

Short Tails
from



TEXEL

NEW ZEALAND

Autumn 2023

BREEDING FOR MORE MEAT

Without Compromising Quality

TEXELS *Adapting to Change*

STUD GENETICS

*The Ins and Outs of
Inbreeding*

..... **IT'S SHOWTIME**

The Full Wrap on this Season's Shows



Greetings Texel Members

The last twelve months have been busy, and although we've returned to some normality with the borders opening following Covid pandemic, increasing inflation, reduced farm product prices and weather events along with a general labour shortage across the entire agricultural sector and increasing levels of Government compliance have made life challenging for us all.

We all closed the door on 2022, thinking and hoping for better things to come. How wrong were we? The North Island was hit by not one but two severe weather events including a Cyclone. While dry weather and droughts can be slow and insidious in their onset, little can be done at short notice to be spared the destruction and devastation caused by severe weather events or earthquakes. Some of our Texel breeders farm in these affected regions. Our thoughts are with all of those who have suffered personal losses, stock losses and property damage or destruction and we hope that you have been able to get assistance to return your lives to a more 'normal'.

In the past 12 months we have remembered the passing of past breeders and those that have been instrumental to the development of the Texel breed. One of those was past member and ex Breed Committee Member Chris Miller who passed away in late January 2023.

In April 2022, the Texel Breed Committee started to work on the development of a 'Texel New Zealand Strategic Plan' to help focus on the Breeds' vision and to give the Committee direction. To facilitate this, a Survey was sent to all Registered Texel Breeders, yielding 40 responses from 64 breeders. Over the last twelve months, the breed committee has been working to firstly collate the information and then incorporate breeders' concerns and requests into a wider plan to take the Texel breed forward. This has involved meeting on three occasions in Christchurch as well as behind the scenes work. The conference topics held at Lincoln for the 2023 Conference were chosen to help fulfil some of the concerns breeders have including structural soundness, carcass conformation and parasitism in the sheep industry. This Conference is a steppingstone for more events like this to be run in future years.

The Texel Breed featured in the Summer 2022 edition of the Sheep Newz put out by NZSBA. Thank you to all that have contributed articles and photos to Newsletters and various newspapers. Thank you also to breeders who have contributed to promotional material for the Facebook page. Brand recognition of the breed and marketing and promotion is an ongoing process. We all need to work together on doing this and be adaptable to innovative ideas, ensuring we still retain a commercially relevant focus.

The future of agriculture and the sheep industry in New Zealand lies with new and younger farmers and breeders. Although we have little control over farm diversification and forestry, sheep farming will always be an important part of the New Zealand Agricultural Industry. While older traditions need to be acknowledged, we should not let them be a handbrake and accept the need to foster change and ensure we continue to have a market for our animals. Without sheep farmers that are breeding lambs, rams will be harder to sell. Like life, the only constant in farming is change. The Texel breed has adapted to changing markets and client needs since its existence – and today is no different.

We look forward to another busy 12 months, to continue to produce a versatile, hardy animal that is a "Premium Meat sire and a producer of productive daughters".

Heather Busby - Editor



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NZSBA & Texel NZ Fees 2023

NZSBA Annual Subscription - \$180.00 per flock

Annual Ewe fee	\$0.80 per mated ewe
Maiden Ewe Registration fee	\$1.50 per head for maiden ewes (including ewe lambs) brought into the flock annually for breeding
Single Entry Ram Registrations	\$20 per Ram
<i>All Stud Rams must be registered singly by the breeder BEFORE BEING TRANSFERRED</i>	
Transfer Fee: Rams \$15 each	
Ewes \$10 for first sheep and \$1.00 each sheep thereafter	

Inspection: \$30 for the first 20 sheep or part thereof and \$0.20 a head thereafter.
Travelling expenses at current motor vehicle allowance rates.

Export Certificate: \$40 for the first sheep and \$10 a head thereafter for each individual transfer or consignment to different purchasers sold at any one time.
NZSBA Pedigree Database - 20 cents per ewe plus an annual fee of \$24.00.

The above fees are exclusive of G.S.T.

Texel NZ Breed Levy \$130.00 per flock (discounted to \$120.00 if Annual Return received before 31/5/22)

New Breeders

Entrance	\$50
Registration	\$50
Registration of prefix	\$15

Fees are current as at the time of printing and are reviewed by the Sheepbreeders Association Council in July each year and are subject to alteration.



For any information required from NZSBA, Greg Burgess & his team are always ready to help
At: Email greg@nzsheep.co.nz Phone 03) 3589412. Website <https://nzsheep.co.nz/>
All forms are available online <https://nzsheep.co.nz/resources-forms/>

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Breed Committee



Rob Forsyth

Chairman

CPT & New Breed Initiatives

REGION: North Island (Hawkes Bay)

Premier Texel Stud

T: 0276 040 044

E: robandkath@farmside.co.nz

Premier Texel Stud was founded in 1991. My passion is breeding Texels with FE tolerance and meat. My current role on the Breed Committee (along with Garry Latta) are CPT trials and investigating new breed initiatives. As I am on the general list and co-chairperson, I represent all Texel breeders. Please get in touch with me for any questions, potential breed initiatives or queries regarding the CPT trials.



Roger Weber

Vice Chairman

Texel Across Flock (TAF)

REGION: North Island (Manawatu)

Grasmere Stud

T: 06 374 5229

E: rogweber@hotmail.com

Grasmere Texels was established by Roger Weber in 1996. I also have the unregistered stud 'Texel F.E. Elite' which was established in 2013 in partnership with Rob Forsyth (Premier Texel Stud) and Graeme Colquhoun from Matamata. Grasmere Texels Stud's focus is on meat and the Texel F.E. Elite Studs aim is facial eczema tolerance.

My role on the Breed Committee is the Texel Across Flock (TAF) coordinator. Any new (or old) members that are not on SIL or TAF and would like to be, please give me a ring and I can get you started.



Garry Latta

CPT & New Breed Initiatives

REGION: Canterbury (South Canterbury)

Redwood Stud

T: 021 868 512

E: garry@wnation.net.nz

Redwood Texel Stud was started in 200 by Garry Latta. I started breeding Texels in 2009 after purchasing the flock of Peter Wishart. I believe Texels are a superior meat breed with some very desirable maternal attributes. On the Texel NZ Breed Committee, I am responsible for the CPT and along with Rob Forsyth, investigating new strategies that will benefit all Texel breeders and their clients.



Alistair McLeod

Microphthalmia

REGION: Southern Districts (Otago)

Egilshay Stud

T: 0274 545 686

E: egilshay@xtra.co.nz

Egilshay Texel Stud was started by Alistair and Karen McLeod in 1993. We are based in the Maniototo Valley, Central Otago and presently run 190 Texel ewes. We are in the process of infusing English bloodlines into our flock and are very impressed with the shape and muscling, (which the Texel breed was originally introduced for) and something that many Texel animals are now deprived of.

My role on the Breed Committee at this stage, is to keep tabs on Microphthalmia, the recessive gene disorder that has been identified in Texel sheep, which can cause eye disfigurement and blindness if both parents carry the gene. If you have any questions regarding the disease or testing in your flock, please get in touch.



Geoff Howie

Shows and Sales

REGION: Southern Districts (Otago)

Iona-Lea Stud

T: 0272 408 002

E: gbhowie@gmail.com

Iona-Lea was first founded and registered in 1991 Flock No 133 MC

The Stud Ewe flock average is 150 ewes and sell 40 plus Texel rams a year. I am very passionate about taking sheep to shows, especially the Texel.

My Breed Committee Role is Shows and Sales. Please contact me if you have any questions.

My moto is 'Bred to be good, not fed to be good'.



Heather Busby

Advertising/ Promotion/ Facebook / Website / Newsletter

REGION: Southern Districts (Southland)

Cromarty Stud

T: 0275 278 089

E: h.cottle@globe.net.nz

Cromarty Texel Stud was started by Brent and Heather Busby in 2012. We currently run 140 Texel Stud and commercial ewes on the outskirts of Invercargill. Our aim is to breed balanced, multi trait Texels, producing early finishing, well-muscled lambs.

My role on the Breed Committee is also to facilitate the advertising and promotion of the Texel breed around the Country including the Facebook page and website. Feel free to contact me if you have any photographs show results, interesting articles, or require any help and assistance with promoting the Texel breed in your region.

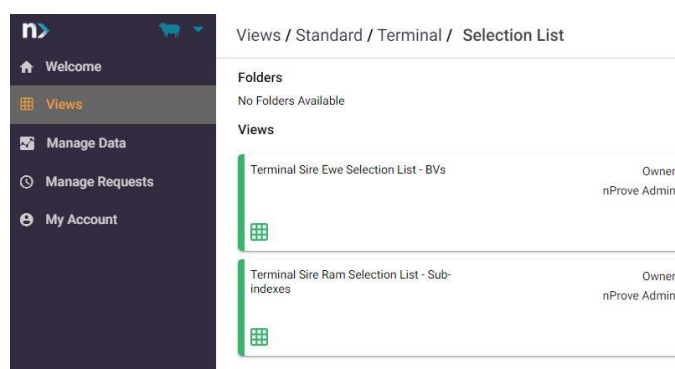
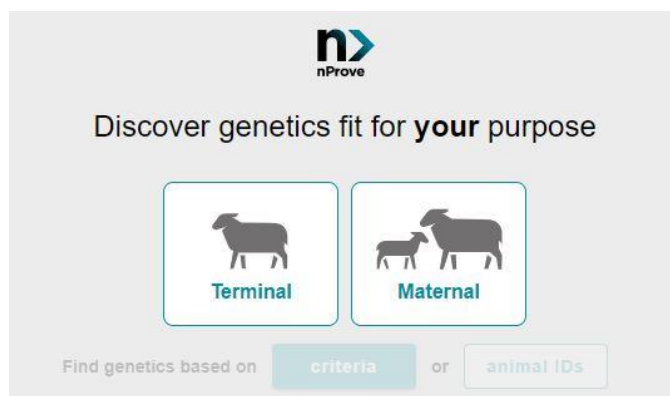
Performance Recording Updates

The nProve Public website is up and running. This is viewable at [nProve.nz](https://nprove.nz). Individual animals can be either searched using trait criteria selection or individual animal I.D. Individual animal pedigrees and progeny can be seen along with their progeny. Only data from flocks that are fully connected to the industry and are benchmarked for the criteria that they are measuring will have visible rankings. Note some SIL recorded Texel flocks that may not be visible on nProve.

For those that aren't familiar with using nProve, a short video can be watched [here](#).

An nProve Breeder Portal is also available where breeders can log in to view their own flocks, download their own reports and selection lists. Contact your SIL Bureau Administrator to find out more information and get your own Breeder Account Login, or alternatively follow the link [here](#).

In July 2022, Beef and Lamb New Zealand Genetics ran a series of RoadShows around the Country, updating breeders on nProve website improvements, genomics and updated breeding values. The recording of the Gore Roadshow Event can be viewed on this [link](#).



Performance Recording - Texel Across Flock Analysis (TAF)

The Texel Across Flock Analysis was developed in 1994 and involves a group of progressive Texel breeders collaborating to:

- maximise the accuracy of their individual flock performance recording by combining their data in an across flock analysis for use in all their breeding decisions.
- identify sources of rams that will lift the genetic merit of individual member flocks; and present breeders and commercial producers with a gene pool of Texel animals that will lift the genetic merit of purebred and crossbred flocks farmed in terminal sire or dual purpose/maternal production systems.

What are the benefits of being a Texel Across Flock Member?

By using connected sires, the TAF group is a collective - effectively one big stud spread across the country. This gives you access to all the members' data and then reported on. Therefore, if you are chasing a particular trait or traits, you have the information there and you can achieve your breeding goals quicker. The TAF report can be flexible within the confines of SIL, adapted to what the members want (for example, the information collected by breeders can go into TAF, but not reported on).

Any new (or old) Members who are not on Sheep Improvement Limited (SIL) or TAF and would like to be please contact Roger Weber. Roger can get you started with what data you need to collect, put you in contact with a bureau to facilitate your data collection and an eye muscle scanner in your area.

Connectedness is important when interpreting SIL and TAF results and comparing one animal's performance in one flock to another animal in a different flock. Roger can help to organise the loan of a well-connected link sire to get you going in the right direction. The aim is to get all registered breeders on TAF, the more members, the more complete and robust our data is. Having more members, also gives the Texel breed a higher profile with Beef and Lamb Genetics.

For any more information, questions or queries please contact Roger Weber **Phone:** 06-374-5229 **Email:** rogweber@hotmail.com

Further information on SIL can be found on the website <https://www.sil.co.nz>. Information on SIL recording bureaus can be found at <https://www.sil.co.nz/about/bureaus>.

Microphthalmia Update

A reminder that all rams single entered must either be tested clear of microphthalmia either before or during the year they are single entered or to come from a Microphthalmia Clear (MC) flock. It is far easier (and a cheaper exercise) to test the ram before mating starts rather than testing all the progeny and culling carriers.

Breeders are encouraged to have their ewes tested and have their flock accredited as Microphthalmia Clear (MC). The genetic defect causing Microphthalmia may still be sitting in the background of some flocks. Establishing a MC flock will ensure that all your progeny and rams sold onto clients are free from this defect.

