

Deer Industry News

A Turning Point

New parasite test could save industry \$50 million a year

OUR DEER HERE

IDBC a global meeting of minds

KING PINS

Royal awards for Andy Macfarlane & Graham Carr

RINGING THE CHANGES

Diversification at Sunnyside Station



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100% Active Ingredient
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Deer Industry News

OFFICIAL MAGAZINE OF DEER INDUSTRY
NEW ZEALAND AND THE NEW ZEALAND
DEER FARMERS' ASSOCIATION

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Cover photo: Parasite test collaborators, DRL manager Simon Liggett (left) and BSI scientist Bryan Thompson

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Why science and research matter now more than ever

I'm writing this in Dunedin, where DINZ and the Bioeconomy Science Institute have just co-hosted the International Deer Biology Congress – the world's foremost gathering of deer scientists, ecologists, and industry practitioners. Over four days, researchers from across the globe have shared findings on deer physiology, nutrition, genetics, disease management, and the complexities of managing wild deer populations.

The breadth and depth of knowledge on display has been genuinely humbling, and an important reminder of something our industry has always known: the future belongs to those who invest in understanding.

Stepping back and looking at the landscape – literally and figuratively – there are signs of better times ahead for the industry. There is an increasing utilisation of New Zealand velvet in health and wellness sectors, particularly across Asia. There is also increasing recognition of the benefits of venison as a healthy protein. That is not a coincidence; it reflects years of work on product quality, provenance storytelling, and market development. That progress matters, but it also has limits. Incrementally improving the return on fewer animals is not a sustainable long-term strategy.

The challenges facing our industry are genuine. Herd numbers have been in decline, and farmgate prices need to lift to sustain the industry long-term. Farmers are having to make hard decisions, and some are choosing to exit. These are decisions with real impacts on families, businesses, and communities.

The future of our industry requires a step change in productivity, in product development, and in the structure of our market relationships. It will also depend on being able to effectively translate research into practice.

Innovation is our only path forward, and to travel that path well, we need science. From understanding how to optimise animal performance under changing climatic conditions, to unlocking the full biological potential of velvet, to developing the tools needed to get ahead of disease threats — this research is not abstract. It translates directly into farm profitability, product quality, and the market confidence that underpins everything we sell.

We also need science to support our policy advocacy. Science-based advocacy is slower and harder than wild opposition. It is the only approach, however, that builds lasting credibility with regulators, with the wider public, and with the international customers and partners who are increasingly asking hard questions about how our products are made. Trust, once established, is a competitive advantage. It takes time and rigour to earn, and very little to lose.

To illustrate, this week DINZ submitted formal feedback on the Planning Bill and the Natural Environment Bill, the legislation that will replace the Resource Management Act and reshape how New Zealand manages its natural resources for decades to come. This is the most significant reform of our environmental and planning framework in a generation, and the implications for land use, freshwater management, and farm viability are profound.

Throughout this process, our approach has been to engage constructively, drawing on the best available evidence about the environmental impacts of deer farming, much of which is only available because of industry-funded research. This has allowed us to make a principled case for rules that are workable, proportionate, and grounded in what the data actually shows. Only rules that treat deer as deer, rather than small cows, can achieve positive environmental outcomes while allowing the industry to grow.

The knowledge and commitment behind New Zealand deer farming runs deep, and the quality of what we produce is second to none. That is a foundation worth building on. ■

By Emil Murphy, DINZ Science and Policy Manager

If you no longer want to receive this magazine, please email deerindustrynews@deernz.org

EDITOR AND EDITORIAL ENQUIRIES
Lynda Gray
Gray Matter Media Limited
027 465 3726
deerindustrynews@gmail.com

LAYOUT Rebecca Norling, Deer Industry New Zealand

CIRCULATION AND ADVERTISING ENQUIRIES
Cameron Frecklington, Deer Industry New Zealand
deerindustrynews@deernz.org

A grand entrance



Darryl Carr (pictured with partner Chantel Marshall) suggested and delivered the impressive antler archway to the National Velvet and Trophy Antler competition. As anyone with good ideas knows, hatching the idea is the easy bit while following through is not so easy, which is what Darryl, a competition committee member, soon discovered. Sourcing the antler wasn't a problem, with Darryl's neighbour Josh Gill supplying 40 of the 46 antler lengths used. What to use as a frame to support the weighty feature, however, quickly became a question. The answer was an old bull-beaten bale feeder, from which Darryl salvaged a ring and cut in half to form an archway. Attaching the antler was a jigsaw puzzle-type exercise, Darryl says, achieved with the help of many cable ties. The eye-catching entrance way was appreciated by the crowd, and the success of the antler feature piece has encouraged Darryl to grow out 20 of his own stags this year to make another archway to hire out for special events and functions.

Deer 2 Succeed



Taieri College Year 12 & 13 agricultural students attended this year's Deer 2 Succeed event held at Invermay Research Centre. Teacher Kate Nicol said Invermay was supportive of the secondary school programme, regularly inviting students to look at and hear about research, some of which related to deer. Students spoken to by *Deer Industry News* said they enjoyed learning more about deer and the deer-related research. For more on Deer 2 Succeed, see page 16.

Smedley deer fan

Congratulations to Sophie White, a 2025 Smedley Station cadet awarded the Deer Industry New Zealand prize for her ability in handling of deer and interest in the production of velvet antler.



Best foot forward

Tracey McLean combined her passion for elk/wapiti and sock manufacturing in these classy and functional Merino socks. Tracey, a member of the NZ Elk & Wapiti Society and owner of the family-owned and operated Sock Works, says the limited-edition socks were a special Xmas gift and thank you for Elk & Wapiti Society committee members and DINZ CEO Rhys Griffiths.



Seek and you shall find



Seeka, the deer industry's AI-powered assistant is now live. Seeka, similar to Beef + Lamb New Zealand's Bella, draws on information in the Deer Knowledge Hub to provide tailored answers and resources to questions asked. Give Seeka a test run at www.deernz.org/deer-hub/research/seeka

RWNZ Awards



Do you know an entrepreneurial woman working in agriculture, horticulture, agritourism, professional services or the arts? Sign them up for Rural Women NZ's business awards. The awards shine a light on women who demonstrate innovation, resilience and leadership in rural NZ. The 2026 award categories are **Emerging Enterprise** – recognising early-stage rural businesses showing exceptional promise and growth potential; **Love of the Land** – honouring enterprises that work harmoniously with natural resources to supply food or fibre; **Creative at Heart** – celebrating rural businesses producing original art or goods using local materials; **Innovation** – recognising businesses challenging norms with new and innovative market offerings; **Rural Champions** – awarding individuals or businesses providing exceptional support to rural communities; **Health and Wellness Excellence** – acknowledging contributions promoting rural health and wellness initiatives; **Experience Rural** – celebrating

enterprises offering unique and authentic rural experiences to visitors; and **Young Businesswomen** – recognising young entrepreneurs leading an enterprise that is making a valuable contribution to a rural community. For more details go to www.ruralwomennz.nz/rwnz-business-awards. Entries close on 27 March.

Eyes on design



Off-farm diversification can take many forms. For the Greer family, KG Design, an interior design advisory and bespoke interior product retail shop in Te Anau opened by Kylie Greer in 2021, is one such example. Kylie and husband Richard Greer say it's important to pursue interests off farm and want to instil that perspective in their sons. "There's a big world out there," Richard says. Find out more about the Greers change making developments on page 18.

Get dotted

Ever wondered why you're not on the same wavelength with some people but gel instantly with others? It's all to do with what colour dot you are, Amy Scott explained to the crowd at the National Velvet and Trophy Antler competition. The after-dinner speaker's business is about helping people better understand their own communication



style and those around them. She uses four coloured dots to represent the different communication styles: blue (people who are empathetic and trust their gut instinct); red (data-driven individuals who deal in facts); yellow (logical thinkers who like routine); and purple (the big picture thinkers and imaginative types). Find out more and take a speed dotting quiz to discover your communication style at amyscott.co.nz

2026 Deer Industry Conference

Registrations are now open for the 2026 Deer Industry Conference, taking place in Palmerston North on 13–14 May. Join industry leaders for two days of insights, as well as Kiwis rugby league legend Tawera Nikau as the dinner speaker and The Hon. Tim Grocer as the keynote speaker. The DFA Central Regions Branch will also host an engaging field day on 14 May. Register to attend at: www.deernz.org/conference ■

Weaner management: Set for success

Autumn weaner management is key to setting young deer up to achieve both short- and long-term success, meeting the spring venison market, hitting replacement hind mating targets, and achieving optimal yearling velvet growth. With well-fed weaners capable of gaining 300g/day or more over autumn, now is the time to drive growth rates before the natural winter decline.

High-quality nutrition is the foundation of good weaner performance, but a robust animal health plan is equally important. Parasites are a major cause of poor growth, and deaths can occur in lungworm outbreaks. From a grazing perspective, cross-grazing with older deer or other livestock provides lower larval challenge within the pasture and incorporating forages, such as chicory, or maintaining pasture residuals of no lower than 1500 kg DM/ha support both nutrition and parasite control.

When drenching is required, choose a deer specific product. Off-label treatments risk under or overdosing, contributing to resistance, variable efficacy, and potential toxicity resulting in deaths. Cervidae is formulated to deliver the correct levels of actives required by deer: 4× the oxfendazole, 1.5× the levamisole and 2× the moxidectin compared with standard sheep or cattle drenches. These levels cannot be achieved by simply increasing the dose rate of non-deer products.

Cervidae also has a convenient 28-day meat withholding period, compared with the 91-days applied to off-label treatments.

Editorial supplied by Agritrade.



From the sideline

Deer, parents David and Jan, and an upbringing on Raincliff Station have indelibly shaped the life of Amelia "Millie" Morgan. Millie, this year's DINZ Board Observer, says she's looking forward to observing governance from the sideline.

What are your earliest memories of deer and deer farming?

I remember being taken to 'help out' in the deer shed from a young age, although I doubt I was a lot of help. I can remember sitting up on the crush and watching Dad bring in the stags. Deer and where I grew up are a big part of who I am.

How have your formative years on Raincliff Station influenced your life?

Dad's passion for deer and the farm have had a huge impact on what I've gone on to do at university and beyond. He has always been very generous in hosting people and educating them about the farming of deer. The visitors have included groups from South Korea and China, so when I ended up in China on a Prime Minister's Scholarship, I had an embedded understanding of the culture and the people. It made me realise the importance of relationship building.

How did the Asia connection develop?

In my final year at high school, I was awarded a leadership and running (long distance and cross country) scholarship, and I enrolled for a law degree at Canterbury University. My running aspirations faded, so I applied and was granted a Prime Minister's Scholarship, which took me to Peking University in Beijing for a summer semester. I fell in love with China. and when I returned to Canterbury University, I got involved with the entrepreneurship and innovation programme, looking at things from a Chinese perspective. I won another scholarship for a mini visit to Shanghai, where I looked at e-commerce and innovation in China. I became aware of how quickly businesses in China had embraced change. I also realised the importance of being on the ground in China to build a successful business relationship.

