

Deer Industry News

Genetic
Improvement
Pushing
Performance
Upwards

Shabor Limited
PROFILING THE
PREMIER ELWORTHY
ENVIRONMENT AWARD
WINNERS

Andy Macfarlane
REFLECTING ON
A PRODUCTIVE
SEVEN YEARS AS
BOARD CHAIR

Gisborne Workshop
ANIMAL HEALTH
REVIEW PROCESS
EXPLAINED AT P2P
REGIONAL WORKSHOP

Deer Industry News

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NEW ZEALAND AND THE NEW ZEALAND
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Contents

Editorial	2
Environment	
Shabor Ltd: Premier Elworthy Award winners	3
DINZ News	
Changes at DINZ Board Andy Macfarlane: Right man, right place, right time New velvet handling measures: Update	6 8 15
Passion2Profit	
China venison potential test Environmental code for deer industry Health and velvet growth in focus at Gisborne workshop P2P update Investing in genetic merit pays	10 19 20 21 22
Industry News	
New venison cooking tips Red meat sector looks to future Mr Zhang: China's king of velvet	11 12 14
Markets	
Venison update	13
On Farm	
Hill country development lifts productivity at Mount Peel	16
Animal Health and Welfare	
Costs of Johne's and benefits of health planning	25
Education	
Deer husbandry qualification launched	26
VARNZ Annual Report	27
Cover: These breeding hinds being shifted on the Bensons' Taihape farm are mated to high- merit stags. Drone photo courtesy of Mark Benson. See page 23.	

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Setting our own standards

With a newly implemented Regulated Control Scheme (RCS) for farms and velvet depots in place, it is timely we look at leveraging opportunities to remain the best in the velvet business.



Tony Cochrane.

WHAT IS REQUIRED to upgrade sheds has been well covered by the DFA through field days and emails of late. Some, including smaller or more venison-focused farms, may face bigger changes than others.

Having freezers operating below -15°C is surprisingly easy to achieve. Of the 67 stores we audited for our own business, only one was unable to consistently run at this temperature. It is timely to remind ourselves that velvetting is a privileged procedure that involves a high-end food product, so how lucky have we been up to now? In addition, we (via the NVSB) have been able to set our own standards with MPI, that will position us ahead of competitors.

Having a clean and safe environment for velvetting should also instil a stronger sense of pride in what we do. This is part of “telling a story” about our superior product to global markets, which are asking for greater traceability and accountability.

Will spending, say, \$1,500 on your deer shed translate to \$1,500 more for your velvet sold? That's yet to be seen, but by cutting velvet on time to achieve rounder tops and more regrowth, having handling efficiencies and less damage, I would say the investment could easily be covered.

As I see it, our biggest weakness was shown last season from a desire for fast bucks on farm. Many buyers paid less for velvet, causing a \$25/kg drop from the previous season. Looking back, this was unjustified, but let's look forward to the positives we have in place that give us potential to profit.

The change to New Zealand velvet being imported as a Traditional Chinese Medicine (TCM) ingredient now provides an opportunity for our product to be credible, branded and acknowledged by Chinese consumers – not traders. Years ago to achieve this, it would have cost \$US100,000 just to apply for this classification, with no assurances. This strengthens the need for better promotion and marketing to tap into a large, established market with potential to replicate the successful healthy food sector in South Korea. Although early days, China already has an image of clean, green New Zealand.

The interest is building and dollars are being spent in Korea by large food companies such as Korea Ginseng Corporation (KGC) to market New Zealand velvet alongside their own brands. Companies are wanting to visit New Zealand farms and premises to tell a story and leverage off our high standards. This provides exposure we could never afford from levies alone.

The healthy food sector provides the best chances for New Zealand velvet to take the next steps in growing demand. How we present ourselves will determine this. A stick of New Zealand velvet is hard to brand or mark as being of New Zealand origin and that's why the reduction in taxes for New Zealand velvet imported to Korea is an advantage. Dry or processed New Zealand velvet will continue to increase and that alone provides the need for earlier sales to get product to market, alongside more on-shore investment and added-value opportunities.

We have a lot of potential in front of us. Setting our own standards to achieve this is can only be a good thing. ■

– Tony Cochrane, DINZ Board

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Premier Elworthy Award winner: Shabor Ltd

by Phil Stewart, *Deer Industry News* Editor

Steve Borland is a happy man right now – and with good reason. As spring approaches he’s looking forward to another strong season for both the deer and sheep sides of the business and the summer-safe property is producing well. And barely three years after taking over a rugged, challenging and underdeveloped property at Oparau in the southwestern Waikato, he’s part of the Shabor Ltd team (with son Chris Borland and Bob Sharp) that picked up the deer industry’s Premier Elworthy Environment Award.

WHEN SHABOR LTD (owned by Steve and Judy Borland with Bob and Jacqui Sharp) bought the remote 982 hectare (820 effective) property in mid 2014, they only had four days to make up their minds about the purchase. It wasn’t a long time to chew over the risks and benefits but they took the plunge and threw themselves into developing a property that had a very long “to do” list.

On the deer side, the farm is a breeding unit supplying high-quality stags to a 1,000-stag velvetting herd run by Bob Sharp at Whakamaru. Shabor Ltd, an amalgam of the directors’ surnames, runs both operations. Velvet is sold through Provelco. Shabor produced 5 tonnes last season and they hope to eventually lift that to 7.5 tonnes.

Steve Borland told *Deer Industry News* they quickly learned the farm’s strengths and limitations and they’ve been careful to work within those.

The Environment Awards

Shabor Ltd won the **Landcare Trust Award** for excellence in sustainable deer farming through action on the ground. Details of what impressed the judges can be seen in the June/July issue of *Deer Industry News* (page 12), but the following comments from the panel give further insight into the achievements at the Oparau farm:

- *Take a steep, erodible farm with no deer fencing, high rainfall, lots of waterways and many patches of native bush. Add deer, make a profit and have a low environmental footprint... discuss.*
- *Solution: Lots of hard work, prioritised areas for focus, seek council assistance, engage the community, do a job properly but seek low cost options where possible... and have a plan!*

The judges considered that the Shabor Ltd team stood out among the category award winners in the 2017 Deer Farmers Environment Awards and were worthy winners of the **Premier Elworthy Environment Award**. This award was instigated by the late Sir Peter Elworthy in 2000. The inaugural Elworthy award was made in 2001 to Reporoa’s Victor and Margaret Clark and Shabor Ltd is the 10th winner. (The awards were annual for the first four years, becoming biennial from 2006.)

- To mark the Premier Award, an open day is to be held on the property towards the end of this year – date to be confirmed.

The farm was previously a sheep and beef operation and had no deer fencing. They initially ring-fenced 200 hectares for the in-fawn hinds when they moved, but have since done extensive development, putting in a deer shed, improved lanes and about 35km of deer fencing in total.

As he’s got to know the property better over the first three years, it’s become clearer to Borland what he can and can’t do there, but also how well it complements the Whakamaru property run by Bob Sharp, where the velvetting stags are run.

Working within farm constraints

The Oparau farm is sensitive – steep in places with light Mairoa ash soils over clay. It wouldn’t take much mismanagement to send a fair bit of the property downstream into Aotea Harbour, an outcome the Borlands are very keen to avoid. Steve says cattle are not suited to this country because of the soil damage they can cause and, for the same reasons, they have decided not to run stags there in any numbers. Only the 16 sire stags are kept there and cattle numbers are being kept at a little under 100 for now.

He’s also come to appreciate that cropping and cultivation have no place here, and says they will be spending some years repairing the damage from those practices used by previous owners. Grass and clover is what the livestock thrive on here. Fortunately they are blessed with reliable rainfall year round and, as the soil fertility



From left: Shabor Limited’s Chris Borland, Steve Borland and Bob Sharp, winners of the 2017 Premier Elworthy Environment Award.

continued on page 4

Shabor: continued



There has been an extensive development programme at Oparau, with about 35km of deer fence added.

is being lifted from a fairly low base, they are finding they can keep good volumes of feed in front of their stock.

The stocking rates are fairly moderate: 10 stock units (SU) per hectare for the deer and 6 SU/ha for the sheep. Borland prefers to lift productivity through improving soil fertility and pasture covers. Cramming on more stock would be counterproductive on this country.

The farm at Whakamaru where the velvetting herd is run, is on gentler terrain with good free-draining ash over pumice soils that can safely accommodate the stags and fodder crops.

When *Deer Industry News* visited Oparau in early 2016 (see April/May 2016 issue), they were seriously considering installing a self-feed silage pad for the deer at the top of the property, given the problems they'd had feeding out during their first winter. Borland says they have since abandoned that idea, partly because he's become more confident they can feed their hinds okay without it, but also because he doesn't want to create the environmental risk from any runoff. (Nearly all of the paddocks on the farm contain some form of water body.)

Praise for Landcare Trust and regional council

The Borlands have completed stages 1 and 2 of a Farm Environment Plan with the invaluable assistance of the New Zealand Landcare Trust's Janet Gregory. "It's free help and [the Landcare Trust] are doing great things for the deer industry," Borland says.

He's also full of praise for the Waikato Regional Council and says the relationship at grassroots level is positive. "I have to commend their attitude – they've been very accommodating to what we are doing here." Borland's day-to-day contact is the regional council's technical officer, Callum Bourke. They have a constructive two-way working relationship and Borland says council staff are as keen to learn from farmers' experience as they are to dispense advice.

He also has compliments for Waikato Regional Council's sustainable agriculture coordinator, Bala TikkiSETTY, who has worked alongside deer farmers like the Borlands for many years on water quality issues.

While the relationship is working well at a personal and farm level, Borland is keeping a wary eye on regulatory developments at

a regional level. Their West Coast region is outside the Plan Change 1 that is currently being developed for the council's priority catchments: Waikato-Waipā, Waihou-Piako and Coromandel. He says any move to total stock exclusion from waterways in his catchment would make life very difficult for livestock farmers. Cattle are the biggest issue in the area and Borland says any tightening of rules may see many farmers forced to offload cattle in favour of sheep. This is something he has been pre-empting to an extent, although cattle still retain a useful role in pasture quality control.

While engagement with the wider community through the local authority is important, the Borlands also place great value on the advice and feedback from deer industry colleagues. This is especially true of the Waipā Advance Party, of which they are members. Steve Borland says it has been great to bounce ideas off fellow farmers in the tight-knit group as they rolled out development of the property.

Environment projects

A large stream that skirts the property has been fenced off. The stream runs clean, even after heavy rain. It's not in the deer-fenced part of the farm, but excluding sheep and cattle certainly helped.

The major environmental project on the property is the fencing off of a stream that flows out of the bush block at the top of the farm and down through the deer-fenced area to the boundary, eventually emptying in Aotea Harbour on the west coast.

It's a \$142,000 programme and Environment Waikato is stumping up 35 percent of the cost. Borland says the strainers are now in and the large project should be completed after 2–3 years.

