



# IT'S ALL IN THE HERD

AUTUMN 2017



## Help now at hand for nitrogen leaching

**CRV Ambreed took the farming world by storm recently with a major genetic discovery. It anticipates this will reduce nitrogen leaching on New Zealand farms by 20% within 20 years.**

CRV Ambreed is now marketing bulls under the LowN Sires™ brand; these bulls are desirable for traditional traits as well as being genetically superior for a new trait that is related to the amount of urea nitrogen in milk.

Their daughters will have reduced concentration of Milk Urea Nitrogen (MUN), a measure of the amount of nitrogen contained as milk urea. CRV Ambreed says there's overwhelming international

evidence of a direct connection between MUN and the amount of nitrogen excreted in urine when cows are fed different diets.

Environmental award-winning Waikato farmer John Hayward, pictured, says the world expects farmers to be looking after the environment. Hayward, who runs Judge Valley Dairies Ltd, says the breakthrough "is a whole other level" and will help ensure farmers can manage the environment sustainably.

He says the forecast potential reduction in nitrogen leaching of 20% within 20 years is impressive. "It's a massive drop, and if we can achieve that, that means farmers don't have to do anything different than the good work they are already doing in regards to the environment. It's just about selecting the bulls with the genetic advantage to make this big impact on the levels of nitrogen excreted into pastures."

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## Welcome to our latest issue of It's All in the Herd

We're very pleased to be sharing with you this copy of It's All in the Herd. It's been an exciting few months for us at CRV Ambreed, and we're looking forward to sharing our latest news with you inside this publication.

This edition has a very strong focus on LowN Sires™, our genetic discovery that we anticipate will deliver a 20% reduction in nitrogen leaching within 20 years. It's exciting and it's a genetic tool that helps farmers with environmental improvement and compliance.

At CRV Ambreed, we believe in breeding Better Cows for a Better Life. Better Cows are healthy, efficient and easy-to-manage and Better Life represents the benefit to both the herd, the farmer and our environment when you have Better Cows.

We love talking to farmers about how strategic use of genetics can help achieve this. Get in touch with your CRV rep for an on-farm consultation around your herd goals, or pop in and see us at the New Zealand Agricultural Fielddays in June – we're at Site F51.



Matt Macfie, left, pictured at the LowN Sires™ launch, with CRV Ambreed MD Angus Haslett and R&D Scientist Phil Beatson.

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## Breeding with LowN Sires™ bulls expected to reduce nitrogen in cows' urine

**LowN Sires™**  
Lower Nitrogen - Brighter Future

Five years of CRV research has resulted in identifying and marketing bulls whose daughters have the potential to save the nation 10 million kilograms a year in nitrogen leaching.

LowN Sires™ bulls are desirable for traditional traits as well as being genetically superior for a new trait that is related to the amount of urea nitrogen in milk (MUN).



CRV Ambreed's MD Angus Haslett, left, and R&D Scientist Phil Beatson.

CRV Ambreed R&D Manager Phil Beatson says there's overwhelming international evidence of a direct connection between MUN and the amount of nitrogen excreted in urine when cows are fed different diets.

"If this connection carries over, cows bred for lower levels of MUN are expected to excrete less nitrogen in their urine which will, in turn, reduce the amount of nitrogen leached from grazed pasture."

CRV Ambreed Managing Director Angus Haslett says there is still research to be done to further test and confirm the genetic development and CRV is working with DairyNZ, AgResearch and Lincoln University on this.

The genetic announcement was welcomed by major industry players such as DairyNZ. DairyNZ Strategy and Investment Leader for Productivity, Dr Bruce Thorrold, says the potential for farmers

**"Cows bred for lower levels of MUN are expected to excrete less nitrogen in their urine which will, in turn, reduce the amount of nitrogen leached."**

to reduce nitrogen leaching by breeding cows with lower urinary nitrogen output is exciting.

"If the planned science proves the link between breeding for MUN and

urinary nitrogen output, this would give farmers in nitrogen-limited regions such as Canterbury more options to reduce nitrogen leaching without going away from a pasture-based system.

"Animal breeding would potentially add to gains from DairyNZ investment in research on managing nitrogen inputs, using stand-off and finding plants with lower nitrogen content."

Haslett says many people are keen to learn how LowN Sires™ can contribute to a more sustainable dairy industry. He encourages everyone to visit the CRV Ambreed stand at this year's New Zealand Agricultural Fielddays to find out more.

