



# PAKI-ITI

ROMNEY - ROMTEX - SUFFOLK - SUFFTEX

## 2019



Tagging/Docking Team 2019 – It takes a committed team to get a good result, just ask the All Blacks, and that's what's also needed when putting in 4000 odd EID tags... and to win a World Cup.....



### GOOD NEWS

Is there a better sight in farming than seeing two healthy lambs running beside their mother? What makes this scene even better this year is that the weather over most of the lambing period has been very good, meaning farmers will have a lot more of these bundles of joy. Now to make it even better, out of the past five seasons, the lamb price has dropped just 14% of its value between now and mid-January. This would equate to a decrease of \$1.20/kg at today's pricing making the bottom of the market \$7.40/kg. 18kg could equal \$133 in January. Now that would be good news. The underlying message from the markets is clear – global demand is as strong as ever.

The flipside is that the New Zealand farmer is under attack from all directions, and this will bring challenges in the future. When we look back at our own family farming history over the last 180 years, many challenges have been overcome – bankruptcy, migration to Australia and then to New Zealand, rabbit plagues, the isolation of living in Waiouru, serving in World War 1, farming through the 20's and 30's with the effects of the Great Depression, having to work off farm, the 70's oil crisis, the 80's loss of Government subsidies and sky high interest rates, and the premature death of our father in a motor vehicle accident. The challenges have been many and there is no doubt, the future will also have its challenges.

### PAKI-ITI'S BREEDING COMMITMENT

As 80% of a flock's influence comes from the rams they use, ram breeders have a huge responsibility to their clients, therefore our commitment to farmers that use our rams is simple –

- We will supply rams that are structurally sound and come from flocks that are structurally sound.
- We will supply rams that have constitution (the ability to thrive under pressure), that breed sheep with constitution and come from flocks that have constitution.

- We will continue to use the hill country of Paki-iti as a testing ground for the maternal flocks and the wintering of the terminal ram hoggets.
- We will breed rams that perform as high as we can make them for our chosen traits (measured by NZ Maternal Worth and Terminal Worth), without compromising on structure and constitution.

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- We will continue to invest in modern DNA technology to improve the accuracy of the breeding programs.
- We will continue to work closely with various breeding groups to create genetic linkage and to gain greater access to other bloodlines.
- We will continue to strive for 100% client satisfaction.

**So, what are we aiming to do in our breeding programs over the next five years?**

## ROMNEY – TRAITS TO MAINTAIN

**Reproduction:** We are consistently scanning 185-195% and averaging 150% lambing over the past 5 years. Research has shown that the scanning sweet spot is around 180%, as once this increases so too does the number of triplets. We aim to maintain this trait at its current level.

**Wool:** Even though wool's value has decreased, we will continue to maintain wool quantity and quality.

**Adult weight:** 22th ewes generally have a mating weight between 58 – 62kg and MA ewes at 64 – 68kg. A hill country ewe is a moderate ewe, one that can handle the changeable conditions and have high performance; thus, we consider the Paki-iti ewe flock to be at its most efficient adult weight.

**Survival:** This is the most complex trait to breed for and thus considered the hardest to make genetic progress in, which is reflected in its contribution to the NZ Maternal Worth at only 13%. We will continue to analyse survival EBV's, DNA and skin thickness to make continual progress with survival.

## ROMNEY – TRAITS TO FOCUS ON

**Growth:** This trait contributes 50% to the NZ Maternal Worth. Our aim is to continue to put more emphasis on early growth by using rams with higher growth EBV's, without increasing the ewe's adult weight.

**Facial Eczema:** We have been using Facial Eczema (FE) resistant sires in our Romney flock since 2012, with four resistant sires being used this past mating. In April we were involved in sporodesmin testing progeny at 0.4mg/kg with mixed results. We still have a long way to go to breeding fully resistant rams, but by sporodesmin testing we are now able to fully utilize the DNA data for FE that we take from the 5K DNA tests. We therefore will be able to offer FE breeding values at ram selling.

**Worm Resistance:** Progressing on from using CARLA and 5K DNA FEC, we will be placing more emphasis on breeding sheep that have lower faecal egg counts, thus reducing pasture contamination and reducing number of drenches.

Other traits we will continue to work on are hogget fertility and meat yield. Body condition scoring (BCS) is a trait we are looking at in the near future as Zoetis is currently validating a DNA profile for this.



## ROMTEX – TRAITS TO MAINTAIN

**Growth:** Recent analysis of the sires used in Paki-iti's Romtex program over the last three years have shown that they average in the top 15% for growth out of all sires of all breeds used in the industry. This gives them a 4.8kg above average EBV weaning weight.

**Meat:** The analysis has also shown that the Romtex's are in the top 20% for Meat out of all sires used in the industry.

