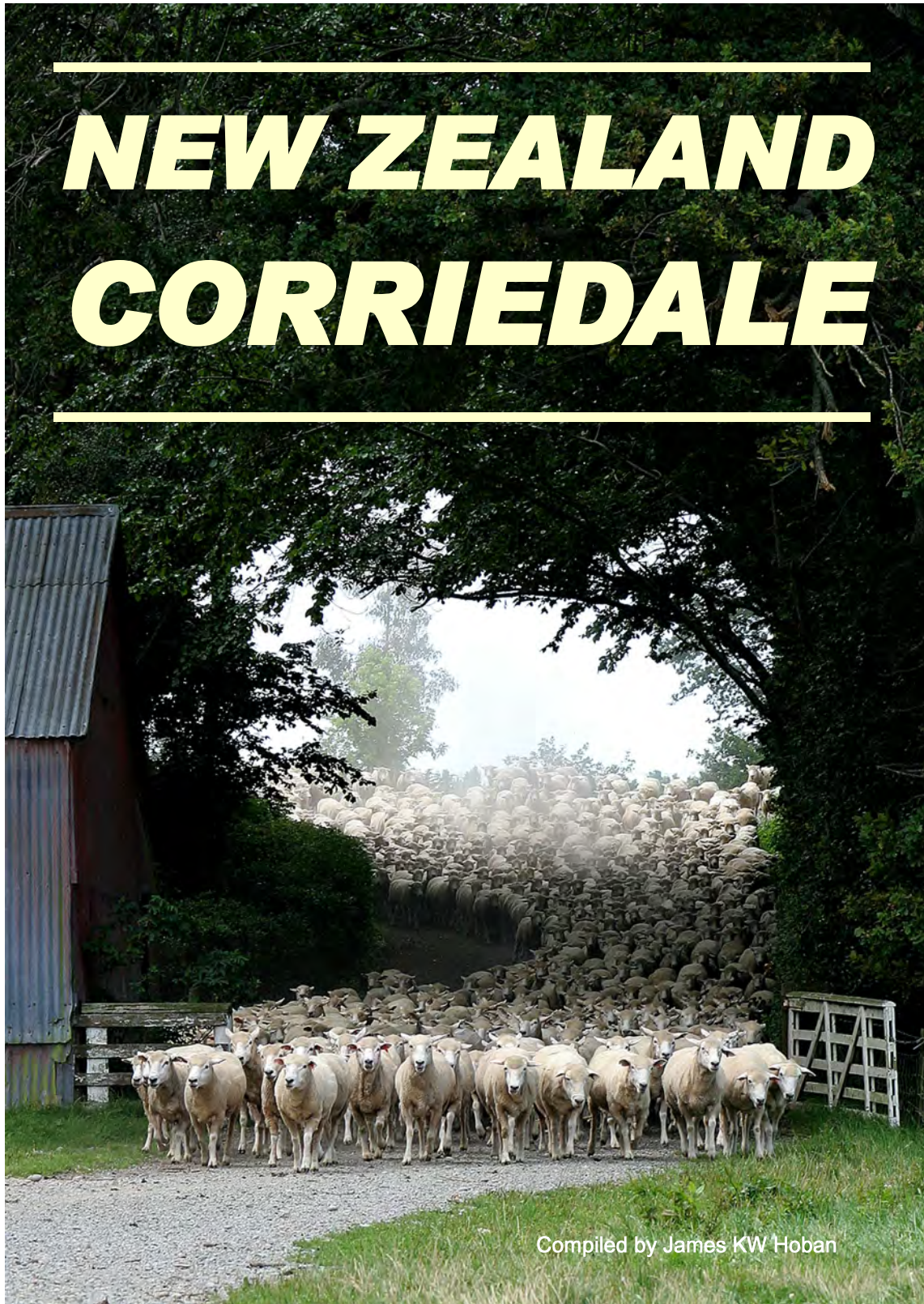

NEW ZEALAND CORRIEDALE



Compiled by James KW Hoban



ACKNOWLEDGEMENTS

On behalf of the NZ Corriedale Council and members I would like to express our thanks and gratitude to James Hoban for agreeing to compile this book.

Over a period of less than three months he has worked very hard to collate the stories and documents as they were forwarded to him, and set this book out in the easily readable format that you are viewing. We are indeed fortunate to have such an enthusiastic and capable young man in our midst.

We are also indebted to the journalists who have been acknowledged at the top of each story, and to Tricia Johnson and Jon Hickford for allowing us a preview of the papers they will present to the World Congress in Brazil in May.

Thank you to the breeders who have supplied material for the book, and allowed us to reproduce the photographs used.

We sincerely hope you enjoy this 'snapshot' of our Corriedale in New Zealand.

Diane Rawlinson
Convenor 2012



NEW ZEALAND CORRIEDALE



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FOREWORD

It is with tremendous pride that as the President of the New Zealand Corriedale Sheep Society I introduce the foreword for this publication.

As our delegation embarks on the journey to the XIV World Corriedale conference in San Gabriel, Brazil, we can look back to the last World conference hosted by New Zealand and before. Our Breed, established over one hundred years ago was at the forefront of the sheep industry - especially holding pride of place in the drier, more arid areas of the East Coast of the South Island.

In the last decade the country that was once the doyen of the Corriedale has been converted to everything imaginable - grapes, dairy, deer, composite type sheep, llamas, alpacas, goats and in my opinion the worst of all land use - the ten acre lifestyle block.

To see our stud numbers decimated to the extent that they have been, would almost certainly send most organizations into oblivion. That our breed has survived and still breeding the quality sheep that we do is a testament to the faithful band of breeders that we have in our society.

One only needs to look at the quality line up of sheep at the Canterbury Agricultural & Pastoral Show - this along with the quality of sheep that have been offered at the annual round of ewe fairs certainly gives our breeders inspiration.

The initiatives that the Corriedale council have endorsed and put into practise in the past ten years or so have certainly brought our breed into the new century.

We now have a sheep that is a true dual purpose animal. All we need to do is convince the sheep industry of the Corriedale's merits - today's sheep are bred for better footrot resistance, higher lamb conception rates, finer wool, better carcass composition and higher ewe efficiency.

The work that those on our Council have put into the Mid-Micron wool sector is certainly well recognised. With the global lift in wool prices (or shortage of quality wool) our breed is in as good a position as any to gain from this - it certainly gives us an advantage over the stronger cross-bred type wools. Who would have thought that we could go into a shop and buy quality garments made from our very own Corriedale wool!

As will be observed from the articles in this publication, our breeders have not stood still and the new initiative of CT scanning our leading young sires for muscle mass, along with new technology such as Carla saliva testing (to identify natural resistance to internal parasites) are positive steps to bring our breed to the attention of the commercial farmer.

The world still looks upon New Zealand as the biological home of the Corriedale and this is something we should always be proud of and hold dear to our heart. As we breed the newly developed "Corriedale - the quiet achiever" we need to strive to hold our market share and build on the existing good work we are achieving.

The day to day running of our breed council is made a lot easier by the Elizabeth McTaggart legacy fund. This generous gesture from Liz should never be forgotten and her enthusiasm always remembered.

A breed highlight was the appearance of Corriedales at the New Zealand Golden Shears Finals this year - something that brought our breed to the forefront in this challenging competition.

The setting up of the Young Ambassador programme between ourselves and Australia has certainly captivated the young Corriedale breeders in both countries and we look forward to hosting young Australians this year in November to coincide with the 150th Jubilee Canterbury Agricultural & Pastoral Show week.

Tom Burrows
President New Zealand Corriedale Sheep Society
May 2012

A PROUD HISTORY

THE CORRIEDALE  **SHEEP SOCIETY**

**THE OWNERS
OF QUARTER
OF THE**

**WORLD'S
DEFINABLE
SHEEP**

MUST BE RIGHT!



Corriedale ewes carrying down cross lambs, at 6 weeks, on highly improved pastures.

Second only to the Merino among the sheep breeds of the world.

Second in sheep numbers in U.S.A.

Second in sheep numbers in Australia.