He is satisfied that any sediment created by deer making wallows is captured by sediment traps. "The water flowing out of the deer block is cleaner than what comes out of the bush," he says.

AgResearch is setting up long-term water monitoring on deer farms in hill and high country and will be including Shabor's Oparau farm in the programme. The stream will be monitored for nitrates, phosphorus, sediment and *E. coli*, so may reveal the impact of the fencing programme on water quality over time.

Getting sheep shape

Getting the deer unit up and running properly was an all-consuming priority for the Borlands when they arrived at the property and Steve was initially a little sceptical about the large



Mating mob of first fawners with the stag and some older nanny hinds at the Oparau farm.



Members of the Waipa Advance Property on a farm visit to Shabor's Oparau property.

sheep operation he inherited with the farm. But as the deer infrastructure has been bedded in he's starting to appreciate and take pride in a very high-performing side of the business, capably run by sheep and cattle manager, Rhys Hughes.

They run 3,200 Wiltshire-Dorper- Texel mixed age ewes and 932 in-lamb hoggets, breeding and finishing 20kg lambs for Wilson Hellaby. The Wiltshire terminal rams are bred on a small stud on the farm.

Borland is happy with the 132 percent live lamb rate in this country and the way the sheep integrate with the deer (ewes lamb on the fawning block before fawning starts). It's a fairly low-input operation – no docking and no shearing needed with this breed mix. Animal health costs are also low across the whole farm. Borland has an audit and does an animal health plan each year with his vet, Tony Parsons.

He uses the CARLA test for internal parasite resistance on his rams, which have also been tested for facial eczema tolerance via Ram Guard. Vitamin B12 deficiency is an issue on this land and copper has to be watched in all stock classes. Regular faecal egg counts are done for the sheep, along with the occasional liver sample.

A healthy herd

The word "clean" comes up a lot when talking to the Borlands about the Oparau farm. It's been kept clean of weeds and pests like possums and the water flows clean off the hills. "Clean" also applies to animal health, with pleasingly low input costs.

Despite the ample moisture at Oparau, gut worms don't seem to be an issue for the deer and Borland has the luxury of worrying only about lungworm in the deer, which he controls in young stock with a single active drench. The mixed age hinds haven't been drenched for two years and lungworm is simply monitored by "running the dog through the mob" and listening for any tell-tale coughing.

Johne's disease has not made an appearance on the farm – another reason why Borland is not keen to push up cattle numbers.

It also appears to be clear of ticks, a big plus for a breeding property where handling of young stock is kept to a minimum.

The deer breeding herd currently comprises 428 mixed-age hinds (including second fawners), 173 R2 hinds and 204 replacement (R1) hinds. First and second fawners are mated naturally, while the mature hinds are bred by AI to high genetic merit velvet sires. Borland said he pulled the stags from the first fawners on 29 April because he "wanted to get rid of a few [first fawners]", but even so 87 percent were pregnant, a great result. "I'm not sure what I'll do with the extra first fawners now."

They bred 410 fawns last year and expect 520 on the ground this year. All told, Shabor culls about 300 animals each year and these are supplied to the venison trade through Duncan New Zealand, a company Borland has been linked to for nearly 20 years. He feels a responsibility to support the venison industry as best they can, especially in the current situation with such a supply shortage.

Velvet genetics are dominated for now by the rising 6-year-old Excelsior, a Walton son which yielded an early cut of 9.7kg last year. Borland and Sharp bought him at Windermere's final sale in 2013. Four of his sons are being used as back-up stags for the AI programme hinds. "He's very tame," Borland said. "He walks the 1.5km to the shed with me very happily. He knows what's going to happen in the crush." ■



Valued sire stag, Excelsior, at his sale as a two-year-old to a Shabor Ltd syndicate at Windermere's final auction, December 2013.

Changes at DINZ Board

Deer Industry New Zealand has three new board members and a new chair, Hawke's Bay deer vet and farmer Ian Walker.

NEW PRODUCER APPOINTEES are Mark Harris and Kris Orange, selected by the NZDFA Selection and Appointments Panel (SAP). Harris will serve for two years, replacing Andy Macfarlane, who stood down as planned after one year of his three-year term. Orange replaces Clive Jermy, who did not seek reappointment. He will serve for the usual three-year term.

SAP chair Paddy Boyd says that with the deer industry in such good heart there was a strong candidate line-up for the two producer vacancies. He says the selection process was based on professional criteria, developed with input from the Institute of Directors.

Tony Cochrane replaces Colin Stevenson, who did not seek a further three-year term. Cochrane was elected by the velvet and co-products industry.

The DINZ chair was elected by members of the new board which – in addition to the new appointees – includes existing producer members William Oliver and Ian Walker; and venison marketing company members Dean Hamilton, Danny Hailes and Glenn Tyrrell.

Mark Harris is marketing manager, Gallagher Animal Management. He also owns a 183-hectare dairy farm milking 400 cows, a 60-hectare drystock block running 250 head of dairy beef and growing maize for the dairy farm, and 16 hectares of farm forestry. He has a PhD in mechanical engineering and has 25 years' experience in R&D planning, execution and commercialisation.

While Harris has no deer farming experience, he has the marketing and corporate business background the SAP was looking for this year in one or more of the producer directors. He is married to Robyn and has three teenage children.

"I feel very privileged to be selected for the DINZ Board as a DFA producer appointee," Harris says. "I am keen to contribute to the deer industry as best I can and trust that my work experience and background can add value to your board of directors and the industry."

"While my farming interests are based on rearing dry stock and winter dairy milking, I've enjoyed the recent contacts with the deer industry through interests in some of the new products and technologies I'm responsible for – in RFID, data



Ian Walker – new DINZ chair.



Mark Harris – strong marketing and corporate background.

collection and analysis and the potentials around innovation in animal and environmental management."

Kris Orange will be well known to deer farmers as an NZDFA Executive Committee member from 2011 to 2017 and as chair of the committee from 2012–2016. A Kellogg Rural Leadership alumnus, he interacts daily with many deer farmers in his role as operations manager and director of Downlands Deer Limited, Geraldine, a transport company specialising in stud stock and deer transport nationwide.

He is also a director of Great Southern Deer Farms Limited, an equity partnership incorporating two deer breeding properties in South Canterbury/North Otago, totalling 1700 hectares, and a weaner deer finishing farm. Orange lives in Geraldine with his wife Cathie and three school-age children.

"My goal is to carry on the great work and vision of the DINZ board to the completion of P2P and beyond, with the aim of building a sustainable and profitable deer industry," he says.

The unsuccessful producer candidates were Andy Russell and Mike Wilkins.

Tony Cochrane has been the public face of PGG Wrightson velvet since 2005; before that he was South Island velvet manager for Wrightson. He lives on a 40-hectare deer farm on Banks Peninsula with his wife Andrea and two rugby playing school-age daughters.

He says his vision for the velvet and co-products sector is to modernise the supply chain, so the industry is the unmatched leader in product quality and integrity.

"The days of just being traders has past. We need to be more involved in marketing our products to move forward," he says.

He says a supply chain that assures customers of product quality and integrity is needed to grow consumer demand for velvet products in the healthy foods sector in South Korea, with potential branding opportunities in China being the next challenge.

The unsuccessful industry candidates were Ross Chambers, Barry Cuttance and Morning Guo. ■



Kris Orange – well known to deer farmers through NZDFA role.



Tony Cochrane – velvet supply chain must be modernised.

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Photo courtesy of Richard Hilson, Hawkes Bay.

1. Case study of the use of Multimin® + Cu in Wapiti cross stag fawns on the Whiterock Focus Farm, South Canterbury. The treated group showed a weight gain advantage of 11 g per day for the first period (4 March to 1 April), and 10 g per day over the second period measured (1 April to 10 May). ACVM No. A9374.

Andy Macfarlane

“Right man, right place, right time”

In July, the ref finally blew full time on Andy Macfarlane’s seven-year stint as DINZ Chair, but as he headed for the showers, there was still a spring in his step. Well known for his relentlessly positive attitude and a fondness for rugby metaphors, Macfarlane has presided over a big turnaround in the way the deer industry works as a team. He spoke to *Deer Industry News* about his time on the Board.



Andy Macfarlane speaking at a field day workshop at the Wanaka conference, 2012.

“Andy brought a more practical and down-to-earth, farmer-oriented view to the Board. He ran a good farm business and had a proven track record. He is a relationship person and that showed with the way he brought the exporters together. He’s left the industry in a good place.”

– Andrew Fraser, Canterbury

DIN: What motivated you to stand for the DINZ Board in 2010?

AM: I’d always thought the deer industry had more potential than it gave itself credit for, but I could see that it was struggling to move its products from the premium game sector to a focus on premium meat products. The industry had already done a few good things, such as creating the 50:50 producer: marketer governance model. I was attracted to that model and the good talented and entrepreneurial people in the industry. We had the opportunity to leverage off that and take another step.

DIN: You became Chair when you joined the Board, not the usual pathway – how was that for you?

AM: To do that successfully you need to have a good Board and a good chief executive in place with EQ and IQ, and I had both. That made it easier to slot in, having that support already there.

DIN: How did the P2P strategy evolve? Did you have something like this in mind from the start?

AM: There was an opportunity at the time by resetting the Board strategy and part of that was to engage with a much wider industry footprint. The genesis of P2P really was engaging with all stakeholders to ask “what next” and then linking markets and producers better. People had been trying to do this and there were a couple of false starts, but eventually it came together pretty well.

It started with the Productivity Improvement Programme. That had its supporters and detractors but prices weren’t good at the time, so people were saying “you fix the prices and we’ll sort out productivity”. The key was the opportunity to partner with the Government to secure the resources to take a more ambitious step with in-market

involvement. By getting all involved, we could develop the concept and the brand. The industry knew it had to do better collectively and [getting Passion2Profit underway] gave us the impetus we needed.

DIN: You’ve always been very performance and numbers driven. Did this make it easier to frame a business case for the P2P Primary Growth Partnership?

AM: Absolutely. You need a strong set of metrics – you can’t

“The deer industry was very fortunate to have Andy Macfarlane as Chair of its Board. Andy used to sit along the side of the table at meetings, not the head – that says something about his team spirit.

“He had a great blend of optimism and realism and he drew people to him. His wide network of contacts was a big asset to the industry too, and he advocated very well on our behalf.

“When I was CEO he was a busy man but always made time to talk to me when I needed advice. I’m confident Andy will have left DINZ a better organisation than when he found it.

“Andy is well known for his love of rugby metaphors. My only regret is that his analogies usually involved the righteous Crusaders beating the weak-willed Hurricanes!”

– Mark O’Connor, DINZ CEO 2005–2013

“Andy was the right person in the right place at the right time for the deer industry. With his farm management skills and governance experience he’s left the industry in a strong position to face the challenges ahead. If you look at issues like climate, water, welfare, food safety and so on, Andy has played a critical role in the way we respond to all of this.

“Thanks to Andy, we are communicating really well right across the supply chain. He’s played a critical role in getting all parts of the industry working well together, not fighting.

