

# **Product Information**

### Background

The new 800 SNP Illumina based Parentage Test takes advantage of new genotyping technology to improve this popular DNA test, which can link a lamb to its dam and/or sire. This test can be used on all breeds.

### **Product Description**

The Parentage Test can be used for 'full pedigree' – that is linking a lamb to its dam and/or sire. This test can be used on all breeds. It also identifies polled or horned sires or dams in Merinos. Accurate assignment of pedigree increases the accuracy of ASBV estimates. With increased accuracy of ASBVs the rate of genetic gain in the flock is increased. Refer to the Practical Wisdom case studies and videos at www.sheepdna.com.au for evidence of the benefits of increased accuracy.

From 7 July 2017, the Australian Innovation Company (AIC) started reporting parentage results using a new Parentage Test. The new Parentage Test uses 800 SNPs and the analysis is based on the latest Illumina chip-based technology. This test has been developed by Neogen Australasia to take advantage of recent advances in genotyping technology that will put the Australian sheep industry at the forefront. Importantly, the new Parentage Test includes all of the SNPs on the original Agena test system and ensures complete compatibility with all previous parentage test results. This test is also compatible with the Genomic Test.

The increased number of SNPs as well as the new genotyping technology will deliver a number of significant benefits summarised below:

- Higher reliability of parent assignment resulting from more SNPs;
- Faster turnaround time the Illumina chip technology provides a more stable analytical system (less than 1% sample failure thus far) and therefore more consistent turnaround times (fewer repeats and a faster process if repeat analysis is needed);
- More accurate prediction of horn-poll phenotypes PP, PH or HH will ensure that this test will be even more useful in breeding for poll Merino and Dohne sheep;
- Predicting major gene effects Additional SNPs are included for predicting major gene effects such as Myostatin that contribute to carcase characteristics (For further details see the Marker Report Information Sheet).

Please note that Parentage and horn-poll results will be automatically reported. To receive the Marker Report, please check the box when completing your DNA testing form.

## 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 <u>www.allflex.com.au</u>.

#### 2. Selecting sheep to sample

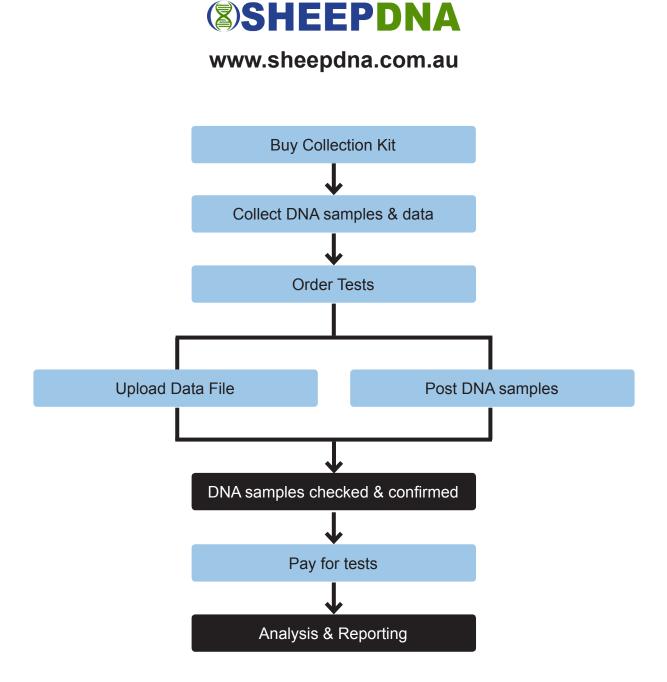
- Identify animals to be tested. Ensure that you sample all progeny and potential sires and/or dams.
- 3. Taking DNA samples
  - Please consult the sampling collection information sheet supplied with your Collection Kit or available on the SheepDNA website;
  - Help desk: for any information on the correct 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 on the SheepDNA website;
  - Upload the sheep data file (if available) via your SheepDNA account.
  - Ensure you have placed an order for your tests through our online portal at <u>www.sheepdna.com.au</u>.
- 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 Parentage Test provides 'full pedigree' that is linking a lamb to its dam and/or sire;
- It also identifies polled or horned sires or dams in Merinos.

#### 7. Reports received

• Parentage Test results are emailed to the contact nominated on the order.



**Getting Started** 

### Help Desk

Please direct all enquires to our SheepDNA team

#### SheepDNA Office

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