When I returned to Canterbury University, I formed a small business consultancy with a friend I had met in Shanghai, advising small- to medium-sized New Zealand businesses keen to make inroads to China. Unfortunately, Covid hit so we disbanded.

You spoke at the deer industry conference last year about your observations of China and South Korea based on recent visits. You've been back to Asia since then on a six-month backpacking expedition, which included a visit to deer farms in northern China. What did you discover?

It was great to have Felix Shen (DINZ's in-market representative) take me around some farms and to traditional velvet markets in North China. I discovered that, like us, farmers care deeply about their animals and what they produce. It showed me that although we have a unique farming story, we can't assume it's a guarantee of

value add and price premiums. We need to keep backing what we produce with good science and evidence.

What about your law career?

After graduating with a law degree, I joined Cooper Rapley Lawyers in Palmerston North, where I'm now a senior solicitor specialising in agribusiness and property. They have been very supportive of my career and allowing me to pursue my interest in Asia.

What prompted you to put your name forward for the Board Observer role?

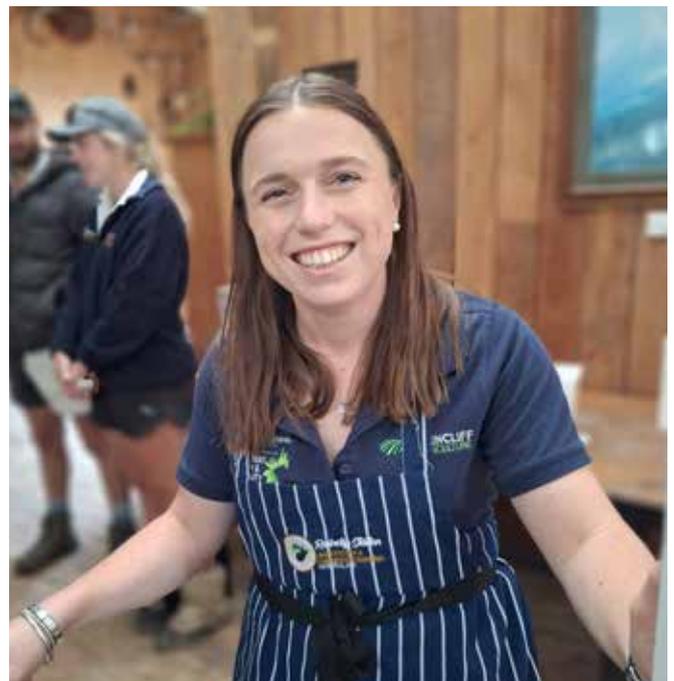
I have a vested interest in deer and want to learn more about the industry. As I'm part of the next generation for the industry, I think it's important I get involved. Being young should mean the industry will get more from me for longer!

What and where is life for you beyond work hours?

Ed (Laver) and I live on his family's farm at Weber, Hawke's Bay, running sheep, beef, and a small number of deer. I'm a free labour unit, helping out when I can. I enjoy multisport and mountain biking and am also a wedding celebrant. Ed also has his pilot's licence, so we enjoy heading to the hills in his Cessna when we get the chance. We're also renovating a villa, which is a big room-by-room project!

What's on your to-do list for 2026?

The board observer role will be a big focus. I also want to progress my legal career trajectory, which I'm really enjoying. ■





Bite sized learning to upskill Shepherds

The sheep, beef and deer micro-credential – Animal Health and Biosecurity – can be undertaken on its own or as part of the New Zealand Certificate in Agriculture (Level 3).

Completed over 4 months, there are three off-job workshops and on-farm tasks.

Topics and skills learned include:

- biosecurity, types of diseases and how to apply best practice to mitigate risk
- identification and care of healthy and sick livestock
- use of preventative animal health measures
- obligations and practices with regards to animal welfare.

It's a perfect time to enrol with courses kicking off throughout the year. To register your interest, or to find out about our other programmes, visit primaryito.ac.nz, phone 0800 20 80 20 or email info@primaryito.ac.nz.

King Pins

Lynda Gray, *Deer Industry News* Editor

The deer industry was well represented in the New Years Honours list, with Andy Macfarlane and Graham Carr both receiving Order of Merit awards. The official presentation of the awards will be made on 19 May.

Andy Macfarlane

Andy Macfarlane is typically self-effacing when questioned about his royal acknowledgement recognising his leadership of the DINZ Board from 2010–2017. He's quick to credit the broader team, whose skills helped bring about positive change during a tough period for the industry.



CHANGEMAKER: *"The art of change management is convincing people to do something they wouldn't naturally do," Andy Macfarlane says*

At the time, many farmers were dropping deer in favour of dairy cows, while New Zealand venison was facing tough competition in its traditional European markets, causing the schedule price to slump to around \$6.50/kg. In short, deer farming was in the doldrums. How to turn the tide would be a daunting prospect for most, but in typical glass-half-full style, Andy saw the positives and potential when he took on the role of Board Chair.

"As an industry, we had the right structures in place. We had a board co-governance framework of meat exporters and farmers, and a talented executive pool which gave us a head start," he says.

He explains his role was to reset the industry, to bring about growth and make it an attractive proposition for the next generation. His change-making strategy was the Passion to Profit (P2P) programme, aimed at lifting profitability across the venison value-chain. The strategy, backed by \$8 million of Primary Growth Partnership (PGP) funding over seven years, included specific production targets defined in the Productivity Improvement Programme. It was a big and ambitious project, which took time to gain momentum but ultimately delivered positive and incremental change.

"We had an excellent leadership group, including Mandy Bell, Gavin Sheath, Paddy Boyd and Innes Moffat. They had diverse backgrounds and views that tested industry thinking and moved us forward."

He likened his governance and leadership role to that of a heading dog – the one that kept the industry intact and moving them in the right directions, whereas the executive and leadership group were the huntaways, driving on the ground change through initiatives such as Advance Parties.

He's proud of the part he and a core group played in moving the industry forward.

"Success requires the input of a lot of good people and collective thinking."

He notes how entrepreneurial thinking and action has defined the deer industry; it started off the back of wild recovery, then came the investment in genetics, specialist processors, unique marketing, and brand-related initiatives such as Cervena. Equally important in the rise of the industry, however, were the "first to be second" people – those who took on the new thinking/science and technology and applied it at a commercial level.

"They are the real heroes in our industry, in my opinion, and I think we under celebrate those who have been prepared to take on the potential risk of new thinking."

Nowadays, Andy enjoys his role as a sideline observer, with an active interest in Melior Deer, managed by son Tom and Tom's wife Samantha. Despite the recent glitch in the velvet market, the farmed deer industry is in a good space, he says.

"We need to be mindful of the competition (in other protein markets), but we're on track so long as we stay match fit."

Graham Carr

Graham Carr was reluctant to elaborate too much on his New Year Honours award, saying he has had more than enough time in the spotlight since winning the Deer Industry Award last year.

"Both awards are humbling, and it's only since getting them that I've looked back at things in a different light, thinking about what has been achieved," he says.

The seven testimonials accompanying the official nomination for last year's Deer Industry Award encapsulate those achievements, as well as the high esteem in which he is held across the industry.

"Simply put, Graham Carr's involvement in the industry at every level is a combination of commitment, enjoyment and outreach to the wider deer industry," chief nominator Tony Pearce said.

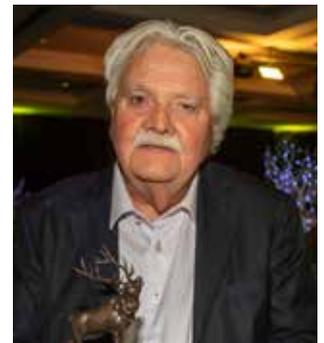
As well as serving on the DINZ Board, Graham has been a steadfast supporter of the South Canterbury–North Otago branch of the NZDFA, while at Peel Forest Estate (PFE), he walked the talk of good deer farm management, genetic advancement and environmental excellence.

On reflection, Graham says there are two standout achievements: confirmation of the Johnne's genetic link in 2011 and helping contribute to the genetic advancement of the industry.

"I look back on the Johnne's involvement as a major contribution.

"[Professor] Frank Griffin (Disease Research Laboratory) drove the research, and we were able to provide the genetic records to underpin it," he says.

The end result – achieving a degree of Johnne's resilience in PFE's B11 sires – has helped their breeding business while also helping farmers reduce losses from Johnne's.



ALL-ROUND ACHIEVER: *Royal and industry recognition has been humbling and a chance to reflect back on achievements, Graham Carr says.*

The importing of genetics and investment in assisted breeding technology and breeding programmes to maximise productive potential was another highlight that has benefitted PFE and the wider industry, Graham says.

The New Year award has been celebrated with “a few bubbles,” and he was looking forward to the investiture in mid-May.

“It will be an important day in my life.” ■

Promising new test to detect internal parasites

It's sh*t research but someone's gotta do it.

And Disease Research Limited (DRL) have been doing just that, analysing historical faecal samples from the Bioeconomy Science Institute's (BSI) Invermay deer herd to more accurately detect parasites in deer.

It's the starting point of a project to develop a practical diagnostic tool to reliably quantify internal parasite burdens in deer, which could save the industry an estimated \$50 million in lost production.

In scientific terms, DRL has been applying polymerase chain reaction (PCR) technology to detect parasite DNA in deer faeces. Early results from the trial, funded by DINZ, are anything but crappy.

“What we've seen is highly encouraging,” BSI scientist Bryan Thompson says.

“PCR amplifies DNA millions of times, making it much easier to detect whether a parasite, virus or bacteria is present in a sample.”

Applying PCR specifically to parasite detection in deer is new territory – and the early signs point to a turning point for the industry.

Parasite detection in deer is difficult, as they often show no symptoms and traditional tests used for other livestock are unreliable, Thompson says. However, the new test could give farmers a fast, accurate and cost-effective way to detect infections earlier, helping to manage herd health more effectively, as well as reducing the risk of drench resistance.

“With only one drench available to deer farmers, accurate parasite detection ensures treatments are used wisely, and unnecessary spending is avoided.”

In a recent DINZ podcast (www.deernz.org/deer-country-podcasts) DRL lab manager Simon Liggett explains the backstory and



SIMON SAYS: “Our role is not just to detect parasites but to interpret the data and help farmers understand what action, if any, is needed,” DRL manager Simon Liggett says.

relatively quick progression of the research, thanks to a 2016 Agricultural and Marketing Research and Development Trust (AGMARDT) grant.

“When we began this work in 2016, the question was simply, ‘can we do this?’. Now the question is, ‘what can we do with this information?’” Simon says.

Applying PCR specifically to parasite detection in deer is new territory – and the early signs point to a turning point for the industry.

Commercial availability of the test will depend on the results from further trials expected to take place this autumn.

There's a lot of testing and data DRL is keen to gather in the next phase of research. For example, establishing parasite burden thresholds before deer health and production is impacted.

“We initially based parasite number thresholds on PhD research by Simone Hoskins. It was a good starting point, but deer and genetics have evolved since, so we need to revisit those thresholds.”

DRL would also like data and analysis to guide the drenching of different classes of deer.

He says the ability to interpret the results is just as important as detecting the parasites.

“Just because an animal has parasites doesn't mean they're affecting its health. Some parasites are harmful, many are not. Our role is not just to detect parasites but to interpret the data and help farmers understand what action, if any, is needed.”

