Breeders can access their updated ASBVs through their Sheep Genetics account.

## Getting Started



[www.sheepdna.com.au](http://www.sheepdna.com.au)



## Help Desk

Please direct all enquires to our SheepDNA team

### SheepDNA Office

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