OVER 65,000,000 IN SOUTH AMERICA

CORRIEDALES give a greater per acre return over a wider range of conditions than any other breed of sheep.

Secretary,

C. H. LAWRENCE
Box 955 Christchurch

An advertisement printed in 1956 in the Straight Furrow

New Zealand agriculture has been closely associated with the Corriedale since its origins. In the beginning, export income was primarily derived from the sale of wool, but early in the century a thriving export meat trade developed with the United Kingdom (since highly diversified) with the advent of refrigerated meat shipping, and the production of meat became of importance.

Quite a large area of New Zealand falls midway between the sparser grazing that suits the Merino and the richer pastures on which the Romney and other British longwool types do best. It was logical to consider crosses between these two types quite early in New Zealand pastoral history.

It was found that the first-cross Merino/longwool sheep yielded an acceptable and uniform type, but that a wide variation occurred when subsequent halfbred matings were undertaken.

The need to fix the type was appreciated by James Little, who came to New Zealand in 1863 from Scotland, bringing some Romney sheep for two large properties, "Corriedale" and "Balruddery", both in the low-rainfall area of North Otago in the South Island.

While working on these two properties, Little, an experienced sheep man, crossed the Romneys on Merino ewes, and by heavy culling began to evolve a sheep of the special type required, and one which would breed true. He later dropped the Romney/Merino cross, but, having proved that a specially efficient breed for light-rainfall country could be .

evolved by the right methods, he began work in North Canterbury crossing Lincoln sheep with Merinos.

In 1903 the New Zealand Sheepbreeders' Association admitted the new breed to a flock-book appendix as "Inbred Halfbreds", recognising the name of Corriedale in 1911. Corriedale breeders established their own association in 1910, and in 1924 published their own flock book containing details of 87 flocks. By then the breed was established in South America, Australia and North America with considerable success, large exports of flock as well as stud sheep having gone to those countries.

Top stud sires and ewes are still in regular demand by overseas breeders. While the expansion of the Corriedale breed in New Zealand is necessarily limited by the area of the country for which it is most suitable, its special characteristics make it perfect for many overseas conditions.



James Little—Corriedale founder

NZ CORRIEDALE COUNCIL 2012



TOM BURROWS—PRESIDENT

Elected to NZ Corriedale Council in 1991. Principle “Eudunda” Corriedale Stud Farm in conjunction with wife Fiona and son John. Farm 1000 sheep stock units and grow approximately 20ha cereal crop & 30ha green crop. Also run sheep conveying and lamb tailing business. Daughter Lucy & youngest son Jaime along with Fiona operate “Burrovoe” Shetland pony stud. Second son Robb is a qualified diesel mechanic at present working in Canada.



GREG HARRIS—VICE-PRESIDENT

Greg Harris is the third generation to manage and farm “Mt Adde,” an 800ha property up the Awatere Valley in Marlborough running Corriedale sheep and Angus cattle stud operations, commercial stock and thirty hectares of Sauvignon Blanc grapes contract grown for Oyster Bay wines. Elected to NZ Corriedale Council in 2008.



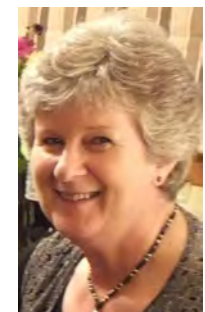
Gordon Gilbert

“Erissey” Stud - Flock No 561. The flock was founded in 1975 on 200 ha at Southbridge, north of the Rakaia River. 150 stud ewes, 1000 commercial ewes, plus replacements. President Ellesmere A & P Association 2004, President NZ Corriedale Sheep Society 2005 and 2006. Elected to NZ Corriedale Council 1995.



EDWARD. C. ORR

“Glenbrae” Stud (recently taken over by DK & MJ Rutherford, Melrose). Emphasis was placed on developing Corriedales with very fine, white wool, while at the same time retaining a strong constitution. Also the successful selection and breeding for footrot resistance which led to a DNA test, now used globally in all breeds of sheep.



DIANE RAWLINSON

Elected to NZ Corriedale Council in 1986. Diane served as President for 3 years 2002 - 2004, and is the first and only woman to have held this position. Farmed in Ashburton district and ran a Corriedale stud from 1976 until 1999. Still retains a strong interest in the Corriedale breed and other rural activities including equestrian judging.

**ERIC ROSS**

Elected to NZ Corriedale Council in 2011. Eric farms “Collie Hills” in the Hakataramea area of South Canterbury with wife Sue and his family.

**DAVID (DOC) SIDEY**

David and wife Jan farm “Glenovis” near Hawarden in North Canterbury, in conjunction with son Andrew and his family. Elected to the Corriedale Council in 1982. President 1995-1999. President New Zealand Sheepbreeders’ Assn 2006-2009.

**ALISTAIR STUDHOLME**

Alistair and his wife Annie run the “Coldstream” Corriedale Stud with their children Olivia and William. The stud is run alongside a commercial flock of 2800 Corriedale ewes and a range of crops grown at “Coldstream” in Mid Canterbury. Alistair was elected to the NZ Corriedale Council in 2011.

**ROBIN WILSON**

I am 54 years old, married to Pip and have been farming in partnership with my brother Gavin for 40 years. We currently farm 480 hectares at West Melton, 25 kilometres west of Christchurch. We have bred Corriedale sheep all our lives, starting an elite flock in 1985, followed by our “Wilfield” stud in 1992. In conjunction with the “Wilfield” studs we currently also manage the “Wattlebank,” “Blythe Downs” and “Marawha” studs. I represented New Zealand playing hockey at the 1984 Los Angeles Olympics, coached New Zealand at hockey and am currently chairman of a wool company in New Zealand; Woolgrowers Marketing Ltd.

**GREG BURGESS—SECRETARY**

Greg works for the New Zealand Sheepbreeders’ Association and provides secretarial support for the Corriedale Council, as well as other breed societies.

www.wilfieldsheepstud.co.nz



Wilfield Sheep Stud lies on the fertile Canterbury plains, at West Melton, just 15 minutes from Christchurch Airport.

Founded in 1992 by Robin, Pip and Gavin Wilson, Wilfield incorporates five Corriedale flocks including the famous WATTLEBANK stud, owned by Bill and Pauline Bain. Our main focus is in the breeding of "CORRIEDALE 2.0," a breed based on 130 years of development for both meat and wool production.

We bring together the use of traditional breeding practices of good stockmanship, modern technologies of objective measurement and analysis (Sheep Improvement Ltd) and gene marker technology (footrot resistance, extra muscling, cold tolerance and worm resistance) to identify the most productive and profitable animals for meat and wool production.

These sheep known as WILFIELD CORRIEDALE 2.0 (based on the computer analogy for upgraded version) are open headed, footrot resistant, more fertile, better milking, meatier and finer woolled sheep, bred for putting more money in sheep farmers' pockets.

We believe we are the most innovative Corriedale Stud farm in New Zealand specialising in Corriedale 2.0 rams - The Sheep for the Future.

Wilfield genetics carry with them an assurance of quality, whether it be semen or rams.

Robin Wilson

Telephone 0064 3 3478939

Email robin.wilfield@xtra.co.nz

WOOL INNOVATION PAYING OFF

Past Corriedale Society Chairman Robin Wilson of Wilfield stud, has been integral in securing opportunities for growers through his mid-micron wool leadership role. Robin's enthusiasm and progressive eye for an opportunity have helped open doors around ground-breaking micron reduction technology and clothing and sock contracts. The following article written by Jo Bailey was printed in the *Central South Island Farmer* in 2012.

There hasn't been a lot of good news for New Zealand's mid-micron wool-producers in recent years. But technology that lowers the micron rating of shorn wool could revolutionise the industry's future.

New micron-reduction technology could be a boon for mid-micron wool producers, says Wool Growers Marketing Ltd chairman Robin Wilson.

"It allows wool to be processed around five microns finer than it comes off the sheep's back – so 28-micron wool effectively becomes 23 micron."