The Invermay deer herd will be used for a lot of the data gathering.

“Having those deer literally at our doorstep, and experienced staff to monitor and test them, will be critical in advancing the research,” he says.

DINZ Policy and Research Manager Emil Murphy says the investment is about giving farmers greater certainty in parasite management.

“Our goal is to help farmers move beyond a ‘drench and hope’ approach. New Zealand is the only country farming deer at this scale, so we're leading research that hasn't been done anywhere else in the world.”

Reducing the risk of drench resistance is also a key driver.

“While drench resistance isn't a problem yet, we'd be foolish to wait until it is before we act.”

Murphy says that once validated, the new test will function much like a lab-run multipanel COVID test, allowing multiple parasites and diseases to be detected simultaneously.

“Farmers will get multiple insights from a single sample, helping them make the best decisions for their herd,” he says.

As far as cost goes, he estimates it will be under \$200 per animal tested.

“We want to end up in a position to give farmers the best information from which to make a decision.” ■

Strong and steady

Lynda Gray, *Deer Industry News* Editor

Anxiety leading into the 2025/2026 deer selling season was cast aside with an upbeat vibe and positive results at North and South Island summer deer sales.

The sales season is a good barometer of deer farmer confidence, which, judging by PGG Wrightson (PGGW) results, is strong. Although not the sky-high \$100,000-plus prices for top-end animals of a few years back, the season's price average for red stags was up on last year, while for elk/wapiti, it was significantly up, reflecting the developing North American market for elk meat. Also of significance and mentioned by both PGGW and Rural Livestock was the demand for yearling hinds.

Deer on farm sales overview

	2024/2025	2025/2026	% change
Red sire stag price avg	\$6712	\$7508	12%
Elk/Wapiti price avg	\$8600	\$7552	14%
Hind price avg	\$1070	\$1421	32%
Red sire stags offered	247	229	-7%
Red sire stags sold	220	209	-5%
Elk/Wapiti offered	107	133	24%
Elk/Wapiti sold	99	128	29%
Hinds offered	91	84	-7%
Hinds sold	70	78	11%

Source: PGG Wrightson sales

Sale season super stars

The inaugural sire sale of the Kahikatea Trust produced the top-priced sire for the 2025/2026 deer selling season. At the mid-December sale on the Adlam family's farm at Shannon, three-year-old trophy stag 105 Orange sold for \$97,000 to Peel Forest

Estate. The stag, by Zinny, produced a 2YO head of 640 IOA, which placed sixth at the Rising Stars National Velvet and Hard Antler Competition. The top price was a pleasing result for Peter Adlam, who was unsure what to expect on the inaugural sale day.

"It can be hard to sell old trophy stags, and we were encouraged by Adam Whaanga (Rural Livestock) to start selling some younger ones as sires," Peter says.

"It was a bit of a risk given the velvet situation, but it didn't affect us."

There was good buyer interest for the 13 stags, with only one passed in. Three lots of semen also sold.

White 8 was the star of the southern sales circuit.

The Littlebourne Wapiti three-year-old bull fetched a record making \$95,000, more than twice the price of the previous record holder, Tikana Wapiti's Mitey Green, which sold for \$46,000 last season.

The Prophecy offspring out of Littlebourne's top velvet hind, Black 26, has outstanding velvet and growth credentials, being the first to cut record-breaking heads at two-years- and three-years-old.

He cut an impressive 11.7 kg head at two-years-old, which won both the wapiti champion velvet section of Rising Stars National Velvet and Hard Antler Competition and the 2YO category at the NZ Elk & Wapiti Society Competition. ■



OUTSTANDING: Littlebourne Wapiti's Geoffery Pullar with the velvet head of record-breaking wapiti bull White 8.

Happy anniversary

"The premium New Zealand competition for quality elk/wapiti velvet and hard antler"

ELK AND WAPITI SOCIETY OF
NEW ZEALAND *ESTABLISHED 1986



The Elk & Wapiti Society (EWS) held its 40th Velvet & Hard Antler Competition in Cromwell over Waitangi weekend. The inaugural event in 1986 was held in Ashburton and attracted 76 entries, with Tom May taking out the Champion of Champions award for a 10.83 kg head from 4YO Condomm. Things have clearly changed since 1986, with this year's Champion of Champions award going to the 20.02 kg head from 4YO Omen from Edendale Station. Some things, however, remain the same – Tom May was again present, hosting the AGM at his Earnsclough property near Alexandra, while another stalwart at this year's event was judge Murray McWhirter.

Tom admits he can't recall a lot about the first competition, although it was a big event, attracting a lot of like-minded, eager farmers all learning the business of deer farming.

"At that time, there were a lot of big names with big cheque books farming elk, so the smaller operators like me had to work hard to compete with them," he says. "But as history has shown, as a lot of the big names left the industry, we kept going and slowly but surely improved the genetic base of the elk and wapiti industry."

Although the hype and excitement of early competition days has dwindled, he was heartened by the increased number of

next generation deer farmers who were open to exploring and incorporating elk and wapiti genetics in their systems.

“As a society, we’ve stood the test of time, and our challenge now is to keep evolving to stay relevant to the next generation.”

This year’s Waitangi weekend gathering attracted a good crowd



and 53 entries, up slightly on last year. EWS president Glen Whyte was pleased with the turnout. “We are grateful for the support of our sponsors: CK Velvet and Hayden Hughes for transport of the velvet, and Southern Velvet buyers for transport and the loan of their freezer truck and trailer.” ■

Upskill your team with Primary ITO

Grow the skills of your staff with Primary ITO and see the real-time benefits on farm.

From introductory short courses and micro-credentials (bite-sized learning) to full apprenticeships, there are options to up-skill staff at all levels on the farm. Our team can help to identify the best options and provide support throughout the training.

Training programmes include:

- Animal health and biosecurity
- Feed supply and demand
- Environment planning
- Mating and fawning planning
- Farm vehicle and chainsaw operation

All training programmes are developed alongside industry, to ensure they offer essential skills and knowledge, while aligning with farming best practice.

Benefits of training include staff that are more engaged, who are more likely to contribute new ideas and feel valued as part of the team.

Apprenticeship Boost payment for employers

The Government’s Apprenticeship Boost payment continues in 2026, with up to \$6000 available for employers with first-year apprentices.

This initiative supports employers looking to take on, train, and retain new workers.

The payment of \$500 a month from Work and Income is only for first-year apprentices. It recognises the time and effort made by employers taking on new staff, as well as the value that work-based learning adds to a business.

Changes to work-based learning

Following government changes to the vocational education system, Primary ITO moved out of the NZ Institute of Skills and Technology (Te Pūkenga) and into the Food and Fibre Industry Skills Board (ISB) as a standalone business unit on 1 January 2026.

Primary ITO training will continue as normal throughout 2026, and enrolments remain open.

Meanwhile, Primary ITO has been engaging with the deer industry and all our sectors to consider delivery options for work-based learning from 2027 onwards. The options include delivery through private training establishments (PTEs), institutes of technology or polytechnics, or Te Wānanga o Aotearoa.

Feedback and decisions are expected from industry by the end of March and will influence the future direction of work-based learning for each sector.

If you have any questions or would like more information, please talk to your Primary ITO Training Adviser or contact person, or email info@primaryito.ac.nz

Get in touch today!

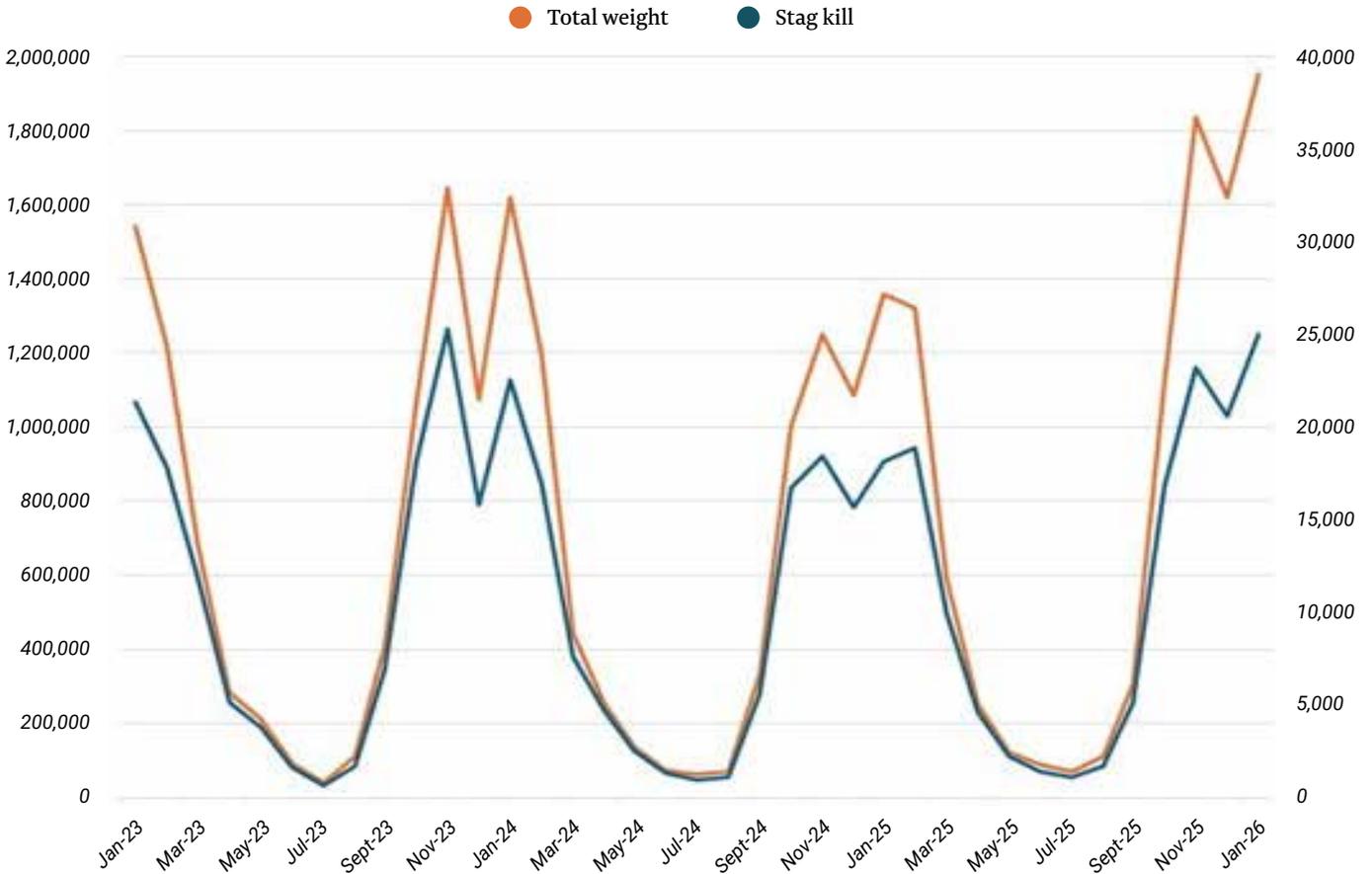
Enrolments are open in 2026, and all learners will continue to be supported throughout their training programme.