“His strong passion for supporting young people coming into the industry has been important too.”

– Mandy Bell, Chair P2P Advisory Group

kick goals if you don’t know where the goalposts are. It took two goes to get our case across the line and there was some initial scepticism from the PGP Board about the strength of the marketing initiative. But credit to the processor/marketers, they did put that together and now it’s given them a focus and reason to communicate. [With the current supply shortage] we could have had a procurement war, but that didn’t happen. We’ve provided a mechanism that makes their ‘co-opetition’ easier.

DIN: It’s still early days over the life of P2P, but how do you feel about progress so far?

AM: The big thing for me has been engaging a broader mix of people. There’s a lot more mental horsepower being applied at all levels now, asking how we can do things better. The leadership groups are just the heading dogs – the real power is with the troops. The potential for this has always been there. It’s just been a case of loosening the leash. It’s really about realising your potential and, at producer level, gaining the confidence to have a crack.

The name “Passion2Profit” is there for a reason. It’s about combining the passion for the industry with the confidence and momentum that’s needed to keep going. In the end the result in dollars will show whether it’s been successful.

DIN: Do you have any thoughts about the post-P2P era?

AM: We shouldn’t get ahead of ourselves or overconfident. Biological cycles take time to work through and it could be 15 years before we see some of the results of what we are doing now. The current generation of deer farmers is still benefitting from work that was done 30 years ago.

“Andy is unflappable under fire, professional, honest, open to criticism, rational and resolutely positive – focusing on what should be done, not defending the past.

“He is also a big-picture guy, not dwelling on today, but thinking about where we’ll need to be in five years. And he’s practical – the big, visionary ideas are ground-truthed on the trusty Casio and against an encyclopaedic memory.

“His number one attribute is his incredible energy. The only meeting Andy ever missed was when he had a broken neck! That energy and drive is infectious.

“Using a rugby metaphor, it was a pleasure to be on a team with Andy, initially playing in pretty heavy conditions. He’s a proud Cantabrian, and I’d call him the Richie McCaw of the deer industry – untiring, unflinching, galvanising the team, singlehandedly getting us on the front foot and delivering some quality pill for the backs.”

– Dan Coup, CEO Deer Industry New Zealand, 2013–

This is a 15-year project, not a seven-year one, but the hardest yards are at the beginning. That’s why I use that image of the flywheel. It’s done one complete revolution now, but we have to build that momentum and we’ll need fresh legs to keep the wheel turning.

“It took someone with Andy’s leadership and intellect to push on with the changes needed to get P2P under way.”

– David Morgan, Chair, New Zealand Deer Farmers’ Association

DIN: Outside P2P what other things are you most proud of?

AM: P2P is a brand to coalesce a whole raft of activities around, but DINZ has been doing a lot of other good things besides. We have a very good team with multiple strengths, and also plenty of good people around the margins who are involved in what we do.

The support by the DFA for our strategy has been crucial, and so have initiatives like the Next Generation programme and the Advance Parties. It’s also been important to integrate good environmental and welfare values into what we do as an industry.

“Andy correctly identified that we as New Zealand deer farmers were not farming to our true potential, instigating the P2P programme and in particular the Productivity Strategy, and finding the right man in our CEO Dan Coup to drive it.

“This programme continues to grow in influence and its targets look well on track. It will be one of the finest initiatives in terms of delivering measurable benefits to farmers, a fine achievement by Andy for producers.”

– Clive Jermy ONZM, former DINZ Board member and Chair

DIN: Who are some of the people who have helped you in your job the most?

Well the two CEOs, Mark O’Connor and Dan Coup, for a start. They’ve both really believed in what we have been trying to do as a Board, starting with Mark and the strategy refresh in 2010, and Dan carrying on where Mark left off. I’m reluctant to pick out individuals on the Board but I do want to mention Glenn [Tyrrell] for his support in bringing the processor/marketers together. Kris Orange and then David Morgan as DFA Chairs, have been key to widening our footprint, and of course the P2P Advisory Group have really helped: as well as those just mentioned, these include Mandy Bell (Chair), Gavin Sheath and Paddy Boyd. There’s a lot of talent out there, which has made my job easier.

DIN: What challenges would you like to issue to the deer industry as you step back from the Chair’s role?

AM: Always keep questioning and making incremental improvements. Make the industry resilient so it can deal with those “Black Swan” events you don’t see coming. Make sure deer keep their place as an important part of the New Zealand pastoral farming portfolio. Learn from other sectors and teach them from our experience. And beware of cynicism – we must stay positive.

DIN: What’s next for you?

AM: My brother and son have just purchased Deer Improvement and I’m looking forward to playing a support role there. There is also the [Macfarlane Rural Business] consultancy of course, not as a day-to-day adviser now, but I’ll continue to support the younger ones. And of course I’ll be keeping my involvement in deer. I won’t be disappearing any time soon! ■

China venison potential test

by Alison Spencer, *Deer Industry News* writer

A recently concluded trial provides direction for exporters of farm-raised New Zealand venison for the market in China. But it's not going to be easy in a market unfamiliar with the meat.

INITIAL WORK BY global market research agency IPSOS highlighted substantial difficulties for venison in the Chinese market – not least from Chinese consumers and chefs unfamiliar with the meat. However the Marketing Working Group (MWG) – the group of five venison exporting companies – wanted to further understand the opportunities for New Zealand venison in selected foodservice channels in certain regions.

John Sadler of Mountain River Venison, one of the five companies, has been leading a project working with Hunter McGregor of Shanghai Rata Trade Company to see where opportunities may lie. The project ran from October 2016 to April 2017. It is part of the Passion2Profit programme and is co-funded by New Zealand Trade and Enterprise (NZTE).

DINZ Venison Marketing Manager Marianne Wilson explains: “The pilot development project gives us an understanding of the place for New Zealand venison in Western restaurants in China: which cuts and which applications will work.”

Over the six months of the trial, Sadler and McGregor visited more than 190 chefs working in Western-style restaurants in 12 regions, including Shanghai where McGregor is based. The mission was to introduce the chefs to farm-raised New Zealand venison, to find out how they might like to use it and which cuts would work best for the differing culinary styles.

As part of the programme, DINZ Executive Chef Graham Brown spent two weeks talking to chefs and giving workshops and venison tastings at the ShangriLa Pudong in Shanghai on China's east coast, the Beijing Westin Hotel in the northern capital and the Chonqing Intercontinental hotel in the country's south-west. The project also worked with NZTE, using its kitchen facility in Shanghai to conduct a tasting session with Chinese fine dining chefs.

While chefs responded positively to our venison once they'd tried it, they were unsure about their front of house ability to sell it to their customers.

About 5,300kg of venison was sold as a direct result of samples and/or meetings during the trial.

While there is potential for high-end middle cuts in this market, cuts like shanks, ribs and boneless shoulders were found to be the best cuts for slow-cooked Chinese dishes.

“Rumps too, because it's a great product and good price point,” McGregor says.

High-end Western-style restaurants in Shanghai are identified as the suitable starting point for introducing farm-raised New Zealand venison. Western-style cuisine is growing in popularity. While some restaurants are run by European chefs familiar with venison, many Western restaurants are also headed up by Chinese chefs who have little or no knowledge of it.

A long-term programme is required to introduce the meat, educate these chefs and convince them that New Zealand venison



Smoked and cured venison salad served with mixed micro greens, sour cream dressing and strawberry dice is one of three starters proposed by Swiss chef Christophe Zoller for The Cut's new menus at the Fairmont Hotel, Beijing.

has a place on their menus.

“We have an opportunity to position New Zealand venison as a new year-round, healthy meat in China,” says McGregor.

Because of the vast differences in traditional culinary styles, McGregor found chefs in some regions were less interested in using the meat, but Shanghai, a leading food and beverage region in China with a population of 24.5 million, is identified as the most promising place to start.

A \$60,000 12-month plan of promotional work in Shanghai is being drawn up for the MWG to consider for its new financial year, starting in October.

This will focus on Western-style restaurants first as a way of introducing venison to the wider restaurant sector.

“Work needs to be done to confirm the best sales messages for this segment of the Chinese restaurant market and to develop tools in Chinese such as culinary instruction, Chinese recipes and videos for sales personnel to use,” says Wilson.

More workshops with Graham Brown will be part of the plan, along with building relationships with Chinese chefs and their associations. In addition, a Shanghai-based Chinese-speaking chef who can work authoritatively with the target groups of chefs will need to be engaged.

One result of the work being done by McGregor and Sadler is a two-month venison promotion from August at Fairmont Hotels, The Cut restaurant – Beijing's “destination for steak”. Swiss chef Christoph Zoller, who is keen on high-quality ingredients, is proposing a menu featuring seven venison dishes (see photo).

“It's early days, but it is a solid start,” says Sadler. ■

New venison cooking tips for NZ consumers

by Alison Spencer, *Deer Industry News* writer

Keep an eye out for two brand new videos from one of New Zealand's top chefs showing New Zealand consumers how to cook farm-raised New Zealand venison deliciously and perfectly.

NEIL BRAZIER, EXECUTIVE chef for Peter Gordon's The Sugar Club and Bellota restaurants at SKYCITY Auckland, has teamed up with DINZ in the preparation of the videos. These show how to cook roast New Zealand venison perfectly, alongside a recipe for Indian-spiced venison medallions.

As he says about the easy instructions, "It'll knock your socks off!"

The English-born Michelin-experienced chef has moved between the United Kingdom and New Zealand over the past two decades. On his CV is executive chef at Kauri Cliffs in Matauri Bay, where he set up the Lodge Restaurant with Paul Jobin, and owning the award-winning Pear Tree Restaurant and Bar, before he joined renowned Kiwi celebrity chef Peter Gordon's famous restaurant The Sugar Club in 2013.

Brazier's approach to food is very simple. "It's all about punchy flavours, fresh seasonal ingredients, cooked with respect and a touch of playfulness," he says.

He's a big fan of venison. "It's incredibly delicious and so full of flavour while being extremely melt-in-the-mouth tender ... why wouldn't you be cooking venison at home?"

Brazier reels off the "obvious health benefits" of eating venison over other meats: "Low-fat, stacked with vitamins and iron, more protein than any other red meat, less fat and fewer calories."

He also asks whether venison has been overlooked by people on all kinds of diet, such as for body building, weight loss and many others. "When you look at it, it is the dream red meat for a person dieting."

Venison can be used for easy, quick ideas with simple cooking techniques. "And, then from there, you can go as 'foody-crazy' as you want and the venison will love you for it ... as well as the people eating it," says Brazier.



Neil Brazier, executive chef of The Sugar Club and Bellota, SKYCITY Auckland.

He has loved working with New Zealand venison in the production of the videos.

"It has been such fun and also incredible to open people's eyes to venison. I find consumers are just a little scared of cooking venison, even though they think it's delicious, but I have had many, many amazing comments from people using these recipes and how they will make them again and again. Also, they can't wait to show them off for the next dinner party or BBQ."