Wool Growers Marketing owns the technology that was developed in conjunction with Canesis, at Lincoln. Wilson – who owns and runs New Zealand's largest Corriedale stud, Wilfield, in partnership with his wife, Pip, and brother, Gavin – has been involved with the technology since the earliest stages of its development. He says the biggest advantage is being able to grow a finer-wool product off a mid-micron sheep that retains its other characteristics, including high fertility.

"We liken it to a sheep that will produce one-and-a-half lambs annually and six kilograms of effectively 23-micron wool. "The more sheep we have doing that

To see examples of some of the products New Zealand Corriedale wool and micron reduction technology is being used for, have a look at <http://ironbarkapparel.com/about.php>

and the more wool being used that way, the more profitable mid-micron sheep will be.”

He says yarn produced by Wool Growers Marketing using the technology has been used in the production of three “outstanding” products – blankets for the manufacturer of the Cariboo range of baby products; and the Ironbark-Puretec brand of jerseys and socks.

Ten South Island Corriedale and Halfbred wool growers have contributed wool for these projects, he says

“We have already had our first sock orders from Europe. We are hopeful that will be the start of export sales. We are also hopeful that NZ Merino will eventually take over the marketing of these products for us.”

Now that products are hitting the market, Wilson is excited about the future of micron-reduction technology.

“It has taken some time, but we’re beginning to get some traction now,”

Back on the farm at Wilfield, there is also plenty to keep him occupied.

The Wilsons run around 3000 Corriedale ewes and about 500 Texel-cross ewes on a total of 485 hectares, which is split between properties at West Melton and Halkett, just south-west of Christchurch.

“We are primarily a sheep farm that has diversified. We started the stud in the late 1980s and now manage five Corriedale studs and a Texel-cross flock for stud purposes. We have around 1500 stud ewes across the whole operation.”

This year 2300 lambs were pedigree-recorded at Wilfield. Rams are available by private sale in December each year and into January if demand requires.

Wilson says the philosophy at Wilfield is to combine traditional breeding practices and stockmanship with modern technology, including Sheep Improvement Ltd measurement and analysis, and gene-marker technology to identify the most productive and profitable animals for meat and wool production.

“We aim to produce open-headed, more fertile, meatier and finer-woolled sheep – bred for putting more money into farmers’ pockets.”

Although an important part of Wilfield's business, the studs account for only around 20% of the total farming operation. Cropping and lamb fattening each contributes around 30%, says Wilson. "We currently grow around 80ha of crop, including Watties peas, barley,

until October, when they took on an additional staff member.

Wilson says it's great that the outlook is finally more positive for South Island sheep farmers. "We're seeing significant pasture growth on the back of an



feed barley, carrots, radish, Chinese cabbage and mustard. We also lease some land out to others for growing potatoes."

It is a large and "relatively intensive" operation that Robin, Pip and Gavin Wilson managed themselves

outstanding season; lamb prices at an all-time high, and wool prices high too. It's not often we have the climate and economic conditions working favourably for us at the same time."

BREED FOR THE FUTURE

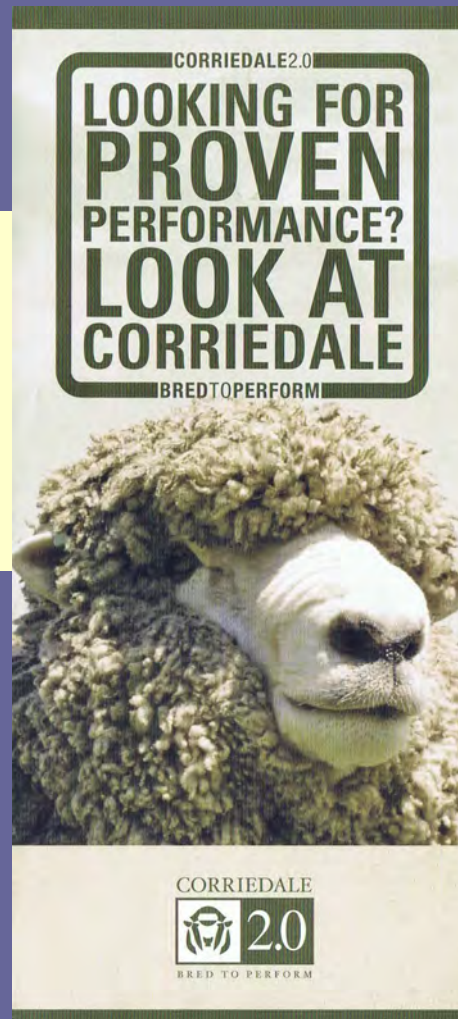
In 2007 the New Zealand Corriedale Society launched a marketing campaign rebranding the breed, to coincide with the Corriedale Congress in New Zealand.

The following article was written by Sandra Taylor and printed in *Country-Wide* magazine

The list of attributes are impressive. Well hung, a sexual athlete with staying power and proven performer with the X-factor.

No, this is not a description of Dan Carter, rather these characteristics are those of the Corriedale sheep.

Well hung alludes to the breed's ability to provide good meat, staying power reflects the Corriedale's renowned longevity and



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the sexual athlete notes the breed's capacity to produce good lambing numbers.

The X-factor refers to the ability of Corriedales to stabilize a cross-bred flock by providing good, stable characteristics such as their ability to handle variable, dry conditions and produce consistent, true-to-type micron wool.

These attributes are central to a campaign to re-brand the Corriedale as a sheep breed.

The Corriedale has been a stalwart of this country's sheep industry for 125 years and the new campaign features the breed's proven performance and the ongoing improvements that have allowed it to endure and prosper.

Council president Gordon Gilbert says the Corriedale 2.0 campaign would highlight the key attributes of the breed in a colourful fashion.

"We are promoting what 125 years of selective breeding and never-ending refinements have achieved. "We are celebrating the five hallmark themes of this New Zealand developed breed."

IT IS TIME TO LOOK AGAIN AT CORRIEDALE

There are more than 40 Corriedale breeders producing tested, results proven rams across East Coast regions of New Zealand.

Collectively, they are committed to providing you with the best the breed has to offer.

FAST FORWARD WITH GENETICS CORRIEDALE 2.0

The rebranded **Corriedale 2.0** continues to progress its genetic strengths, using Gene Marker Technology.

The latest technical advance is **C**omputed **T**omography (CT scanning) which allows breeders to accurately identify animals with a high meat yield. Being a highly hereditary trait, the conformation of a whole flock may change as the higher meat yielding flock develops. Higher meat yielding sheep will mean higher returns.

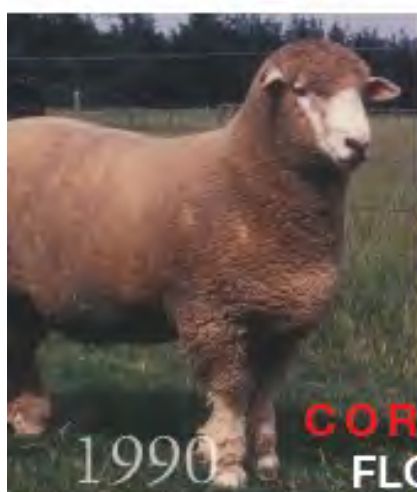
Corriedale 2.0 is the breed of today and for the future, offering longevity, drought tolerance, footrot resistance, cold tolerance, productivity (SIL), high value wool and worm resistance. Also, now with CT scanning being introduced, the Corriedale breed has the ability to provide higher yielding carcasses.

To locate the Corriedale breeders please visit our website:

www.nzsheep.co.nz/corriedale



EUDUNDA



1990

CORRIEDALE STUD

FLOCK 571 EST. 1977



2000



2010

Decades of breeding quality Corriedales

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We produce easy care Corriedales renowned for their shifting ability. Our rams are reared in a dry extreme climate with temperatures ranging from -10 degrees Celsius in winter to 35 degrees in summer. Our aim is for high fertility, well muscled sheep with 26-27 micron wool.

S.I.L recorded. All Stud rams foot scored.