Visit primaryito.ac.nz or phone 0800 20 80 20 for more information on training options and to get started. ■

Editorial supplied by Primary ITO.

Stag kill 2025 - 2026

Further evidence of the increased number of older, heavier stags being culled earlier is evident in the latest stag kill graph.



Source: DINZ

Stag processing numbers were up 25.6 percent in November, 31 percent in December and 38 percent in January, compared with last year’s figures. Notably, the average weight per stag increased 16.8 percent in November, 13.5 percent in December and 4.3 percent in January.

The increase in the processed venison tonnage and stag numbers is indicative of farmers offloading mixed-age velvet stags on the back of this season’s disappointing velvet prices.

“From November until February, we have seen just under 21,000 more stags than the previous year pass through the venison processors, with the average weight up 8.6 percent on last year’s peak and almost two months earlier,” DINZ CEO Rhys Griffiths says.

“All signs indicate that velvet production could be back by around 200 tonnes for the 2026/27 season.”

The reset, amid strong venison prices, is well-timed, giving farmers the opportunity to shift emphasis to velvet quality over quantity, he says.

DINZ will continue monitoring processing data over the coming months, with a more comprehensive update planned for release in the State of the Industry report in late March. This will include processing volumes and weights, alongside wider trends and insights relevant to deer farmers. The aim is to provide farmers with a clear, practical picture of how the industry is tracking and what trends should be considered for the rest of the year. ■

**ENTRIES CLOSE
TUESDAY 28 APRIL 2026**

**ENTER THE MSD ANIMAL HEALTH/ALLFLEX DEER
INDUSTRY PHOTO COMPETITION**

Visit www.deernz.org/photo-comp for more information

Wide ranging perspectives at IDBC

Lynda Gray, *Deer Industry News* Editor

An international bevy of biologists, researchers, scientists and enthusiasts descended on Dunedin for the 11th International Deer Biology Congress (IDBC).

It was a global meeting of cervid-centric minds, all keen to discuss the diverse aspects of deer management and biology from various perspectives.

IDBC 2026 was the second time the event had been hosted in Dunedin. The last time was in 1983 – the inaugural event spearheaded by a group of Invermay scientists. It was fitting that 43 years later, one of those organisers, Ken Drew, made the opening address, welcoming the 170 delegates from across the globe. He set the scene, explaining the unique and changing status of deer in New Zealand since their introduction in the mid-late 19th century. From an initial recreational hunting resource, deer had quickly gained a foothold in the predator-free landscape, and by the 1930s were deemed a noxious pest leading to government-funded culling programmes.

These programmes were the segue to a venison recovery industry, from which packhorse beginnings evolved with innovation and entrepreneurial thinking to a commercial-based, helicopter recovery industry. The highly efficient and competitive aerial business dealt to the deer problem, and they became a dwindling resource leading on to the next chapter – the live capture of deer for farming. Drew, involved from the pioneering farming days, spoke about the realities of learning (often the hard way) the art and science of farming deer.

In the keynote address on the first day, freelance wildlife biologist Cam Speedy noted the unique New Zealand dilemma of how to manage our introduced large game animals, including deer. Those who see deer as a menace and those who see deer as a resource have been in an ongoing and divisive conversation for some time, he said. History is starting to repeat, with wild deer numbers increasing to the crisis levels of the 1930s.

“It’s kind of come full circle,” Speedy said.

There are polarised views and a disconnect between policy and what is actually happening on the ground. Complex and difficult issues need to be addressed to manage and control wild deer in a way that meets the expectations of various interest groups, he concluded.

Over the three full days there were almost 40 presentations, covering a broad range of topics. Subject content traversed the highly niche and academic, such as the *Potential spectral tuning of the tapetum lucidum in a broadly distributed ungulate*, to country-specific issues such as, *Effects of surrounding environmental factors on the occurrence of deer-train collisions in Japan*. There was also practical and applied research, such as the Snake Island Hog Deer Ballot programme, which had evolved from a ‘what if’ trial to a benchmark system for the conservation of a rare deer species in Australia.

The depth of New Zealand deer research was evident, with presentations and posters from scientists and researchers



A MEETING OF MINDS: About 170 deer-related researchers from across the globe came to the 11th IDBC. More than half of the delegates were from New Zealand, with the rest from North America, Europe and Asia



IDBC ORIGINALS: Colin Mackintosh (left), Ken Drew, and Jimmy Suttie, organising team members of the inaugural event in 1983, were back for this year’s IDBC.



BIG PICTURE VIEW: At a first day field trip north of Dunedin, conference delegates get a good overview of velvet and venison production on Puketapu Farm, from third- and fourth-generation family owners Greg and James Oliver.

representing Bioeconomy Science Institute, Maanaki Whenua – Landcare Research, Game Animal Council, Lincoln University, Disease Research Laboratory, DINZ, AbacusBio, Department of Conservation, and veterinary practices from around the country. These presentations overviewed deer farming and specific aspects, including pasture management and genetics; health issues such as parasite immunity; deer genetics and genomic tools; and considerations on the development and management of sustainable deer hunting.



The thought-provoking presentations and posters were counter-balanced by informative field trips. On the first day, delegates visited the Oliver family's Puketapu Farm near Palmerston. A tour around the deer shed included an antler measuring demonstration by Adam Whaanga, explanation by James Oliver of the double crush system used for velvet removal, and a talk by Southland deer farmer David Stevens about some of the highs and lows during his lengthy involvement with the industry.

From the deer shed, delegates were taken to a perfect panoramic hilltop view of rolling farmland, backdropped by the 13-metre-high bluestone cairn, a memorial to Sir John McKenzie and his efforts towards developing farming throughout the region in the late 1800s. The day concluded with a visit and BBQ at the Orokonui Ecosanctuary. Day Two's field trip visited the Invermay Research Centre near Mosgiel and the Duncan NZ venison plant across the road.

GLOBAL GATHERING: In his opening address, IDBC organising committee member David Stevens said the event was a unique global forum for engagement and the discussion of cervid research and ideas. "It's the opportunity to share your views and ideas and foster the spirit of engagement."

Strict biosecurity essential to prevent CWD

Lynda Gray, Deer Industry News Editor

Do everything you can to keep CWD out. That was the message from the University of Georgia's Dr Marcelo Jorge, who spoke about the impacts of chronic wasting disease (CWD) in the southeastern United States at the International Deer Biology Congress.

"You're in a good situation because you're an island nation," he told *Deer Industry News* in a pre-presentation chat.

"With screening and surveillance, hopefully you'll never see it in New Zealand."

The upholding of tight biosecurity measures was a given, and he was aware of New Zealand's strict border screening protocols. But CWD is a hard disease to detect and can lie dormant in the environment for a very long time, he cautions.

"If you're not doing surveillance, then you don't know. And so maybe that's the other big point I would suggest — to start surveillance and testing in a small way."

In U.S. states unaffected by CWD, about 500 tests were conducted each year on deer supplied by hunters. Two standardised tests were used; an ELISA test was used for screening, and an immunohistochemistry tests for confirming.



KEEP THE STAKES HIGH: The upholding of strict biosecurity protocols, backed by screening and surveillance is New Zealand's best defence against CWD, Marcelo Jorge says.

NZ deer industry is CWD-vigilant

Marcelo Jorge's comments emphasise the importance of stringent border biosecurity, DINZ Science and Policy Manager Emil Murphy says.

"As an industry, we are well aware of the devastation CWD would cause our industry.

"As well as a big blow to the deer population, it would also erode the safety perception of our venison and velvet," he says.

"Unlike FMD, there is no clear pathway to eradicate and return to our previous status, so the impact would be ongoing over a long time."

The biggest risk for CWD would be the importation of an infected animal, however live deer are not allowed to be imported into the general population under current rules.

While there are no border measures that are specific to CWD, the industry and MPI are working closely together to maintain good border protection, he says. "Illegal goods such as urine lures remain important to find, as with all outdoor equipment, hunting gear - including bow hunting equipment - which needs to be clean from dirt and animal residues. However, cleaning is insufficient to inactivate prions, so our recommendation is to leave used gear overseas."

His research from 2021–2025 studied the CWD effects on white tail deer and elk across three sites in North Arkansas by quantifying impacts on wild adult deer and fawn survival. The research provided a good understanding on the impact of the disease across different categories of deer, and he was now in discussions with the U.S. Department of Agriculture about analysing the genetic information to assess the susceptibility of different deer species to CWD. This next-step research could lead to the selection of CWD-resistant genetics into ‘captive deer herds’ – mostly gated hunting estates.

However, Marcelo was concerned about the premature release of these selected genetics into wild populations because of unintended consequences.

“We need to be sure we don’t see any behavioural changes in selectively bred individuals that could be to the detriment of a wild population; it could be anything from poor foraging strategies to poor predator detection and evasion. There are several other issues and questions we need answered before we implement such an action.”

There had been attempts at developing a CWD vaccine but nothing overly promising, he said. Another research project was investigating the use of copper in preventing the prions’ (the infectious proteins that cause CWD) ability to bind with other proteins, but that line of investigation also lacked promising results.

“It reiterates that there is no ‘silver bullet’ solution to this problem,” he says.

Ian Thorleifson, another IDBC attendee and vice president of the Canadian Cervid Alliance, as well as a Manitoba elk farmer, supported genetic-based research into combating CWD. In Canada, research was underway to identify white tail deer with genetic resistance to the disease. Canadian farmers were keen to expand the research to elk and red deer.



HUNTER PERSPECTIVE: IDBC was information-rich, but Ian Thorleifson would have liked to hear more about deer in New Zealand from a hunting context. “[The management of] wild deer is controversial in New Zealand. I think part of the answer to overpopulation is hunting, and I think hunters should be celebrated...more discussion about the role of hunting would have been good,” Thorleifson, a Canadian with wide knowledge of and involvement in the North American elk industry, said. He particularly enjoyed a keynote address by Chunyi Li about the discovery, attributes and potential clinical applications of antler stem cells.

“That’s how nature deals with a disease, by developing natural resistance within a population,” he said.

In Canada, CWD was first detected in elk on a Saskatchewan farm in 1996. The initial response had been to eradicate the disease through depopulation, but that approach was abandoned after realising the prions can persist in the environment for prolonged periods. The Canadian government has since introduced various mandatory reporting, testing, mitigation and control measures that Ian believed were overzealous.

“There’s an overabundance of caution, which has manifested in many ways,” he said.

Ian, who farms 160 elk in Manitoba, said farmers were concerned at the number of healthy animals that were being sent for slaughter due to testing protocols, which are good at confirming positive cases but not so good at identifying negative animals.

