



## **DNA sampling**

### **Why do we do it?**

We take DNA samples from our Pygmy goats and get them verified in a laboratory to confirm the goat's parentage.

The dam's DNA profile, the sire's DNA profile and the kid's DNA profile are used by the laboratory to confirm if the two parents are the kid's parents.

To get the DNA profile numbers we submit a hair sample for each goat. The profile numbers are kept on file at the laboratory so that we only need to take and submit the sample once for each goat.

In other breeds it is common to use DNA samples to check to see if a goat has the mutation that causes mytonia and in dairy goats DNA samples are used to predict the amount of alpha-S1 casein produced in the goat's milk.

**This document shows you how to submit samples to Infogene NZ Ltd at Massey University to get DNA profile numbers and DNA parent verification**



## Step by step guide for using Infogene NZ to provide DNA parent verification for your goat/s

1

Go to the InfogeneNZ website – [www.infogenenz.co.nz](http://www.infogenenz.co.nz)

2

The screenshot shows the InfogeneNZ website interface. At the top, there is a dark blue header with the InfogeneNZ logo on the left and navigation links for 'Australia | AUD \$', search, user profile, and a cart icon on the right. Below the header is a horizontal menu with links for 'Home', 'About us', 'Catalogue', 'News', 'Contact', 'Operating Hours', 'Testing Turnaround Time', and 'Help'. The main content area is titled 'Our Services' and features five service cards arranged horizontally. Each card contains a representative image and text: 'Alpaca, Llama & Camel Genetic Testing', 'Bird Genetic Testing', 'Dog Genetic Testing', 'Cattle Genetic Testing', and 'Goat Genetic Testing'. A red arrow points from the text 'Click on Goat Genetic Testing' to the 'Goat Genetic Testing' card.

Click on Goat Genetic Testing



3

InfogeneNZ  
Australia | AUD \$

Home About us Catalogue News Contact Operating Hours Testing Turnaround Time Help

## Goat Genetic Testing

Caprine/goat genetic testing available from InfogeneNZ.

Goat Test Request

Order a free sampling kit

Click on Order a free sampling kit

4

InfogeneNZ  
Australia | AUD \$

Home About us Catalogue News Contact Operating Hours Testing Turnaround Time Help

## Order a free sampling kit

Courier option for faster delivery of your sampling kits in NZ. (NOT AVAILABLE for overseas orders). \$8.00

Sampling Kit Type

- Alpaca/Llama/Camel
- Bird
- Cat- If you have made a testing order you do not h...
- Cow
- Dog - If you have made a testing order you do not ...
- Goat
- Horse

Fill out the form, complete the checkout and wait for your sampling kits to arrive in the mail



5

Check that you have the things you need:

- Your sample kit/s – complete the information required on the front of each
- Disposable gloves or hand sanitiser
- Needle-nose pliers
- The goat/s you want to test and a way to restrain them

6

Restrain your goat – ours just stand in the milking stand.

Wearing your gloves or using very clean sanitised hands, use the needle-nosed pliers to pluck out 20-50 hairs from your goat. With needle-nose pliers you can usually pull out the hairs in one quick jerk. The hairs must have roots as that is the part that is used. Any part of the goat is fine, but the long hairs along the rump, by the tail or down the side of the back legs are often easiest to pull out in a clump.

Use the tape/sticker in your kit to tape the hair on to the enclosed card, making sure not to touch or tape over the roots.

Put the card with hair attached into the envelope and seal it.