The venison roast with this recipe is "so super quick" compared with waiting for some roast meats. "For a tasty meal after work you can whack it together without spending hours in the kitchen."

The Indian-style venison dish has been on The Sugar Club menu for some time, "And will remain on it, as the staff are so confident in selling it; it always comes back with glowing comments and people amazed with the flavour combinations."

DINZ Venison Marketing Manager Marianne Wilson says the videos were released in late July, when Brazier was also on Radio Live in a joint promotion with The Sugar Club. Competitions were running alongside.

To view the videos:

- Freshfast Venison Roast – <https://fresh.co.nz/2017/07/15/venison-roast/>
- Freshfast Indian Flavoured Venison – <https://fresh.co.nz/2017/07/15/indian-venison/> ■

Watch this space

Top of the South Velvet and Hard Antler Competition 2017 will be held on 5 December



The committee would like to thank everyone for their continued encouragement and support. We would also like to highlight that there will be a few additions to the competition.

In response to the great support for the 4yr Red Velvet Class in 2016, the committee has decided to introduce a **5yr Red Velvet Class**.

We have changed the boundary for entrants to include **all of Canterbury**, along with the West Coast, Nelson and Marlborough.

Should you have any enquires please contact Grant Hasse, gandshasse@xtra.co.nz, 027-224 5542

Red meat sector looks to future

by Alison Spencer, *Deer Industry News* writer

The red meat sector looked into the future at the seventh Red Meat Sector Conference, held last month in Dunedin. While there are challenges ahead, there are opportunities too, delegates learned, many of which will be relevant for venison.



Marketing expert Dr Mike Lee.

ABOUT 190 PEOPLE drawn from meat processing, science, service companies and farming turned out on 30–31 July for the conference, organised by Beef + Lamb NZ and the Meat Industry Association.

Disruption from technology and alternative and synthetic meats was mentioned in almost every presentation. Speakers also identified the pressing need for the sector to earn its “social

licence to operate” and to engage with consumers using new technology, including social media.

Delegates gained insights into one of the sector’s biggest challenges – how to counter anti-consumption and consumer resistance – from Dr Michael Lee, senior lecturer of marketing at the University of Auckland.

Lee’s research, in conjunction with the Royal Holloway College in London, has shown the logical reasons *against* buying something are not always the logical opposites *for* buying something – “the broken mirror,” he called it. Applying the principles to red meat, he suggested, consumers can be either pro- or anti-purchase based on health, taste, lifestyle and image. However, there are two further reasons that have anti-logical reasons but not really any pro- reasons for buying meat: the environment and ethics.

“Nobody who eats meat, will eat it because they want to harm the environment or kill animals,” he said, adding these reasons should be top priority for further research on those two fronts.

Parliamentary Commissioner for the Environment Dr Jan Wright talked about the environmental aspects of the social licence to operate and covered familiar territory updating on efforts to tackle the biological greenhouse gases, methane and nitrous oxide, alongside her latest, and last, paper *Stepping stones to Paris and beyond: climate change progress and predictability* (see www.pce.parliament.nz). This details New Zealand’s progress and recommends that New Zealand explore the ground for a Climate Change Act like the UK’s.

Several speakers looked into the future for food, including maximising the value of the sector (Blake Holgate, Rabobank), how the “Internet of Things” is starting to connect pasture and plate (Katy Bluett, Callaghan Innovation) and genetics and breeding for consumer preferences (Drs Cameron Craigie and Neville Jopson, AgResearch).

Understanding consumers is important, too, suggested Dr Nicholas Archer of CSIRO’s Agriculture and Food business unit. He suggested at least part of consumers’ propensity for red meat lies

Top venison boner

Gabe Briennesse, Silver Fern Farms’ best venison boner of the year (second time running) was relieved of his regular duties at SFF Kennington to show off impressive knife skills during the Hamburg-Sud Welcome Cocktail Function held on the Sunday evening at Silver Fern Farms’ corporate head office in Dunedin. He worked on a 58kg AP4 hind carcass from SFF’s Pareora plant, while his colleagues, beef boning champion, Josh Te Whata, and top lower South Island sheepmeat boner, Daniel Barclay, worked on their beef and sheep carcasses. Venison was also included in the company’s displays of its retail ranges.



in their genetics.

Key to success will be focusing on the two ‘Rs’, “relevance and return-on-investment,” said futurist Craig Rispin. Melissa Clark-Reynolds, who was also announced as the first independent director for Beef + Lamb New Zealand, echoed his comments, noting how Netflix had disrupted the traditional video rental market.

She said delegates needed to be most worried about “those who have found a way to crack the way the money flows from the producer to the consumer”.

In his closing comments, MIA chairman John Loughlin said, “We need to take nothing for granted, proactively manage our risks, innovate faster than ever, tell our stories well, work as teams within our sector, with our government and beyond our sector, and we need to make our opportunities – and take them.

“If we do some of those things, we have a chance to build a wonderful future for ourselves.”

Delegates later continued the conversations about the future for their sector and their businesses at the Maersk Gala Dinnery.

• Presentations will be posted at www.redmeatsector.co.nz in due course. ■



Dr Nicholas Archer.

Venison update

Production

- The national kill for the 12 months ending June 2017 was 296,551, down 12% year on year.
- Production for the 12 months ending June was 16,896 tonnes (CWE), down 9% year on year.
- The total number of hinds killed in the 12 months to June 2017 was 144,337, equating to 48% of the total kill and down 18% for the year to date.
- The kill in the month of June was up 4% with production also up 4% versus June 2016.
- Average weight per carcass was 53kg, equal with June 2016.

Exports

- Total venison exports for the 12 months ending June 2017 are recorded as 12,105 tonnes, down 15% year on year, reflecting the low production levels.
- The value of these exports was \$162 million, down 11%. The average FOB sales price per kg over the past 12 months was \$13.37, up 4%.
- The United States continues to lead exports by volume, up 31% year on year. Volume increases were also observed for Switzerland and Austria, likely due to the imminent start of the European game season.
- As previously reported, volumes are significantly down for the German market, with a 36% decrease posted for the 12 months ending June 2017.

Chilled exports

- Overall the total volume and value of chilled exports decreased by 4%. However, chilled exports to the United States were up 24% by volume with 783 tonnes shipped, worth \$17 million. Exports into Belgium and Canada also posted increases, up 3% and 28% respectively.
- Chilled exports made up 20% of total exports by volume and 35% by value. The average FOB sales price per kg over the last 12 months was \$23, up 1% year on year.

Schedule and market observations

- The published schedule throughout June climbed from \$8.59/kg at the start of the month and finished at \$8.69/kg at the end of July, up 13% year on year. The higher-than-usual prices we are seeing at the moment reflect the procurement pressures exporters are facing, coupled with firm demand.
- Exporters report good demand across all markets for all products. Despite the higher than usual prices, it appears product has not reached the tipping point of being priced too high for the market. However, some exporters and importers are concerned that this point is very close to being reached.
- Chilled volume and pricing discussions with customers are well underway and, on the whole, mirror the last season's levels.
- Middle demand is strong and there is growth for other parts.
- Customers are not expecting huge volumes.
- Lastly, some exporters have observed that EU wild game does not seem to be available in large volumes. ■

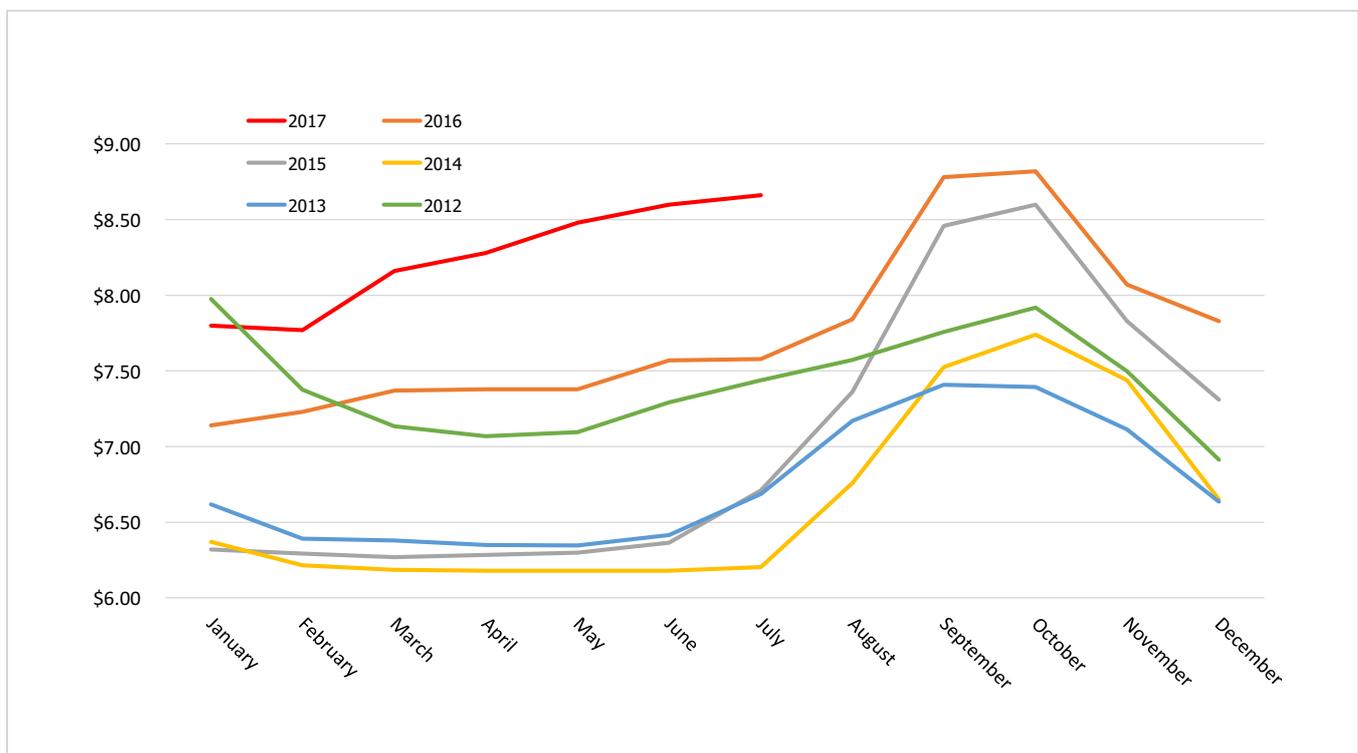


Figure 1: National published schedule: 2012–2017 AP Stag (\$/kg gross)

Mr Zhang: China’s king of velvet

by Seamus Harris, DINZ representative, China

Most roads in the Chinese velvet trade lead to Xifeng (pronounced “see-fong”), a small town in the province of Liaoning, in Northwest China. Here you will find cold winters, hearty food (no dainty dim sum), big open spaces, and not a shiny glass tower in sight – the place is a world away from what Kiwis tend to imagine China to be. Get to Xifeng and most roads lead to the gates of Mr Zhang Chunji’s company – Shenlu Industrial Group.