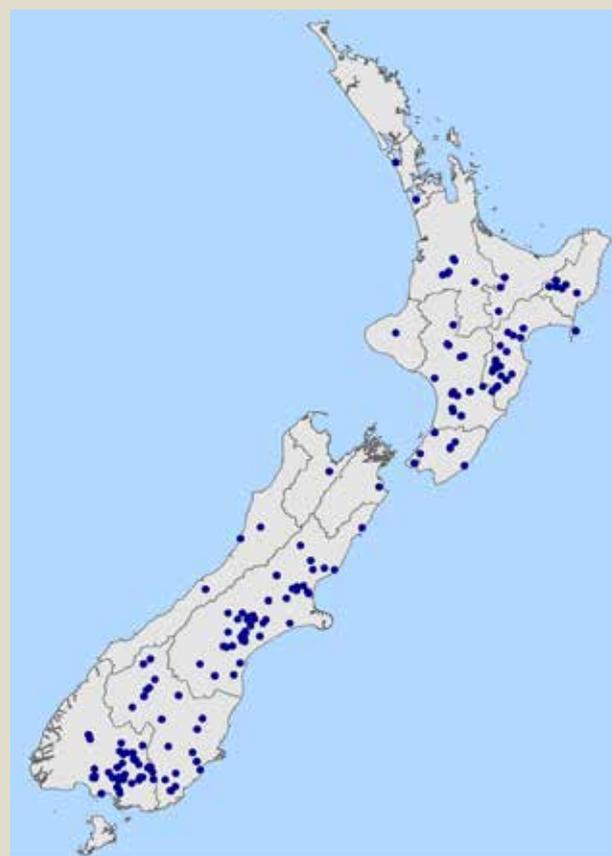
He blamed the media for hysteria-spreading about possible cervid-human spread of the disease, despite no evidence to prove it.

“Yes, CWD is a problem, but I don’t think we should be unnecessarily scaring people about the disease. I think it’s more important we learn more about the disease than be scared of it.”

Presently there were about 40 farmed herds in Canada with the disease. Over the last year, CWD was confirmed in 10 herds. All were elk herds, of which seven were in Saskatchewan, according to inspection.canada.ca, the Canadian government website.

All had very low infection rates, and all were still operating, Ian said. ■

CWD testing in NZ



Location of farms screened through active surveillance for CWD, 2024*

CWD surveillance in New Zealand includes testing of healthy animals at slaughter as well as a targeted, incentivised scheme where veterinary practitioners submit brain material from animals showing clinical signs that could be associated with CWD. Screening also uses an ELISA and brains are examined via histopathology. Because New Zealand is free of CWD, many novel tests available to use on live animals in US are unable to be validated and used here.



NZDFA Executive Committee: Chair Mark McCoard, Karen Middelberg, Evan Potter, Tom Macfarlane

Deer 2 Succeed

Practical and applied science research, technology and smart laboratory-based diagnostic tools came under the spotlight at this year's Deer 2 Succeed event.

Invermay, the longtime epicentre of farmed deer research, was the meeting place and focus of that day, hosted by the Otago NZDFA branch and the Bioeconomy Science Institute (BSI) - the Crown Research Institute formed last year, merging AgResearch, Manaaki Whenua – Landcare Research, Plant & Food Research, and Scion.

The afternoon had a good balance of content – a couple of presentations following the Duncan NZ-sponsored lunch, a drive up the hill and around the Invermay deer research farm with a couple of stop-offs, including a panoramic view of the Taieri Plain, then back down the hill for see-and-learn visits at Innervision CT scanning and Disease Research Laboratory, both based on the Invermay campus.

NZDFA's Karen Middelberg attended the event and said it highlighted the valuable and applied R&D role that BSI and the Invermay-based businesses play in the deer and wider pastoral scene.

“The knowledge held by those working at Invermay is a massive resource, and it would be good if we could find more ways of enabling farmers to interact with them and the science they are doing.”

Many of the basics of production were reinforced, such as the importance of good feeding for velvet and antler production, NZDFA's Tom Macfarlane said.

“They're messages and principles most of us are familiar with, but it's always good to revisit them.”

A call to action for him was BSI scientist Richard Muirhead's talk, which included findings from his Hill and High Country research project investigating the effects of deer farming on water quality and stream health. Richard recommended that deer farmers test water where it enters and exits their farm so they can make an informed decision about how best to manage and fence off waterways.

“It was a timely reminder for me, and something I plan to follow up at home.” ■

Next Generation 2026

This year's Next Generation Programme is locked in for 6–7 August in Hamilton. The Bay of Plenty and Waikato DFA branches will be co-hosting the two-day programme, which combines a good mix of visits to farms and deer-centric businesses. To find out more, visit the Events section on the DeerNZ website.



AN INSIDE VIEW: Bryan Thompson (left) and Jacqui Peers-Adams (right) talked about the applied uses of the Innervision's CT scanner. Innervision, a joint venture between BSI and Focus Genetics, offers CT scanning services for breeding stock evaluation, research programmes and veterinary diagnostic purposes. About 90 deer are CT scanned every year for three clients. Typically, they send five or six progeny from a top sire and scan them to get highly detailed 3D internal imaging for the calculation of carcass weight, estimated eye muscle and lean yield breed values. A single scan of a deer ranges from \$420– \$450, while the maximum weight load of the scanner is around 120 kg.



TEAM EFFORT: NZDFA and BSI joined forces to run Deer 2 Succeed. Back row (L-R): Tom Macfarlane, Archie White, Richard Muirhead. Front row (L-R) Karen Middelberg, Lindsay Fung, Bryan Thompson.



The Big Tick Day Out



Friday 24th April



Tower Farms
188 Discombe Road
Cambridge



Facilitated by
Ginny Dodunski



12:00pm, kicking off with a
Duncan NZ-sponsored fallow
and red deer venison BBQ lunch

A Waikato DFA branch initiative, aimed at bringing experts and farmers together for an educational event exploring the current challenges ticks cause in the deer industry.

Ticks are generally considered an unwelcome pest to deer, causing stock discomfort, damage to velvet/coproducts and in severe cases death of young fawns.

The afternoon will include contributions from AgResearch, velvet and venison processors, Kaipara Branch, DINZ (Research Advisory Panel), head technical vets and senior representatives from the major tick treatment manufacturers, while to round out the day, an interactive Q&A session with a panel of tick experts.

Registration is essential

www.deernz.org/home/events/the-big-tick-day-out

The BIG TICK Day Out

- When: Friday 24 April 2024, from 12 noon
- Where: Tower Farms, 188 Discombe Rd, Cambridge
- Who: All welcome

To register, visit the events section on the DeerNZ website.

Hosted by the Waikato DFA branch, the afternoon event will bring experts and farmers together to explore the challenges of tick management in deer. The event will be facilitated by veterinarian, Waipa Advance Party Facilitator and Wormwise Programme Manager Ginny Dodunski.

Ticks are an unwelcome pest that cause deer discomfort, and in some cases, the death of young fawns. Ticks also damage velvet and co-products, Waikato DFA chair Vanessa Crowley says.

A motivation for the event was a “significant complication” for a farmer due to the use of a pour on treatment leading to detection of Flumethrin residue in post-slaughter testing, she says.

“It’s resulted in MPI surveillance for the affected farmer, preventing them from the further processing of animals, pending an investigation and a subsequent clear test.

“It’s both interesting and concerning, given the withholding period for pour on treatments is Nil and affected farmers are strictly following the dosage instructions.

“The Big Tick Day Out will be an ideal and timely opportunity to bring in the experts to discuss how best to manage ticks without putting farmers livelihoods on hold or the industry at risk,” she says.

The afternoon will include contributions from AgResearch, velvet and venison processors, Kaipara DFA branch experts, DINZ Research Advisory Panel members, vets, and senior representatives from the major tick treatment companies. The event will conclude with a Q & A session led by tick experts. ■

Embracing and creating change

Gerhard Uys, *Deer Industry News* writer

Richard and Kylie Greer, from Sunnyside Station near Lake Monowai, are not only embracing change but are also consciously evolving their business, both on and off farm.



THE TEAM: Richard (with cap) and Glen Edgerton, stock manager and digger driver. Glen and Brian McKay, tractor driver/maintenance man, and Kylie's uncle are longtime Sunnyside team members.

At a glance: Sunnyside Station

Richard and Kylie Greer

1600 ha deer, beef, and sheep breeding/finishing at Lake Monowai, 65 km from Te Anau

2025 stock wintered:

Deer

1100 hinds	1100 mixed sex weaners
180 R2 hinds	50 R2 stags
200 MA stags	200 velvet stags

Cattle

200 breeding cows	240 R1 & R2 steers/heifers
60 R2 cattle	

Sheep

4500 ewes	1100 hoggets
60 rams	400 winter contract lambs

Deer Industry News visited the Greers in 2014 and has been witness to developments of the farming enterprise. In 2014, they had already developed Sunnyside's mid-country and were focusing on developing the steeper hill country.

They tackled gorse in 20 ha blocks, and followed a five-phase approach of spray, cow and hind grazing, fertilizer and lime,

a double crop of turnips, followed by sowing of rye grass and cocksfoot-based permanent pasture.

They initially thought the farm would only produce store stock, but targeted improvement of the farm meant in 2014 they realized it was outperforming expectations and decided that weaner finishing was possible.

Big changes have been happening at Sunnyside since, the most significant of which is the venture into velvetting in 2017. They have increased the velvet herd to 200 hinds and added around 200 velvet stags.

Despite the fall in prices recently, Richard enjoys growing velvet. The lower velvet price doesn't mean he isn't taking velvetting seriously. On the contrary, all the velvet hinds and stags have been DNA tested for the past seven years. Having DNA at your fingertips is interesting, he says. Despite cutting early this year, velvet weights have been similar to other years, which he attributes to focusing on growing very tidy velvet.

DNA testing was the next step after EID tags. An EID tag and DNA testing allows you to have a broad view of an animal's history, he says. Too much data can seem overwhelming, but he digests it in small bites.

"Once you have data accumulated, you can start looking at the traits that are important to you."

DNA data has already paid off, with gains in velvet production already visible. These gains include accurate parentage, tidier velvet, and the ability to cull earlier, he says.

With data in hand, Richard can then, for example, run velvet stags through the weigh crate and separate them based on traits he's selected. Data collection is also future proofing the farm for the next generation. If sons George (15), and Griffin (12), decide to follow in Richard's farming footsteps, they'll be able to use data gathered over the years.

In 2023 the Greer's sold 300 ha of a 600 ha property in Happy Valley, near Tuatapere, to trees after all the neighbouring farms did the same. The remaining 300 ha at Happy Valley, their home before Sunnyside, is now used as a breeding unit for ewes. The land sale did not impact the deer side of operations much, Richard says, but with less area at Happy Valley, they now bring lambs to Sunnyside to fatten on crops.

In mid-February, R1 hinds grazed Raphno for the first time. About 50 ha of fattening crops were planted this year, an even split of leafy turnips, chicory, red and white clover, and Raphno. The crops will be rotationally grazed.

Stag fawns graze chicory from October once they come off fodder beet, which allows pasture to come away. Hind numbers were reduced to ensure they had enough room to fatten lambs and weaners.

In hindsight

On reflection, there are a few things he would have done differently at Sunnyside, Richard says.

When they first came to Sunnyside 15 years ago, he spent a lot of time developing hill blocks and splitting them up into smaller paddocks.

“I wish we hadn't split them and instead left them as big blocks for hinds to use their natural instinct.”

Nowadays the subdivided hill paddocks are grazed with the gates open.

The subdivision of the flats from 20 ha into 5 ha or 10 ha paddocks, now in progress, makes more management sense.