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NEW ZEALAND
SHEEPBREEDERS
ASSOCIATION™

**The NZ Sheepbreeders Association
has been proudly associated with the
NZ Corriedale Society
since 1911**

**fostering innovation, genetic improvement,
technological advances, continuity and leadership and
taking the NZ Sheep Industry forward into the future.**

Website - www.nzsheep.co.nz

Securing the Future

The Young Ambassador programme is an exchange initiative that the New Zealand Corriedale Society and the Australian Corriedale Federal Council have established in partnership. Every two years, two young Australians are hosted by New Zealand breeders and every alternate year young Kiwis will head to Australia. This is an attempt to encourage a next generation of farmers to take a lead role in promoting and developing the Corriedale breed. Andrew Rutherford from Hawarden and Maria and James Hoban from Culverden were New Zealand's first Corriedale Young Ambassadors. The following account of their experience was written by James for New Zealand magazine *Young Country*.

The three of us, all Hurunui Young Farmers, each with different experiences and skills to offer, arrived in Sydney on the 11th of April 2010. During the following two weeks we were introduced to intricacies of Australian life which they are welcome to, farmers who even New Zealand would be proud to claim, a diverse range of Aussie characters, one or

two social establishments, and a disturbing variety of pests that deepened our appreciation of the good work the MAF does at the New Zealand border.

The Sydney Royal Show

Our trip began with three days at the Sydney Royal Show. The complex that was put in for the 2000 Olympics had to be used for something after the games so the show was shifted from its old location and has since taken over Olympic Park for two weeks of every year.

All three of us are used to New Zealand A&P shows but Sydney presented a scale we'd never been involved with.

The Sydney Royal Show is largely city orientated. Australian primary groups capitalise on the show as an opportunity to educate the urban public about the value and culture of their respective industries. One large shed is devoted entirely to explaining chicken, beef, lamb, wool, grain and vegetable growing, in plain English, from paddock to plate. Huge displays explain what happens behind the farm gate and the importance of Australian agriculture to the nation.



**L-R Andrew Rutherford, NSW Corriedale Breeder
Tony Manchester, Maria & James Hoban**

Australian primary industry faces similar challenges to New Zealand; discerning customers and a critical public who do not always appreciate or understand the realities behind primary production. While the issues and challenges facing industry on both sides of the Tasman are the same, there is undoubtedly something New Zealand's show organisers could learn from the Sydney response.

Back at the sheep pens we were introduced to Australian show culture in all its competitiveness.

The Merino competition had been and gone and now the same shed they had filled on their own hosted Dorpers, Suffolks, White Suffolks, Poll Dorsets (the 2010 feature class), Dorset Downs, Texels, Border Leicesters and Corriedales for three days.

Our second day at the show saw us in the deep end, parading sheep for judging in the ring. While most sheep at the show seemed to be as tame as any well-fed pet, our host Charlie Prell warned us as we took hold of

our respective exhibits that his sheep were straight from the paddock and likely to be the worst behaved in attendance.

The three of us enjoyed our part in the spectacle and Andrew held on to the eventual champion Corriedale ram which meant that after sampling the show's evening entertainment, we left for the Prells' farm Gundowringa with Charlie in a good mood.

Gundowringa

Charlie was planning on putting us in the shearer's quarters, which occasionally house fisherman looking for a lazy trout in the Wollondilly River. Jeff Prell, an Australian gentleman and patriarchal figure of Gundowringa wouldn't hear of it and said we would instead be staying in the homestead with him. Jeff was grateful for the company and we were thrilled to be staying with someone so remarkable.

Jeff's grandfather CE Prell OBE was one of the pioneers of Australian agriculture. He proved the value of subterranean clover and superphosphate, turning Gundowringa from an unbroken, erosion prone desert, into a productive farm that set the model for closer settlement of smaller blocks in extensively farmed Australia.

CE Prell was always striving to share his breakthroughs with other farmers so that his successes could be more widely adopted, which they ultimately were. The knowledge which has been handed down to Jeff and which his 80 years on a farm have cemented, made it a pleasure to listen to him. Jeff has spent a lot of time on farms in New Zealand and subsequently knows a lot of families still farming in North Canterbury and further south. Like his grandfather, Jeff and his son Charlie were only too happy to share what they know.

The Prell's are leasing Gundowringa's top ridge for a wind farm. The resulting income will help Jeff, Charlie and his family live fairly well. They will continue with the Corriedale stud, one of Australia's most successful, which CE Prell established in 1917.

Interwoven with the rural history of Gundowringa is the family love of cricket. The Gundowringa ground has an artificial pitch, pavilion, showers and a proud history. The 'Kookaburra Cricket Club' was an outlet for many rural families and hosted outstanding cricketers, the Prells being no exception. In an isolated area, Jeff told us that the wives were as much a part of the occasion as the players.

"Without the women we wouldn't have had any sandwiches."

Richard Carter

Richard Carter, a former neighbour of Prell's is one of three brothers who starred through the proud history of the Kookaburra Cricket Club. He has been a distinguished sheep and cattle breeder but today is renowned as one of the most reliable and skilled stock transporters around. Richard is a man who is clearly capable of most things he turns his hand to, including cricket, farming and politics to mention a few but the aspect of his life which has developed into a consuming passion is truck driving.

The day we spent with Richard in his Freightliner saw us heading for a yarding of 10,000 head of cattle in Carcoar, New South Wales. Jeff had told us that the view from the Freightliner's cab would make the 525-horsepower truck feel like a Boeing and he wasn't far wrong. The truck had done 860,000 kms since Richard bought it new in 2001 and they're all his.

"The truck's aging, the driver's aging and the dog's too old; he died" joked Richard, as his reason for now focussing on 'shorter' trips (6 hours around, twice, on the day we joined him to drive from Crookwell to Carcoar) whereas he "used to do more long haul."

With the gift of the gab and a gentlemanly sense of humour,

Richard once convinced a well-known South American Corriedale breeder that Johnny Walker is the truck driver's whisky and the reason the bottles are made square is so that they don't roll around under the driver's seat.

Roseville

Tony Manchester is as Australian as they come. He's a worker, talker and he is constantly improving his business. While he toils with leading Australian Angus and Corriedale studs and composite sheep, his son John is working on his own project. John's attempt to tread the challenging path to eventual farm ownership centres on earning a living part time contracting. Recently he bought a disc chain and using a bit of Australian ingenuity (not as strong as the kiwi stuff) he fixed a spray tank and boom to it. Now he's using the disc chain on farms across quite a wide area to spray and give stubble residues a moderate working in a single pass before sowing the next crop.

Tony and his family showed us a fantastic example of Australian generosity and hospitality, as well as exceptional sheep and cattle.

Abattoir Tour

After our stay at Tony's we headed back to Gundowringa via the meat works at Goulburn.



Andrew Rutherford & Maria Hoban inspecting Gundowringa rams with Charlie & Jeff Prell

Watching people bone shoulders in less than 15 seconds makes boning home-kill cuts embarrassingly slow. It seems though that as the meat works technology has marched on, it hasn't necessarily been matched by developments among consumers. We watched Lamb tenderloins packaged and labelled as mutton enter the chillers and our guide informed us that somewhere in the world those same parcels would be sold as beef.

Because so much Australian sheep meat heads for Middle Eastern

markets they kill lambs heavier than in New Zealand. Carcass weights generally were between 26kg and 29 kg the day we toured the abattoir.

The Young Ambassador Programme is a fantastic initiative from the Corriedale Society. If more of New Zealand's farming organisations took their lead and established similar initiatives we would be better looking after the young people we have coming through, and securing a brighter future for our agriculture.



PARHAM HILL CORRIEDALES

Flock 96, Culverden, North Canterbury
Bred for fertility, constitution, wool & conformation
since 1925

- ⇒ SIL recorded
- ⇒ Reducing micron while maintaining carcass traits & fleece weight
- ⇒ Predominant bloodlines in recent times; Glenovis & Wattlebank



ENQUIRIES WELCOME

Pat Hoban 0064 3 315 8108
James Hoban 0064 3 315 8250
parhamhill1@hotmail.com

Commercial Revival

In recent times Corriedales have found favour with a number of breeders looking to return to the stability offered by purebred sheep and the ability to fit into meat and wool contracts offering premiums. The following article is about one of the current Corriedale Councillors, Alistair Studholme, and the flock he and wife Annie run at Coldstream Estate. It was written by Sandra Finnie and printed in *Straight Furrow* in November 2011.