[www.crv4all.co.nz/lownsires](http://www.crv4all.co.nz/lownsires)

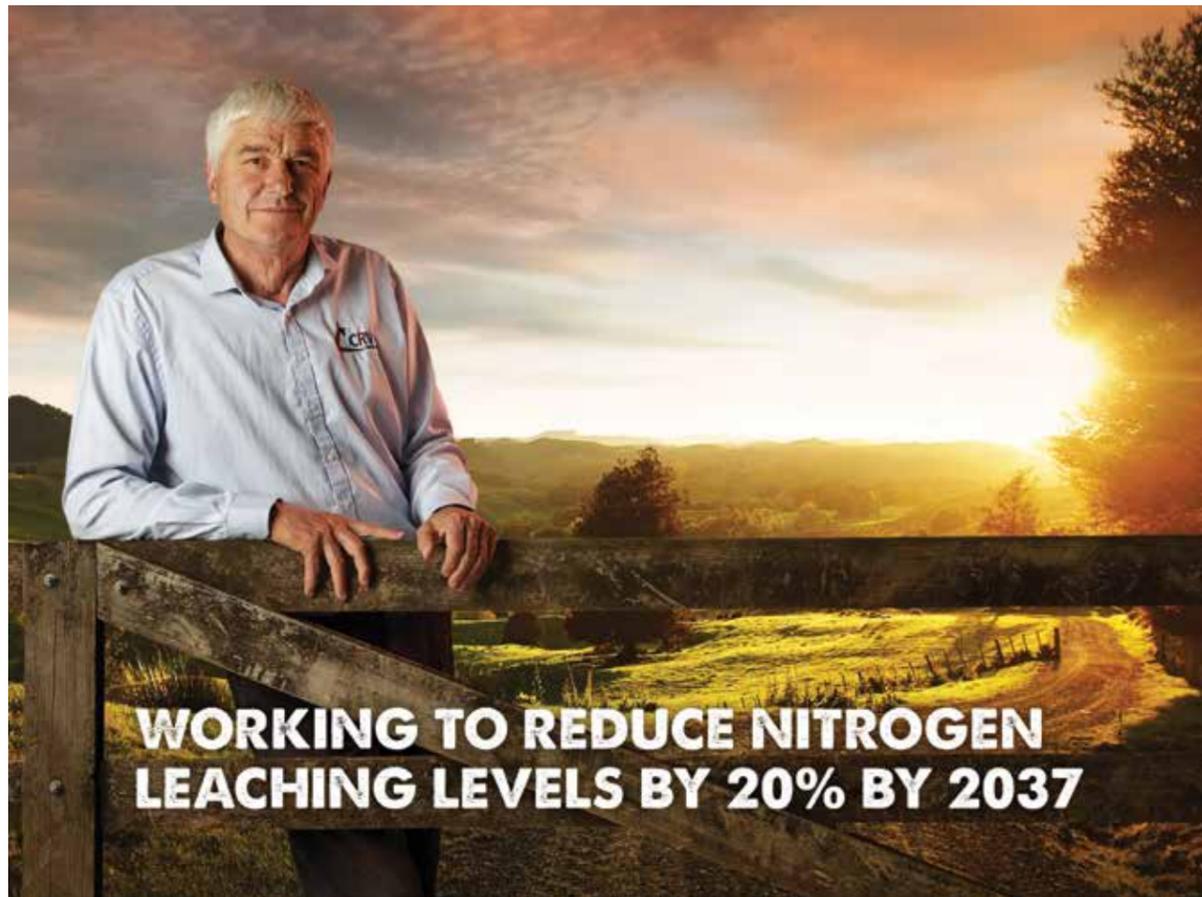
## FARMERS WANTED TO JOIN THE CRV AMBREED PROGENY TEST PROGRAMME

CRV Ambreed has openings for farmers to join our Progeny Test Programme this season.

### You will get:

- ✓ Elite young bulls at a fantastic price
- ✓ DNA verification for free
- ✓ And the opportunity to jump the queue and get genetic gain earlier.

We're very interested in discussing this opportunity with you. Get in touch with your local CRV Ambreed sales rep today, call our customer support team on 0800 262 733 or simply visit the website, [crv4all.co.nz](http://crv4all.co.nz) for more details.



CRV Ambreed is working to help make the New Zealand dairy industry more sustainable, thanks to research by R&D Scientist Phil Beatson.