“You can move stock faster and keep them on fresh pick,” he says.

The decision made in 2014 to take fawns through to 100 kg before selling instead of at weaning time was a game changer, Richard says.

“This meant we were less exposed to the variance of the store markets and that we could maximise the most from our deer. They also fit well with our system; when the stags are moving out the gate, the lambs take their place for fattening.”

Advance Party original

Richard is a Southland Original Advance Party founding member. The group was formed around 14 years ago, and there are still new members joining. About 90 percent of the big players in the Southland venison industry are members, he says.

“We're all dealing with the same issues. It's good to sit down and talk about them. You're not an island. There's a heap of experience in the group.”

The group is different to most of the others; although deer are the focus, the broader picture is about farming them successfully in a mixed livestock system.

“We all farm deer, we all farm sheep, and we all farm cattle. Every single one of us. They all interlock.”

Although deer have lower birth rates than other livestock, deer fit well in a mixed-livestock system. Hinds can handle the tough

country, such as big, steep gullies, and can use it better than ewes or cattle. Having deer in a mixed class system also means you create income year-round.

“Cattle, sheep and deer make a business bankable.”

With Advance Party funding ending, the group is evolving into a farm discussion group.



WORK IN PROGRESS: Improvements are ongoing at Sunnyside, such as the current subdivision work on the flats.



PRICKLY PROBLEM: Staying on top of gorse is a constant task. When the Greers moved to Sunnyside, they tackled gorse in 20 ha blocks, following a five-phase approach of spray, cow and hind grazing, fertiliser/lime, a double crop of turnips, followed by establishment of rye grass and cocksfoot-based permanent pasture.



GENETIC RECORDING: All the velvet hinds and stags have been DNA tested for the past seven years. The combination of DNA testing and EID tags provides a broad view of an animal's history, Richard says.

On and off farm diversification

The Greer's broader business mix includes on and off farm diversification.

Velvet animals that are not up to expectations are hunted within a fenced-off area at Sunnyside and free-ranged at Happy Valley for hunting clients guided by Richard. About 50 stags were hunted every year before the Covid pandemic, but those numbers have dropped. Richard put the brakes on the hunting when he was an Alliance Board supplier representative, but since stepping out of that role, he's had time to focus on the business again. He hosts clients from Cabot and Fiordland Lodge, plus their own clients, who stay on the farm in their lodge.

The Greers also have a relationship with hunting and fishing business S2 Expeditions, owned by Scotty Slater, who accesses the Wairau River running through Sunnyside for fishing trips. He also uses one of the houses, transformed into a lodge, for both the hunting and fishing clients. The combined clientele means there's year-round utilisation of the lodge. There are a high number of return customers, which is a good indicator of success, Richard says.

Fish Jet in Te Anau is a business they bought with three other couples. It's one of the biggest guiding operations in the southern part of the South Island, with a core business of jet boat fishing, with options for walk-and-wade guided fishing tours.

Also in Te Anau is KG Design, an interior design shop owned and operated by Kylie. She worked for an interior design company in Invercargill for 16 years but says independence and running her own shop has always been a goal. Her focus is on residential and holiday homes across Southland, along with a small amount of commercial interior design work. ■

Governance experience

Richard was a supplier representative on the Alliance Board from 2023 until recently. It was a massive learning curve, involving him in business aspects he would never otherwise have been exposed to.

There are currently no other governance roles on his horizon, but he's been approached by several farmers who have told him he should not waste the lessons learned from his time on the Alliance Board.

If he does take up a governance role in future, then it will be in a field that he is interested in, possibly the deer industry.



A GOOD MIX: Deer work well in Sunnyside's mixed-livestock system. The hinds handle the tough country, utilising it better than ewes and cattle. The combination of deer, cattle and sheep means income is generated year-round.



MIXED-LIVESTOCK SYSTEM: Crossbred sheep breeding and finishing are an important part of the Sunnyside enterprise.



WEANER FINISHING: The Greers initially thought the farm would only produce store stock, but targeted development and improvement led to weaner finishing from 2014.

Bidr booming

Lynda Gray, *Deer Industry News* Editor

Bidr, the virtual saleyard offering real-time, live auctions online has helped bridge the geographical barrier of buying and selling deer.



Bidr, the virtual saleyard offering real-time, live auctions online has helped bridge the geographical barrier of buying and selling deer.

Bidr, a PGG Wrightson subsidiary business, was launched in 2019 and operates in tandem with all major livestock-selling companies, offering fully online and a hybrid sales platform for both stud and commercial livestock.

The deer industry was quick to click on to Bidr. Altrive, a Southland stud owned by the Elder family, was the first deer breeder to use it, selling in-fawn hinds on the platform in winter 2019. Since then, Bidr has facilitated 132 deer sales. Over the 2025/2026 summer sales season, Bidr was present at 19 deer sales and had 175 registered online bidders.

It's become a popular platform for selling hinds over winter. Last year, Bidr transacted seven fully online hind sales, attracting 129 registered buyers who bought 280 of the 308 animals offered.

"Deer farmers tend to be innovators and open to new technology, so it's not surprising they've jumped on board," Bidr National Sales & Operation Manager Sam Murphy says.

"I've found the deer vendors and buyers that use Bidr to be extremely engaged and encouraging. They're well aware that online buyers are an important part of their sale, and they've adjusted what they do by placing more emphasis on digital catalogues, videos, photos, and commentary pre-sale, for marketing nationally so buyers can make informed choices remotely," he says.

The Bidr fees for a sale vary according to sale tallies and the complexities of running a particular sale, Murphy says. Sellers pay a per-head price for catalogued animals, ranging from \$45-\$55/head for stags/bulls to \$30 - \$40/head for stud hinds, depending on the total number offered.

"Deer farmers tend to be innovators and open to new technology, so it's not surprising they've jumped on board with Bidr,"

Sam Murphy, Bidr

Buyers who want to bid online must have an approved livestock agency account with one of Bidr's accredited livestock agency partners. Bidr fees and buyer transactions are invoiced from the agency running the sale.

The limitation of transacting online is the inability to see in person what's on offer, talk with farmers, agents, and vendors and "read the sales ring," Sam says.

"Clicking a button can't replicate that experience, but technology closes much of the gap.

"Online selling is different, but the trade-off is access, reach, and fairness. Buyers who might never travel to a sale can compete equally, which often benefits vendors. In practice, most users find the advantages far outweigh the limitations once they've used it a few times," he says. ■



BIDR BENEFITS: "Online selling is different. But the trade-off is access, reach, and fairness," Bidr's Sam Murphy says.

Bidr trailblazers

Since 2021, Altrive Deer have transacted both the stag and hind sales on farm and on Bidr.

"We signed up with Bidr, recognising it as a way to offer our animals to a wider audience. It's made them accessible to people across New Zealand who can't attend in person due to distance or work on farm," Samantha Elder says.



"There will always be a place for our on-farm sale, as this provides an opportunity for close scrutiny of sale animals, and it's a great opportunity for us to host and network with our clients. However, we enjoy being able to offer the option of online bidding to our clients as well."

Since 2021, the number of online viewers at Altrive's annual stag sale has almost doubled to 138, while registered buyers have increased from 43 to 53.

Job done!

Lynda Gray, *Deer Industry News* Editor

"I never intended to get into deer..." It's a classic "Yeah, right" comment from Ray Coombes, Duncan NZ's South Island Procurement Manager. In June, he'll officially retire, ending a 34-year involvement with deer and the venison industry.



REWARDING: Dealing with deer and the people who farm them has been a satisfying career for Ray Coombes.

In a pre-Xmas chat with *Deer Industry News*, he looked back on his career, mentioning the ups and downs, but overall, dealing with deer and the people who farm them has been a rewarding career for Ray.

"Deer farmers are different from the others [sheep and beef farmers]. I've found them to be forward thinkers, and I've really enjoyed working with them," he says.

Venison and deer procurement has taken him down hundreds of gravel roads and to processing plants the length of the country.

"The business is all about relationships. I love my client base and have made life-long friends through deer."

Ray's red meat career is not surprising given the DNA embedded in the Coombes family. His father and three uncles were all retail butchers, while growing up, Ray did his fair share of cleaning, scrubbing, and general dogsbody work at the family shops. Determined not to continue the family butchery connection, he joined the Royal New Zealand Navy at 16-years-old, where he trained as a sonar operator and served in numerous deployments around the Pacific. Sailing the high seas for ten years was a world away from the business of smallgoods and chuck steak. It was exciting, and the camaraderie great, but the long periods away from home took its toll, and eventually he dropped anchor for good in his hometown of Dunedin.

"I made the mistake of coming home and got sucked into the meat trade," he says with a chuckle.

After completing a butchery apprenticeship, Ray worked in local retail businesses before taking time out to work as a shepherd on a couple of Otago farms. He then moved back to Dunedin, and after another stint in a central city butcher shop, went to work at the

Primary Producers Cooperative Society (now Silver Fern Farms), starting off in the lamb boning room for frozen export.

"It was my introduction to the meat export business, and it's where things really took off for me."

After 14 years at PPCS, he took on an assistant shift manager position at Fortex, overseeing the chilled lamb processing chain during part-day and part-night shifts. He worked long hours but was hooked on the meat processing industry and set his sights on plant ownership. That opportunity came along when he and four Fortex employees bought the lease of the research abattoir along the road at AgResearch Invermay in 1992, establishing Otago Venison.

Initially the intention was to process cattle and sheep for petfood, but the directors shelved that idea when Andy Duncan (Duncan & Co) and Otago Venison entered a toll processing relationship for deer. It was Ray's introduction to the venison industry and coincided with surging demand for processing space due to the collapse of Venison NZ. Otago Venison expanded the plant, adding a boning room and working all hours to cope with demand. As managing director, the workload was huge for Ray, leading to burnout and his resignation.

"I'd had enough. I had a young family and was working all hours."

His exit from the red meat industry, however, was short-lived. Once again, he was drawn back, this time by Andy Duncan, who encouraged him to take on responsibility for ensuring that production specifications were met at Duncan & Co's toll processors throughout the country. A highlight during this time was the company's backing of Cervena.

"We were one of the first venison companies to recognise the opportunity of Cervena, and it's helped pay our way."

Duncan & Co bought Otago Venison in 2014 and rebranded soon after to Duncan NZ. Ray continued in a procurement role, sourcing deer from throughout the South Island. He's enjoyed the role but had always intended to pull the pin when he turned 70. That milestone birthday has been and gone, and despite Ray's best laid plans, Andy Duncan again persuaded him to stay on, this time in a part-time role.

"So, it's been semi-retirement, but June is definitely it for me."

He's happy to be stepping aside knowing that Duncan NZ's farmers will be well looked after by his replacement, Sam Earl.

"He's the next generation and gets on well with our farmers."

Ray looks back with satisfaction on his 35-year contribution to the venison processing industry but says he'd never do it again.

"I really feel sorry for plant managers today. It's a hard business, although it's been good for me."

He's looking forward to more time with wife, Carol, fishing at Moeraki, and dog walks with Murphy the schnauzer. ■

Knowing John Vincent Barber

Tony Pullar, NZ Elk & Wapiti Society

Throughout our lives, we all meet interesting characters; some are memorable, others are not. John Vincent Barber (JV) was certainly one of the more memorable ones.