Alistair Studholme, fifth generation owner of Coldstream Estate Ashburton, has a holistic approach to farming the historic property. He likes to keep things simple.

The Studholmes farm in partnership and wife Annie is a busy freelance journalist.

Coldstream Estate runs north and south of the Rangitata River for 5km and is close to Hinds. It is one of the few properties in the district that has not converted to dairying, and, given Alistair prefers sheep to cows, conversion is unlikely.

There are some advantages to Coldstream being surrounded by dairy farms because it gives them a buffer for the various seed crops they grow. The 800ha property is intensively farmed and is a mix of cropping and sheep, with some irrigation.

Crops grown include lucerne, cereals and brassicas, and hybrid oilseed rape under contract for a British client of PGG Wrightsons.

While he gets help from agronomists for the crops across Coldstream, Alistair has his own ideas on arable practices which basically revolve around improving the depth of soil structure and looking at it in terms of what goes on beneath the surface and then working upwards to the plant and the animal on top.

“We plough and end up with beautiful soil and tilth and then a few years cropping and cultivations destroys the organic matter and the structure, so we have worked our systems away from ploughing.”

Alistair recently bought a Vaderstad Rapid drill – a machine that means he can choose to cultivate as much or as little as he likes because of its versatility. Pasture mixes are a vital part of the formula for improving soil structure and every plant has a part to play in the scheme of things.

For example, pastures include deep rooting chicory because when it dies the long taproot leaves a hole in the soil that breaks up deep compaction. Then, because Potassium leaches readily in our soils the living taproot draws it back to the surface cover and sheep can graze and manure the Potassium back into the topsoil.

Pasture is sown at the rate of 6kg Cocksfoot per ha, 15kg premium ryegrass per ha with the inclusion of red and white clover and plantain plus the chicory.

Alistair includes cocksfoot for a range of reasons, primarily because it has a deep root and a bigger root mass than rye grass and allows their minimal tillage to work more

successfully plus cocksfoot helps with initial soil conditioning as it taps into deeper moisture.

Coldstream Corriedales dovetail well into the property's intensive cropping operation while the harsh summers are a testing ground for stud ram lambs, the best of which are sold privately. There are 2800 commercial ewes.

The Corriedale Stud dates back to 1922 and while originally based on old bloodlines there has been careful breeding of new genetics over the years.

All ram lambs, flock and stud, are DNA tested as part of Coldstream's gene marker programme and the stud sires are resistant to footrot. The property is footrot free. Alistair says they are trying to breed in the finer end of the Corriedales, around 25-30 microns, because there is a demand for that range of fibre.



Photo courtesy of John McCaw, McCaw media

"We find the Corriedales are well suited to our system with the ewes on the dryland and they are very efficient in summer. They thrive on sunshine and drinking water when it is hot and can come up from the river flats onto the farm and graze the crop stubbles."

None of the stud sheep are run on irrigated property and this is to ensure they are well adapted to dry conditions and will shift well to similar environments.

"At flushing time if we don't have good grass cover, I don't hesitate to use barley. We find if we feed them barley at 250 grams a day it improves the ovulation rate and we get a good lambing percentage."

Alistair thinks Corriedales have come a long way in the last 15 years through genetic selections and gains in wool, conformation, fertility, growth rates and footrot and parasite resistance.

Coldstream was one of the early pastoral runs, initially 22,000ha, of flat tussock land that was subsequently drained and developed.

John and Michael Studholme purchased Coldstream in 1867. Years later the Labour Government of the time brought in the "Soldiers Resettlement Act 1915" and forced owners of large properties such as Coldstream to sell off some of their land as resettlement packages for soldiers after World War I.

During its heyday in 1875, Coldstream comprised 4000 acres in crop, was running 20 six-horse teams and had a staff of 35. It had its own post office, store, church room, library and recreation centre and employed a butcher and a blacksmith.

Alistair and Annie have two school-aged children, Olivia and Will, and the family is actively involved in their local community.





COLDSTREAM CORRIEDALES

Est 1922

Alastair and Annie Studholme
Coldstream Estate, Ashburton, New Zealand
P: 0064 3 3037379
E: coldstream@xtra.co.nz

www.coldstreamestate.com

MCKENZIES MAKE A CHANGE

Commercial breeders Malcolm and Sally McKenzie have recently increased the use of straight Corriedale ewes on their North Canterbury farm and have enjoyed pleasing results. The following is Sally's account of the experience since the change in breeding policy.

Malcolm and I farm at "Bel-Hamed" farm, on the Glasnevin flat - light, dry land. Our principal aim is prime lamb production for export, lambs to be sold at best prices before Christmas, usually October and November at 10-12 weeks of age. All ewes (Border Leicester/Corriedale cross) went to our Dorset Down rams.

Until recently we purchased first cross Border Leicester/Corriedale ewe lambs before Christmas, to lamb as two-tooth's, but as we are now unable to source them, we are replacing them with Corriedales. These have been a mix of older ewes and two tooth's, some to go to the Dorset Down, some to breed our own replacements.

We feel the sheep industry as it is needs a good base flock to breed back to for substance, size and constitution, with good wool weight and type.



CHANGE FOR THE BETTER

Two-tooth Corriedale ewes at Bel-Hamed in April 2012



During this phasing-in period we have had excellent results from the Corriedales, breeding both top export lambs and top ewe hogget's'. Last year the Corriedales not only scanned higher than Border cross ewes, at 172%, but also lambed and raised a higher percentage.

We have found the Corriedale ewes to be excellent mothers, and even though we had a high percentage of triplets, on top of all the twins, we had a very high survival rate, and the ewe's milked well.

From our first draft of Corriedale mothers in November, out of 300 wether lambs, only 27 remained, these going in early January.

This year we shored the Corriedale ewes in January, at 10 months growth & dense, white, well grown wool, 28 micron, for which we were well rewarded - ewes shored 5kg wool at \$5.29 per kg - this on top of the lamb production was very welcome.

We also have to say we find the Corriedales make for easy handling and certainly show very good temperament at lambing time, so we are quite convinced that we are on the right track.

MARLBOROUGH CORRIEDALE

Beef+Lamb New Zealand is a farmer-funded industry body tasked with improving productivity and profitability for Kiwi sheep and beef farms. Corriedale breeder Greg Harris was selected to be the Marlborough Beef+Lamb Monitor farm for three years in 2009. This meant that Greg's business was

opened for the community to view. All details were made available to the public and Greg hosted field days several times year. This was a significant achievement for Greg and great publicity for the breed because his Corriedales perform very well. The following was written by Joanna Grigg for *Country-Wide* following Greg's second public field day in October 2009.

The Harris family has always run a diverse operation and Corriedale sheep and Angus cattle have been part of the mix for over 60 years.

Mt Adde includes extensive shelterbelts, grape vines, forestry and areas of regenerating native bush.

Greg's grandfather was one of the first to irrigate from the Awatere river over 50 years ago. In 2004 the family planted their first sauvignon blanc vines. Mount Adde Sauvignon Blanc is contract grown for the Oyster Bay label, one of the strongest and fastest growing wine brands in the world today.



DALES PERFORMING WELL

Greg returned to the family farm in 2000. Prior to this he worked as a qualified builder and purchased rental property. He travelled around Britain on a Young Farmers Club Scholarship and visited abroad again in 2007 on a Commonwealth Youth Scholarship to Canada.

In 2008 he funded his own trip to Africa to participate in the Commonwealth Agricultural Youth Initiative.

Since returning to the farm he's overseen the development of 31ha of vineyard, construction of a 124,000-cubic metre dam and started a sheep and cattle stud.

The Marlborough Monitor Farm generated more income per stock unit than comparable farms in 2008/09.

The gross income was \$60/sheep stock unit (su) and \$82/cattle su. In comparison the Class Two farm average was behind at \$49/sheep su and \$53.50/cattle su.

But any profit was soon spent on capital pasture development, as Greg Harris continues his parents' and grandparents' work to eradicate gorse.