**Wool:** We estimate that the Romtex fleece is about 16% lighter than the Romney fleece, however we are happy to maintain this weight, as long as the quality is also maintained.

**Survival:** This breeding objective is the same as our Romney objective.



## ROMTEX – TRAITS TO FOCUS ON

**Reproduction:** Through the use of stabilised Romtex rams that have been bred with a focus on fertility, this trait will continue to improve. Based on the Abacus Bio analysis, within five years, the Romtex's should achieve the same fertility level currently experienced by our Romneys.

**Adult Weight:** Due to their high growth rates, the adult weight is higher than the Romneys. A lot of this can be contributed to just having meatier carcass, however we would like to make them slightly more efficient and reduce their average adult weight.

**Worm Resistance:** Same breeding objective as the Romney.

**Facial Eczema:** Probably the hardest of the traits to improve in the Romtex's due to their narrow FE gene pool. We have this trait on the radar. As the gene pool broadens, the opportunities to improve this area will increase.

Other traits we continue to work on are hogget fertility and BCS in the future.

## SUFFOLK/SUFTEX – TRAITS TO FOCUS ON

In comparison to the Romneys and Romtex's there are considerably less traits to select for with the Suffolk/Suftex breeds. Therefore, the aim is to continue to improve on all the traits we are already selecting for. The Suffolk and the Suftex breeding programs are treated the same, as in we are breeding a Suffolk like a Suftex, with its meatier carcass and a Suftex like a Suffolk with its darker markings.

**Growth:** Makes up 71% of the contribution to the NZ Terminal Worth index and therefore is vitally important to

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continue to improve. According to Abacus Bio in a study we had commissioned, farmers should be able to lift their weaning weight breeding value by 2.1kg in five years if they continually use rams in the top 30%.

**Meat:** It is expected that farmers should be able to increase yield in the loin, shoulder and hind quarter by 350gms over five years.

**Survival:** As with the Romney and Romtex, survival is very complex and therefore only makes up 7% of the NZ Terminal Worth index. For example, if farmers were to select terminal sire's in the overall top 10%, compared to the overall top 50% on the Terminal Worth, after five years there would only be an improvement of 0.1% in the survival trait. (Abacus Bio). However, we will continue to look to make progress in this trait.

**Meat Quality:** We have continued to be involved in calibrating genomics for meat quality traits at Duncraigen, Southland, with Premier SufTex's being a major contributor to this. The outcome is that we are using a DNA test that can give results for intramuscular fat, tenderness, pH and colour. This has been incorporated into our sire selections, but not in the overall index. This data will be available for you to view at ram selection time.

## GREENHILL STATION, HAWKE'S BAY

### TARARUA SHEEP AND BEEF FARM BUSINESS OF THE YEAR 2018

Simon and Elle Joblin have been using Paki-iti Romtex's over the past four years looking to put hardiness and do ability into their existing flock. Their main driver is lamb production, where they see the Romtex adding extra yield allowing them to kill lambs at lighter weights, but still targeting 18 -20kg. The lambs have been growing at 320 g/d on mum and 170g/day after weaning on the hills. Scanning percentages are lifting to 174% this year, targeting 150% lambing.

*Photo Hawkes Bay Today*

***“Good rams provide remarkable value over their lifetime. They are an investment. They should be looked after to ensure they can contribute as much as possible to your bottom line.” B&L Genetics***



## ANNA AND BRIAN COOGAN, TAIHAPE

### WINNER NATIONAL EWE HOGGET COMPETITION 2019

The Coogan's won the National Ewe Hogget Competition with their Romneys and also won the Flock Performance award. Paki-iti's involvement has been to supply SufTex rams to this 330ha property where 50% of the 1700 ewes are mated to a terminal sire. Last year 91% of the Coogans' lambs were killed prime off dams, averaging a kill weight of 19.7kg. Besides their growth, Brian is impressed with the longevity of the SufTex rams and the level of identification in the offspring. There is a field day to be held at the Mataroa property at 12.00pm, 29th November.

*Photo Whanganui Chronicle*



## THAT X FACTOR

In the year 2000, a New Zealand company, A2 was founded by a researcher and a dairy farmer. They commercialised a genetic test to determine whether a cow will produce milk without the A1 protein, and to market A1 protein-free milk. This test found that A2 milk had more beneficial health attributes than A1 milk. After a rocky start, A2 the company listed on the Stock Exchange in 2013. They have recently announced that they have made a record after tax profit of \$287.7m with a share market value of about \$12b. This is more than twice Fonterra's value, and generated from 128 staff compared with Fonterra's 22,000.