I first met JV around 1984 when he was establishing himself in deer farming both here and in North America. I visited his Winton farm and was introduced to deer. Not long after, I deer fenced my small rural block on the outskirts of Dunedin, and with encouragement from JV, bought some hinds. I soon became hooked on deer.

Poldark, a wild-caught Fiordland wapiti weaner bull calf, got the ball rolling for JV and sparked interest in other farmers for the bigger elk/wapiti. The bloodlines of the Fiordland herd were from pure elk, gifted in 1905, by US President Theodore Roosevelt, which interbred with red deer to create NZ wapiti. JV and others were keen to improve the Fiordland wapiti bloodlines and set forth to North America in search of pure elk genetics.

He was quick to establish relationships and transacted numerous shipments of elk, bringing the best possible genetics from North America to satisfy ever-growing demand in New Zealand. Those animals formed the foundation stock of early elk studs, including Edmonds, Littlebourne Wapiti, Mountainview, Criffel, and Foveran. An example of the legacy left by those animals is this season's top priced bull White 8, who is highly likely to be a descendant of a North American bull sourced by JV and sold to Jack Pullar of Littlebourne Wapiti.

JV was also instrumental in establishing the North American Elk Breeders Association, his efforts earning him a life membership.

JV and his son Brent converted a sheep and beef farm at Maheno, near Oamaru, for deer farming. It was a huge development and financial outlay, and an outstanding accomplishment. He also developed with eldest son Tony, Rose Lake, a beautiful North

American elk farm in Wisconsin with vast plantings of native trees. I was lucky enough to visit with JV, and he was very proud of what Tony had achieved.

America is a huge country, but JV loved the challenge of getting around it. I recall loading elk bulls into a five-wheeler trailer crate, attaching it to a mighty Dodge Ram, and embarking on a marathon road trip from Fort Atkinson near Chicago across America to a farm in Colorado. We shared the job of driving and only stopped to check on our passengers or have a meal. It was on about Day Four that I convinced JV that we should stop and sleep in an actual motel bed, which he reluctantly agreed to.

Another recollection from a North American road trip was visiting Jim Horne, an acquaintance of JV's. It was the opening day of duck hunting, and Jim had a loaded double barrel shotgun leaning against a post. On queue, a flock of Canadian geese flew at us, and JV, prompted by Jim, grabbed the gun and with one barrel dropped two geese at our feet. Jim yelled at him to keep shooting, which he did, letting rip with the second barrel and landing three more geese - five in total with two shots! That was typical of the untypical day you might have in the company of JV!

I knew John as a giving, helpful person with sharp mind and good sense of humour. He had a great life up until the very last days of his 88 years, centered around hunting, fishing, farming, and family.

I know he would probably approve of the analogy from another associate who said that John Vincent Barber was born 100 years too late, and that "he would have made a bloody good pirate."

Rest in peace, JV. It was a blast knowing ya! ■



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The next chapter for Tikana

Lynda Gray *Deer Industry News* Editor

The sale and gradual handover of multi award-winning Tikana Elk Wapiti Stud marks a significant milestone for Dave Lawrence and Donna Day. *Deer Industry News* caught up with the couple to find out more about the sale and their next deer chapter.

A chat over coffee with Edendale Station's Donald Whyte paved the way for the succession of Tikana. Following a pre-sale visit to view bulls last year, Donald asked Dave and Donna about their succession plan.

It was a well-timed conversation, with the topic at the forefront for the couple who have no family interested in taking on the stud. They weren't ready to step away from deer breeding but knew it was time to ease up.

"We both enjoy where we live and the deer, but we didn't want to continue with the workload that comes with running an annual sale," Dave says.

Live sales of Tikana bulls and cows were the mainstay of income, with velvet income secondary. Donna and Dave decided to flip the balance, however, and focus on velvet to reduce the workload. They pursued the idea by forming a unique stud sale agreement with the Whyte family. Under the agreement, one-third of Tikana stud cows – 70 in total – will be transferred each year to Edendale Station until 2027.

"We love our cows, so it's great to know they'll be staying intact as a herd," Donna says.

Dave adds that for him a big plus of the sale is knowing that the Tikana cows and bulls are going to a single buyer and Deer Select breeder. It means that the measuring and recording of data from these animals and their progeny will strengthen Deer Select's genetic linkage across elk-wapiti herds.

The arrangement will allow Dave and Donna to breed and select a nucleus herd of about 20 stud cows to produce velvet and stud sires, some of which will be sold in future by private treaty.

Knowing the genetic merit of Tikana cows should make the velvet potential of progeny guaranteed.

"Well, that's the theory, though time will tell," Dave says. ■

Industry contributor



AWARD-WINNING CONTRIBUTOR: Dave Lawrence, pictured in 2017 after receiving an Elk & Wapiti Society lifetime membership, has been involved in numerous deer industry R&D projects.

Aside from stud elk/wapiti breeding, Dave Lawrence – a former vet, 2005 Deer Industry Award winner, and founding and life member of the Elk & Wapiti Society – has contributed widely to the deer industry, especially in the R&D space. Roles have included Operations Manager of deer benchmarking project Deer South and leadership of a Southland Advance Party. He is currently a member of both the Selection and Appointments Panel and the Research and Advisory Panel, the latter responsible for evaluating and recommending research priorities to the DINZ Research Committee.

Looking back, a highlight has been getting deer-specific triple combination drench Cervidae Oral for treatment of gut worm *Ostertagia* to the point of registration. It followed several years of research proving the ineffectiveness of Agricultural Compounds and Veterinary Medicines (ACVM)-registered deer treatments.

He's enjoyed conveying relevant science in a practical way during his lengthy deer industry involvement but admits it can be frustrating at times.

"I know that farmers regard animal health as a priority, but often they don't take the opportunity to come along to workshops and events to stay up to date with developments. It's a challenge to get the science uptake on farm."



WIN-WIN AGREEMENT: Donna with Glen Whyte, Edendale Station, at the 2025 National Velvet and Hard Antler Competition. Edendale Station is the new home for Tikana's stud animals.



ALMOST PERFECT: Crypes, pictured as a March weaner weighing in at 116kg, came close to perfect animal status. He made the grade on velvet, meat, growth and parasite resistance traits but fell short of Prophecy's velvet credentials, Dave says.

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Deer Select stalwart

Breeding the perfect sire – one in the top echelon for the traits being selected for – has always been the goal for Dave. At Tikana, equal selection weighting is placed on breed values for velvet, meat, growth and parasite resistance (CARLA), and a couple of bulls have come close to making the grade on all four traits.

“We bred a bull called Crypes who was an allrounder for those traits, but he has not and will not surpass Prophecy for velvet. Hopefully that ‘perfect animal’ is around the corner.”

Deer Select, the industry’s pedigree and trait recording database, has been a crucial tool in helping Dave make informed selection decisions, with Tikana bulls and cows recorded since the early 1990s. The herd has been fully recorded on Deer Select since 2005, and the regular sire summaries are crucial to Dave.

“Ranking our herd for each trait made it very easy to cull those that limited our forward progress. For example, if you know the rank of a cow for a particular trait, let’s say eye muscle area (EMAcBV) is low, then you can offset this to some extent by making sure she is mated to a bull with very high EMAcBV.”

He credits Deer Select Manager Sharon McIntyre for the continued development of breeding values and the introduction of financial return-based indexes following the incorporation of Deer Progeny Test data collected from 2011 until 2014.

Deer Select 2, released last year, was another leap forward, with the addition of fertility indexes making it simpler for buyers to work out the potential value of a sire.

“Sharon deserves a halo for taking it to the next level and delivering robust results.

“From an industry point of view, Deer Select has provided credibility for the sires we sell. Its development and uptake is a reflection of her ability and dedication, and also the receptiveness of breeders to measure and record on Deer Select.”

A good example of the practical applicability of Deer Select is the CARLA breed value to combat internal parasite resistance, introduced to Deer Select from 2017. Tikana was an early adopter of the CARLA breed value and is reaping the benefits.

“Since 2018, our own herd CARLA average has doubled... to me, that’s pretty exciting. CARLA is a great example of research spend being turned into something practical and available to levy payers.”

Longterm, he hopes that research and supporting data will produce a threshold of deer resilience to parasites, so farmers know whether or not they have to drench.

Feeding to maximise velvet antler production

Lynda Gray, *Deer Industry News* Editor

A presentation from BSI scientist David Stevens on feeding and nutrition for velvet stags at the Deer 2 Succeed field day was a good reminder of the role energy and protein feed play in maximising velvet and hard antler production.

“We know we have excellent velvet genetics, so how do we feed so we can extract that potential?” David said in explaining the rationale for the research.

Feeding requirements have changed in line with the leaps and bounds in genetic gains, the point illustrated in a graph showing that over 40 years, the average velvet weight had increased from around 3.5 kg to 10 kg a head (red) and 5 kg to around 20 kg (elk/wapiti).

Velvet antler is the fastest growing mammalian tissue, regrowing every year, he said, and to support the ongoing growth of velvet and the stag, it was important food with enough energy and protein was fed in the right amounts at the right time.

Protein is the building block of velvet production and particularly important for pedicle development at the end of a yearling’s first winter. He estimated the protein requirements of New Zealand stags by adjusting Chinese data to the typical digestibility of a New Zealand pasture.

Protein requirements of velvet antler stags

Stock class	Period	% CP (1)	%CP (2)
Calf	post weaning	28.0	16.5
Male yearling	winter	18.0	11.5
	antler growing	22.4	24.5
2-3YO	winter		9.0
	antler growing	19.0	19.0
Mature	winter		10.5
	antler growing	17.0	15.5

1. Crude protein requirements of reported Chinese deer diets
2. Crude protein requirements, assuming a digestibility of 0.75 for NZ pasture

Source: *Bioeconomy Science Institute*

Young male stags required protein intake of about 24.5 percent when growing their first head of velvet, after which demand tapered off and hovered around 10 – 20 percent.

“As they age, they require slightly less, because now they have a muscle mass they can pull on,” David said.

The mineral mix

Calcium (Ca) and phosphorous (P) were important in the overall “protein matrix” of bone, which formed velvet antler. However,

extra calcium over and above requirements did not improve antler production, David said.

Trace elements copper, zinc and manganese each played specific roles in antler growth and may need to be boosted for high-producing stags.

It’s really important to get the right protein to maximise velvet and antler potential

David Stevens

Most pastures, if they were green, short and leafy, would have adequate levels of these minerals. If in doubt, herbage testing was a good way to verify mineral status, especially after a drought.

David made special mention about the role of copper, which was important for overall skeletal robustness and played an important role in older stags.

“As stags age, their bone density increases. So, if you’re producing hard antler, then copper is quite important for producing a good solid head.”

A diet with 28 ppm of copper, such as red clover baleage, plus a copper injection (0.83mg/kgLW) increased bone strength and cortical thickness in mixed-age stags.

Questions post-presentation asked about the best method of supplementation – copper bullet or injection. Both had the same efficacy, but it was easier to inject, although stags got to hate it faster, he said.