Gene tests for the presence of Microphthalmia carriers can be carried out at Lincoln University, GenomNZ (AgResearch) and Zoetis.



LINCOLN

Lincoln University are still offering Registered Texel Breeders a discounted price of \$15 (Excl. GST) per sample plus \$5+GST for additional tests (e.g., T+ Muscling, Footrot and Cold Tolerance.). For more information contact Lincoln Gene Marker Laboratory. <https://research.lincoln.ac.nz/testing-analytical-services/gene-marker-lab>

GENOMNZ

Price \$26+GST. Tissue sample required. TESTS INCLUDE Microphthalmia, GDF8 (Muscling), GDF9 (Fertility), Yellow Fat, Booroola (Fertility) and Inverdale (Fertility – where two copies in females are infertile). <https://www.agresearch.co.nz/genomnz/sheep-genotyping/>

ZOETIS

Individual Gene tests plus DNA - Shephard 5K, Shepherd 50k, Shepherd Plus and Shepherd Complete. POA <https://genetics.zoetis.com/newzealand/products/sheep/sheep-gene-test.aspx>

For any further questions or information regarding Microphthalmia testing, rules, or the Microphthalmia Accreditation (MC) scheme, please contact; Alistair McLeod on **Mobile:** 0274 545 686 or **Email:** egilshay@xtra.co.nz

Texel New Zealand Annual Newsletter

Is produced in the Autumn each year by Members and Breeders of Texel New Zealand

While every effort is made to ensure accuracy of the information contained in this Newsletter, no responsibility can be accepted by Texel NZ for any errors or any reliance on the use of information by readers.

For further information contact Texel New Zealand C/- New Zealand Sheep Breeders Association, <https://nzsheep.co.nz/>
Phone: +64 (3) 3589412

Annual Returns

Annual returns have been sent out from New Zealand Sheepbreeders Association and are to be returned by 31st May 2023. This year you can do your annual returns online.

The Texel Breed Levy is reduced to \$120 for those returned by 31st May 2023.

Completing the number of rams sold also allows a comparison to be made from one year to the next.

Remember to send in all Brucella ovis certificates and appropriate genetic testing certificates.

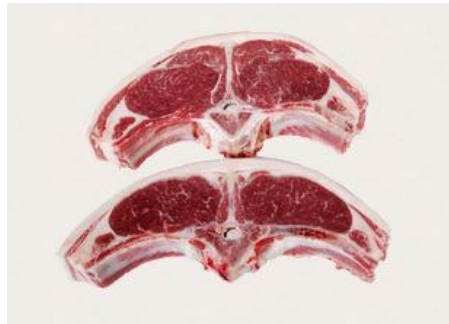
NZSBA Representative

Paul Gardner has been re-elected to represent Texel NZ on the New Zealand Sheepbreeders Council.

Texels and Meat-Eating Quality

Garry Latta, Redwood Texels, Fairlie, South Canterbury.

For the ten or so years that the Canterbury A & P Association "Mint Lamb" competition was sponsored by Alliance, it was won by a Texel lamb four or five times. In the 2021 "Mint Lamb" competition sponsored by South Pacific Meats, Class 1 (14.6-20.5 kgs) was won by a Texel/Romney lamb; and in Class 3 (Ram Breeders) Texel lambs were placed 1st, 2nd, and 4th.



Each lamb has an optimum slaughter weight. The optimum slaughter weight is related to the level of maturity of the lamb, which is related to the mature weight of the sheep.

I have spent the last ten years CT scanning my Texel ram lambs to measure carcass composition. A carcass consists of meat (lean), fat and bone. Change the proportion of one and the other two change in the

opposite direction. The CT Fat component is the subcutaneous and intermuscular fat.

Texels have the ability to grow to larger liveweights whilst depositing less fat on the carcass. Texels have a higher lean: fat ratio in lambs. At the same carcass weight Texels are leaner, have less fat and have a higher market value. So Texels produce optimum lambs for today's grading specifications and any system paying on yield. At present we are paid for carcass weight, adjusted for GR. Using GR as a measure of maturity, carcass value increases from low GR to an optimum and declines at higher GR. The advantage of moderate fat levels, is guaranteed acceptable levels of intramuscular fat.

Perhaps it is time to select for optimum fat rather than minimum fat? But maybe GR isn't the best measure of maturity and what we need to look at is muscle maturity? The reason carcass value increases as GR increases is because muscles are maturing as well and are still growing (particularly in the high value cuts) when GR is supposed to be limiting lean meat yield.

For meat-eating quality to be maximised the amount of intramuscular needs to be considered. This is influenced by lamb growth rate, target slaughter weight and management.

For the last seven years I have been assessing the intramuscular fat in the carcass from the loin image of the CT scan, independently of CT fat.

I have been told the average intramuscular content in NZ lamb loin is 2.6%. My Texel ram lambs consistently average above 3.0% for IMF. The range of liveweight at CT scanning has been 42-60kgs, with a corresponding IMF range of 3.1-3.8%. These figures are averages.

You might say that is all very well, but how does that translate to farm productivity? I mate my Texel rams to Romney ewes. For the 2021-2022 season my Texel/Romney lambs averaged 18.0kgs with an average yield of 56.5%. 95% of the carcasses qualified for a yield payment and 92% of the carcasses qualified for the "hand-picked" premium. I will let you do the sums.

The conclusion I have come to for assessing lambs for carcass composition is do it at your target slaughter weight, it is the most relevant because lambs need to be at their optimum (muscle) maturity at that weight.

This is my opinion and in no way reflects the thoughts on the subject of other Texel breeders.



Autumn Sunshine, Waikaka Station Southland. Source Sharon Paterson

Ram Fairs and Sales

The Canterbury A & P Elite Ram and Ewe Sale held on 25th November 2022 kicked off the ram selling season for 2020 - 2023 with 8 Texel rams catalogued. Four rams being sold under the hammer at an average of \$1200, the top price going to Maple 21296/21, an imported U.K. embryo son of Handbank Aiden.

A lack of entries and general interest from all breeds saw the cancellation of the Feilding Ram Fair. This meant that there was no public auction available in the North Island for Stud Rams, with on-farm sales through BIDR and private sales being the only means for these breeders to pick up Stud rams, (unless they travel further south). While the entries in the last few years for the Texel breed at Feilding is relatively small, it is still important for those North Island Breeders to be able to connect with each other - particularly with the recently registered new breeders.



Blackdale 7/21, Sold to Hemingford Stud and Meba Texel Stud



Cromarty 79/21, Sold to Glenvale Stud

The Southern Texel Breeders and Gore A&P Ram Fair was held in Gore on the 17th of January 2023. While a smaller catalogue of rams was presented this year, they were in hot demand, with all rams including those in the Gore Sale going to new owners. The buoyant sale saw the top price going to Blackdale Stud, selling Blackdale 7/21 to Hemingford Stud and Meba Texel Stud. Next highest price went to Cromarty Stud selling Cromarty 79/21 at \$9200 to Glenvale Stud and the third highest price from the Waikaka Texel Stud selling Waikaka 2046/21 for \$5200 to Brenley Stud. In contrast to some of the previous year's sales, several other Stud transfers were noted at the sale, which is pleasing to see, as so often we see good quality stud fair rams get moved onto commercial breeds or studs outside the breed for crossbreeding use.



Leon and Wendy Black, Blackdale stud with Blackdale 7/21. Top Priced Ram 2023 Southern Texel Breeders Sale, Gore 2023

Source Sharon Paterson

On farm auctions have had good clearances, however ram sales up and down the country have reportedly been somewhat patchy, a reflection of the changing farming industry and further reduction in sheep numbers perhaps?

Purebred Genetics

Preserving genetic diversity and avoiding genetic bottlenecks

Heather Busby BVSc. (Dist.) Cert EM (Int. Med.)

The genetics of domesticated sheep have a long history, going back over 10,000 years. Until the mid-18th Century, random type breeding occurred. The concept of selective breeding was developed by Robert Bakewell, an agriculturalist, who during the 1740s, revolutionised sheep, cattle, and horse breeding in England by methodical selection, inbreeding and culling. Unlike his contemporaries, he separated his male and female livestock to prevent random breeding and developed an "in-and-in" method, in which desirable traits were exaggerated by inbreeding, while individuals with undesirable traits were culled and removed from the breeding population.

Robert Bakewell's breeding programme of sheep improvement in the 1740s culminated in the development of the 'New Leicester', or 'Dishley Leicester', a faster maturing, blocky animal with much better gains for meat, yielding 'at least cost and in the shortest possible time, the largest weight of meat' which was ready for sale as mutton a year earlier than any other breed. At that time, some sheep took 3-4 years to grow before being ready for the butcher. In turn, the 'Dishley Leicester' had a superior ability to create excellent crossbreds and improve sheep stock overall, a term we now refer to as 'Hybrid Vigour'. The 'New Leicester' and its descendants were used locally and abroad, crossed over a number of breeds. Many of the white faced, woolled sheep breeds that we farm today are genetically related through the 'Dishley Leicester', including the Border Leicester, the Romney and even the Texel.

Strictly speaking, all animals within a breed are related (as the process of developing and maintaining a breed is through the selective breeding of individual animals of a desired type). Thereby producing a preferred homogeneous appearance (phenotype), behaviour and/or characteristics that will distinguish it from other breeds. This may include coat colour, facial features, or extreme carcass conformation. As a result, the frequency of similar genes in that population giving a breed its character increases.

Inbreeding is essentially the mating of individuals that are genetically related or have shared ancestors. So, in a sense every purebred sheep producer practices some degree of inbreeding - but in most cases this relationship is slight. Inbreeding is more practically defined as the mating of close individuals more closely related than the average of the breed. This practice includes mating brother to sister, sire to daughter and son to dam. Linebreeding involves mating more-distantly related animals (e.g., cousins, half-brother to half-sister, uncles to niece). Linebreeding is used by some breeders to create 'prepotent' breeding lines that uniformly stamp their characteristics on their progeny,

and while it can be used to establish desirable traits within a family or flock, it is a form of inbreeding and the offspring should be monitored for any undesirable characteristics.

Genetic Consequences of inbreeding

The basic genetic consequence of inbreeding is to promote what is technically known as homozygosity. This means there is an increase in the frequency of pairing of similar genes. Accompanying this increase, there must be a decrease of the pairing of dissimilar genes. This is called a decrease in heterozygosity. These simultaneous events are the underlying reasons for the general effects on performance we observe with inbreeding. While the increase in homozygosity is desirable (and inbreeding is good *if* the genes the individual receives from each parent leads to superior performance), most individuals also carry undesirable recessive genes - that remain hidden until the animal is born with a pair of them. Inbreeding brings to light these undesirable genes and can increase the frequency of observed genetic abnormalities in a population, as these recessive genes are brought together and expressed. The recessive genes that cause microphthalmia, spider syndrome and dermatosparaxis are examples of such deleterious genes. Other such genes (footrot resistance, wool colouring traits, natural disease resistance) etc may also be hidden as recessive genes and carried heterozygously in the parents, to be expressed in the offspring when they are homozygously paired.



A balance should be maintained between selecting animals to optimise rates of genetic gain and minimise levels of inbreeding. To make the fastest genetic progress in any particular attribute, flocks should breed from the rams and ewes with the highest genetic merit in the population. With the introduction of eBVs, this may mean that animals with the highest eBVs have the possibility of being genetically related. Unfortunately, if this approach is taken to an extreme, and superior ancestors are used extensively, it could quickly result in an increase in the level of inbreeding within the flock and ultimately a drop in performance. Modern livestock breeding programmes can

be susceptible to increases in inbreeding due to the widespread use of artificial insemination and embryo transfer and a fast generation turnover. As with artificial insemination, sharing sires to link flocks can also result in common ancestors showing up in different flocks, and unless breeders look deeper into the pedigree of the proposed line-bred mating, they may not observe additional common ancestors, resulting in a planned mating being far closer than originally assumed.

So How Can Inbreeding be measured?

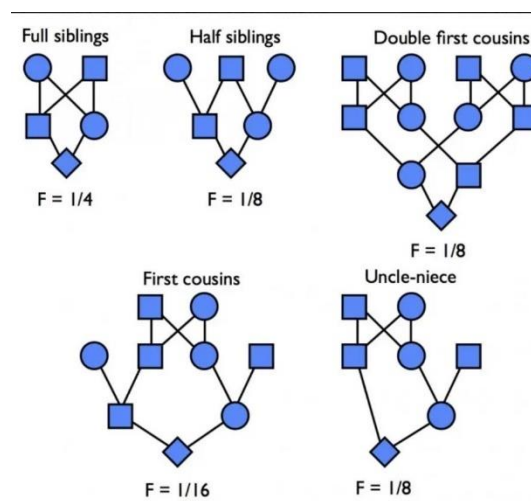
An individual animal's level of inbreeding can be reported as a percentage, based on the relatedness of an individual's pedigree. It is commonly presented as an inbreeding coefficient ('F' value). A minimum of five generations are required to give confidence in a calculated inbreeding coefficient. Examples of percentage inbreeding values for different matings are presented in Table 1 (source British Texel Society). Several breed societies around the world have adopted the use of inbreeding coefficients ('F' Value) to help breeders manage inbreeding levels in their animals, including Kennel Societies, the dairy industry (L.I.C.) and the sheep industry (British Texel Society). The British Texel Society has a calculated 'F' value for all of its recorded animals and has this displayed on their pedigree database www.itexel.uk. There are several online programs available that can calculate the inbreeding coefficient of an intended mating, where pedigree data is imputed. Generally, this recommends a full 5 generation pedigree (or 32 ancestors) to give accurate data.