Speaking at the October field-day, Gary Walton from Beef + Lamb New Zealand compared Mt Adde's financial results for 2008/09 with Economic Service Class Two farm data. The big clipping Corriedales (average 6.7kg/head) meant Greg Harris's wool income of \$28/su was almost double the average for Class Two.





Greg hopes to contract 25% of the clip via Elders for the Ironbark and Cariboo contracts, grossing \$8/kg clean. Mount Adde sheep typically cut a true to type fleece of 22-28 micron.

Mt Adde Corriedale Sheep Stud was founded on the purchase of two tooth ewe's over a number of years from Bill Bains leading "WattleBank Stud" in Roxburgh (Central Otago).

The Corriedale stud is pulling its weight according to the analysis, with average revenue for the commercial and stud sheep at Mt Adde sitting at \$111/sheep stock unit (ssu). This was high compared to similar farms.

However, development costs at Mt Adde pushed the business into the bottom quartile for EBIT (earnings before interest and tax)/su.

Greg spent \$11/su on weed and pest compared to \$2/su average for Class Two farms. He sees the investment in removing gorse and upping stock numbers on Mt Adde as necessary to future survival. The gorse-spraying program was moved up a gear, with 40ha sprayed in 2006 and another 20ha sprayed in 2008.

Animal health spending was also high in 2008/09, at \$9/su compared to \$3/su average for Class Two. The extra cost from performance recoding, artificial insemination and blood testing in the Corriedale stud and Angus stud is the key reason.

However feed and grazing costs were also higher than typical (around \$6.50/su).



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Greg has a policy of only conserving a true feed surplus and so has to buy in hay and straw as a buffer.

Greg describes the fertiliser spend of \$6/su as below maintenance although there was some capital liming in this figure. Class Two farmers spent \$5/su on fertiliser in 2008/09 – a year marked by fertiliser price peaks.

Mt Adde is 800ha but only 449ha are deemed effective. 90% of the property is classified as hill country, roughly 5% flat and 5% rolling contour. The property is smaller than most Class Two farms but has a higher stocking rate.

Last financial year only 40% of Class Two farms made more money than they spent. The top 20% of farms were able to keep expenses to 70% of gross earnings. These farmers had an EBIT of \$28/su.

One of Greg's Monitor Farm Programme goals was to lift lambing percentage from the historic 120%. This has been well and truly met this current lambing season, with 147% lambs tailed/ewes mated (not including hoggets). Greg is predicting that the first lambs will be drafted in November and hopes 80% to 90% of sale lambs will make prime weights by Christmas. He bases this prediction on improving levels of annual clover in hill country swards.





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Andrew Sidey
"Mallochvale"
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Email acsidey@clear.net.nz

BREED CHAMPIONS WIN PRESTIGIOUS AWARD

In 2010 Dugald and Mandy Rutherford were named Supreme winners of the Canterbury Ballance Farm Environment Awards. These awards recognise farmers looking after the natural, financial and people resources associated with their business and community and are a highlight in New Zealand's farming calendar. The following article was written by Sandra Taylor for *Country-Wide* magazine in 2010 and has been updated to include some recent developments



No-one could ever accuse Dugald and Mandy Rutherford of not being patient. The North Canterbury farmers, who were Supreme

Winners in the Canterbury Ballance Farm Environment Awards in 2010, have just started to harvest trees that they began planting 35 years ago and are only now beginning to see a return on what has been a significant investment in time and money.

Foresters think differently to farmers says Dugald, who has a forestry degree but has also been a farmer for 35 years. Foresters tend to think in the long-term while farmers tend to be more short-term thinkers wanting a faster return on their investment.

But production wise, top irrigated land may produce up to 22T/ha/year whereas trees will produce 30-40T/ha/year without any fertiliser on what is often poor hill country.

Farm forestry covers a total of 220ha of the 6550ha of predominately hard hill country the Rutherfords farm in partnership with son Andrew in North Canterbury; this includes their home farm Melrose, Double Tops - the next door property purchased in 2011 and The Haystacks, a 332ha block of easier country a few kilometres up the road from Melrose.

For the Rutherfords, growing and managing trees is part of being custodians of the land and working with nature rather than against it. The hill country upon which they farm was, before man came along, covered in forests and this, says Dugald, is what the land is always trying to revert to.

"As land managers we have to be aware that what we are sitting on is something that wants to be something else."

He would like to see more leadership around land management and feels there has been something of a vacuum in this area for at least 20 years. There has been no discussion about the wholesale clearance of scrub and vegetative cover such as matagouri from hill country, a practice that the Rutherfords believe can be dangerous and damaging.

"These are complex systems we are dealing with and I think it's dangerous to play with them too much," says Dugald.

They believe this cover adds much needed resilience to the farm system which is important when the climate goes against them.

He worries that too many hill country farmers are getting into a monoculture situation by clearing cover, and says monocultures are not sustainable on hill country environments.

"It looks great when everything is right but when things go against you it's an expensive system. As soon as you stop putting fertilizer on it becomes a liability."

The forestry on Melrose has been strategically planted to allow access at harvesting and the result is blocks of trees at varying ages and stages which add both aesthetic and productive value to the farm.

These trees complement stands of native bush and amenity trees resulting in one of the biggest selection of trees found on any farm in the country.

Dugald and Mandy (who has an Agricultural Science degree) had a goal of planting trees annually when they began farming the property

back in the 1970s , because they saw the value in having an asset on the farm that was not stock related, was not tied to the land and could be totally separate from the farm income. The trees can be used either as an income when the couple choose to retire without burdening the farm and or an asset that can be passed on to future generations.

For the Rutherfords, their trees fit their farm programme rather than being an adjunct to it. They provide valuable stock shelter and grazing area and help conserve soil on steeper banks and areas vulnerable to erosion.

The partnership runs 4000 Corriedale flock ewes, 2300 hoggets, 800 Corriedale stud ewes, 750 each of super-fine Merino ewes and wethers, 650 beef cattle, 260 deer and 140

Pitt Island sheep which are used in their trophy-hunting business.

The Rutherfords are building on the foundations laid by Dugald's father who was something of a pioneer in the way he built tracks on Melrose and used a Tiger Moth to fly fertiliser onto the farm.

Being a long narrow property, a lot of time was wasted riding a horse to the back of the farm, so Dugald's father used a bulldozer to create Landrover access. He also used a blower mounted on the Landrover to blow fertiliser across hill faces and possibly most importantly, he carried out a lot of sub-division which allowed stock to survive the winter much better.

The sub-division, along with good farm tracks means they can move stock quickly and Dugald says they can





listen to the weather report at lunch-time and if snow is predicted they can quickly shift ewes onto safer blocks.

Snow is their biggest constraint on Melrose and for this reason the Rutherfords stick to a summer shearing programme- as they don't want full-wooled ewes in deep snow.

A large percentage of the country on Melrose is categorised as Class 7 and 8 but Dugald says that country is of great value to them as it acts as a safety valve in the system.

Merinos enable the Rutherfords to get a return from their high country which otherwise would be producing nothing and they have aligned themselves with stud breeder Russell Emerson with his Forest Range genetics to produce super-fine, high-value wool.

They say the progress their Merino flock has made over the years illustrates the power of recording, as their flock has improved in concert with the progress Russell has made in his flock.

Dugald, Mandy and Andrew are applying a similar philosophy to their Corriedale stud. They have recently taken over Edward Orr's stud and while they never sought to be stud breeders, they were keen that the Orr genetics continue.

Corriedales have been run on Melrose since the 1920s and the breed do well in the tough environment. The Rutherfords are determined to produce a Corriedale that can foot it with other breeds and to do this they are emulating what the North Island Romney breeders did some years ago.

"Those guys bit the bullet, put stud sheep on hard country and recorded them," says Dugald, which is exactly what they are doing with their stud sheep as they strive to maximise meat and wool production.

The Orr flock is famous for its resistance to footrot after Edward exposed the sheep to the disease and selected those animals that were not affected. They are applying the same philosophy with internal parasites and none of their stud ewes are drenched. They are working with AgResearch to carry out parasite resistant and resilience tests on their ram hoggets and applying breeding values to these results. They are also recording eye muscle area, wool traits as well as the usual characteristics and allocating breeding values on what are undrenched ram hoggets.