## Lowering nitrogen in urine is anticipated to reduce impact on environment

**CRV Ambreed's discovery that could help reduce nitrogen leaching on New Zealand farms by 20% within 20 years is thanks to the company's R&D Scientist Phil Beatson.**

CRV Ambreed's research has focused on breeding to reduce the amount of nitrogen excreted in urine. Nitrogen taken in by cows in their diet is converted into five areas: milk protein (+ urea); growth (muscle is protein); dung; gases; and urine. "From an environmental perspective, we saw urine as being the big issue because of its impact on water quality," Beatson says.

Now, in what's thought to be an international first, CRV Ambreed is selling semen from more than 20

existing, high-performing bulls under a LowN Sires™ brand.

These bulls are desirable for traditional traits as well as being genetically superior in their ability to

**"It could save 10 million kg in nitrogen leaching a year within 10 years."**

reduce concentration of Milk Urea Nitrogen (MUN) in their daughters. MUN is a measure of the amount of nitrogen contained as milk urea.

Beatson says there's very strong international evidence of a direct connection between MUN and the amount of nitrogen excreted in urine when cows are fed varying diets.

Cows with low MUN excrete less nitrogen as urine.

Beatson and the CRV Ambreed genetic research team has investigated the genetics of MUN. The rationale has been that if it's

possible to reduce MUN through traditional genetic selection means, and providing the relationship between MUN and amount of

nitrogen excreted in urine holds, then the genetically improved animals for MUN will excrete less urinary nitrogen and hence leaching per animal and per hectare can be reduced.

"It could potentially save New Zealand 10 million kilograms in nitrogen leaching a year within 10 years, based on the national herd number of 6.5 million dairy cattle. Modelling suggests that farmers who start a breeding programme for low-MUN now could reduce nitrogen leaching by 10-12% by 2025," says Beatson.

Another important outcome of the CRV Ambreed research is evidence pointing to low-MUN cows having higher protein content in their milk. The evidence suggests that cows of differing genetic makeup for MUN are partitioning dietary nitrogen differently.

"What we have found is a situation where breeding for low-MUN may not only reduce urinary nitrogen and leaching, but also increase the efficiency with which dietary nitrogen is used for milk protein production. If this is the case breeding to lower MUN results in two very significant outcomes."

Beatson's research was designed to identify superior bulls for MUN with the specific aim being to provide low-MUN bulls to breed cows that excreted less nitrogen in their urine.

"It's exciting news for farmers, knowing that they can reduce MUN and very likely can help meet their environmental compliance by breeding," he says.

"Those same cows seem to be using nitrogen otherwise excreted as urine to produce more milk protein. That is important not only for the environment but also to improve animal efficiency," Beatson says.

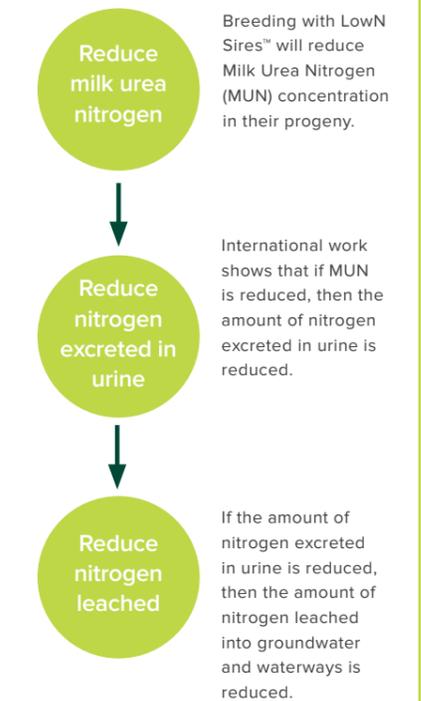
**Briefings for interested groups are available from CRV Ambreed and CRV Ambreed reps are available for farm consultations about LowN Sires™. Phone 0800 262 733.**

### How does LowN Sires™ work?

International research shows a strong link between MUN and the amount of nitrogen excreted in urine when cows are fed varying diets. Cows with low MUN excrete less nitrogen as urine.

If it's possible to reduce MUN through traditional genetic selection means, and providing the relationship between MUN and amount of nitrogen excreted in urine holds, then the offspring will excrete less urinary nitrogen and leaching per animal and per hectare is reduced.