Relationship Inbreeding	Coefficient (F)
Father x daughter or mother x son	25.0 % (1/4)
Brother x sister	25.0 % (1/4)
Grandfather x granddaughter or grandmother x grandson	12.5 % (1/8)
Half-brother x half-sister	12.5 % (1/8)
Great-grandfather x great-granddaughter or great-grandmother x great-grandson	6.25 % (1/16)
Half-uncle x niece or half-aunt x nephew	6.25 % (1/16)
First cousins	6.25 % (1/16)

Table 1: Example of inbreeding coefficient (F) from proposed close mating.

In general, the lower the level of inbreeding the better. The British Texel Society recommends a threshold value of 7% to be an acceptable level of inbreeding within a breeding programme. It could be argued that any animal is only one mating away from being outbred, and crossing two linebred

animals that are genetically unrelated can rapidly lower the 'F' value.



Effects of Inbreeding on a Flock

Inbreeding may have a role in a breeding programme, if your aim is to bring a number of favourable genes together and breed a single superior animal - but accepting high levels of wastage would have to be part of the programme. As most flocks aim to improve the average performance of the whole flock, the economic benefits of close inbreeding are more questionable. Inbreeding also tends to increase the number of recessive or deleterious genes being expressed - leading to a reduction in reproductive fitness, productivity, and longevity. This is referred to as "inbreeding depression".

Inbreeding depression is the reduced biological fitness or the ability for a population's ability to survive and reproduce. Inbreeding depression is often the result of a population or genetic bottleneck. In general, the higher the genetic variation or gene pool within a population, the less likely it is to suffer from inbreeding depression. However, breeding animals of extreme phenotypes may also result in a phenomenon known as "outbreeding depression", where the genetic fitness of the offspring are less fit than the parental form. An example of the selection in one population where a large body size is favoured, whereas in another population small body size might be more advantageous. The resulting individuals may be of intermediate body size, which are comparatively disadvantaged in both populations.

EXAMPLE IMPACT OF INBREEDING

The impact of inbreeding can be observed in this study of a Hampshire Down flock in the USA. The negative impact of lamb inbreeding on the weight of lamb weaned/ewe exposed was attributed as follows: 11% to its effect on fertility, 6% to its effect on prolificacy, 80% to its effect on survival and 3% to its effect on 90 day weaning weight.

Studies in other sheep breeds have demonstrated that as inbreeding increases ewe breeding weights and fertility are reduced and lamb birth and weaning weights are lower.

	Change for every 1% increase in inbreeding in the lamb
Survival to 7 days	-1.1%
Survival to 90 days	-1.3%
Lamb weaning weight	-0.59kg
	Change for every 1% increase inbreeding in the ewe
Ewe Weight	-0.27kg
Fertility	-1.2%

Table 2 Example of the inbreeding effect on Survival, lamb weaning weight and Ewe Fertility in a Hampshire Downs Flock.

So what was to happen to the 'Dishley Leicester'? Like any linebred animal, The 'Dishley Leicester suffered inbreeding depression, including a low fecundity rate - where it was rare for more than a third of the breed's ewes to give birth to twins, and triplets were almost unknown. The situation did improve, but the New Leicesters remained less prolific than other breeds. This was a serious drawback to graziers who depended on rearing lambs for sale. Inbreeding also caused other defects. The breed was considered 'delicate and unhealthy', and unable to bear exposure to poor weather conditions, and while it matured early, comments were that the meat had a tainted taste and was fatty. Eventually, the breed was superseded by the down breeds (Southdown, Suffolk, Oxford Down) with superior meat producing qualities and by its own outcrosses which possessed superior wool qualities, better fertility and leaner meat.

Resources:

<http://texel.uk/wp-content/uploads/2017/07/Managing-Inbreeding-within-Sheep-Breeding-Programmes.pdf>

Norberg, E, Sorensen, A.C., Inbreeding trend and inbreeding depression in the Danish populations of Texel, Shropshire, and Oxford Down, J Anim Sci 2007 Feb;85(2):299-304

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Globetrotting – Texels Around the World

United Kingdom

The British Texel Sheep Society continues to lead the way with Research and Development in the Texel Breed. The Smarter Sheep Farming Conference, organised in conjunction with SRUC, The University of Edinburgh and Abacus Bio was held in Edinburgh on 7th December 2022.



Research by the Texel Sheep Society into establishing genomic markers in Texels for Mastitis and Footrot was extended out to determine if including genomic information improves breeding values for production and health traits. Using information from over 6,000 animals (from which genotypic and phenotypic data had been collected), researchers determined that the heritability of footrot scores (on a scale of 1-4 per foot was 0.12, while the heritability of using the California Milk Test (CMT) as a proxy trait for mastitis was 0.07. Heritability is a measure of how well differences in genes account for differences in particular traits close to zero indicates that almost all the variability in a trait is due to environmental factors, with very little influence from genes. Estimated breeding values were determined for each animal with and without genomic information. It was concluded that including genomic information in animals that don't have phenotypic data does improve EBV accuracy, hence their estimated breeding values will be closer to the real breeding values. More Information on specific presentations can be viewed at [Smarter Sheep Conference 2022](#)

Australia

Youth Members of the Australian Texel Association joined youth breeders from other breed societies at the 2023 SA Sheep Expo. Inspired by the highly successful SA Junior Heifer Expo, the SA Sheep Expo provided an education forum for young sheep enthusiasts aged 12 to 23 years and enabled them to build their knowledge and identify pathways to further careers in areas of the sheep industry.



The 2023 Expo was packed full of great things to inspire young breeders, with an interactive 3-day program prepared by the SA Sheep Expo Committee. The program included hands-on sessions, demonstrations and presentations from leading industry experts. Each year a focus is given to a key topic of the industry, be it ewes, rams, or lambs, with technologies incorporated into each years theme. Both wool and meat facets of the sheep industry are the represented in the program, with a range of sessions delivered by reputable industry specialists. Sheep Expo 2023 focused on the ram and included learning key elements about Shearing Shed Designs, Ram Selection and Assessment, Sheep handling and presentation for the show ring, Pre-Mating Ram Check, Learning how to take the perfect photo of a ram for promotions and Team building challenges.

The Origin and Development of The Texel

A Small Island Sheep that Muscled its way to Bigger Things.

The Texel sheep breed originated on the Island of Texel, the largest and most populated of the Frisian Islands in the Wadden Sea. Also known as the Wadden Islands, they form an archipelago at the eastern edge of the North Sea in North-western Europe, stretching from the northwest of the Netherlands through to Germany to the west of Denmark. Historically part of the mainland, the Islands were created during the 'All Saints' flood of 1170 and today Texel (pronounced 'Tessel' in Dutch) forms the largest natural barrier between the North Sea and the Wadden Sea. The harsh and sometimes inhospitable climate along with the geography of the Island of Texel have helped these sheep evolve to express the very traits that we still see in the Texel breed today.

Spanning an area of 169.82 square kilometres, (similar in area to that of Lake Pukaki), there are more sheep than people on the Island of Texel. The island consists of mineral poor sand dunes on the north and western side, protecting the mainland from the often-inhospitable North Sea. Fertile 'polder' or reclaimed river and ocean soil on the southern and eastern side of the Island is low lying and (like mainland Netherlands), requires drainage and the construction of dikes to allow it to be farmed. A glacial shaped clay nob de 'Hoge Berg' at 15 metres above sea level and a sand dune 'Bertunsol' at 19.6m are the highest parts of the Island.



Traditional Sheep shed (schapeboeten) on the Island of Texel. Built to withstand the fierce westerly winds.

The Texel sheep breed stems from the 'Pielsteert', also called the small Texel short-tail sheep (or 'pin-tail' sheep). It is a descendent of the Northern European Short Tailed sheep, a group of smaller framed, wiry sheep with a characteristic short "flake-shaped" tail and the face, head and legs free of wool. Thought to have been brought to Europe by early farmers over 8000 years previously, breeds descending from the Northern European Short Tailed sheep were known to be hardy, and extremely robust. Adapted to grazing in taxing environments on rough vegetation, in wet and cool climates they often preferred to browse trees and shrubs rather than grazing shorter vegetation. While the exact origin of the Texel Sheep is not known, genomic

analysis has discovered genetic evidence of a historical link between the ancestral sheep on Texel, the Herdwick (an ancestor of the Cheviot) and the Rough Fell. Cumbrian folklore speaks of connections between the Herdwicks and Viking settlers and there is historical evidence of Viking raiders and traders in the Wadden Islands and adjacent Coastal areas and around the coast of Northern England and Scotland.



The primitive 'Pielsteert' (or small Short-tailed) sheep on the Island of Texel

Sheep have been present on the Island of Texel for many centuries, with writings from 1477 showing that there were already many sheep on Texel at that time. While they were farmed on the more fertile fields and polder areas, the Texel sheep were commonly found on poor soils, where little edible food grew, such as in the dunes, on dikes and in meadows that were not heavily fertilised. Over many centuries, the sheep evolved and adapted to the conditions, including improved intestinal absorption of copper, and ability to survive and do well despite poor nutrition. Because these grasslands dried out easily in summer, they were better suited for sheep than for dairy cattle. Texels were kept by the islanders for their wool, manure, and milk, which was made into cheese.

Texel's cheese had been known throughout Europe, and in 1567 the Italian traveller Ludovico Guicciardini wrote that the islanders of Texel 'make cheeses... of a particularly delicate taste, which no other cheese, not even the Parmesan, can be compared with.' In early times, both 'white' and 'green' cheeses were made. A curious habit of putting a bag of sheep droppings in the cheese tub during soaking was prohibited by the Inspection Service of Waren at the end of the 19th century. Folk talk of the perfect

recipe, with the droppings needing to be right to deliver the correct degree of spiciness of the real traditional Texel cheese. “Not too hard and black, not too soft and green, but something in between, and one must with a cheesecloth get behind the right sheep, and run up to catch those droppings, ensuring that the extract is not left in for too long or too short”.



Painted around 1615 by Floris van Dyck's Cheeses – Texel on top—the dark green cheese on top, almost black, is a sheep cheese from Texel.

Until 1860, the ‘Pielsteert sheep’ were described as a short and round ribbed animal with a well-developed hindquarters and fine legs. The short, broad and white head had a flat and thick nose and a short wool top and short neck. This unhorned sheep was a sober breed with good wool but moderately muscled. Meat was an important product, and the sheep farming system was simple and fully adapted to the natural conditions, where lambs are weaned from 8 to 10 weeks old. After weaning the ewes were milked for a number of weeks. The ewes were not very fertile, and farmers practised selecting against twins. If twins were born, one was killed, and the ewe sold due to high maintenance costs. The slaughter quality was good, but the animals were late for slaughter so that the animals could only be slaughtered at the age of 1½ years.

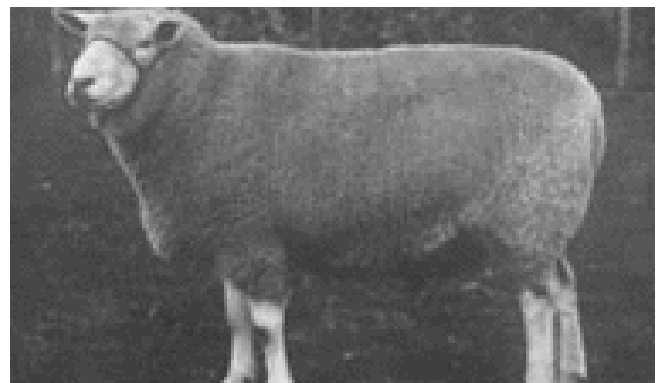
While some lambs were grazed locally, many lambs were sold to the sheep farmers on the richer pastures of mainland North Holland to be fattened. Ewes were often sold to the mainland to replenish the sheep flocks that were decimated following severe fluke infestations. This system was used for centuries.

Sheep breeding on the island of Texel has occupied a special place for hundreds of years. During the late 18th and mid-19th century, it was home to some 35,000 sheep that were kept by about 300 farmers. The importance of sheep breeding on the Island of Texel became realised and the management of the island took its responsibility towards the income of the sheep farmers, employing an inspector to promote the purity of the breed and give premiums to the best rams. Import restrictions were imposed between 1786 and 1846 to prevent the importation of parasites and diseases, after a quarter of the sheep herd perished with liver fluke.



The 'Improved Texelaar' Ram c.1908

Their relative isolation on the Island of Texel did not prevent the sheep farmers from experimenting with different breeds. The European Merino craze of the early nineteenth century to produce finer wool for clothing did not leave them unaffected, but, as in many other places, these highly demanding sheep did not prosper on the island. As fine wool from Australia and South America began to dominate the market, and sheep manure became less valuable due to the introduction of artificial fertiliser, sheep numbers on the moorlands dropped. However, the demand for lean meat in England increased and farmers set about developing a breed that could be exported to the United Kingdom.

