

# COLOUR CODE CONFERENCE

## NEWSLETTER



## Why are we so excited about colour genotyping?



Thoughts from some leading NZ alpaca breeders.

An exciting development in the alpaca world is the ability to genetically test for an alpaca's coat (fleece) colour. As breeders who focus on colour together with quality, this simple test allows us to plan for more predictable outcomes when selecting sires to go over our females.

We are in the process of testing the bulk of our breeding herd, which will enable us to know which animals have the potential to throw colour, where up until now it has been a bit of a guessing game.

A convincing result from testing a select number of animals, was a black cria sired by a fawn male carrying a big "E". This new tool allows potential clients to select animals that may be better suited to their breeding programmes.



# What about white?

If you prefer to breed white alpacas, you might think that Neogen colour testing is not relevant to you and your breeding program. Would you still think that if you knew that you could avoid producing BEW by colour testing your white animals? What about if you could predict which white animals will always produce white, versus those that could produce black or brown or patterns as well? And the best part is that these tests can be done as soon as you can get a sample from a cria, so you can include this information when making choices on which cria to retain for breeding. An added bonus is that the animals that are less desirable for you could be ideal for someone looking to add new characteristics to their herd, and who want non-white fibre – Neogen.







## A new tool to enhance breeding goals.

Alpaca colour genotyping—a new tool to enhance breeding decisions

The balancing game of good breeding is about optimising the desirable qualities of a dam and sire, reduce the impact of less desirable traits and produce a superior offspring. Success is generally based on well considered decision-making with a dash of trial and error ... weighing up qualities such as fleece, frame, fertility, health, mothering behaviour, temperament and colour when deciding on a pairing. The odds of success can be greatly increased with solid data and known variables to base decisions on. Variables such as the heritability of fleece and frame traits, or your own data on an animal's fertility or how well a female feeds and grows her cria.

A new and exciting piece of 'kit' for the decision toolbox is colour genotyping. Knowing the genetic colour of your animals and what colour mutations they carry will significantly contribute to or detract from your breeding goals.



Ever wanted to have more certainty of producing a particular colour cria? Colour genotyping allows you to predict the percentage chance of a particular colour cria from a particular mating. Depending on the genotypes this could mean no chance of that colour from that mating...so you won't waste 11 months!

Colour genotyping also identifies what mutations are carried on the two colour genes (ASIP and MC1R). This is important if you are wishing to breed white or light fawns, as for these colours to be expressed research indicates two dilution mutations are required.

Want to breed greys or don't want to breed greys... colour genotyping will identify if your animal carries the grey KIT gene.

Colour genotyping gives additional information to purchasers who wish to breed a specific colour but want to introduce another coloured animal with superior fleece qualities into the breeding programme...they will know if that stunning brown they have their eye on will ever be able to breed a black!

Come and find out more about colour genetics from Kylie Munyard who has pioneered colour genotyping in alpaca, and gain an understanding how colour genotyping is a tool that can benefit your breeding programme.

# Timetable

9.30am Morning Tea

10.00 – 10.15 Welcome by AANZ President

10.15 – 11.15 Colour Genetics in Alpaca – Kylie Munyard

11.15 – 12.15 Neogen – Pieter van As

12.15 – 1.30 Lunch

1.30 – 2.30 Future Genetics – Kylie Munyard

2.30 – 3.00 A Breeders View – Molly Gardner

3.00 – 4.00 Forum – Q&A

4.00 Afternoon Tea

Followed by Cash Bar/Dinner at delegates cost

Member \$90pp  
Non-member \$ 125pp  
Special Room Rate \$175  
Standard per night  
Booking Number #2059308

**REGISTRATION:**  
**[secretary@alpaca.org.nz](mailto:secretary@alpaca.org.nz)**



Conference  
AGM

17 June 23

18 June 23



9.30 AM – 4 PM

9.30 am to close



Heartland Hotel, Auckland