MR ZHANG, BETTER known as “Zhang Number 4” (he is the fourth son), has for 15 years been China’s largest buyer of New Zealand velvet. Mr Zhang is involved in every aspect of the deer industry, from farming through to processing raw deer ingredients and even manufacturing branded products. Spend a night in Xifeng and you might even sleep at Mr Zhang’s Deer City International Hotel – the tallest building in town.

Mr Zhang’s well-appointed office is set beside a brand-new factory. The facility has a workshop area of more than 4,000m² plus a further 1,800m² of storage. Products include high-end gift packs of sliced velvet sold under the Royal Paddock brand. Registered in 2009, the Royal Paddock name references Qing Dynasty emperors who once hunted deer around these parts. The brand has a flagship store in nearby Shenyang, the provincial capital and a city of 6.3 million people, with most distribution being via affiliated stores throughout China.

Shen Lu Industrial Group has also partnered with famous Chinese medicine brand Dong-E-E-Jiao (DEEJ) to produce co-branded deer velvet products. A listed company owned by giant state-owned enterprise China Resources Holdings, DEEJ is best known for its “donkey skin gelatin”. The black bricks of gelatin are a luxury health product often used in gifting.

Mr Zhang’s new GMP-certified factory (good manufacturing practice) will focus on producing traditional Chinese pharmaceuticals under the Chun Tian brand. GMP certification will become increasingly important to Chinese processors as the central government tightens regulations around how velvet can



Mr Zhang, China’s king of velvet.

be imported, handled and sold. Already more velvet than ever is reaching the Chinese consumer in branded retail packs. With modern lifestyles taking hold and consumers growing ever more sophisticated, these branded products increasingly take the form of ready-to-use functional foods and pharmaceuticals based on composite formulations. The Chun Tian product line will be well positioned to take advantage of the changing environment.

Not everything that Mr Zhang does is about the latest trends and technologies though. Up on the roof of his new factory you will find the world’s largest workshop dedicated to natural air-dried velvet — a niche product. Despite China’s rapid change and modernisation, Mr Zhang is helping ensure traditional ways remain alive. ■



Dong-E-E-Jiao product purportedly using New Zealand velvet.



Traditional air-drying velvet at Mr Zhang’s new factory.

Honour for deer vet

Southland veterinarian **Andrew Roe** has been honoured by his New Zealand Veterinary Association (NZVA) peers with the Allan Baldry Award in recognition of his services to the sheep and beef industry.

Roe, who has worked at VetSouth Winton (previously Central Southland Vets)

since 1990, is also an experienced deer veterinarian and is facilitator of the Southland Elk/Wapiti Advance Party.

He is the third deer vet to have received the award over the past decade, following colleagues Richard Lee in 2009 and Richard Hilson in 2015.

The Allan Baldry Award, a carved shepherd's crook, was presented to the NZVA Sheep and Beef Cattle Society by their UK counterparts in memory of Allan Baldry, a British veterinarian who died in a car accident in New Zealand in 1989 when he was serving as agricultural attaché in the British High Commission. ■



New velvet handling measures: Update

The National Velvetting Standards Body (NVSB) is still working through preparing for the changes and new requirements for velvetting, getting ready for the upcoming season.

For your information, please visit the DINZ website where a new page has been set up with some working examples of clean zones within deer sheds that are in the process of, or have been upgraded to meet the new requirements. See:

<http://deernz.org/shed-examples-new-standards>

There is also a list of some cleaning products as examples that have been approved by MPI as suitable to use. Please note that this is not a complete list by any means. To view the list:

<http://deernz.org/approved-maintenance-compounds>

For the list of approved compounds on the MPI website:

www.foodsafety.govt.nz/registers-lists/maintenance-compounds/index.htm

Further information will be sent out as the season gets closer. ■

– Pam Macleman, Quality Systems Administrator, DINZ



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Hill country development lifts productivity at Mount Peel

by Phil Stewart, *Deer Industry News* Editor

A visit to Mount Linton Station 10 years ago to look at some hill country development trials was enough to convince Mount Peel Station owner Johnny Acland to try it out. Fifty visitors to a “Feed to Profit” Focus Farm day at the station on 18 May, facilitated by Justin Geary from NZ Farm Management, heard first-hand how the development has made a big difference to productivity. The day was sponsored by BNZ and Silver Fern Farms.



The paddocks on the Waikari flats in the distance are used for winter crops.

THE WIDELY USED technique for improving carrying capacity on hill country has received a bit of unfavourable press in recent times, but “application-of-herbicide-followed-by-spreading-of-seed-and-fertiliser-then-a-frank-conversation-with-a-higher-power-or-just-crossing-your-fingers-if-you-don’t-believe-in-that-sort-of-thing” (a.k.a. spray and pray) has worked well on the hill country at Mount Peel Station.

Owner Johnny Acland told visitors the station’s carrying capacity has increased by 5,000–6,000 stock units since the programme began 10 years ago. About 800 hectares of hill country has been developed in that time, done steadily, usually at about 80–100 hectares a year. Most of the likely country has been developed now, but the programme is still under way with about 60 hectares being improved at the moment.

He said the darker country has good rainfall but low pH. “It was hungry country that wasn’t doing much. By developing it we’ve been able to create some great summer country.”

It is a two-step process. In year 1, once a suitable block has been identified considering factors such as contour, aspect, size, waterways and access, it is sprayed out with 5–10 litres/hectare of glyphosate plus penetrant, ideally in November.

pH levels on parts of this country had been below the

point at which aluminium (Al) toxicity to plants (especially clover) becomes a problem. Acland said Al levels in some areas were as high as 25mg/kg, well above the safe level of 3mg/kg. Applying lime at 5t/ha, ideally up to a year before the development starts, has been enough to get soil pH levels safely over 5.5, and locking the Al away from plants. (In some areas, up to 10 tonnes/ha was needed.) The liming accounts for more than 40 percent of the development costs.



Johnny Acland (centre) describes the development process on one of the hill blocks seen in the distance.

Table 1: Mount Peel Station hill country per-hectare development costs

Year 1		Year 2	
Chemical (glyphosate/penetrant)	\$140	Chemical (glyphosate/penetrant)	\$140
Lime (product/cartage/application)	\$650	Lime	\$0
Seed (30kg Moata/3kg rape)	\$105	Seed (25kg Nui/6kg clover)	\$135
Fertiliser (DAP + Sulphur 90, urea)	\$175	Fertiliser (DAP + Sulphur 90, urea)	\$175
First year development cost/ha	\$1,070	Second year development cost/ha	\$450

With pH usually declining at about a point a year after liming, regular soil testing is done and more lime flown on where needed.

“Nothing fancy” is used in the way of grasses. The first seed application is an annual ryegrass (Moata, 30kg/ha) plus a brassica (rape, 3kg/ha). The Moata ryegrass gives more weed control options at that early stage. For fertiliser, 120kg/ha of DAP with Sulphur 90 is applied, along with 80kg/ha of urea.

Acland said the developments have normally gone well. “Occasionally the strike isn’t as good as we wanted and we’ve had to put on more seed, but usually if you watch the forecast and get the seed on before rain, you’re okay.”

In Year 2, the brassica and annual ryegrass is sprayed out, followed by fertiliser (the same mix as the previous year) and seed. The permanent pasture comprises Nui (25kg/ha) and white clover (6kg/ha), with the seed trampled in by stock. If conditions allow, spraying is done in November and seed applied in late January or early February. As no lime is required, the second-year development costs are much less (see Table 1).

Justin Geary said that once the white clover gets established after the second year, it fixes enough nitrogen to feed the ryegrass.

Developing more challenging country for deer has meant being mindful of the natural contours, preserving some natural cover. The main waterways and some gullies are fenced. Some creeks and gullies are planted in pine, and sprays are also kept well away from these areas.

As crops are only grown on the flats, sediment runoff associated with winter grazing is not an issue. Acland said the country is stable and not prone to slipping.

He said some subdivision was needed and water laid in, but all the necessary infrastructure has been done. “My father once reminded me that if you are going to use more fertiliser, you are also going to need more fencing.”



Visitors take a closer look at one of the developed blocks.

Weeds

Weed control is an ongoing issue that needs careful attention. Acland said thistles can quickly pop up in newly developed blocks that had never seen a thistle before. One block where they had tried a mix of plantain and red clover hadn’t worked all that well, and it had to be sprayed out and replaced with the more conventional ryegrass and clover.

The payoff

The changes at Mount Peel Station in the wake of the development programme have been spectacular. The dry matter production on the developed hill blocks was lifted from 3 tonnes to 6–8 tonnes per hectare and the set stock carrying capacity doubled from 2 hinds/ha to 4 hinds/ha. Financially, it has increased the gross margin for deer alone by 19 percent, or \$134/ha – and that excludes other integrated stock classes.

Geary said it’s not just about quantity. It’s also giving greater pasture quality over a longer period, which has really improved their management options for hinds and fawns. “With browntop you’re lucky to get one week a year of good quality pasture,” he said, not entirely jokingly.

But the numbers tell the real story. Assuming a conservative additional 4 tonnes of dry matter harvested in Year 1, worth \$800 (valued at \$0.20/kgDM), the investment of \$1,520/ha for developing the hill blocks pays for itself in just four seasons – and the blocks keep producing well beyond that.

Table 2: Hill country development costs and returns

Total per-hectare cost (2 years)	\$1,520
Less feed value, Year 1	\$800
Net per-hectare cost to develop	\$720
Gross margin/ha increase	\$182
Return on investment (ROI)	25%

Geary said the development had increased productivity on the hills for both cattle and deer, while the strategic location of the blocks being developed had meant environmental impacts were minimised.

The very good ROI was minimally sensitive to product price fluctuations, meaning the work could be done with confidence that it would stay economic despite market ups and downs.

An integrated operation

Mount Peel Station has been in the Acland family since the 1850s and today is run by Johnny Acland with wife Rose, the fifth

continued on page 18

Mount Peel: continued

generation since it was settled. Manager Hamish Neale heads a team of six, including an agricultural manager, block manager and three shepherds.

The 3,900 grazable-hectare operation is fully integrated with an overall balance this winter of 12,000 sheep stock units (SU), 12,000 cattle SU and 10,000 deer SU. Of the 1,600 ha of flats, 700 ha is deer fenced, while 1,100 ha of the 2,300 ha of hill is deer fenced.

The deer business is venison breeding and finishing with 2,705 breeding hinds wintered, complemented by a large velvetting herd (Table 3).

Table 3: Mount Peel Station deer stock tallies, winter 2017

Mixed age hinds	2,100
R2 hinds	400
Mixed sex red weaners	900
Mixed sex terminal weaners	1,260
Mixed age velvet stags	770
R3 velvet stags	140
Spikers	300
Red and terminal sires	48

The station is also wintering 900 beef cows and about 800 beef calves, along with 250 Friesian bull beef calves and R2s, and 30 sire bulls. Grazing is provided for 520 dairy heifers and carry-over cows.