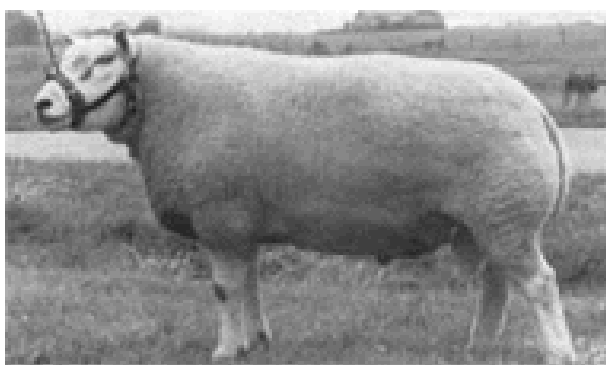


Improved Texelaar Sheep c. 1910, less focus on muscle and more on meat and growth.

In the mid-19th century, following the lead of Alexander Numan, the ‘Pielsteert sheep’ were crossed with various English sheep such as the Lincoln longwool, Leicester longwool (Dishley Leicester) and Wensleydale sheep. The first crosses on the island of Texel took place in 1846 with Leicester rams and was successful, but further breeding with these rams had negative effects. Attempts were made to cross a number of breeds, but because every long wool breed had its favourites, in 1907 an evaluation was performed. The conclusion was that no cross was superior (probably due to the fact that the breeders paid more attention to the qualities of the breed than to the individual qualities of the used rams). Their experience was that attempts at further breeding with these varieties were very

disappointing. The breeders from Texel pursued and brought countless rams from England to 'breed' their own breed and focusing on 'purity' and established an animal that grew larger and was meatier. In addition, the fertility of the breed was very important: more lambs automatically meant more meat. After several years of rigorous selection, crossing, trying and discussing, a new large prolific and well muscle sheep was presented: 'The improved Texelaar'

1909 saw the formation of the first Texel breed society in North Holland which brought more structure to breeding and crossing stopped. About 15 different crosses were recognised in the breeding administration at the start of the Texel Stud book. In 1911, breed characteristics were established. Their breeding goal was the breeding of lambs and sheep which are very suitable were to turn grass into meat and ewes that produce strong lambs and rear them well.



The emphasis was on a sheep that would produce heavily muscled lambs of superior eating quality and less on quality of wool. Since the primary market for these lambs was Continental Europe where excess fat on meat cuts has always been unpopular, significant effort was also made to produce a sheep that had a low propensity for fat deposition. This is a trend that has continued throughout the twentieth century, leading to the current Texelaar. After 1960, breeding was mainly based on the musculature and the meat/bone ratio, which has given the Texel breed its current world fame. Called the 'Texelaar' in the Netherlands, or Texel abroad, there is also the 'Beltex', a Texel resident, who went to England via Belgium. During the twentieth century, the Texel of sheep became increasingly popular both within and outside the country's borders.

Around 1933, the Texel was introduced to France and has since become established, particularly in the Northern provinces. In 1970, the first Texels were introduced to the United Kingdom where it was quickly recognised for its superior carcass quality and lean meat yield. The Texel has established itself as the leading terminal sire in the United Kingdom. Over the course of a century, the 'Texelaar' has developed from an old local breed into an internationally renowned efficient producer of lean lamb, with exports to Denmark, Belgium and later also to America, Australia and New Zealand. In recent years, exports also have taken place to countries such as Italy, Portugal, Russia, Northern Ireland, Germany and Brazil and the USA.

The type and shape of the Texelaar has changed over the years and at the end of last century its popularity in The Netherlands was somewhat waning. On the Island of Texel, breeders of The Texelaar have recognised the negative effect that selection of small, tucked-up well-muscled sheep by pedigree breeders has had on longevity, growth capacity and birth problems. Functionality and durability are gaining weight in breeding programs and breeding values for fertility and growth are being used. Growth rates of the Texelaar over the past 70 years has declined - where in 1944, at six-month-old ram lambs weighed an average of 58kg, now that average is 48kg. The breeding policy of lean meat that was pursued has led to a decline in slaughter quality, in particular with regard to the meat/fat ratio. Conflict in the area during the Second World War led to a decline in the production of Texel Artisan cheese production. The focus on meat production also led to a reduction in milk yield in the Texel ewe.



Modern Day Dutch Texel – the emphasis on muscle to bone ratio has created a smaller, blockier animal, with reduced functionality

Breeders have recognised these traits and have outcrossed their Texels with more functional animals from other countries. Infusion of the Friesian Milk sheep has helped bring back over five centuries of tradition and commenced milking sheep. Today the Texel Sheep is celebrated on the Island as it has been done for many centuries. The high bulk wool is manufactured into duvets, lamb is sold in many farm shops and restaurants and the milk turned into many dairy products and cosmetics including soaps and hand creams. Of course the long standing tradition remains with farmers re-establishing the production of Texelse Schapenkaas (or Texel Cheese) but this time only the 'white' kind.

Information compiled by Heather Busby

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Regional Round-up – What's been happening around the Clubs?

Northern roundup: North Island Club

Gavin Deadman – Seneschal Texel Stud, Pukekohe, North Waikato



Seneschal Triplet Lambs

Photo Credit to: Gavin Deadman

The Northern show season is a small affair compared with some of the southern clubs, probably it would be fair to say Covid has made the show circuit more condensed and harder for the clubs to gain traction. Also, the older generation are slowly retiring and perhaps there are less younger breeders interested in showing sheep? I attended the Waikato show which is the last weekend of October/first weekend of November each year. This is a 2-day show and I did quite well with a Texel ram hogget, winning best texel and then Reserve Champion meat breed with the same ram. Sarah Catherwood (Northern Dawn Texels) also entered some Texels which made the show more interesting. The Waikato crew put on a great show in a really nice venue and we were all well looked after for the two days. The only other show I entered was the Whangarei show in December and I was very pleased to get the Supreme Champion Sheep of the show with another nice ram hogget.

I attended a Texel field day in early December in Matamata, organised by Rob Forsyth. Facial eczema work within the Texel breed was discussed at length (amongst other subjects) and I came away with lots of good information and several new ideas to ponder over going forwards. Thanks again to Rob and Roger for the day and all the info.

Well, I'm sure everyone is bored with talking about the weather, however the weather has such a huge influence on farming operations and this summer has certainly been no exception, so here is a northern perspective on this

season. This summer has been hands down the opposite of the last few years. January began cooler and wetter than normal, then we had torrential rain which especially affected north Auckland and East Coast areas. Massive slips on most hill country farms taking out fences and water lines, not to mention chewing up pasture. The upside to this was brilliant grass growth and a greener summer than we've seen for years. Then cyclone Gabrielle came though, a lot of the areas were already sodden so I don't need to say the effect that had especially on the East Coast and Napier areas of the North Island. Our thoughts went out to all affected. Where I am (north Waikato) I got off lightly compared to other areas.

The wetter cooler summer continued, and this has meant the farm is really green and the sheep were all in far better condition going to the rams than usual. Time will tell at scanning and lambing if they can have too much of a good thing! The lambs have also done well however there were some weeks over the summer that were ripe for flystrike and also optimum conditions for intestinal worms- especially barbers pole worm which can be quite insidious and come on very suddenly. Often the first sign of barber's pole burdens is a dead lamb! Prompt action with a moxidectin drench generally gets the problem under control but barbers' pole is one of the most prolific breeders so must be kept on top of.

Another upside of the unusually cooler/wetter summer



Seneschal Texel Hoggets

Photo Credit to: Gavin Deadman

conditions has been the apparent almost non-existent facial eczema season where I am, which is a huge weight off the shoulders (and pockets). Usually over the mid/late summer I would be looking at preventative treatment which involves bolusing the sheep with a zinc bullet that gives slow-release zinc for 6 weeks- so over the summer they would usually need bolusing twice. Obviously, no preventative treatment is 100% effective and on a very bad year the bolusing even is not fool proof with some animals managing to cough up the bolus or the zinc amount not being adequate. Also, the sheep zinc boluses are around \$160 for a pack of 36, and I'm sure you can imagine it's a

rather physical and not an enjoyable job putting large capsules down the sheep's throat's, especially the smaller lambs.

Ram selling season appeared to start off very strongly but faded going into January. Perhaps ram buyers are keen to source their rams early and get the best pick on what is available rather than wait until the last minute and take whatever is still left around. From a commercial perspective the works price for lamb is a bit disappointing compared with last summer, however up this way the demand is strong for store lambs and will continue to

strengthen with a lot of maize contractors now fattening winter lambs on annual ryegrass that is planted in between the maize seasons. They have had a few very profitable years with winter lamb fattening so it will be interesting to see if this continues this year as well.

Hoping everyone has had a good season overall despite the ups and downs, and best of luck with the winter and before we know it lambing season will be on us.



Seneschal Stud Texel Ewes

Photo Credit to: Gavin Deadman

Canterbury Texel Breeders Club

Kate Boyd – Mayfair Texel Stud, Hawarden, North Canterbury

Reflecting on the 12 months to date, there has certainly been plenty of activity in our patch. The season has been varied and one out of the box for breeders, particularly north of Christchurch - unseasonably wet! The weather conditions have brought a whole host of challenges to manage, namely fly, feet, worms and dags, together with managing the surplus of feed that we're just not used to at this time of year. Breeders further south, however, have had the opposite and while not a record drought that some will recall from recent years, also not the easiest season to manage with welcome rain often missing some of our breeders by a hair.

Our Club members have had several occasions to meet and compare animals which has been rare up until now thanks to Covid and we've enjoyed being able to get together. We saw healthy entries at the NZ Agricultural Show in November, with special mention and our thanks to Leon Black who made the long trip to fulfil Judge duties. Interbreed support and friendship was clearly evident when Covid impacted one of our exhibitors who was unable to attend. Her sheep still made the trip thanks to a trailer going spare with some Suffolk breeders heading to the show. They offered to take the sheep on behalf of and not wanting to see the opportunity to finally see some exhibiting action missed, our breeder took up their offer willingly and their efforts weren't wasted, being awarded Reserve Champion Texel Ewe.



Ram Hoggets awaiting Judging at the NZAG Show

Congratulations to all our exhibitors who took the time to present sheep at the Show and thank you for your help over the three days. This is an important event on our calendar and with everyone doing their bit, it certainly reduces the chaos and makes things run a lot easier.

The long-awaited return of the Canterbury Ewe Hogget Performance Class was welcomed by the Club and our gratitude to Hamish Cottle who is the driving force behind the success of this competition. Hamish and Angela have taken responsibility for not only the grazing of the 16 ewe hoggets involved, but several trips have been made already to transport the sheep to the Hawarden Show, CT scanning at Lincoln and to Lincoln again to be assessed as part of the Autumn Conference. The 16 ewe hoggets have run together since late January and are assessed/ranked on performance traits at different points throughout the year, before the culmination of the competition at the NZ

Agricultural Show in Christchurch, where the winners will be announced.



Canterbury Texel Breeders Club displaying their Ewe Hoggets at the 2023 Conference, discussing CT scan Data

In March we had the Hawarden A & P Show where the Texel was a feature breed. We had 56 animals entered, which was the biggest section on the day and all those who exhibited, with the exception of one, travelled from south of Christchurch to attend. Huge thanks to Alistair McLeod

for travelling up to judge for us and to those that supported this feature show, it was much appreciated and awesome for the breed to get such good exposure at a renowned autumn show.



Mayfair Texel Stud Hoggets

Photo Credit to: Ben Doubleday Photography

Next on the calendar will be our AGM and we continue to track the progress of the 16 ewe hoggets running in South Canterbury. We've enjoyed the opportunity to welcome other breeders from across the country to our home patch this week for the Autumn Conference and our thanks to Garry Latta and the team that put such a good programme together for those able to attend. Thank you to Sam and Viki of 'Hemingford', and Sarah and Lil of 'Murray Downs' for hosting us and your efforts to have sheep available for us to cast our eye over. Your days are busy as it is and with the added workload to have sheep yarded, food prepared, sheds ready for the day, was no mean feat and much appreciated.



Mayfair Texel Stud Ewes

Photo Credit to: Ben Doubleday Photography

Otago Texel Breeders Club

Karen McLeod – Egilshay Texel Stud, Ranfurly, Central Otago

Otago Texel Breeders voted in a new Chairman at their December '21 meeting after a good number of years' service from Davey Graham. And then our November '22 meeting saw the nomination of Karen McLeod to Secretary/Treasurer, again, after a good few years of service by Christine Graham. A meeting and display of the owners' stock and possible Link Sires was held at McLeod's in Feb. 22 with discussion on Link sires, the Survey results and the direction of the Texel breed.

Over the past year there has been on-going discussion regarding the use of a Link sire within the Club. Two rams were offered up for this- Grasmere 565/15 and Golden Terrace 30/17 but there was limited interest in the general idea with some members finding the logistics & possible outcome not suitable or within their breeding objectives. However, in the end, Golden Terrace 30/17 who was included in the CPT trial, was used by Garry Latta, Aaron McCall and Graham Prime as a link-sire between those breeders.

Otago Club is actively working with clients to run success stories in farming publications, highlighting the benefits of Texel sires in their commercial operations. Members from different parts of Otago have articles under way, to promote Texels for early lambs to the works, more meat, survivability etc. with the idea that we all get the opportunity to highlight a client's success story and also a mention in a Club advertisement. We want to especially promote the idea of 'keeping it pure' by using a pure-bred Texel for best results.