#### The Pathway



**Farmers can begin using LowN Sires™ now in order to begin reducing MUN through genetics.**

### Follow the conversation with us online

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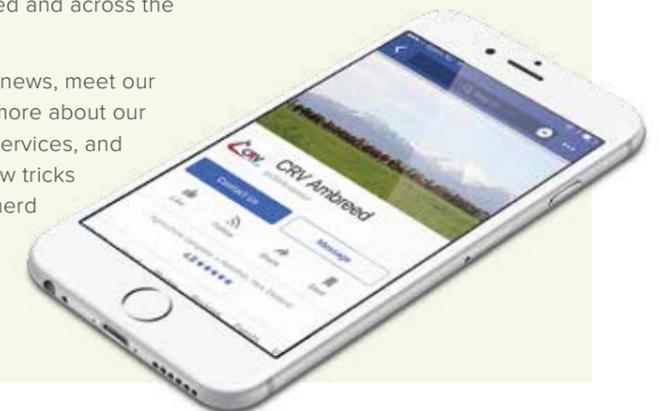
youtube.com/crvambreed

#### Be part of the discussion.

We're a social group of people and want you to be part of our social network.

Keep up-to-date with LowN Sires™ and other developments at CRV Ambreed and across the dairy industry.

Find out latest news, meet our people, learn more about our products and services, and share a few new tricks to reach your herd improvement goals.



# Using genetic tools to improve herds is the key to “Better Cows, Better Life”

Genetic improvement is about long-term gain. It’s demonstrated in the production, fertility and health of your herd, through to your herd’s overall efficiency and potential environmental footprint.

Our exciting portfolio of bulls includes new genetic tools such as LowN Sires™ and polled, as well as strengthened existing traits, such as protein, production, udder overall, capacity and fertility. Whatever your goal, we have the genetic solution to help you achieve it.

Here’s a selection of bulls from the exciting LowN Sires™ team.



AMBZED BROPHYS **ADIOS** S2F (F14J1)

- Good capacity
- Great udder overall
- High solids



TRALEE MINT **AVALANCHE** S3F

- Great overall opinion
- High efficiency
- Strong udders



ALJO TEF **MÆLSTROM-ET** S3F

- Good protein
- Reliably proven
- Excellent udder overall



ROS MHOR TEF **SHADOW** S1F

- Great fertility
- Great body condition
- Good capacity



LORNLACE RUPERT **DUNSTAN**

- Good body condition
- Health-improver
- Great shed traits



MIDDLEVALE MINT **BRAVE**

- Good protein
- Outstanding udders
- Low Cell Count



RANGEVIEW MPG **GLOWING** S2F

- Superb fertility
- Easy calving
- Fantastic longevity



BRAEDENE PAS **TRIPLESTAR**

- High protein
- Superb body condition
- Top seller



WAITEITEI SUPER **MAXWELL**

- Size-improver
- Awesome shed traits
- Good capacity



PUKETAWA AD **SUPERSTITION**

- Efficient convertor of feed to milk
- Great overall opinion
- Good fertility



ARRIETA NN **DEGREE** ET

- Superb longevity
- Farmers love the daughters and are using him again
- Good fertility



DEVON HMJ **SENTINEL** SJ3

- Short gestation
- Good longevity
- Good fertility



HAURAKI CHECK **SENNA** F9J7

- Easy calving
- Big solids from robust cows
- Facial Eczema-tolerant



MENDELSSOHN **J9F7**

- Easy calving
- Efficient convertor of feed to milk
- Great longevity



SELWYN **F11J5**

- Great fertility
- Good udder overall
- Good body condition

## Global genetics give great options

Former CRV Ambreed regional sales manager Sue Duffy recently stepped into a new role where she is using her knowledge of New Zealand grazing systems to help farmers select the right CRV global genetics for their herd.

CRV Ambreed has access to some of the world’s best bulls, as well as a large range of breeds including Holstein Friesian (USA, Holland,

New Zealand), Jersey (New Zealand, USA and Australia), Ayrshire, MRI and Fleckvieh.

Overseas genetics provide great outcross options if farmers want to steer away from New Zealand bloodlines and increase the genetic diversity in their herd.

Duffy says CRV Ambreed’s global genetics are carefully selected using

the same guidelines as New Zealand sires, including the capacity to increase production, health, efficiency, fertility and longevity in the herd.

“By selecting the right traits, farmers can boost their production while also achieving great type, good capacity and good udders,” says Duffy.

“I’ve been lucky enough to spend some time in Holland looking at some

of the daughters milking. This has given me great confidence in bringing the product here to New Zealand.”

Duffy says some farmers ask about the adaptability of overseas genetics to New Zealand farming systems. A common assumption is that overseas genetics are only suitable for systems 4 and 5.