Similarly, Comvita, a business that was first started in 1970 by two innovative bee keepers struggled to grow, be profitable or resilient in the early years. It wasn't till 2003 that fortunes turned around. It became a public company and started to invest in science to prove the health benefits of manuka honey. At the bottom end of

the scale sits a 250gm jar of unbranded honey, that is worth only \$5. But the same quantity of manuka honey in a branded Comvita jar is worth a lot more. Depending on its Unique Manuka Factor, a scientific way of measuring its health benefit, the price ranges from \$14 for UMF 5+ to \$104 for UMF 20+. On up the chain, the 250 gm of raw manuka honey is worth \$250 in throat lozenges, \$330 in an antibacterial gel used to treat severe infections in wounds, and \$500 in skincare products.

People with vision, points of difference, value added – very simple recipes.

So why can't we get it right in the wool industry? Over the past four years and with \$21m of funding, Wool Industry Research Limited (WIRL) have been looking into finding that 'X factor' that A2 and Comvita found. When

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asked for an update, General Manager Ian Cuthbertson said that they were keeping it close to their chests due to commercial sensitivity. But what he could say was that they have identified several novel new ingredients, with two demonstrated to be close to being commercially viable. The new ingredients are designed to be active components for use in cosmetics, filtration, nutrition (protein food supplements), luxury textiles and new fibres

(reconstructing crossbred fibres so that they could be used in apparel).

This intellectual property is owned by WRONZ who would then licence a 3<sup>rd</sup> party company that had NZ wool farmers interests at heart, to setup machinery processes that deconstructed crossbred wool into a range of commercially viable components.

## FUTURE OF BREEDING

We always maintain that there is no time in history that we as breeders have been able to make such genetic gains than we are currently experiencing in the sheep industry. That makes for exciting times, but what will happen in the future for sheep breeding?

At last year's Beef & Lamb Genetics' Forum in Dunedin we heard Dorian Garrick, New Zealand's leading animal geneticist discuss the pros and cons of gene editing. Gene editing was described as like search and replace on a computer, whereby undesirable genes can be cut out, or desirable genes put into the genome. The process of gene editing is not detectable from conventionally bred, which begs the question why it needs to be regulated so tightly.

The simple advantages of gene editing are that it offers a quantum leap in primary production, as conventional breeding can take a long time. Imagine the option of breeding lambs without tails, or being able to manipulate the sex ratios of these lambs, or to bred fine wool on a

Romney without the negative effects of a Merino, or to breed wool less Romneys, or to eliminate drenching... the opportunities could be endless.

Currently AgResearch are overseeing trials in America around ryegrasses. Results have been promising with the genetically modified ryegrass growing up to 50% faster than conventional ryegrass, to be able to store more energy for better animal production, to be more drought resistant and to produce up to 23% less methane from livestock.

AgResearch are working on whether it's genetically modified ryegrass can move to NZ based field and animal nutrition trials from 2021.

The downside of using this new technology is that our consumers at present aren't wanting products that in any way have been genetically modified but if the worlds production of lamb continues to decline who will be supplying it?

## RANTINGS....

A Beef + Lamb NZ Genetics ram health and husbandry study found that of the rams culled more than 30% of those were from feet problems and that respondents were particularly concerned about feet issues, especially in terminal sires. Make no mistake, our industry has a real issue with structure and there isn't much being done about it. The cattle industry is being more proactive and have set up B+L Beef Progeny Tests that are analysing different traits as well as the progeny for structural soundness. The

purpose of this is to establish if a trait was problematic and how much variation there was between sires and to see whether overseas genetics were different to local genetics. Australian data shows that the structure traits found to be problematic in the B+L Beef Progeny test are 30 – 50% heritable. This is high, and if sheep have the same heritability around structure, **the problem in our industry is only going to get worse.**

## ....AND OTHER THOUGHTS

A lot of Beef + Lamb's advertising to the public is around the health benefits of eating red meat, using high achieving sportswomen to push this. No one claims that champagne is healthy, but they still buy it because it tastes good. Why not just advertise the fact that beef and lamb tastes really, really good?

In public, we as farmers can be our own worst enemy, which has partly contributed to the opinion the urban people have of us. Whenever a farmer is interviewed on television generally the farmer is unshaven, dirty clothes and is often talking about a disaster. Do we need to rebrand farmers? Call ourselves something else and present differently? Look at the difference – Director of First Impressions or a receptionist.

5-6% of the global population is vegan, however their philosophy is becoming dominant in mainstream media and conventional thinking along with anti-farming groups, which is highlighted the lack of support the red meat industry has and is a major concern for our industry.

With public opinion also swelling against plastic's and synthetics, will the government reconsider its stance on using synthetic carpets in the Kiwi Build projects? In the year ended 30 June 2017 the Government had bought 488,000 square metres of synthetic carpets.

"If you don't take change by the hand, it will take you by the throat" Winston Churchill



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