The Club is in the position now where we have had no new members for some time. With 1 stud moving out of the area & another amalgamated with an existing stud in the past couple of years, the remaining 6 active Studs enjoy the support of some non-registered members.

Another main topic that was presented by a Club member for discussion, as a possible way of increasing visibility and promoting the breed to younger people, was the Waitaki Boys project. The idea was to approach the school regarding the setting up a functioning Texel stud on Fraser Farm, to be run by the school but supported by Otago Texel breeders and Lincoln University. It was moved that we would pass the idea over to the Breed Committee, in conjunction with John Bates from Lincoln, to formulate a plan. However, as you will have read, the proposal presented by Mr Bates was shown to be unsustainable for

our members and not entirely fitting for the school farm either. We have not thrown the idea away completely



Egilshay Texel Ewe Hoggets

Photo Credit to: Karen McLeod

though and the possibility of engaging with another rural Otago school is on the cards.



Egilshay Texel Ewes

Photo Credit to: Karen McLeod

Autumn in Otago has followed a very dry summer, particularly for the areas closer to Dunedin where the dry stretched into autumn as well. Good rains have since arrived and in general, feed is now abundant. Texels seem to do well whether in the dry or not though and most stock are in great condition as we work through the mating season.

Otago Club aims to meet twice a year but due to circumstances beyond our control we have not been able to meet since our Nov. 22 meeting although plans are afoot.

Southern Texel Breeders Club

Sharon Paterson – Waikaka Texels, Waikaka Northern Southland.

The Southern Texel Breeders held a Ram Hogget day at Mark and Tania Shallard's. This was well attended by breeders along with some excellent pens of sheep. Great to see new breeders Justin and Laura Davie displaying a selection of their rams as well. After the sheep were thoroughly looked over and discussed we had a shared meal at the house.



Texel Ram Hogget display at Mark and Tania Shallards, Kaweku

Photo Credit to Sharon Paterson

It's been an extremely dry summer in Southland after prolific growth at the end of December beginning of January which enable a lot of winter feed to be made. Those of us using texels benefited well from our early lambs. The Freezing Works have been slow killing due to staffing issues, but the Texels have hung on well continuing to gain weight during the dry. Texels tend to do better when the feed is a bit drier - a good marketing tool should our summers warm up. Fly seems to have been extensive in Southland this season with some farmers having to dip several times. The green fly is not particular where it drops its eggs, so the lambs, ewes and rams have been hit hard.



Blackdale Stud Texel Ram Hoggets, Southern Texel Breeders Ram Hogget Day
Photo Credit to Sharon Paterson

Ram sales have been strong with an exceptional Gore Sale 14 rams offered, 1 withdrawn and 13 sold. Congratulations go to Blackdale who sold a very good ram for \$15,500 to Hemmingford Stud and Meba Texel Stud. The next highest priced ram at the sale came from the Cromarty Stud selling for \$9200 to Glenvale Stud and the third highest price from the Waikaka Texel Stud selling for \$5200 to Brenley Stud. Great to see so many stud rams being sold at the sale.



Waikaka 2097/21, used this year in Stud.

Photo Credit to: Sharon Paterson

The Texel Breeds' Arrival in New Zealand

A breed that helped take New Zealand sheep farming to a new level.

Peter Black, Blackdale Stud, Riverton

The importation of Texels into New Zealand in 1980s have had a significant and lasting effect in enhancing the productivity of New Zealand sheep.

In the mid 1900 era, strong demand for crossbred wool and the supply of lightweight 12-13kg lamb carcasses to the British Smithfield Market led to the Romney and Southdown breeds having the dominant place for maternal and Terminal sire use. As market demands changed and lamb meat production displaced wool as an income earner it became evident that genetic selection for more faster growing and higher carcass quality lambs was most important.

Fear of introducing new diseases such as scrapie had discouraged importations. Suffolks brought in from Britain in 1950 developed scrapie resulting in 4,200 animals being slaughtered to eliminate the disease in 1952. In 1972 a shipment of several breeds from Britain was imported and farmed in quarantine near Rotorua. However, in 1978 scrapie again appeared so the whole importation and associated grade up animals were killed and incinerated and the farm planted in trees. Not until 1984 was a programme devised by NZ MAFTech to import washed embryos from Denmark and Finland of the Texel, Finnish Landrace and Oxford Down Breeds. These countries were chosen because they had efficient animal health monitoring and no history of scrapie or other slow viral disease. A team from NZ MAFTech set up a base in Denmark to collect embryos. Rams were hired and ewes bought in for flushing embryos. These were older stud ewes with around 5 lambings per ewe and good NLB percentage (about 170%). Around 500 embryos were collected, brought to New Zealand, and implanted in Coopworth ewes in a primary quarantine facility on Soames Island. This was done in two stages for lambs to be born in 1985 and 1986,

The plan was to take the lambs from Soames Island to secondary quarantine sites where further embryo transfer and AI programmes would expand numbers of purebreds and also commence a grade-up programme over brought in New Zealand ewes. Interest from a number of NZ sheep breeders, most of whom were already involved in group breeding schemes for Romney, Coopworth and Perendale, resulted in the formation in 1987 of a company "NZ Sheepac Ltd". This was a joint venture partnership between 43 breeders and MAFTech to breed up in quarantine and after the quarantine period of 5 years market the animals produced to the NZ Farming industry. MAFTech to take a 50% share of the venture and provide technical expertise and access to purebred semen. A Rural Bank Loan was arranged to fund costs over the quarantine period at an 18% interest rate. The participating breeders provided personal guarantees to the

Bank for this loan. There were 33 breeder parcels, some with several breeders involved. Each parcel agreed to supply 86 ewes suitable for grading up and a cash contribution of \$15,000. This had to be extended by a further \$8,000 in the final year to pay off the Rural Bank debt.

At release in November 1990, the purebred animals remained the property of MAFTech, while the graded-up rams were sold on behalf of the joint venture and graded up females split into the 33 parcels to be returned to the participating breeders. This resulted in 2046 females, 60% of which were first cross being available to the 43 breeders as their return on their investment. In addition, 2300 crossbred rams and 600 MAFTech purebred rams were marketed at an average price of \$745 for crossbred and \$3000 for purebred. Texels had 91% of the sales, Oxfords 5% and Finns 4%. After completing sales, the Sheepac Joint Venture was wound up in 1993. As chairman David Wallace said in his final report "The success of the company was due to the efforts of a great many people, it was a learning process often filled with frustration and delay, but in spite of difficult economic times we marketed these animals and they have made an impact on the New Zealand farming Industry".



Sheepac Embryo team at Hopu Station in 1990

Photo Credit to Peter Black

As a breeder shareholder in Sheepac, I can endorse David Wallace's comments. Bob Turner from Marton and I were appointed by the Sheepac directors to become the breeder's quality control team to make regular visits to the four quarantine stations, make culling and selections and report to the board on management matters. The breeding programme had several setbacks; Facial eczema outbreaks on the three North Island Stations, drought conditions on

all four stations and a late decision by the animal health authorities to hold back the Sheepac release date by 7 months to coincide with the release of Lamb XL animals.

In November 1990 I was given the privilege of taking the role of principal seller for the top pick Texel and Oxford purebred rams. Each day at 45-minute intervals I introduced buyers from throughout New Zealand to the best animals available at prices from \$16,000 down to \$2500, for a total sales value exceeding one million dollars. This was a challenging but rewarding experience. The Sheepac venture brought together scientists with technical expertise, breeders with practical breeding knowledge and a dedicated management team that achieved real benefits for the New Zealand sheep farming industry.



Sheepac A365/88, First pick senior sire at release, bought by Blackdale Stud and Roslyn Downs Partnership for \$13,500

Photo Credit to : Peter Black

My years as quality control inspector for the four Sheepac quarantine stations made me more aware of the contribution the Texel breed could make to New Zealand farming. The Texels handled the drought periods better than all other breeds including the local New Zealand breeds on Station. Fewer tail end animals, willing to consume poorer quality feed and adaptable to changes of supplement. The Texels international reputation for meaty carcasses with lower levels of subcutaneous fat was expected but bonuses were being dag free, showing strong resilience to internal parasites and good milking ability.

Visiting Denmark and Finland in 1991, I was able to visit several of the flocks which had contributed animals for the New Zealand embryo collection as well as research stations and the Breeders Society. I discovered that although the flocks were small in numbers, they were well advanced in performance selection for growth rate, muscling and even ran housed trials including feed efficiency and carcass development in ram lambs between 60 and 120 days of age.

A feature of the Texels contribution to New Zealand farming has been its success in crossing with other Terminal

and Maternal breeds. The excellence of these crosses, many of which are now stabilised as new composites has in fact made the pure Texel a victim of its own success. Without so much as a breed society, I estimate that Texel - Suffolks have the largest share of the Terminal sire market. Texels crossed very effectively with Romney, Perendale and Coopworth to give high performing maternal dams and composites breeds also incorporating Finn and East Friesian have a strong following. Sheep Improvement Limited (SIL) across flock evaluations of linked sires have shown that for Maternal Worth + Meat Index, the top 10% of over 2000 stud sires, of all breeds has more than 80% of these top sires incorporating Texel genes.

THE GDF9 GENE

As wages for my time selling rams at Hopuhopu, I opted to select 3 purebred Texel ewes. One of these Sheepac TO111/87 had been culled with a hernia from the ET operation, but in 3 ET cycles had produced 40 embryos and had 8 sons in the top sale ram mob. I liked her so brought her and arranged for a vet to perform a hernia repair surgery. We used two sons of this ewe and knew that several outstanding females of her line gave lifetime lambings of more than 20 progeny. However, it was not until 2013, twenty-three years and 10 generations later that Invermay Scientist John McEwan (doing 5K Gene DNA tests) discovered our flock had the GDF9 fertility gene mutation in 8% of our rams. Back tracking the carriers, we were able to find that the likely source of the gene was Sheepac 111/87 and she would have inherited it as her mother had Finnish Landrace ancestry - the original source of the gene!



Sheepac TO111/87, Dam of 21 Rams at release and was the original source of the GDF9 Fertility Gene in the Blackdale Texel Stud Flock

Photo Credit to: Peter Black

THE LAMBXL CONTRIBUTION

The Sheepac joint venture was not the only provider of new breeds' genetics in 1990. The Waikato based Animal

Enterprises Company in 1985 successfully applied to import a plane load of live animals from Denmark and Finland which as well as Texel Oxford Down and Finnish Landrace had also some White-Headed Marsh and Gotland Pelt Animals. The aim was to breed up purebreds in quarantine using embryo transfer and AI.

The NZ Dairy Board became the main shareholders of the importing company in 1986 and established LambXL as a fully subsidiary of the board. LambXL conducted successful sales of purebreds at the same release date as the Sheepac animals. They also arranged sales to Australia which had to be quarantined for an extra year. Unfortunately, Johnes Disease was detected in their animals and the Australians rejected the sale and the New Zealand Texel Society

arranged a deal for 600 rams to be offered in parcels for New Zealand Registered breeders to market.

Once again breeding up in quarantine proved a very expensive business and resulted in the NZ Dairy Board making a contribution of several millions of dollars to the New Zealand sheep industry. However, once again the Lamb XL Team of Technicians and managers did an excellent job on behalf of New Zealand sheep farming.

It is now acknowledged that scrapie does not travel in semen and embryos so the highly expensive quarantine protocols of the 1980's were unnecessary.

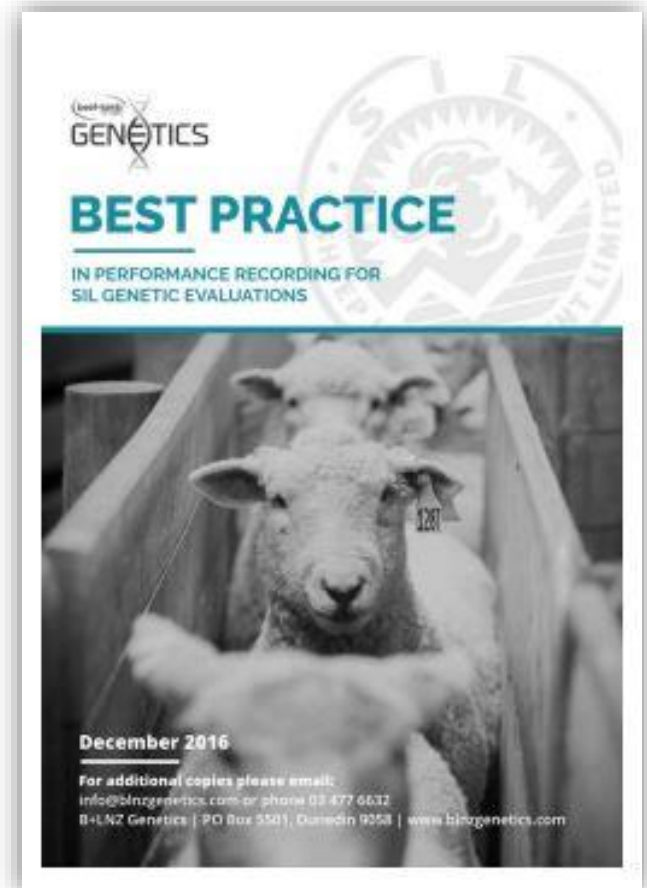
SIL Best Practice Principles

Sil has a guide to us the system properly to improve accuracy of SIL data and reports.