Dugald says they are trying to measure everything and provide SIL with as much data as possible. They are strong advocates of the SIL system and the objective information it generates.

The stud ewes get no supplementary feed, are not flushed and there is no light mob, despite the temptation to take the bottom end out of the mob.

"As breeders we need to find the top genetics and to do this the ewes need to be put under pressure."

Dugald admits they are not getting big numbers with lambing percentages with these ewes, but they are finding the genetics shift very well to easier country and last year several of their clients scanned over 170% and one that they knew of tailed 162%.

As the ewes are unshepherded at lambing (it is the sort of country where it would do more harm than good), patience is required when it comes to identifying which lambs belong to what ewe at tailing.

Dugald says they put the ewes and lambs into small groups to allow them to mother up. As the ewes lamb on extensive blocks, they don't believe there is much swapping between ewes and their progeny.



To remain in the stud flock the ewes have to be rearing good lambs and already they are seeing progress with some of their two-tooths which are weaning more than their own bodyweight off hard hill country.

Edward was breeding toward a fine-wool Corriedale but with the advent of the mid-micron contracts from companies such as Smart Wool, the Rutherfords are finding their clients are looking for 23 micron fleeces. Their hogget wool is 22-23 micron while the mixed-age ewe wool is slightly stronger at 25-26 micron.

In the commercial ewes they are running a store operation and in the recent years the wether lambs have been sold as store post-weaning, while the ewe lambs are wintered and the surplus are sold,

after shearing in November, to a breeder in Marlborough.

The Rutherfords winter 300 Hereford Angus cows and use Limousin and Charolais terminal sires.

Dugald and Mandy were some of the early deer farmers, starting off in 1979 with captured deer, but the enterprise was hit hard by TB in the 1990s. One year they had 32 reactors and made the decision to kill all their hinds. They now focus on breeding velvet and trophy stags for their game estate, which includes the Pitt Island Merino sheep. The Rutherfords have little contact with the hunters; rather a specialist guide does the actual guiding on designated blocks.

The semi-feral Pitt Island sheep need to be kept behind deer fences, but Mandy says they are the ultimate in easy-care sheep. They shed their fleece, they don't get flystrike, they never get bearing problems and the hoggets get in lamb easily. When they are born, the lambs are very small but get up and go within a very short time so survivability is good.

In the past two years Dugald and Mandy's four children have got together and planted 27ha of trees, carrying on with what Dugald and Mandy started back in the 1970s and

have decided amongst them they don't ever want to sell the farm they call home.

While the details of succession have yet to be worked out, the trees will ensure that Mandy and Dugald will continue to have income when they choose to step back from the day-to-day business of farming while the next generations can reap the benefits of their foresight.

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We wish all Breeders a Happy and successful congress. Family circumstances prevent our attendance.

CONFERENCE PAPERS

XIV WORLD CORRIEDALE CONGRESS

BRAZIL 2012

Using Genetics to Improve the Lean Meat Yield of Lamb



**Patricia Johnson,
AgResearch
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New Zealand**

(tricia.johnson@agresearch.co.nz)

Although the absolute relativity varies annually, the contribution of prime lamb to the overall profitability of sheep production, relative to wool, has continued to increase in New Zealand. New Zealand lamb producers have traditionally been paid for their prime lambs by meat processors based on carcass weight and GR (soft tissue depth 110 mm off the mid-line in the region of the 12th rib) measurement of the carcass. New Zealand meat companies are now introducing technologies to objectively estimate whole carcass lean meat yield and pay financial premiums to farmers who produce lambs with improved total carcass lean meat yield.

Variation in lean meat yield is controlled by genetic and non-genetic factors. Breeding values (BVs) are an estimate of an individual's genetic merit for traits of interest and are calculated based on data collected on animals adjusted for non-genetic effects and takes into account genetic relationships. Ideally data on the actual traits of interest must be collected on the individual, or on its relations (e.g. siblings or progeny). Within New Zealand BVs for the New Zealand sheep industry are generated by Sheep Improvement Limited (SIL).

Whereas generating data to estimate BVs for growth is relatively simple because all animals can be weighed, generating data to estimate BVs for carcass traits directly on potential breeding individuals is difficult. Instead, of the actual trait of carcass lean meat yield being measured, live animal measurements which are a predictor of carcass lean meat yield have to be used. The most common method used is ultrasound scanning a cross section of the M. longissimus dorsi between the 12th and 13th rib to give the width, depth and area of the muscle along with the fat depth above muscle.

The accuracy with which it predicts total carcass lean meat yield is only moderate however. A more accurate live animal prediction of carcass lean meat yield can be achieved using

Since 2002 there has been a national progeny test set up within New Zealand – the Beef+Lamb NZ Central Progeny Test (CPT). What the CPT has demonstrated is that there is as much variation in breeding values for lean



Computed Tomography (CT) scanning of the whole animal. An alternative way of estimating the genetic merit of sires (rams) for lean meat yield is via progeny testing, whereby progeny are generated by mating a number of sires to commercial ewes with the resulting progeny slaughtered and measured for carcass traits, with the data collected on the progeny used to estimate the sires BV.

meat yield within breeds as there is between breeds. Corriedale rams have been used in the CPT.

More recently genetic markers for lean meat yield have become available which aid genetic selection (Carwell in Poll Dorsets and Myostatin Mutation in Texels).



Moving to the future Genome Wide Selection for lean meat yield will become available for certain breeds which will further genetic selection of elite sires. The ability for Corriedale breeders to make use of genetic marker technology is however limited due to insufficient data being available to establish the relationship between genetic markers and lean meat yield.

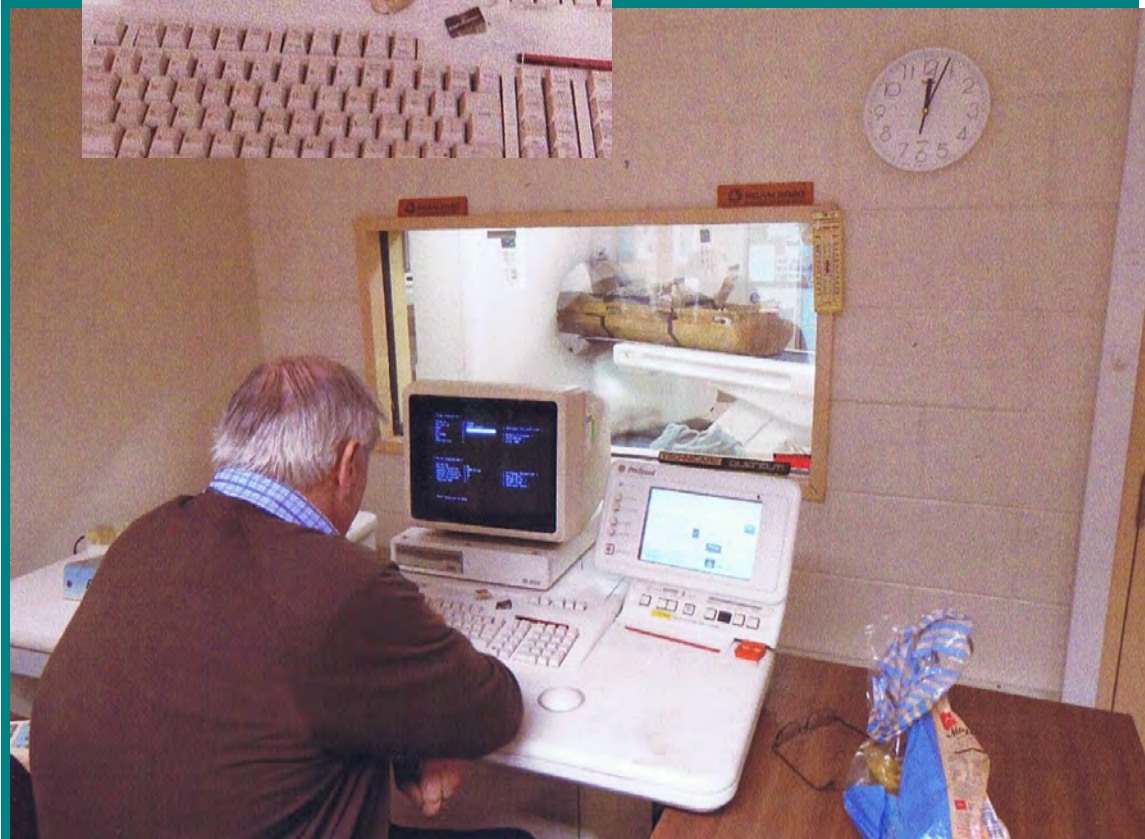
Corriedale breeders in New Zealand have and continue to use ultrasound scanning to obtain data to estimate BV's of their sires for lean meat yield,

but are now also using CT scanning to improve the estimate of carcass lean meat yield across the whole carcass which will lead to the identification of sires whom produce

lambs with increased lean meat yield. However, the emphasis placed on selection for carcass lean meat yield versus other economically important traits, such as reproduction and wool, will need to continue to be balanced.