There is a significant Romney x Coopworth sheep operation – 9,400 ewes and 3,000 ewe hoggets. Grazing for the sheep, cattle and deer dovetails nicely.

The Aclands pre-rut wean their deer in the first week of March, with hinds going straight in with the stag on the paddocks for 60–65 days, getting a big flush when they hit the good quality feed. With stags coming out in the first week of May, all fawning is safely out of the way by Christmas.

The hinds head for the hill country for winter, being replaced in the paddocks by trading cattle. They come down for scanning in late June. In 2016 the terminal hinds scanned 91.5 percent pregnant (R2s 85 percent). This year, the terminal hinds scanned 92 percent and the R2s 88 percent. The hinds put to a red stag for replacements aren't scanned, but generally wean a very satisfactory 92–93 percent.

Depending on the season, the pregnant hinds are brought down into the paddocks in early–mid August to start building body condition in the leadup to fawning, hopefully with some excess crop available to give them a boost. By mid-September they are back on the hill, set stocked at 4/ha on the developed hill country and 1.2/ha on the semi-developed hill. Fawning starts on 21 October and the hinds usually stay put, set stocked on these blocks until weaning.

Average weight for the terminal weaners was 55kg this year. Following drenching and Yersiniavax vaccination, the weaners are put on good quality feed through autumn and early winter to take advantage of the good growth rates at that time of year (they were still putting on 200–220g/day by mid-May).

They spend 75–80 days on swedes during winter, supplemented with good quality pasture baleage or pea vines. A creditable 80–100g/day liveweight gain is maintained through winter, although Acland wondered aloud whether the weaners should be left to grow “when they want to”, or really pushed through this part of the season.

The terminal weaners are run in three mobs based on weight, with the heaviest mob coming off the crop and onto high-powered autumn-saved feed to kick off spring growth rates. This year he has 40 hectares of straight red clover ready for some of the weaners when they come off their winter crop and is looking forward to seeing how they will respond.

Mount Peel Station usually has 170 hectares in winter crop on the paddocks. They grow swedes for the weaner deer and kale and fodder beet for the cattle. The land where the crops are grown is a little bony and some of the crop paddocks are dotted with piles of rocks that have been removed by digger, with direct drilling used rather than cultivation.

The normal rotation is an Italian ryegrass (sometimes for two years), followed by swedes, kale, fodder beet and then back to new pasture.

The first drafts are away by the end of September. Ninety percent are gone by Christmas, with the last of them away by February. Last year they achieved an average carcass weight of 55kg, a result that can be traced back to the good start they get as fawns with their dams on the developed hill country. Acland is pleased with the strong spring contract with Silver Fern Farms guaranteeing a minimum of \$9.50 and with only a modest drop by February to \$8.70.

Velvetters

The velvetting herd is consigned to the fawning blocks in the hill country for the roar, once the hinds and weaners have been brought down, but from May onwards, they start getting the favoured treatment that will coax good velvet growth the following spring. This starts with a pre-winter boost being rotated through the paddocks, followed by wintering on brassicas if yields allow. If not, they are fed whole-crop silage, grain and, since last year, palm kernel. They are drafted into lines as buttons drop, with feeding lifted up another notch from August through to velvetting. In summer, the stags serve as useful “lawnmowers” to groom paddocks after lambs and finishing cattle.

Acland was encouraged by the introduction of palm kernel for the velvetters last year, as it was accompanied by a 0.4kg boost in velvet weights for the mixed age stags. He's well aware that other seasonal factors could also have been at play, but is repeating the exercise this year. ■

On-farm QA on Youtube

On-farm QA is, says David Nind, just a routine part of modern deer farming.

Watch the Southland deer farmer share his thoughts about the place of on-farm QA in his deer business on https://youtu.be/ZKd8_ON-hRE or just search YouTube on “David Nind deer”.



Industry environmental code

As the youngest livestock industry in New Zealand, the deer industry has an impressive and pioneering record in environmental management. The New Zealand Deer Farmers' Landcare Manual, originally published in 2004, was the first of its kind.

BEFORE THAT, IN 2001, the industry introduced environmental awards at the initiative of Sir Peter and Fiona Lady Elworthy – a great way to recognise what farmers were doing on farm to improve their environment and mitigate risks from deer farming. Many of the award winners were featured in the Landcare Manual. At the same time, the industry was implementing an on-farm quality assurance programme that included an environmental management component.

The on-farm quality assurance programme was superseded by venison processing company quality assurance schemes, which contribute via on farm QA (page 21). The biennial environmental awards continue, with standards increasing all the time.

Code of Practice: Definitions

- A set of standards agreed on by a group of people who do a particular job (Cambridge Dictionary)
- A set of guidelines and regulations to be followed by members of some profession, trade, occupation, organisation, etc.; does not normally have the force of law (Wikipedia)
- Written guidelines issued by an official body or a professional association to its members to help them comply with its ethical standards (The Law Dictionary)

The Landcare Manual was last updated in 2012 and has formed the basis for other publications on good environmental management practice (Good Management Practice posters for catchment groups in Upper Buller River, Hurunui-Waiiau, Ophihi Water Group, Kakanui and Pomohaka).

The list of deer farmer contributions in environmental management is long, but two of significance are:

1. involvement in the creation of the “[Primary] *Industry-agreed Good Management Practices Relating to Water Quality*” published in April 2015
2. working closely with Beef + Lamb New Zealand (B+LNZ) on environmental policy and extension activities and endorsement

of the use of the B+LNZ Land and Environment Planning (LEP) toolkit to assess environmental risk and identify appropriate management actions at a block or paddock scale.

Now, with the increased focus by regional councils and central government on farming’s environmental footprint, the industry is looking to continue its proactive involvement and demonstrate leadership to regulators and the New Zealand public through the development of an environmental management code of practice.

The code is an expression of industry expectation, not a mandatory requirement.

Using the Industry-agreed Good Management Practices Relating to Water Quality document as a framework, more detailed guidance will be distilled from the Landcare Manual and other related information such as the environment *Deer Facts*. Together these will form the deer industry’s environmental management code of practice. This is a repackaging of well-established deer farming practices in a form that is understood and recognised by regulators and the public alike, as well as making sure it is practical for farmers and up to date. When used in conjunction with a farm environment plan (such as the B+LNZ LEP), the code of practice will add a level of credibility and robustness to justifying on-farm environmental practices.

The code of practice will help deer farmers by:

1. identifying a range of (industry- and council-recognised) management options to consider when completing a Farm Environment Plan
2. providing another level of endorsement when regulators wish to audit on-farm environmental performance or where there is public interest in deer farming’s environmental footprint and the sustainable production of venison or velvet.

The code of practice is being developed as part of a project called Environmental Stewardship in the Passion to Profit (P2P) programme. P2P is jointly funded by the deer industry and government through the Primary Growth Partnership fund. ■



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Health and velvet growth in focus at Gisborne workshop

by Phil Stewart, *Deer Industry News* Editor

The Passion2Profit (P2P) programme has some universal themes around genetics, feeding and health and these were echoed at a P2P Regional Workshop hosted by the Gisborne Advance Party on 11 July. At the same time, the discussion showed how local conditions can influence the way these principles are applied.

THE TOPICS FOR the day were improving productivity and profitability through better animal health management, and velvet antler production.

About 14 local deer farmers attended the workshop in Gisborne, which was led by Advance Party facilitator Andrew Cribb. He said most properties had now been visited in the 10 months the group has existed. It includes a good number of younger people and there is plenty of optimism for the industry with expansions underway or planned.

Animal health theme

DINZ P2P Deer Health Project Manager Lorna Humm introduced the new interactive Deer Health Review (downloadable from <http://deernz.org/annual-health-review>).

She said the reviews are intended to be cost effective and valuable, record experiences, track health improvements, be easy to implement and fit well with other tools such as the deer growth charts and reproductive or genetic improvement programmes.

In summary, a deer health review involved:

- defining goals
- understanding the risks from production-limiting diseases
- making a plan to manage the risks.

Humm emphasised that a review is very property-specific. They can be done using an electronic or hard copy and using the online version opens up access to other productivity tools and more information about particular diseases. She added that it is a living document, which can be updated as conditions change and progress is made.

The workshop members picked apart the animal health issues in their region, with the discussion showing that geography does play a part.

The deer industry in Poverty Bay mainly comprises breeding or velvetting operations. Much of the area with deer is hill or hard country with little or no scope for finishing given the dry conditions in mid-late lactation. While finishing isn't really an option, the demand for weaners has been strong and grass growth is suited to velvet production. With stags not usually coming out until 12 May, fawns are not born especially early (peak fawning is 25 November – 5 December) and there can be a long tail. This perhaps shows there is room for improvement in the region in terms of conception and fawning dates.

Discussion picked up the following animal health-related points:

- Many health issues in the past can be sheeted back to **underfeeding** and underestimating the nutrition requirements of deer.
- **Stress** was also seen as a precursor to many disease problems.
- **Yersiniosis** is a high risk in the area and most vaccinate against it. Some farmers wean post rut or later to reduce stress on fawns and thus the risk of setting off an outbreak. Internal parasites are seen as another trigger for yersiniosis.
- **Ticks** are a challenge in the area. Rushes and long or rank growth in hill country provide a good environment for ticks, which can affect velvet or regrowth, as well as fawns.
- **Internal parasites** are an increasing problem, especially the *Ostertagia* type of gastrointestinal (GI) worm. The combinations of drenches used and timing varied among those at the workshop, but overall the emphasis was on young stock rather than adults (some drenched only the poorer-performing weaners). Practical issues in some of the more extensive hill country made frequent drenching difficult. Specific drenching-related issues were:
 - danger of overdosing weaners with levamisole when drenching to the heaviest in a mob that has a wide weight range
 - different timing needs for drenching against GI parasites versus lungworm
 - the need for a reliable faecal egg count or faecal larval count test in deer.
- **Leptospirosis** is a performance and animal health issue for weaners and also a human health risk. Wild pigs in the region are thought to be carrier risks. Standing water in paddocks is also recognised as a risk. Many protect stock using a 7-in-1 (combined clostridial and leptospirosis) vaccine. At about \$2/shot, the cost of protection versus the risk of losses isn't really an issue. There was some concern and uncertainty about the effects of giving leptospirosis and yersiniosis vaccines at the same time. (While the sensitiser (first) doses for the two vaccines should not be given at the same time, the first leptospirosis shot can be given concurrently with the second yersiniosis vaccination.) Veterinary advice is strongly recommended to set up a safe and effective vaccination programme.
- Although not a big issue in the deer industry generally, **malignant catarrhal fever** (MCF) occasionally affects good big stags in late winter in this region. Susceptible breed lines and

continued on page 21

P2P Update

P2P is about to enter year three of the programme, reports P2P Manager, **Innes Moffat**.