1. Build genetic connectedness cross flocks, years, management mobs and ewe age groups.
2. Use accurate ID systems
3. Capture accurate pedigree and birth date
4. Manage sheep as large mobs – use mob codes when groups are treated differently.
5. Measure all animals of the same age at the same time
6. Completeness of recording: measure all key predictor traits at the appropriate times.
7. Minimise data recording errors
8. Upload data into SIL in a timely manner

For Further information, go to

[Beef and Lamb Genetics SIL Best Practice Guide](#)



Capturing the Moment

A picture tells worth a thousand words and a good photo goes a long way to promoting or selling your livestock. With modern mobile phones, you don't need to be a professional photographer. Here are some tips and tricks that can help you capture the best shot.



Capturing the right angle and the right light.

1. Let there be light

Natural even light but not too bright. The light is always better early in the morning or late in the day about an hour before sunset. Bright sunny days of summer are not a good time to take photographs as the contrast between the light and dark areas will be very hard to handle – resulting in glary photos. Bright overcast days are usually the best for most photography. Alternatively, shade is also great as it gives the subject even lighting.

2. The sun (if there is one)

Keep the sun behind you – and avoid shadows.

3. Animal Balance

Look how the animal/animals are standing - Capture them standing square - with a 'leg in each corner', head up and looking alert. Capture the whole animal, not just the head. The best pictures of single animals have them filling the frame of the shot with their head up looking at 45° or better still, with the animal sideways on, but with their head turned slightly towards the camera. This can be achieved by getting a helper or dog to attract the animal's attention.

4. Angles

Keep in mind your angles and positions when shooting your subject. Tight angles can also distort the animals shape and size or highlight certain features.

5. Level best

Try to take the photograph from the same height as the animal's head. Shooting too high or too low can distort the shape and size of the animal so it's important to get down to the animal's level. Sit on the ground if necessary - otherwise your animals will look smaller than they are – just beware not to sit on the sheep poop or a thistle!



Photographing sheep at their level will avoid distorting their size, make sure they are standing square and level.

Photo Credit to: Hannah Busby

6. If you really do want to be flash...

If possible, try to photograph animals on a slight uphill slope. For some reason animals photograph much better when their front legs are higher. Photographing animals going down hill just makes them look odd!

7. Think about the backdrop

Backgrounds can be very distracting in a photograph. Try to have a plain background (shed or grass) so your animal stands out. Make sure you don't photograph the animals in front of a pile of farmyard junk or frame it in a way that they look like they've got a fence post sticking out of their back. A camera with a lens, or in portrait mode can blur the background while bringing the subject into focus.

8. Animal Magic

Try to avoid 'half-animals' at the side of the picture. This isn't easy when you have a mob of sheep. If you are trying to photograph sheep, particularly in a field where they are all nicely arranged, move very slowly into position. A camera with a bigger lens can help you stand back and get closer shots. Remember balance points and eye contact. If sheep not used to close contact with people, they will quickly scatter and follow other sheep.

9. Put your sheep in a pen

Sheep are harder to photograph. It's just a fact of life. Try, if you can, to have them facing you, using a pen or smaller paddock.

10. No dirty animals

Make sure your animals aren't caked in mud or dags. They don't need to be in showground condition, but dirty animals attract attention for the wrong reasons.

11. Camera vs Mobile Phone

Digital photography and the use of smartphones have made capturing professional looking photographs so much easier.

While a camera will always take a better photograph than an iPhone/ smartphone, there are some basic editing tools that can help improve your photography. Taking photos on a 'Live' function can help you to edit and use the frame from a short movie, which doesn't show the animal blinking, bleating or chewing its cud. If you take photos with an iPhone/iPad use the 'Portrait Mode' scenes with distracting backgrounds can be blurred out, making your subject will stand out much better.

To ensure your images are natural looking, you can alter the 'exposure settings. You can also alter the Exposure factors or play around with different filters.

12. Keep Snapping – One Photo isn't enough

Take many, many photos to get a good one. You many need to take 15 images for every one you save. Sometimes the perfect shot comes down to luck and timing. Ask yourself when the photo has been taken - Would you buy that animal or does the photo make it look like a dog?

AND REMEMBER

Stay alert while sitting and moving around in mobs, especially with your camera at your face. Keep an eye out for other curious animals sneaking up behind you!!

Line Breeding

Don Edgecombe, Maple Genetics, Canterbury

Please let me point out right from the outset that I am not an expert on this subject but certainly can understand what the experts say about the subject and is written to stimulate Breeders thoughts.

What is Line Breeding?

Line Breeding is when there is a concentration of Genetics from one or more ancestors.

- It is a subject that is totally discarded by some breeders - but fully embraced by others.
- It is a tool in Breeding that if used correctly can achieve great results.
- It is also a tool in Breeding that has the potential if used incorrectly to jeopardize a Breeding program.
- It is a Tool that can be used to determine if there are undesirable hidden Genes in a Pedigree.

What is required for successful Line Breeding?

- A superior animal that does not display negative traits.
- A superior animal that has proven to breed true to type and performance.
- Patience and perseverance.

Given Facts

- Every Animal has 50% from the Sire and 50% from the Dam.
- Every Animal has 32 Ancestors on the 5th line of their Pedigree.



Sometimes capturing 'That Shot' just comes down to timing and good luck!! Cromarty Ewe Hoggets, Source Hannah Busby

Sources

Sellmylivestock.com

Tenylle Stringer photographer Tenyllemariephotography.net

Potluck Breeding

Every Animal has 32 Ancestors on the 5th line of their five Generation Pedigree, this means an individual with no Line Breeding can receive Genes from 32 different Gene Pools, the question is...

If you happen to breed a good one how do you know where the good comes from?

to me this is called "Potluck Breeding"

Example

It has been said that over 95% of the American Hereford Breed traces back to a bull called Anxiety 4th, this bull was line bred with a 19/32 Gene Pool on the 5th Line.

When buying a Ram how much emphasis have you put on the Genes bred into that Ram?

When buying a Ram are you looking at Computer figures only and not looking at the Ancestry?

My point is, that if you are wanting to breed for consistency why would you throw 32 ancestors into the mix to randomly breed the next generation?

By Line Breeding the Gene Pool is reduced thereby concentrating the desired objects you are trying to achieve in Breeding.

Methane Testing - Blackdale Stud

Leon and Wendy Black, Blackdale Stud, Riverton

For a number of years Blackdale has been measuring sire groups through the Methane Chambers. This involves considerable work sorting up sire progeny groups and getting their weights and then, usually between 12 & 15 per sire are put into testing.

The progeny are then allocated a time slot over the 2 days of testing, giving an even spread of progeny and liveweight per hour into the chambers. On the first morning of testing the first 3 groups are brought off feed an hour before starting.

Each individual is then loaded into a chamber for 50-60 minutes. Measures are taken at 25 minutes and 50 minutes then animals are released, the chamber is water blasted out and a fan blows any gases clean – all chambers must read zero before the next set of animals is loaded in. This is repeated for each group during the 2 days.

This year and last there was an adjusted/scaled difference of about 20% between the lowest and highest sire groups tested. The aim is to breed animals with high production merit while reducing gas output of our breeding flock. I'm not sure of how many other Texel studs are doing this selection.

Our highest sire this year had an average 8.2548 ScCH4g/d has a NZMW+M Index of 4200 while our lowest (good) sire had an average 6.5327 ScCH4g/d has an index of 4955 NZMW+M. The lower ScCH4g/d is better.

(N.B. ScCH4g/d is the Scaled Methane gas emitted in grams per day, scaled for the animal's body weight and time since being off grass).

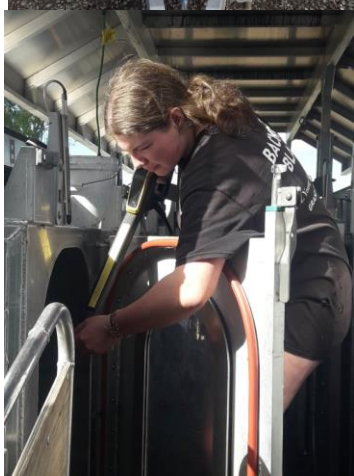
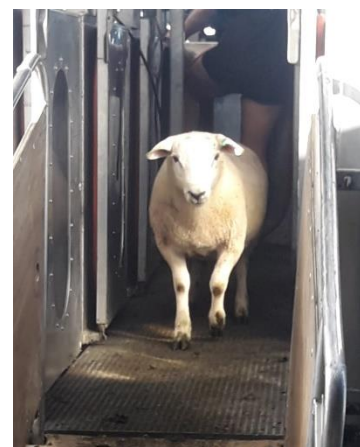


Photo top left - Trailer with 12 chambers on it. Top right - Texel ram hogget exiting the chamber Bottom left - Daughter Maggie water blasting chamber clean Bottom right - Eagle 2 gas monitor reads Methane, Oxygen and Carbon Dioxide

Photo Credit: Leon Black

For further information on measuring methane levels in your flock, head to the AgResearch [Sheep Methane Measurement website](#)

[Read frequently asked questions \(FAQ\)](#)

[Download B+LNZ Genetics Technical Note](#)

Breeding Better Structure and more Meat for Improved Productivity.

Heather Busby

'If you want meat, you've got to measure it, but a little bit of fat isn't a bad thing'. That was the general conclusion that Texel Breeders came to during the New Zealand Texel breeders workshop that was held at Lincoln University last week. Texel breeders from across the country gathered in Canterbury as part of their 2023 Conference to 'undress' some of the challenges that are facing the sheep industry. An assessment of structural soundness in animals, including conformation traits of the hoof, the limb and the body was led by Registered ABRI Structural Soundness Assessor and Scanner for the beef industry, Bill Austin.



Bill Austin discusses conformation and structural soundness to Texel Breeders, Lincoln University 2023 Texel Conference

Using live animals as a comparative example, breeders were able to discuss how certain conformational faults can be identified and scored, and the effect that these faults can have on an animal's ability to grow, lay down muscle and remain functional and productive. The beef industry has recently adopted structural soundness scoring as a recordable trait, taking into account the correctness and visual appraisal of an animal's feet, legs, sheath and docility. For many traits, there is a 'happy medium', where extremes in either direction can be associated with undesirable consequences. Ensuring an animal is functional and able to move around, up and down hills to forage to feed lambs if a ewe, or serve ewes as a ram is important.

Animals were appraised from the front, side and rear views, looking at claw set and heel height right through to shoulder set and pelvic shape. 'Two claws that sit evenly on the ground with adequate heel height and follow the same angle as the pastern will help ensure the hoof wears evenly

as the animal moves is desirable' Austin said. A good wide pelvis and the correct hip and pelvic angle can influence lambing ease, while ensuring sufficient width between the front legs allows adequate room for the heart and lungs, often lending itself to better overall constitution.

Being an accredited ultrasound scanner, Bill Austin's experience in scanning intramuscular fat and eye muscle area in the cattle industry was invaluable in enlightening breeders on the difference in how an animal can look conformationally in the flesh and what is actually going on under the surface. Looks can be deceiving, and while some animals may look like they are 'bulging with muscle' with a gutter running down the centre of the back, they may in fact have less muscle than one that is flat. Only with the use of ultrasound scanning or computed tomography (CT) scanning are breeders able to truly identify if the enhanced conformation is due to muscle. 'Often the muscle shape is due to the underlying rib shape or skeletal shape, and some of these animals scan no better than one where the muscle is 'laid into' the carcass' Austin mentions.



Rebecca Johnson, Lincoln University, discusses the results and analysis of the CT scan data obtained from ewe Hoggets as part of the Canterbury Ewe Hogget Club Performance Trail.

Breeders were able to take the opportunity to analyse and discuss the CT scanning information that had been gathered from a group of Texel ewe hoggets, run as part of the Canterbury Texel Breeders Club's Ewe Hogget performance competition. A considerable amount of data can be extracted from CT scanning a group of animals and will include the carcass weight, the amount of fat, bone and lean (muscle) and its distribution within the carcass (to name a few). Breeders took the opportunity to compare how the animals looked in the flesh and what their overall calculated CT ranking was. Re-ranking the animals based on their calculated dressing out percentage and extrapolated carcass retail value brought to light that there is more than one way to analyse CT scan results. What may be analysed or extracted from the data is dependent on the breeding objectives of the breeder. Some breeders chose

to select their animals based on the CT Carcass Muscle Yield percentage, while others took into account the total Muscle Yield. If your objective is to produce fast growing high yielding lambs then carcass muscle yield may be preferred, vs a more balanced approach to produce productive daughters, where including a bit more fat is desired. 'Fat is nature's haystack and can be utilised in times of need. Ensuring we still have a robust animal that expresses hardiness while maintaining the heavier muscling carcass characteristic that the breed is renowned for is still

important' acknowledged Canterbury Club Chairman Hamish Cottle. The eating quality of meat including its succulence, tenderness and juiciness can be influenced by the level of intramuscular fat within the muscle. With several Texel breeders currently measuring intramuscular fat levels in their animals, the use of imaging technology and carcass analysis will ensure that the breed is keeping up with the game and actively breeding an animal that the consumer is wanting.

Parasite Management - Are We There Yet?