Photos on this page and previous two pages show CT scanning process with a Corriedale ram lamb— photos courtesy of Tom Burrows.



CONFERENCE PAPERS

XIV WORLD CORRIEDALE CONGRESS

BRAZIL 2012

Improving Lamb Survival

Associate Professor Jon GH Hickford*, Lincoln University, New Zealand (Presenter)

Associate Professor Rachel HJ Forrest, Eastern Institute of Technology, Napier, New Zealand

Lamb deaths are a large cost to the sheep industry world-wide. The total number of lambs that survive to weaning impacts more on the weight of meat and wool produced each year, than the individual performance of each animal. In addition to the direct cost resulting from the loss of the dead lambs, there are also indirect costs incurred by the industry from wasted feed used in maintaining a ewe through pregnancy, the reduced productivity of the hypothermic and underweight lambs that manage to survive, and the likely reduction in genetic gain through having fewer lambs surviving to selection. Furthermore, lamb deaths may increasingly become a welfare issue, especially in high-value markets.

*Associate Professor Jon GH Hickford—
Conference
Presenter*



While completely eliminating lamb deaths is impossible, a variety of things can be done to improve survival and hence sheep productivity. In this presentation I will discuss some of these things including the effect of ewe nutrition, birth weight, fecundity genetics, and in the context of our research; the role of specific genes.

In New Zealand, the majority of lamb deaths occur in the first three days after birth and range from 5% to 30% for individual sheep flocks. Whilst historically emphasis in New Zealand has been placed on “easy-care” ewe systems, newborn lamb deaths are still fundamentally a consequence of varying combinations of under-nutrition of the pregnant ewe, dystocia or birth stress, mis-mothering, starvation and/or exposure of the newborn lamb. Each of these variables can be strategically improved, with the overall outcome being improved productivity.

For example, when additional feed is made available to multiple-bearing ewes in late pregnancy, lamb

mortality is typically reduced, both through the reduction in adverse metabolic effects and improvement in birth weight. I will present evidence from our research showing that birth weights below 2.5kg have dire consequences for survival. In the context of ewe nutrition, it has also been shown in New Zealand that heat-loss from the ewes leading up to lambing had a greater impact on lamb survival than heat-loss recorded on the day of birth or thereafter. Adequate shelter systems are therefore important, and not just for the newborn.

In New Zealand, dystocia or birth stress is a problem and can be a consequence of lamb birth weight, sire breed, dam pelvic conformation, mal-presentation, maternal overfeeding, prolonged parturition and increased fecundity. It is perhaps surprising that dystocia is now recorded as a problem with triplet births, and in the context of the typically lighter lambs from multiple births and mothering challenges with these lambs; excessive fecundity needs to be controlled.

Having more lambs as a consequence of having high fecundity genetics is not a benefit if those lambs are more likely to perish from being prone to birthing difficulties and have lighter birth weights.

In our research we have been investigating genes that affect lamb survival. A key gene in this respect is the beta-3 adrenergic receptor gene. Inheritance of a particular allele of this gene has been associated with increased lamb deaths (both cold-related and in total) as a consequence of starvation, mis-mothering and exposure. This genetic variation in the beta-3 adrenergic receptor gene is now the basis of a commercially available gene-marker test used to increase the accuracy of selection when breeding for more cold-tolerant lambs.

The favourable forms of the beta-3 adrenergic receptor gene for survival have also been associated with increased birth weights and/or increased growth rates up until weaning and beyond along with positive impacts on wool characteristics. While these effects are not large, they are never-the-less significant.

NEW ZEALAND CORRIEDALE

Flock No	Prefix	Flock Name	Address
4	Teviotdale	Estate G D Greenwood	c/- The Manager, Teviotdale, RD 1, Amberley 7481
11	W.R.M.	Estate A R Mackintosh	White Rock Mains', RD 2, Rangiora 7472
49	Coldstream	Coldstream Estate	c/- A W A & A C Studholme, 'Coldstream', RD 3,
54	Mack	Ian C Mackintosh	c/- J C Mackintosh, RD 3, Amberley 7483
62	Glenovis	A D Sidey	Glenovis', Hawarden, 7385
89	Longfield	J G & Est J H Booker	Longfield, 386 Dalmeny Road, Hawarden 7385
96	Parham Hill	P J & J A Hoban	Parham Hill, Culverden 7391
139	Brooklyn	C H & L R Ridgen	Brooklyn', Greendale, R D 1, Christchurch 7571
190	Te Rapa	D J Buick	Te Rapa', Ure Valley, Private Bag 1244,
203	Clifton	A F G Blakely	Unit 2, 40 Ranfurly Street, St Albans,
316	Wattlebank	W E & P M Bain	Wattlebank', R D 1, Roxburgh East 9571
408	Collie Hills	Collie Hills Partnership	c/- E Ross, 'Collie Hills', Hakataramea RD,
420	Holly Farm	N J Moorhead	Gumcroft', RD 3, Leeston 7683
457	Dog Hill	T J, L E & L M Taylor	Dog Hill', Ward 7248
498	Strathblane	J K & R M Sidey	93 Hawarden Waikari Road, R D Waikari 7491
506	Wendrum	G R & K M Millar	Wendrum', Southbridge, RD 3, Leeston 7683
526	Belnacraig	N W Briggs	Belnacraig Corriedale Stud, Claremont, RD 4,
534	Melrose	D K & M J Rutherford	Melrose', 1193 Virginia Road, Hawarden 7385
561	Erissey	G G & B M Gilbert	Erissey, R D 3, Leeston 7683
564	Blythe Downs	S J Field	c/- R W Wilson, 1213 Main West Road, West Melton,
571	Eudunda	T J & F M Burrows	Aberchirder', 1821 North Eyre Road, Horrellville,
576	Lockerbie	M A Sidey	P O Box 56, Cheviot 7310
583	Marawha	M A & M W Moorhead	c/- R W Wilson, 1213 Main West Road, West Melton,
590	Mairangi	Seaview Partnership	c/- D N, M H & A G Evans, 'Seaview', RD 3,
631	Wilfield	G R & R W Wilson	1213 Main West Road, West Melton, RD 1,
642	Mallochvale	Andrew C Sidey	Mallochvale', Hawarden RD 7385
648	Tyrone	M V & A M O'Brien	c/- Lindis Crossing, 2790 Tarras Cromwell Rd, RD 3,
654	Mt Adde	Mount Adde Ltd	c/- G Harris, 'Mount Adde', 306 Awatere Valley Road,
656	Amberfield	T A & C M Beaton	26 Willow Lane, Leithfield, RD 1, Amberley 7481
658	Gargustan	J K W & M K Hoban	211 Mouse Point Road, RD 1, Culverden 7391

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GLENOVIS CORRIEDALE EWES AWAITING TRANSPORT TO THE
2012 GOLDEN SHEARS IN MASTERTON

photo courtesy of Sarah Thompson

COLDSTREAM EWES (front cover) photo courtesy of Annie Studholme