IN YEARS ONE and two we have established collaborative marketing activities that are successfully creating demand for New Zealand venison in non-seasonal markets. We have examined opportunities for New Zealand venison in China (see page 10), and while we might not have liked what we heard, marketing companies are much more informed of what the market has to offer.

The on-farm quality assurance programme is underway with all venison marketing companies committed to requiring that Cervena® qualifying animals must come from farms that comply with the single standard for deer farming quality assurance.

Advance Parties, Regional Workshops and Workshops for Rural Professionals are being used to encourage more informed discussions among farmers and their advisers on areas of improvement to deer farming operations.

Tools like the growth curves for venison animals and replacement hinds are being used to help set targets and monitor performance. The Deer Health Review Workbook, after extensive trialling and consultation with farmers and industry professionals, is now being used by farmers to help establish deer health priorities and actions to improve profitability.

In the year ahead we will be rolling out Farm Systems

Descriptions to help with decisions on profitable changes to deer breeding and finishing systems, a forage planner to help with deer-specific forage options and calculators for forage requirements and mating planning.

These go on top of the continuing development and distribution of further *Deer Facts*, improvements to the content and functionality of the Deer Hub (<http://deernz.co.nz/deerhub>) and the provision of annual venison production reports via DeerPRO (see page 25).

Programme aims

We are aiming for:

- 30 Advance Parties by the end of 2018
- 100 rural professionals attending our training workshops
- 15 Regional Workshops in the year ahead.

The marketing companies and their European partners are keen on another year of summer promotions of Cervena, and aiming for increased volumes to help boost off-season schedules to New Zealand farmers. The marketing companies will also work together to explore opportunities to sell venison into new market niches such as the US on-line health sector. ■

Gisborne workshop: continued

onset of lambing are thought to be factors.

- **Copper** deficiency is an issue for many. Most prefer injections to bullets. Treatments are usually timed for late winter when levels are at their lowest. Some are considering giving pregnant hinds copper before set stocking to prevent any fawn survival problems linked to copper.

Velvet stags: Nature and nurture at work

Velvet production is an important part of the deer industry in Poverty Bay and some useful tips emerged from the discussion. Tony Pearse got this started with a talk about velvet growth, nutrition and management.

Drawing on a paper co-written with AgResearch scientist, David Stevens, Pearse reminded velvet producers that while good nutrition is an important factor in velvet production, “luxury” feeding won’t deliver anything more than the stag is capable of by virtue of its genetics.

That said, the influence of good feeding on a stag’s velvet production starts right back when it is still *in utero*, Pearse said. The dam’s nutrition sets up the response of the unborn stag to nutrition during its lifetime, with a good weaning weight achieved through good lactation being another important milestone.

Genetics is a strong driver of velvet production and this is shown graphically in the average weights of heads entered in national competitions. In three decades since the early 1980s, weights in the open red NZ class had doubled, while weights in the supreme elk category had trebled to more than 18kg.

Pearse said both energy and protein are important in the

velvetting stag’s diet. Energy is especially important in the post-rut period when stags have lost a lot of weight, and in early spring around casting time. During the antler growth period, the protein content in the diet was ideally at least 16–18 percent, he said. Actual requirements were also age dependent. For example, a yearling stag approaching pedicle development needed about 24.5 percent protein during the antler growth phase, but this requirement fell to 15.5 percent for mature stags (assuming digestibility of 0.75 percent for pasture).

Strategic supplementary feeding for hinds during pregnancy and lactation, and then for the growing velvet stags, is critical to express the genetic potential for velvet production. This feeding is also important during the key post-rut and pre-casting seasonal cycles. In between these two key phases, achieving growth during the winter period was difficult, Pearse noted.

However, taking care to minimise stress, disease risk and social disruption during winter still helped set up stags well for the velvet antler growth period. Velvetting stags were best kept in age-group mobs through to 3 and sometimes even 4 years of age, after which they could go into the mixed age mob. Another way to help get stags to quickly recover condition post rut was to reduce the likelihood of competition for feed sources. This required some thought about how supplements are fed out or crops grazed.

While minerals are important in the diet, additional minerals don’t boost antler production, he said. If a wintering system is grain dependent, there is a risk of sodium and calcium deficits, he added.

- **Acknowledgement:** Tony Pearse and Lorna Humm for workshop notes used as a basis for this report. ■

Investing in genetic merit pays

by Phil Stewart, *Deer Industry News* Editor

Still not convinced it's worth investing in high genetic-merit sires for venison production? Not sure whether it's better to keep finishers on until the new year to get on some more carcass weight? New research may help you decide.

RESULTS FROM FARM systems analysis done by AgResearch Invermay for the Passion2Profit (P2P) Genetics Group has shown that in a venison-only system, and based on a traditional spring-summer schedule, improving the genetic merit of your venison sires and getting prime animals away early is clearly the most profitable option. The increased profitability of high-growth genetic merit and terminal siring is also spelled out.

In a paper published in the Proceedings of the New Zealand Society of Animal Production (see reference at the end of this article), AgResearch's Jamie Ward and Bryan Thompson have shown there is clear daylight between the returns using average genetic-merit red sires and three other scenarios using combinations of high-growth red and wapiti sires.

Actual liveweight data of DEERLink 2014 progeny and mixed-age breeding hinds and pasture growth curves from the Invermay herd (Figure 1) were used in the modelling. The breeding hinds (average liveweight 127kg at the start of winter) had a mean Deer Select breeding value for most traits of just above average (i.e., zero). This means that differences in the genetic influence on progeny performance came only from the sires.

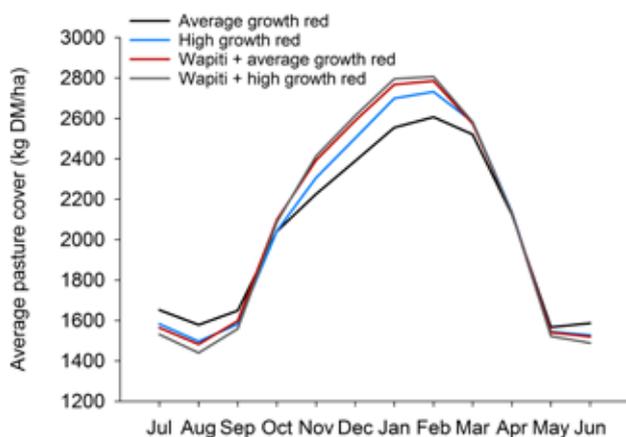


Figure 1: Average pasture covers for the four systems.

Four scenarios

Taking “real world” liveweight data, Farmax® modelling was used to investigate profitability and productivity outcomes for four different venison production breeding and finishing scenarios (Table 1).

To ensure the results for the four scenarios were comparable, the number of breeding hinds was adjusted to maintain consistent start-of-winter pasture covers across the four systems (Figure 1).

Three types of sire used across four scenarios

The Deer Select breeding values for the average and high-merit red sires used were very different (see Table 2), but they represent a range of what's available to commercial venison breeders. Breeding values for the wapiti sires were high for wapiti. They can't be directly compared with the red breeding values, but the wapiti used were of high genetic merit for that breed. See Table 2.

The liveweights for progeny of the three types of sire used followed contrasting paths. Once again, the difference between average and high-merit red sires is plain to see, while the wapiti progeny had the highest weights as expected (Figure 2).

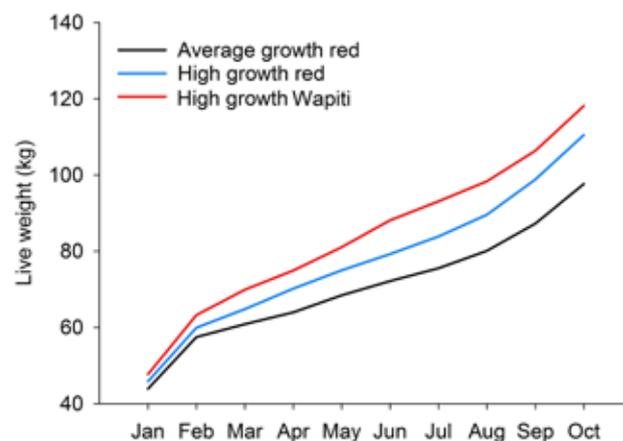


Figure 2: Liveweight gains for progeny of average-growth red, high-growth red and wapiti sires.

Table 1: Four systems used, types of sire and numbers of mixed age hinds in each group

Type of system	Type/s of sire used (numbers of hinds in brackets)
1. Base maternal system	Average growth merit red (475)
2. Maternal system	High growth merit red (450)
3. 50% maternal + 50% terminal	Maternal: Average growth merit red (225) Terminal: High growth merit wapiti (225)
4. 50% maternal + 50% terminal	Maternal: High growth merit red (220) Terminal: High growth merit wapiti (220)

Table 2: Deer Select estimated breeding values and economic indexes for the three types of sire used

Sire breed	Sire growth breeding value	Mean estimated breeding value or index					
		Weaning weight	Autumn weight	12 month weight	Carcass weight	Replacement-early kill index	Terminal index
Red	Average (used in system 1 & 3)	4.6	3.6	4.0	2.3	\$3.11	\$6.97
	High (used in system 2 and 4)	16.7	20.4	26.8	14.1	\$21.43	\$44.83
Wapiti*	High (used in system 3 & 4)	11.2	12.6	14.8	8.4		\$28.01

* Wapiti values in this row are not directly comparable with the red deer values above

How the four systems performed

By most measures, the progeny in system 4 (50% mated to high-merit red sires + 50% mated to high-merit wapiti sires, see Table 1 above) led the pack.

Breeding systems 2 (high-merit red sires), 3 (50% mated to average red + 50% mated to wapiti) and 4 (50% mated to high-merit red + 50% mated to wapiti) all outperformed the base maternal system by varying degrees, as follows:

- age birth to slaughter (37–61 days less than base maternal system 1)
- mean carcass weight (2.7–4.2% higher than base)
- mean venison per kg sale price (5.5–7.7% higher than base)
- gross margin per kg of product (8.8–12.8% higher than base)
- before-tax profit per hectare (6.1–8.4% higher than base)
- profit per mixed-age breeding hind (11.0–15.2% higher than base)

continued on page 24

Targeting top breeding values

After enduring some ups and downs in recent years, Taihape deer breeders Mark and Chris Benson have enjoyed a great 2017 with a total clearance of the 380 weaners put on offer at the April sale, averaging around \$350–\$360/head.

They are confident that the strong buying support isn't entirely driven by the nationwide tight supply – it's also because they are producing weaners that will grow fast and early. Many of their weaners go to finishers in Central Hawke's Bay – James and Sue Hewitt have been regular buyers – but they also go to properties in Manawatu and Waikato.

The brothers started running deer on 16 hectares of their father's farm when they were just out of school. They bought a further 137 hectares in 1997 and now have 550 red breeding hinds, which they replace at a rate of 15–20 percent annually.