Resistance, resilience, refugiaall the 'R's of parasitism can end up being quite confusing. Now more than ever we are having to cope with the increased emergence of anthelmintic resistance and a failure of chemical reliance to control internal parasitism, in not only sheep but other animal species as well. With it unlikely that we will see the release of any new drug actives for the treatment of internal parasites in sheep in the near future, the incorporation of on farm management (nutritional), targeted selected treatment (TST) and genetic improvement in the ability for animals to withstand and resist parasite burdens (without it affecting animal production) has become more important than ever. Andy Greer, Department of Agricultural Sciences at Lincoln University, spoke of this issue at the recent Texel Conference.

The combination of multiple drug actives over the few years, the incorporation of new 'exit drench strategies' with novel actives, the modification of drenching practices have all been useful in helping to manage on farm parasite levels, allowing production to be maintained or increased, thus effectively delaying the onset of drench resistance..... But 'delay' is the crunch word. Do we ultimately end up with drench resistance still developing - but just delay its onset? Albert Einstein is famously quoted in saying "Insanity is doing the same thing over and over and expecting different results".



The search for sustainable control regimes for gastrointestinal nematode parasites in grazing livestock has

resulted in strategies that include assisting sheep to promote a strong immune response. However, researchers have demonstrated that a strong immune response may have some detrimental side effects for the host, and that many of the clinical signs of parasitism (inappetence, weight loss, diarrhoea) may be due to immune-mediated pathology rather than the parasite itself. Breeding animals that do not have a strong immunity to parasites (i.e. do not resist the infection) but are able to maintain a reasonable level of production despite a heavy parasite burden (resilience) has been used as an alternate strategy.

Resistance and resilience are not separate and are interlinked. A resilient animal will eventually develop resistance, it is all about timing and the toll it takes on its body. Generating an immune response and producing immunoglobulins requires protein, and adequate dietary amino acid N levels in the diet at the time at which the immune system is developing, will help determine the success of antibody production. It has been shown that supplementing animals with additional dietary protein has a beneficial effect on both the performance and development of immunity in parasitised young lambs and periparturient ewes. Animals also require protein to grow and develop muscle. Young grazing sheep have a physical limitation of the quantity of nutrients which they can consume, largely due to the relatively fibrous diets. This restriction, in addition to the high demand for nutrients for growth in the young lambs (particularly protein), is likely to force the animal to prioritise the use of limiting nutrients - either to one of producing an immune system response at the expense of productive functions, or alternatively towards growth. A resilient, rapidly growing, heavily muscled animal requires dietary protein to produce bone, lean and fat- benefiting the producer by allowing it to be ready for slaughter early, while a more resistant slow growing animal that is diverting its energy and protein levels to produce an immune response may not excrete high numbers of eggs onto the pasture but may take longer to finish. Whether these animals have longer term resistance to parasites as an older animal (e.g., lactating ewe with a lower periparturient rise) has not been determined.

The selection objectives of the breeder may dictate which pathway is actually taken. Identifying those outliers that have a low egg count, have no dags, grow well with superb fertility and longevity is likely to appeal to most. Somewhere in the middle road may be a more appropriate strategy to settle on, where animals can tolerate a moderate burden, still grow and produce and be able to resist larval challenges as an adult during late pregnancy and lactation may be a more appropriate aim?



The Texel sheep is known to be genetically more resilient to parasites than other breeds, potentially arising from centuries of being grazed on meadow pasture at high stocking rates on the Island of Texel. In temperate climates, however in a perfect storm, under the right weather conditions, incomplete nutrition or in the face of other disease (e.g., facial eczema, pneumonia), it is not

uncommon for previously 'parasite resilient' animals to become unstuck and suffer dearly from clinical parasitism. While faecal egg counts have been used as a measure of animal infection and resistance, the results are open to interpretation. Measuring saliva IgA (immunoglobulin A) using the [CarLA® Saliva Test](#) in conjunction with dag scoring and performance recording can help breeders determine which animals have both resistance and resilience.

Industry experts in New Zealand are working together under 'Wormwise', a national worm management strategy, with the aim of helping farmers and their advisors manage worms sustainably. More information can be found at [Wormwise New Zealand](#)

The road to managing parasitism in sheep is a long and winding one, and we may still have quite a journey before we reach our final destination.

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Facial Eczema - RAT on horizon to manage facial eczema on farm.

A rapid antigen test (RAT) aimed at early detection of facial eczema (FE) in ruminants will help manage a disease that costs the New Zealand economy more than \$200 million each year.

The Ministry for Primary Industries' Sustainable Food and Fibre Futures fund is investing more than \$35,000 in a project with Tokaora Diagnostics to develop a prototype facial eczema RAT and undertake field testing. The test could be used with sheep, cattle, and deer but initial trials will focus on dairy cattle.

"FE is a disease of the liver and often doesn't show physical symptoms until it's too late to save the animal," says Steve Penno, MPI's director of investment programmes.

"Currently there's no cheap, on-farm diagnostic on the market, so we're supporting Tokaora Diagnostics to take their proof-of-concept test to the next stage."

Tokaora Diagnostics is a family-owned research company headed by chief researcher Frey Livingston and his mother Pam, who is the managing director. The company conducted initial research and development through start-up grants from Callaghan Innovation. It also won the Venture Taranaki Power Up Awards in 2022 and received mentoring through the Sprout Agritech Accelerator programme.

"We're grateful to have received so much support to make an 'invisible' problem visible," says Frey Livingston.

"Right now, farmers can test for the disease through blood samples taken by vets but it is expensive and time consuming. With our solution, farmers will be able to do

the testing themselves quickly and easily via nasal mucus or saliva."

Financial losses from FE in New Zealand have been estimated as high as \$274 million per year from lost production, and the cost of labour, treatment, and deceased animals.

"By detecting facial eczema accurately we'd expect to see significant cost savings on farms in affected areas," says Pam Livingston.

"It will enable farmers to surveillance test, which will facilitate timely treatment. It will also allow more informed purchasing, breeding, and culling decisions. For vets, it will be a quick diagnostic tool when called to a poorly animal, and for researchers it will give a timely answer to the 'who has it and how badly' question. And, of course, improved animal welfare is a high priority."

"FE is a long-standing issue for our agricultural sector, and with climate change it's expected to get worse as the toxic spores that cause the disease are more likely to grow in warm and humid conditions," says Steve Penno.

"MPI has invested in a range of projects aimed at combating FE, including breeding spore-resistant grass, and working with vets, dairy farmers, and rural professionals to raise awareness about how to take preventative action.

"This project is another step towards better managing this disease."

For further information on the project contact Pam Livingston at pam@tokaoradiagnostics.nz

Source www.mpi.govt.nz

Texel New Zealand Conference 2023

Lincoln University

Wednesday 10th May 2023

Professor Jon Hickford Lincoln University.

In the late 1980's following Labour government reforms that removed all livestock subsidies (sometimes referred to as the 'skinny sheep' subsidies), the national flock was poor performing on average. While perhaps not all sheep, the industry was characterised by the presence of stock that at most had only one lamb, that were slow growing, and that produced light poorly muscled carcasses. They had a much higher GHG footprint than the sheep of today. Dissatisfaction with the state of the industry caused some NZ sheep farmers to respond. This included the importation of Texel sheep. The Texel is a Dutch breed originally from the Island of Texel. As a breed they are typically heavily-muscled and have good lambing performance.

There is little doubting that these importations changed sheep farming attitudes. Emphasis changed to improving production efficiency and using genetic evaluation tools. Across the industry, sheep that once produced light carcasses with little meat yield, were bred to create the 18+ kg lamb carcasses that are desired today and with lean meat yields that are approaching 60% of carcass weight. At the same time, productive sheep farming land was lost to cropping, horticulture/viticulture, dairy farming, and urban sprawl. The industry is now almost totally confined to the hill and high country of New Zealand, and the national flock has dropped from over 60 million sheep to around 25 million. It is still a multi-billion dollar export earner for us and considerably bigger than our horticultural industries. Globally sheep numbers are growing.

There is little doubting that the Texel breed has been at the forefront of positive change in our sheep industry and thus hosting the Texel breeders conference is a privilege, but one that reflects the strong links that Lincoln has with these industry leaders.

In that respect, the visiting breeders were first hosted at JML, where Rebecca Johnson talked about the innovative use of CT scanning as a tool to further improve meat yield and carcass attributes. Emphasis is now being placed on 'sculpting' key parts of a sheep's musculature to improve the yield of desirable cuts for high end markets. This is driven by a desire to sell our lamb into the top 1% of global sheep meat markets by value. We want to be "the best". Next, the conference gathered on campus to hear a talk from Dr Andy Greer about parasite management. Andy's emphasis was on the strategic management of sheep to minimise the effect of parasites on performance in a world where chemical interventions are failing. Andy is recognised globally for his work in this area, and it is critically important as we move further down the pathway

of maintaining low-input, low-impact, smart systems for pastoral livestock production.



Dr Andy Greer explains the finer details of Targeted Selective Treatment (TST) to captivated conference attendees, including some BAgr/BAgrSc and Diploma students

Source Jon Hickford

Dr David Scobie, new to Lincoln University, but one of New Zealand's leading sheep scientists, then touched on the delicate topic of short tails and bare bums. He predicted that the day would come soon where farmers will no longer be allowed to dock sheep. Whilst possibly challenging for some breeds, the Texel can lead the way with its typically short tails and bare breeches. Some Texel breeders already don't dock. Animal welfare is of paramount importance to our Texel breeders.

Finally, Professor Jon Hickford discussed intramuscular fat levels and lamb eating quality, reporting results from a large MPI funded programme that he has been undertaking with Jasmine Tanner, John Bates and Analytical Services staff at Lincoln including Andrea Hogan, Dr Shuang Jiang and Rosy Tung. Stressing that NZ lambs already 'eats well' he illustrated that there was little difference between breeds, and that lamb was already a good source of desirable omega-3 and polyunsaturated fatty acid. His gene analysis work suggests that we might also be able to use DNA typing to separate the desirable deposition of intramuscular fat, from the GHG costly deposition of too much subcutaneous fat.

The breeders then moved to the Gene Marker Laboratory (GML), where the success of the Texel breeders in eradicating the recessive and fatal eye disease microphthalmia with the support of Professor Jon Hickford, Dr Huitong Zhou and Freeman Fang was celebrated. The GML was the first group internationally to introduced commercial-scale DNA testing to improve livestock breeding, back in 1999. This discussion put the icing on what had been a successful day, and to quote some of the breeders, "the best conference they had ever been to".

The Lincoln staff had dinner with the conference attendees later that evening in Christchurch.



The Keith Berry Memorial Trophy was presented for the first time at the Conference Dinner by Ruth Berry to Clare Callow for Services to the Texel Breed, in particular for her work involving the Texel Across Flock (TAF) analysis

North Canterbury Stud Tour Sharon Paterson, Waikaka Station,

After a fantastic day at Lincoln and beautiful meal enjoyed by all those attending the conference we headed out and about in Nth Canterbury.

We started with Philips collection at Waikari. An amazing collection of all things shearing over the years. A great record of all the history and the great people who have contributed to the industry. Handpieces, combs, grinders, shearing machines, wool presses and loads more. Definitely worthy of a visit. We moved onto the Mayfield Texel Stud Kate and Quintin Boyd, greeted with a fantastic smoko of scones cream and jam finished off with some excellent fruit cake. The sheep were looking fantastic and very well presented. An excellent line up of 2-tooth ewes, ewe lambs and ram lambs.

Leaving there we travelled across to Culverden and the Hemingford Stud of Sam and Vicki Hollands. An impressive display 1300 ram hoggets of several breeds. Great to see the sires on display and the Texel ewe lambs. Thanks for a great BBQ lunch and a wander around the expansive garden. As we were departing we got to drive past a lovely line-up of Charolais yearlings.

A drop of wine tasting at Waipara Winery was a great change of pace. Really nice wines in a beautiful setting.

Another very interesting stop at the Murray Downs Stud of Sarah Rhodes, a good display of sheep. The sires were looking like they have been busy with plenty of coloured rumps.



Mayfair Stud Texel Rams

Photo Credit to: Sharon Paterson

The Journey to a Supreme Champion Texel

Don Edgecombe Maple Genetics Flock 330, Rolleston, Canterbury

Maple 9284/19, "Boris". His story started for us in the early winter of 2014 with a phone call from our local HRL agent Ben Lill who had a line of Stud Texel Ewes from Fiona Quinn's "Sunny Mac Stud". Fiona was selling her complete small line of 13 ewes mainly Egilshay and Grantham bloodlines. They were in lamb to Halcroft 145/10. They were a very even line of ewes, however one ewe, (in particular) stood out and had different breeding. I remember when Ken Shipley came to inspect them, he pointed to this ewe and said, "that is an outstanding ewe". His description gave me real encouragement as I also considered her the pick of the line.



The Burn 62/09

Just as a side note it is incidents like this that can set a younger breeder on a successful path of breeding, being encouraged by a breeder with the knowledge and expert eye of lifetime experience – Thank you Ken, you are greatly missed.

The Ewe was The Burn 62/09 (or "Grandma"), sired by Iona Lea 579/04. She was a ewe that showed character and stamina - her foot stamping at lambing time always made me smile. Her daughters from 2014 and 2015 have left some very good ewes in our Stud. Her 2016 lambing resulted in a ram and a ewe lamb -the ewe lamb being Maple 684/16 (who is the Dam of Boris).