“There are options for all farming systems and environments. One

option is to step your toe in the water and give one or two of our overseas sires a go for some cows, and then New Zealand genetics for the rest. The graphs in our catalogue are simple to understand and I’m here to help if you have questions.”

[www.crv4all.co.nz](http://www.crv4all.co.nz)

## CRV's herd testing and recording options

CRV Ambreed's herd testing and herd recording services are well-established and there are several options available to dairy farmers, says IT/IM Manager Andrew Singers.

Herd testing is the best way of identifying the high and low performers in the herd, and recognising individual cows requiring treatment, culling or veterinary attention.

"We are unique in that we have fully-trained herd testing technicians attend every herd test to set-up meters, record volumes and take samples, which ensures the accuracy of data collected. We also provide farmers with a full herd test report electronically as soon as the results have been analysed," Singers says.

He says CRV Ambreed's CRV Insight herd recording service is also easy and convenient to access.

"We recommend herd recording and herd testing together, especially when it comes to looking beyond single herd tests to find the superstars and duds of your herd," Singers says.

He advises those farmers wishing to start herd testing and recording with CRV Ambreed to talk with their local sales consultant in the first instance.

[www.crv4all.co.nz](http://www.crv4all.co.nz)



CRV Ambreed's Patsy Booth with the new herd testing machine, the Milkoscan FT+.

## CRV Ambreed invests in new herd testing machine

**CRV Ambreed has a new \$450,000 machine that will increase capacity for herd testing and from later this year will be able to provide more detailed information on mastitis.**

The new machine, a Milkoscan FT+, has immediately boosted herd-testing capacity to 800 samples an hour, providing farmers with analysis on individual cows' production while also identifying high and low performers in a herd.

The machine, from Denmark, has been installed and calibrated on CRV Ambreed's behalf at MilkTest NZ in Hamilton.

The second part to this machine, the Fossomatic 7 DC, will be released onto the market soon, says CRV Ambreed Managing Director Angus Haslett. It will work in combination with the Milkoscan FT+ to provide advanced forms of somatic cell count analysis.

Haslett says this advanced analysis will help farmers manage mastitis in herds.

The SCC analysis capacity will provide information about what stage the mastitis is at, helping farmers make strategic decisions around medical treatment that might be needed, including the amount of antibiotics used.

"This is the latest technology available from FOSS in Denmark which runs a huge Research and Development arm and is always innovating in the herd-testing market," says Haslett.

"We're pleased to be able to bring this level of innovation and investment to dairy farmers in New Zealand."

## Seeking AI technicians

**CRV Ambreed is once again on the hunt for New Zealand's top Artificial Insemination (AI) technicians to join the team this year.**

CRV Ambreed's AI service is second to none and its certified AI technicians work throughout New Zealand inseminating about 500,000 straws a year.

If you have AI experience, then CRV's AI Services Manager Cara O'Connor says "you may be the gal or guy we're looking for".

"Our technicians play such a pivotal role in the success of our clients' farming businesses. We believe all our customers should expect to receive superb service and the best conception rates they could ask for," O'Connor says.

CRV Ambreed is anticipating a greater uptake of its AI technician service this year with higher straw sales compared to this time last year.

O'Connor says this will add to an already demanding role, and to ensure a successful 2017/2018 mating season, CRV Ambreed will only recruit the best of the best for the 200-person team. All technicians receive excellent training.

"We value our technicians and make sure they are well-supported by experienced supervisors through the course of the season.

"This is a great opportunity to supplement your income this year," O'Connor says.

**For more information, talk to a CRV Ambreed rep or phone 0800 262 733.**



Laura Campbell and Zach Mounsey on the farm.

## Young farmers are big fans of CRV Ambreed's bulls

Laura Campbell and Zach Mounsey sharemilk on a 108ha dairy farm in Te Kuiti. They've used CRV Ambreed's bulls for the past three years.

"As DIY inseminators, we've found having all our semen from the start gives us the flexibility to do inseminations when we want to. I would absolutely recommend CRV Ambreed," Laura says.

"We pick from their top sires because as 50:50 sharemilkers our herd is our biggest asset.

"Being Once-a-Day milkers from December onwards, we really look for longevity in our bulls." Laura says they look for bulls who produce daughters with strong udders and they "like to chase high protein".

"We think the new LowN Sires™ are very interesting. Any steps we can take towards having less nitrogen in the environment is positive. The development of these new sires is a great stepping stone for some farms that are going to have to change in the near future to meet new legislation."