Copper sulphate, or copper sulphate and salt sprayed on pasture, were other options, but it was a scatter gun approach with no way of measuring success.

Key points on feeding for velvet antler production

In summary, Stevens said that protein is the number one requirement for maximising velvet antler production, and that the protein requirement of a stag changes over its lifetime. Peak requirement is during pedicle formation and generally declines thereafter.

Calcium, phosphorous and manganese are important minerals for velvet antler growth, but levels should be sufficient in most green leafy pastures. Herbage testing is recommended after prolonged dry or drought periods.

Trace elements may need to be boosted for high-producing MA stags, but in general, speciality supplements may not make a difference to velvet and antler production if nutrition is adequate.

David recommended the feed intake calculator/app as a good starting point to calculate feed requirements for hind, hind/fawn and growing weaners. Go to: deernz.org.nz/deer-hub/feeding/feeding-tools/feed-intake-calculator. ■



HERBAL REMEDY: Legumes and herbs are often higher in trace elements than pasture, David Stevens said.



PICTURE PROOF: The early spring differences in antler development are clearly shown in these two photos. The weaners on the left were fed on high-quality leafy pasture whereas the weaners on the right were fed on lower quality pasture.

Fodder beet feeding and supplements

A special mention was made about fodder beet, a popular choice for the winter feeding of young deer. Fodder beet has lots of energy but very little quality protein, David said. Therefore, it was important to feed it with protein-rich supplements.

He drew on information collected by the South Canterbury Advance Party to show how the protein and energy composition of different fodder/supplement combinations affected the velvet growth of weaner deer.

Estimated protein intakes of weaner red deer on fodder beet and supplement combinations

	Weight gain	Crude protein	Rumen-digested protein	Total intake
Fodder beet/baleage	60 g/d	10.3%	5.3%	1.7kgDM/d
Fodder beet/PKE	90 g/d	10.5%	6.0%	2.0kgDM/d
Fodder beet/deer nuts	160g/d	11.4%	6.7%	2,2kgDM/d

Assumptions: 65 kg stag, baleage approx 20% of diet.

Source: Bioeconomy Science Institute

“If you add a high-quality nut that is high protein, you gain 100 grams a day because we’ve added an appropriate amount of protein to meet the need,” he said.

“PKE is okay, but it hasn’t got enough protein for a young stag to maximise its potential.”

Hill country fencing options to reduce CSA run-off

Lynda Gray, *Deer Industry News* Editor

What's the best way to fence critical source areas (CSAs) to reduce contaminant run-off from pasture grazed by deer?

That was the question BSI scientists Richard Muirhead and Peter Green set out to answer in a recent project.

At the Deer 2 Succeed day, the crowd got to see the Invermay deer farm hill slope where the project was based and heard details about the research from Richard.

The starting point of the project was CSAs – hotspots such as gullies and swales where run-off accumulates.

Past research led by AgResearch (now BSI) had shown the benefits of fencing CSAs in forage crops, and Richard was keen to try comparable mitigations in pasture systems, given they typically accounted for 80 to 90 percent of a farm grazing platform. Successful mitigation of these areas would yield the biggest catchment-wide environmental paybacks, he said.

The study involved two stages. During the first stage, contaminant run-off from four small catchments on the hill slope, ranging from 2.2–3.6 hectares, was measured for two years under a typical grazing system.

The next stage was applying and evaluating the effectiveness of three mitigation options in three of the catchments – temporary, partial and full fencing – of the CSA in a paired catchment experimental design. A fourth catchment was left unchanged as a control to account for different weather conditions in the pre- and post-treatment phases.

The fencing options were monitored for two years, the effectiveness of each calculated for both reducing contaminant concentrations of total nitrogen, total phosphorous, sediment and *E. coli* under low flow conditions and during storm event conditions.

The effectiveness of the three mitigation options generally showed an increasing effectiveness from the temporary to the partial to the fully fenced option, which wasn't unexpected, Richard said.

“The temporary and partial fencing options still allowed animals access to graze in parts of the CSA at different times, whereas the fully fenced option prevented animal access to the CSA, so it makes sense that this would be the most effective mitigation option.”

Also not surprising was that the greatest contaminant load losses happened during storm events.

“What's significant is where those storm-fed contaminant load ends up and accumulates downstream,” he said.

In general, the fencing options were effective at reducing *E. coli* contaminant run-off, but less effective at reducing phosphorous and sediment run-off in both low-flow and storm-flow conditions.



THE BIG PICTURE: A view of the hill slope where the CSA management in a pasture system project was run.

“But it’s important to note that all the CSA fencing mitigations reduced the losses of multiple contaminants, rather than just a single contaminant, and therefore there will be multiple benefits downstream in terms of human health, habitat and stream health.”

The key take-home message from the research results was the importance of using fences to exclude deer and other livestock from CSAs to protect and promote pasture cover, avoiding bare soil situations that lead to excessive contaminant loss.



FENCING PAYBACK: The fully fenced option was the most effective in mitigating run-off of total N, total P, sediment and E. coli. However, the other fencing options were also effective, proving that any fencing action will have some environmental benefits for water quality, Richard Muirhead said.

Cost effectiveness of fencing options

The cost effectiveness of the three mitigation options were calculated on a % reduction in contaminant per \$ spent per hectare per year. The higher the number, the more % reduction achieved for a given pollutant for a \$1 of investment.

The fully fenced option was the most effective in mitigating run-off of total N, total P, sediment and E. coli. However, the other options were still effective, and in some instances, more cost effective, demonstrating that any fencing action will have some environmental benefits for water quality.

“There are a lot of variables associated with installing fences in hilly landscapes, and so actual costs will need to be assessed on a farm-by-farm basis,” he said.

A pragmatic way for farmers to decide if and what mitigation might be best for their own system was to progressively test the options. Start with the temporary fencing option, monitor and see if it effectively excludes deer from the CSA.

“If the temporary fencing option is effective at protecting the soils, and the downstream water quality in the catchment is good, then it could be a long-term solution.”

If soil damage, pugging and bare soil become long-term issues, progression to permanent fencing might be necessary.

However, the rollout of permanent fencing could also be progressive, he said.

“You could start at the bottom, moving up the CSA.

“If a CSA runs through multiple paddocks, permanent fencing could initially start within lower lying paddocks and progress uphill over time to spread the capital cost of fencing.”

Mitigation effectiveness (%), costs (\$) and cost benefit (%/\$) of the main water quality contaminants for the three CSA mitigation options tested.

Mitigation	Water quality contaminant			
	Total nitrogen	Total phosphorus	Total suspended solids	E. coli
Effectiveness (%)				
Temporary fencing	1	-21	28	34
Partial fencing	17	14	51	56
Fully-fenced	32	45	87	93
Costs (\$ ha-1 year-1)				
Temporary fencing	71	71	71	71
Partial fencing	232	232	232	232
Fully fenced	702	702	702	702
Cost effectiveness (% \$-1 ha-1 year-1)				
Temporary fencing	0.014	-0.296	0.394	0.479
Partial fencing	0.073	0.060	0.220	0.241
Fully fenced	0.046	0.064	0.124	0.132

¹The negative value implies that this mitigation resulted in an increase in total phosphorus in this catchment and may indicate the margin of error in environmental data.

Lessons and learnings from hill and high country project

As well as talking about the CSA project, Richard Muirhead took the opportunity to revisit the key findings of the five-year stream health and water quality in hill and high country deer farms project.

The goal was to identify the waterway quality on hill and high country farms with deer, based on scientific evidence from stream health monitoring.

Ten catchments were monitored on ten farms across the country from 2017 until 2022. On each, a water quality sample point was identified at the bottom of each catchment, and at the top of the catchment if the waterway flowed through the farm. Water samples were collected monthly and tested for E. coli, sediment, total phosphorous, and total nitrogen.

The testing and subsequent analysis did give a steer on farm management strategies for waterway quality protection, but there was not a one-size-fits-all answer, Richard said.

“Every farm is different, and we found there was a huge diversity in the stream catchments, meaning that mitigations to reduce contaminant loadings, if required, need to be tailored to the catchment.”

However, a definite no-go zone for deer and other livestock are tree- or shrub-covered gullies.

“Even at low stocking rates, they will damage the understory, prevent plant regrowth, and increase sediment run-off into water ways, so fencing to exclude them is recommended.”

No single catchment was all ‘good’ or all ‘bad’, and all catchments had problem areas, including elevated contaminants in the water, areas of high animal impact, and/ or low stream health scores.

Water quality and stream health aren't always predictable based on visual scoring, proving that water testing and monitoring is important.

Interestingly, water results and stream health indicators weren't always predictable based on visual scoring, proving that testing and monitoring is an essential process for improving stream health, he said

“It highlights the importance of monitoring before fencing or undertaking other mitigations as contaminant risks are not always visual.

“Management changes can have rapid responses in changes to water quality and stream health, both negative and positive.”

Another key finding was the dynamic nature of water catchments in the hill and high country.

“Stream health changes over time due to changes in management and environment. Having knowledge and documented evidence of how water quality has changed on your farm is valuable when having conversations with regional councils and regulators.” ■



WATER-FED RESEARCH: Regular water sampling and testing showed how catchment and stream health changed over time due to changes in management and environment.

Venison flatbread pizzas

Fresh NZ

Homemade pizza is hands-down delicious. This flatbread pizza is easy and quick to make, topped with sustainable and lean New Zealand farm-raised venison mince and fresh flavours. Perfect for an easy but impressive family night or gourmet picnic meal with friends. After making this, you'll never want takeout pizza again.

Prep time: 20 mins

Cook time: 15 mins

Serves: 4



Ingredients

Flatbread pizza dough

2 cups self-raising flour, plus extra for flouring bench

1 cup natural unsweetened yoghurt

2 tsp runny honey (optional)

Generous pinch of salt

 $\frac{1}{2}$ cup extra virgin olive oil

Water, as needed

Venison mince

500 g New Zealand farm-raised venison mince

2 garlic cloves, minced

1 tbsp Italian herb seasoning

1 tbsp extra virgin olive oil

Salt and pepper

Toppings

1 pot of basil pesto

2 mozzarella balls, torn

1 courgette, peeled in ribbons

Extra virgin olive oil, a drizzle

Chilli flakes, optional

Handful of basil

Method

Preheat the oven to 230°C. Alternatively, use a pizza oven.

Flatbread pizza dough

Combine all ingredients in a large bowl and mix well. Add water if needed. Turn out onto a floured bench and knead, then roll out two flatbread pizzas. Transfer to lined baking trays, cover, and leave in a warm place while you prepare the venison.

Venison mince

Add oil to a frying pan over medium-high heat. Add remaining ingredients and fry until browned, about 3–5 minutes.

Assemble

Slather flatbread pizza dough with pesto, top with venison mince, courgette and mozzarella. Bake for 10–15 minutes, until the base is crispy, and the mozzarella is deliciously melted.

Serve with fresh basil and chilli flakes (if using). ■



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Sponsored by Silver Fern Farms

Tawera Nikau as the after dinner speaker | MSD/Allflex Deer Industry Photo Competition, Deer Industry Award, NZDFA Matuschka Award



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FIELD DAY

Hosted by DFA Central Regions Branch

Visits to Westview Farming and Venison Packers