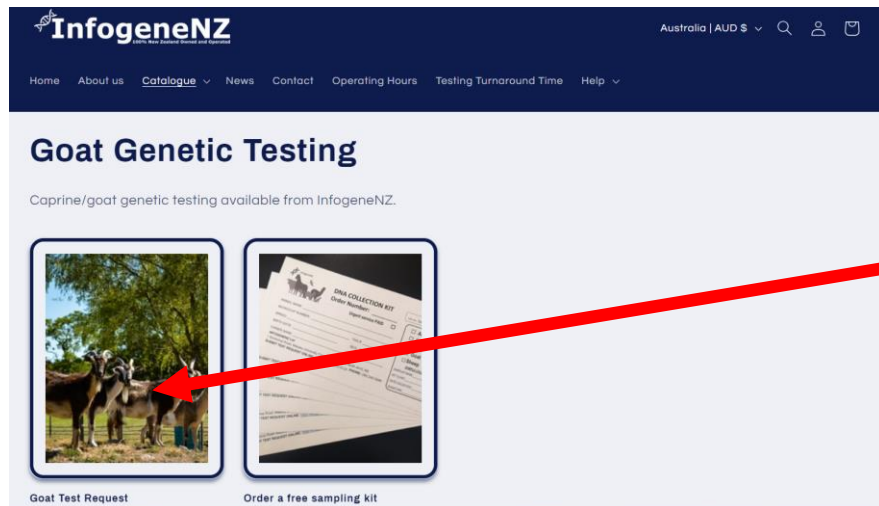
7

Repeat the sampling procedure for all goats, making sure to clean the pliers and change gloves in between taking each sample.

8

Go back to the infogene website - [www.infogenenz.co.nz](http://www.infogenenz.co.nz)

Click on Goat Genetic testing as before to get you to the Goat Genetic Testing page.



Click on Goat Test Request



9

Fill out the information for each goat on this form and complete the checkout process. If you have no DNA profiles for any of your goats and you cannot obtain DNA profiles of their ancestors, the test you would request for the Sire and Dam is Genotype – DNA profile only and for the kid you would select Parent verification – Dam and Sire provided.

The screenshot shows the InfogeneNZ website interface. At the top, there is a dark blue navigation bar with the InfogeneNZ logo on the left and 'Australia | AUD \$' with a dropdown arrow, a search icon, a user profile icon, and a shopping cart icon on the right. Below the navigation bar is a horizontal menu with links: Home, About us, Catalogue (with a dropdown arrow), News, Contact, Operating Hours, Testing Turnaround Time, and Help (with a dropdown arrow). The main content area has a light grey background. On the left, there is a photograph of several goats in a field. To the right of the photo is the title 'Goat Test Request' in a bold, dark blue font. Below the title are five input fields, each with a label in blue text: 'Owner name\*', 'Animal Name\*', 'Ear tag', 'Microchip number', and 'Breed'. Each field is currently empty.

10

Post your kits to the address specified - make sure to include the customs documents requested by Infogene NZ - and wait for your reports to be emailed to you.



## Your laboratory reports

For each hair sample submitted you will receive a one page report similar to the one below. Check all of the details are correct. If you have asked for a DNA profile only, then the critical new information will be the DNA number which has been allocated to your goat. If you have asked for Parent verification then the Test result (Qualifies) is also important.

### International Report

InfogeneNZ  
 Certificate of DNA Analysis  
 Private Bag 11 222  
 Massey University  
 Palmerston North  
 New Zealand  
 ISAG member 84455

<b>Animal Name</b>	Golden Valley Nellie (D5842)	<b>InfogeneNZ DNA No.</b>	5842
<b>Registration No.</b>	QJMY1665 / Golden Va	<b>Microchip No.</b>	
<b>DOB</b>	09/09/2023	<b>Sex</b>	F
<b>Breed</b>	Pygmy	<b>Sample Received</b>	03/01/2024
<b>Breeder/Owner</b>	Sandra Bell		
<b>Sire Name</b>	Narion Thomas (M3801)	<b>Sire DNA No.</b>	3801
<b>Dam Name</b>	Tylagum Ridge Cleo (M5844)	<b>Dam DNA No.</b>	5844



TEST RESULT				
Test	Result	Explanation	Test Date	Gene Details
PV	Qualifies	QUALIFIES-Cannot be excluded as the offspring of the Dam and Sire provided.	08/01/2024	



DNA TYPE - ISAG adjusted							
AMEL	CSRD247	ETH152	ILSTS008	ILSTS19	ILSTS87	INRA005	INRA006
	232/240		176/176	142/150	139/141	115/115	115/123
INRA023	INRA063	INRA172	MAF214	MAF65	MCM042	MCM527	OARFCB20
209/209	175/177			121/121		154/162	97/97
SPS113	SRCRSP23	SRCRSP5	SRCRSP8				
140/140	101/101	179/179	222/224				

<b>Sample Collected By</b>	Sandra Bell	<b>Approved Sample Collection Method</b>	
----------------------------	-------------	--	--