Her 2017 lambing resulted in a ram lamb and a ewe Maple 783/17. Maple 783/17 is the dam of Maple 9283/19 (sold to Northern Dawn and the Alamae Studs) and Maple 20283/20 (sold to Kowhai Park and Broadgate Studs). These two rams are both sired by Vorn Aberystwyth who is the sire of Boris Maple 684/16 affectionately known as "Sweet Cheeks". She was the standout lamb for 2016 and was shown as a hogget at the 2017 Ellesmere Show – Champion Texel Ewe, Christchurch Show – Reserve Champion Texel Ewe, Courtenay Show – Champion Texel Ewe.

Her first lambing was 2018 with twin ram lambs. Unfortunately, one got drowned in a water trough. The other was used in a commercial flock. In late 2018 we decided that we needed to breed a ram for ourselves from

this female line. You always hear about top breeding sires, and needing to get rams sired by a top sire - but I think one of the biggest mistakes in breeding is overlooking the female line. Rams can be fed to look good at sale time, but it is the genetics built up in them that will take ones flock to the next level. What we found in "Grandma's" line is not only sound functional type but the tremendous milking ability they possess.



Maple 684/16 as a Hogget

Our search for the Sire with length, muscle, and true Texel characteristics to be used started with a look at UK Genetics with the Ram Vorn War'orse drawing our attention. He is the Sire of Vorn Yardstick who has been used successfully in NZ. John Vaughan was contacted to see if Semen was available which resulted in John recommending using Vorn Aberystwyth whose Dam is a maternal sister to Yardstick.



Boris at one day old

Both 684/16, 783/17 and another Ewe 681/16 (Her Dam is a sister to 684 and 783) were artificially Inseminated to Aberystwyth which resulted in the birth of Boris from 684/16, Maple 9283/19 and Maple 9146/19 from 783/17 and Maple 9147/19 and 9275/19 from 681, surprisingly they arrived on average 4 days before due date.

Having had a lifetime of Stud Breeding, pigs in the 60's and 70's, Ayrshire Dairy Cows 70's to 90's and Holsteins in the 80's and 90's, you instinctively know when a good one is born. This was the case with Boris. He was what we were looking for and had the added bonus of incredible temperament, which he has passed on to his progeny. His first outing to a Show was as a lamb on Mum to the 2019 Ellesmere Show with Supreme Champion Texel being awarded. He was weaned at 90days weighing 65kg.



Boris on his mother at Ellesmere Show October 2019

He was mated to all the Texel flock in 2020 (except for his mum 684 and 783) which resulted in a very even line of ewe lambs and several ram lambs including Maple 20276/20 who won the Canterbury Texel Performance Competition. This Ram was line bred with The Burn 92/09 being the 4th Dam on the bottom line also.

The mating of his Dam 684 back to Vorn Aberystwyth in 2020 resulted in Twin Ram Lambs 20284/20 and 20285/20. Maple 20285/20 was entered in the Texel Performance Competition and was placed in the top 4. He was sold to the Alamae Stud and has gone on to win several Championships.

Maple 20284/20 was shown at Ellesmere, winning 1st Ram Hogget and Supreme Champion Texel. At Ashburton 1st Ram Hogget and Reserve Champion Ram to his $\frac{3}{4}$ brother from 783/17, then on to Christchurch show for again 1st Ram Hogget and Supreme Champion Texel. He has now been exported to Peru.



Maple 20284/20 full brother to Boris and Exported to Peru.

At the 2022 Ellesmere Show Boris was placed 2nd to his Full Brother 20285/20. At Ashburton Show, he was placed 4th with his $\frac{3}{4}$ Brother Maple 9283/19, who took out the Championship. Christchurch Show Boris's big day came, being judged by Leon Black 1st Mature Ram, Champion Ram and Supreme Champion Texel

Again, he was used over all ewes that were not his daughters as well as a number of our UK Embryo ewes. One of these matings resulted in a Ram Lamb Maple 22300/22 from Maple 21149/21 (UK Embryo) we have retained a half share in him with half share sold to the Broadgate Stud. His 2020 daughters have performed well with sound type and very good milking ability.



Boris New Zealand Agricultural Show 2022

In 2023, Boris has again been used over as many Ewes as possible. The above mentioned 22300 was shown at the Mayfield Show in March and awarded 3rd place.

Hawarden Show was a Texel Feature Show, with 10 entries in the Ram Lamb Class. First place ram lamb and Reserve Champion went to a son of Maple 9147/19 (mentioned above) the 2nd place Ram Lamb was also from the same female line being a grandson of Maple 681/16 (mentioned above) 22300/22 was placed 3rd. Also at Hawarden, we entered in the "All Breeds Ram Lambs to be judged on their ability to create commercial return". Maple 22296/22 was placed 1st and Champion, he is sired by Boris and is the result of Line Breeding, having 3 strains going back to the original Ewe The Burn 92/09

I think what can be gathered from all the above is what a \$300.00 purchase of one Ewe can do for the progress of a Stud.

Maple Genetics

"Building on the past – Breeding for the Future"
Semen is available from Boris thru Genetic Gains
prove Data NZTW 1973 TSG 1219 TSM 765

Shows 2023-2024

The dates for the 2023 NZ Agriculture Show have been announced with 15th to 17th November set in stone.

Show dates are available at <https://www.ras.org.nz/>

Check in with <https://showday.online/> to see when shows are on in your area.



'Highgrounds' Texel Stud Two Tooth Rams

Photo Credit to: Hamish Cottle

Show Season 2022 - 2023

It has been refreshing to have seen the return of the shows after the pandemic. There has generally been good support across the Country for the Texel breed, with strong class numbers in the South. Early spring shows in the Canterbury (Ellesmere and Ashburton Shows) were supported by a small number of Texel breeders with Alamae Texel Stud winning Supreme Texel at Ellesmere Show with a ewe bred by the late Keith Berry. At Ashburton Show, Alamae and Northern Dawn Texel Studs won Supreme Champion Texel with a Senior Ram Maple 9283/19.



Ellesmere Show Champion, Alamae Texel Stud

The biggest sheep show in the country, the New Zealand Agricultural Show in Christchurch saw good entries of Texel sheep. Judge Leon Black picked the Supreme Champion Texel Ram and Champion Ram to go to the Senior ram of Don Edgecombe's 'Maple 9284/19'. Reserve Champion ram and first place ram hogget under 18 months, also bred by Don Edgecombe and owned in shares with Broadgate Texel stud went to Maple 21289/21. Champion ewe was won by Alamae Texel stud with the first-place ewe over 30 months while reserve champion ewe went to the first placed ewe hogget bred by Don Edgecombe.



Supreme Champion Texel and Champion Texel Ram New Zealand Ag Show Maple 9284/19

In the far North, Texel Breeders Gavin Deadman and Sarah Catherwood presented sheep at the Waikato A & P Show, with Gavin taking out the Supreme Champion Texel with a ram hogget Seneschal 48/21. The ram was also successful in taking out the Reserve Champion Meat Breed Sash against the Poll Dorset, Southdown and Suffolk breeds.



Waikato A & P Supreme Champion Texel, Seneschal 48/21, Seneschal Texel Stud



1NZAG Champion Texel Ewe - Alamae Texel Stud

Gavin Deadman continued to have winning success in early December with his two-tooth ram Seneschal 56/21 winning Champion Texel and Supreme Champion All Breeds Sheep at the Whangarei A & P Show. Unfortunately, the persistent wet weather and Cyclone Gabrielle resulted in the cancellation of several other North Island Shows, effectively cutting their show season short.



Whangarei A & P Supreme Champion Texel and All-Breeds Champion, Seneschal 56 /21, Seneschal Texel Stud.

Smaller shows in the South were supported by southern breeders with Texels proving competitive in the all breeds class, with Brent and Heather Busby winning Champion Texel at Balclutha Show, and Nathan and Joy Dodd winning Supreme Texel at Wyndham Show. At Winton Show, the Two Tooth ram Cromarty 184/21 went on to win Supreme Champion Texel for the Busby's, while their ram lamb 40/22 picked up the All-Breeds Meat Cup for Lambs.

Gore A & P Show Association hosted its' 140th A & P Show on 4th February 2023. Fortunately, with the sheep pens being under cover, the incredibly hot conditions made it a challenging day for both exhibitors and attendees. As always, the Texel section was well supported by local Texel breeders, with prizes shared around. Nathan and Joy Dodd's Senior ram Golden Terrace 76/19 Senior ram winning Champion Texel Ram and Supreme Champion Texel. Up against the other breeds, the ram went on to win the Southern Districts RAS Supreme Champion Meat Breeds Sheep and was ultimately crowned the Grand Champion Sheep Exhibit.



Gore A & P Show Supreme Champion Texel and winner of the All-Breeds Meat and Wool Cup, Golden Terrace 76/19, Glenvale Texel Stud

Reserve Champion Texel Ram was awarded to Blackdale 227/21, who also was successful in winning the inaugural Terminal Production Class where animals were judged on SIL Production figures and on the foot.



Winton A & P Show Supreme Champion Texel, Cromarty 184/21, Cromarty Texel Stud



Gore A & P Show Reserve Champion Ram, Blackdale 227/21, Blackdale Stud

Brent and Heather Busby took out both the Champion and Reserve Champion Ewes with their two senior ewe entries.



Champion and Reserve Champion Texel Ewes, Cromarty Texel Stud.

The Texels also did well in the Prime Lamb Competition, with Hamish MacKay taking out first place for their pen of lambs and Nathan and Joy Dodd taking out second and fourth.



Supreme Champion Texel and winner of the All-breeds Meat and Wool Cup, Southland A & P Show, Glenvale Texel Stud with Golden Terrace 76/19

Autumn Shows in the South Island saw Nathan and Joy Dodd (Glenvale Texels) once again taking the Supreme Texel and Winner of the overall Alliance Meat Cup at the Southland A & P Show, the all-breeds meat cup for ewe lambs being won by Brent and Heather Busby.

Further north at the Mayfield Show, Maple 21289/21 owned by Broadgate Texel Stud and Maple Genetics won the champion Texel.



Mayfair A & P Supreme Champion Texel, Maple 21289/21 owned by Broadgate Texel Stud and Maple Genetics.

Two Royal Sheep events wrapped up the 2022-23 show season with Maple 21289/21 once again taking Supreme Champion Texel at the Hawarden Show. Reserve Champion ram went to the first place Ram Hogget of Maple Texels. Champion Texel ewe was won by Alamae Texel Stud, while Mayfair Texel Stud picked up the Reserve Champion ewe.



Hawarden A & P Show and Royal Feature, Maple 21289/21, Broadgate Texel Stud and Maple Genetics.

Photo Credit to: Ben Doubleday Photography



Hawarden A& P Show Reserve Champion Texel Ram Maple Genetics. Photo Credit to: Ben Doubleday Photography



2Hawarden A& P Show Champion Texel Ewe

Photo credit to: Ben Doubleday Photography



Hawarden A & P Show Reserve Champion Texel Ewe - Mayfair Texel Stud Photo credit to: Ben Doubleday Photography

At the MacKenzie A & P Show, a Royal Feature Event attracted impressive numbers of sheep from breeders throughout the South Island. Being the last event on the A & P show season's calendar, it was a fitting finale to a show season where A& P Shows have made a welcome return following Covid Induced cancellations. Young animals were the order of the day in the Texel Section, with Denby Lawlor scooping the top prize-winning Supreme Champion Texel and champion ewe with her ewe lamb Oakley 743/22. Denby also had success with her other ewe lamb winning Reserve Champion Texel ewe lamb. Texel ram lambs also won favour of the judge with the winner of the Texel Ram Performance Class Cromarty 65/22, Cromarty Texel Stud going on to win Champion Texel Ram, while the winner of the Ram Lamb class Cromarty 40/22, Cromarty Texel Stud taking Reserve Champion.



MacKenzie A & P Show Supreme Champion Texel - Denby Lawlor Oakley 743/22

Young Texel breeders also featured in the NZSBA youth class across all breeds, with Maddison McCall winning the ewe lamb class and Denby Lawlor being placed third with her ewe lambs. It was terrific to see so many young breeders across all sheep breeds support the show and encouraging to see their enthusiasm and dedication to their stud flocks.



Judge Doug Croy explains his decisions in placing the NSZBA All-breed youth class at MacKenzie A & P Show.

Member Reminders

ANNUAL RETURNS

DUE 31st May 2023

Contact NZSBA for details.

All forms are available on the website

<https://nzsheep.co.nz/resources-forms/>

SIL DATA / EMA and LWB DATA

Breeders are encouraged to have their data submitted to their SIL Bureaus in a timely manner.

TAF Reports and nProve runs are more accurate with more data entered.

COMMERCIAL TEXEL PROMOTION

Keep in mind commercial farmers that would be suitable for articles / promotion.

Winter is the ideal time to get the ball rolling on these stories.

MICROPTHALMIA- ARE YOUR RAMS TESTED?

Rams single entered must either be tested clear of microphthalmia either before or during the year they are single entered or to come from a Microphthalmia Clear (MC) flock.

**Remember Texel NZ is on
Facebook**



**Check us out for regular updates
@TexelNewZealand**