# Wanted: farmers to join CRV Ambreed's important progeny test programme

Braedene PAS TRIPLESTAR is number 3 on New Zealand's Ranking of Active Sires list (May 2017) for Jerseys and is currently CRV Ambreed's number one selling Jersey bull and a recent graduate of our progeny test programme (see below).

The Progeny Test herds are the nucleus of the CRV Ambreed breeding programme ensuring the Triplestars of the world shine through.

"We test the daughters of our bulls' performance, milk production

and type in a range of production and climatic environments," CRV Ambreed's Progeny Test Programme Manager Ella Strawbridge says.

Farmers who sign up to CRV Ambreed's progeny test programme play a central role in determining the future progress of New Zealand's dairy industry, and they get the benefits of the likes of Triplestar long before he graduates.

Each year 150 new young bulls enter CRV Ambreed's progeny test programme. It is important to have

a geographical and environmental spread, so CRV Ambreed sends quantities of each bull to as many herds throughout the country as possible. The elite Jersey, Holstein Friesian and Crossbred bull calves carefully selected for the programme will ultimately enhance the dairy herds of the future.

After four years, the cream of the crop – those who will provide the highest genetic gain for dairy farmers – will be selected to graduate and will be marketed as proven sires.

"Farmers who are part of our progeny test programme get access to the next generation of top genetics before anyone else," Strawbridge says.

"Each year the industry standard is 10-point increase in genetic gain; this year's graduate progeny test team is 12 points, so we are confident in saying they are receiving incredibly good genetics at a cost-effective price."

**CRV Ambreed is looking for Holstein Friesian and Crossbred herds from farmers who can commit to mating their herd with progeny test sires, keep excellent herd records and herd test regularly. To be part of the programme, phone 0800 262 733.**

## Benefits of being part of progeny test:

- ✓ Free DNA verification
- ✓ Get elite young bulls at a fantastic price
- ✓ Flexibility to nominate a portion of your herd with proven bulls
- ✓ Financial rebate per milking heifer
- ✓ Gain extra information on your herd, such as weights and TOP scores, free of charge.

## Meet the new crop of CRV Ambreed's graduate bulls – 14 new stars join the team

The dairy industry's latest crop of Casanovas hit the market in March with 14 new graduates adding to an exciting line-up of sires this year.

There's an impressive-looking Jersey team this year with the addition of new graduates Triplestar, Benji, Maxwell and Photon.

Triplestar currently takes out the number 3 spot on New Zealand's Ranking of Active Sires (RAS) list (May 2017) for Jerseys.

Seven new graduate sires have also joined the Friesian team in 2017, including Raven, a high-indexing bull who takes the number 3 spot on the RAS list for Friesians and number 4 spot for all breeds.

A top bull over the course of its lifetime can produce more than half a million doses of semen for domestic and international sale, have tens of thousands of daughters, and have a long list of sons enrolled on the animal evaluation database for herd improvement in New Zealand.

[www.crv4all.co.nz](http://www.crv4all.co.nz)



**MAIRE MINT GERONIMO**  
Breeder: C & C Rowe, Palmerston North



**TRALEE ME RAVEN-ET S3F**  
Breeder: T & F Anderson, Winton



**LORNLACE MINT DESIRE-ET**  
Breeder: A & S Henderson, Putaruru



**BRAEDENE PAS TRIPLESTAR**  
Breeder: B M Thompson, Ohaupo



**FREYDAN CNP PHOTON ET**  
Breeder: D & F Lynch, Waipu



**AMBZED BROPHYS ADIOS S2F**  
Breeder: T & S Brophy, New Plymouth



**WAIHOU THADIUS MURPHY S3F**  
Breeder: D L Marshall, Te Puke



**UPLAND PARK CNP BENJI JG**  
Breeder: A & N Walford, Matamata



**WAITEITEI SUPER MAXWELL**  
Breeder: G Collins, Wellsford



**LODORE TOSKIKKO SNOWCAP ET**  
Breeder: R & J Hutchings, Okaihau



**TRALEE ME RUSSO-ET S2F**  
Breeder: T & F Anderson, Winton



**RIVENDELL G-FORCE AXEL**  
Breeder: O & C Copinga, Otautau



**HAURAKI CHECK SENNA F9J7**  
Breeder: M & D Townshend, Ngatea



**GLENMEAD MISSION F12J4**  
Breeder: K & F Clark, Waimana

Introducing the CRV Ambreed

# GENE TEAM

GENE TEAM



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GENE TEAM



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GENE TEAM



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GENE TEAM



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GENE TEAM



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**BETTER COWS | BETTER LIFE**