Mark Benson says they started out building up their herd with "everybody's seconds", but they soon cottoned on to the value of improved genetics. "When Paul Hughes started his [Ruapehu Red Deer] stud we started buying his stags and we've done so ever since."

Like Hughes, the Bensons have been early adopters of the breeding values (BVs) provided through Deer Select. It didn't take long for the superior genetics they targeted to start showing up in the weaners they were selling.

They also appreciate how quickly genetic gains have been made recently and Mark believes they should probably start turning over their sires a bit faster to take advantage of this. "We have 10 sires and usually get two or three new stags each year. Some are 10 years old, which is probably keeping them too long, so we're thinking of starting to cull them at 7 or 8 years."

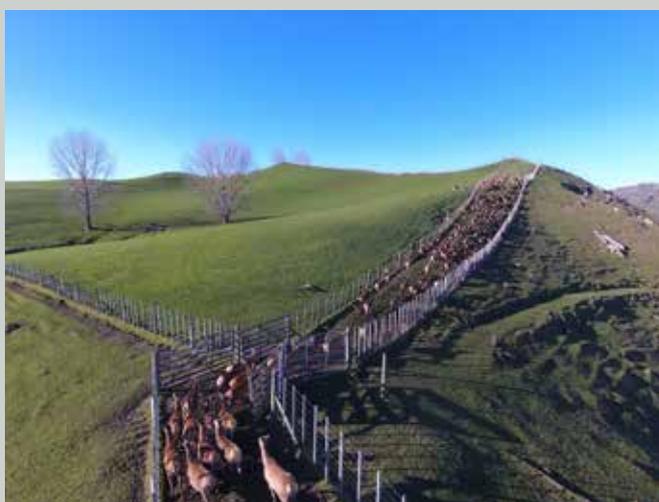
Benson is clear about what they want: good BVs for weaning weight and 12-month weight. At the Ruapehu Red Deer December 2016 sale, which had an average price of \$5,243, they picked up

three stags. While they all weighed in at over 200kg, it was their BVs that attracted them. The three sires had weaning weight BVs from 13.5–15.1kg, and 12-month weight BVs from 22.6–24.5kg.

Ultimately – and this is another sign of the confidence suffusing the industry – the brothers would like to grow from the current 550 hinds to 1,000, evolving to a purely red operation (currently some of the older hinds are put to leased wapiti sires).

Availability of land in the district is one constraint at present, but if the Bensons do manage to secure space to expand the breeding operation, getting enough fencing material should not be a problem. With their sister Susan, Mark and Chris help run the family business, Hautapu Pine.

The current upturn in the deer industry is making its mark on this business too. "We're seeing a lot more demand for deer posts," Mark says.



Breeding hinds being moved on the Bensons' farm. Drone photo courtesy of Mark Benson.

Genetic merit: continued

System 4 (50% mated to high-merit red sires + 50% mated to high-merit wapiti sires) was also the most efficient in terms of dry matter consumed per kg of product, with 7.9% less consumed than in the base system 1.

The paper by Jamie Ward and Bryan Thompson (see link at the end of this article) details the performance figures for each of the four systems.

The slaughter profiles varied markedly between the base system 1 and the other three groups. For the base maternal system, using average growth-merit red sires, 30 percent of the progeny were still awaiting slaughter by February, whereas for the other three groups only about 5 percent remained (Figure 3).

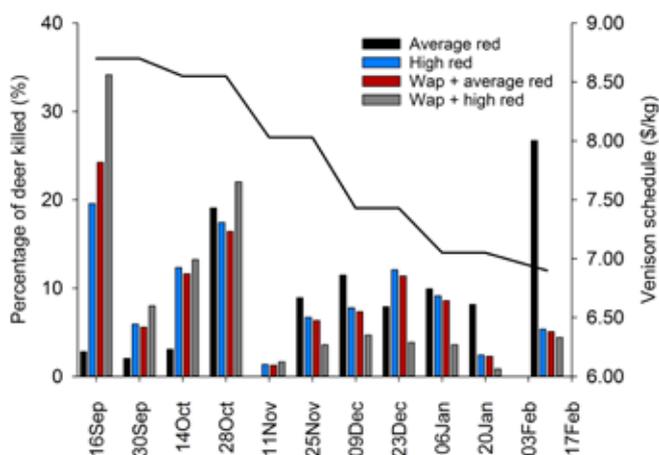


Figure 3: Venison schedule (solid line), and percentage of deer killed for each system

The numbers of hinds in the breeding herd were reduced by between 5.6 and 8.0% for the three alternative scenarios (systems 2, 3 and 4) from the base maternal system 1. This highlights the need to adjust stocking rates to provide sufficient feed for faster growing progeny of improved genetic merit (i.e. there is no such thing as a free lunch).

In a time of reduced breeding hind numbers nationally, it is heartening to know using alternative sire genetics and farm systems can improve carcass weights and profitability with a lower number of breeding hinds on the same farm.

Reference

Ward JF and BR Thompson (2017) Valuing improved deer genetics, *Proceedings of the New Zealand Society of Animal Production*, Rotorua, 77: 117-120

Available from: <http://www.nzsap.org/proceedings/valuing-improved-deer-genetics>

Further information

To find out more about increasing performance through better genetics:

- Deer Select: <http://deernz.org.nz/deerselect>
- Deer Hub: <http://deernz.org.nz/deerhub/deer-information/genetics>
- Deer Facts: <http://deernz.org.nz/deer-facts> ■

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Johne's costs, planning benefits

by Solis Norton, Project Manager, DeerPRO

With Johne's disease seen as "just one" of the ten main deer health issues, it is timely to revisit the serious impact it can have in your herd. Also timely is the new way of putting it context with other potential herd health risks using the newly released Deer Health Review Workbook.

WHILE OUR FOCUS here is on the financial impact of Johne's disease (JD), the stress on farmers and their staff managing an outbreak is a major impact in its own right, as is the time and effort invested. These aspects are not easy to quantify in dollar terms but should not be underestimated.

That said, stock deaths are the most visible financial cost of a JD outbreak. But do not underestimate the impact of mild (subclinical) infections. They go largely unnoticed at the time even though they are draining herd performance, but stick out like the proverbial when you review your venison performance (email info@deerpro.org.nz for a report for your deer).

Here is a fine example. In the 2014 season, young deer on a farm had a big spike in JD-suspect lesions (identified at processing during routine carcass inspection by AsureQuality meat inspectors). This indicated high levels of subclinical infection. That season, their average carcass weight (46.6kg) was 6kg lower than

in the seasons both before and after, even though their average finish date was similar. The two graphs (Figures 1 and 2) show how the spike in lesions and drop in carcass weight coincide in 2014.

If we assumed the venison schedule trend was the same across these seasons, the return per head across all young deer (not just those identified with lesions) was \$56 lower than in 2013 and \$44 lower than in 2015. This is a ball park loss of \$15,000 total, just for subclinical infection.

Maybe other stressors contributed to this outbreak; it is often the case with JD. The key point is to see the financial loss that they triggered, so investment in their prevention can be calculated.

On most of the several hundred farms we have assisted with JD control, financial losses tend to be up to \$4/su (about \$9/hind) in any given year. This can be a frustratingly difficult loss to isolate with management. But in an outbreak, losses can double or even treble, which is a major blow to performance. We can estimate the loss for your farm using our computer model in a five-minute phone call if you're interested (0800 456 453).

Putting JD in context with other herd health risks is now

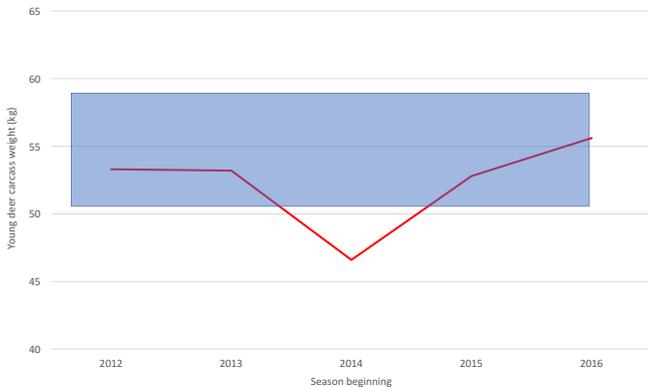


Figure 1: Average carcass weight for the farm's young deer (red line) compared with middle 50% of all young deer processed (blue band).

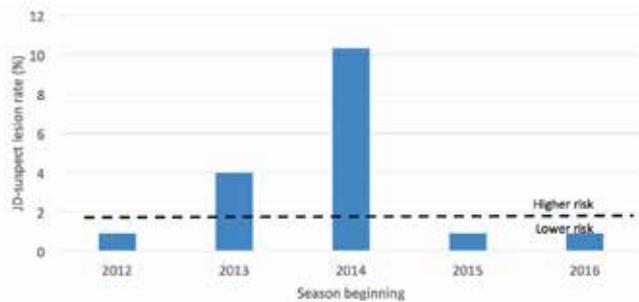


Figure 2: Percentage of deer with JD-suspect lesions identified during processing.

continued on page 26

Benchmarked production and Johne's disease info on your deer

Deer PRO To help make and assess your deer management decisions contact **DeerPRO** for your report – **0800 456 453** or **info@deerpro.org.nz**

Deer husbandry qualification launched

The next generation of on-farm workers in the deer industry now has an NZQA-approved qualification to aim for, with the launch of a Level 3 New Zealand Certificate in Agriculture (Livestock Husbandry) focused exclusively on deer. The course has been published by Primary ITO, with development of materials funded by the Ministry for Primary Industries Sustainable Farming Fund and Deer Industry New Zealand.

THE INAUGURAL INTAKE for the 12-month course is expected to occur later this year, with the first crop of graduates in 2018. The qualification is aimed at people working under supervision on deer farms and gives learners a thorough grounding in deer husbandry.

Impetus for the qualification came from the deer industry's *Motivate!* group, principally Clive Jermy, Tony Pearse and Kris Orange, with a view to attracting and retaining wider participation in the deer industry. One of the industry constraints the group identified was a lack of deer-specific training options and this qualification makes a big step towards building the workforce and skills needed to support a confident, growing deer industry.

The core resource for learners is an Evidence Portfolio, a workbook they maintain throughout the 12 months, recording the practical work they've been doing and answering key questions. There is a strong practical element to the course and employers are required to verify the on-farm tasks the learners have undertaken. This is complemented by course work under the guidance of Primary ITO tutors, when learners will have a chance to interact with others doing the qualification and take part in activities such as discussion groups.

As part of the New Zealand Certificate in Agriculture (Livestock Husbandry) (Level 3) (Meat and Fibre), the deer strand covers three graduate outcomes:

- Assist with mating and parturition
- Assist with the prevention, diagnosis and treatment of livestock health problems
- Assist with rearing of young stock.

This takes learners through a whole year and for each of these outcomes they also have a comprehensive Learner Guide. These cover everything from the reproductive systems of deer, to genetics, fawning management, understanding health problems, biosecurity, weaning, rumen development and much more.

The resource was developed by *Deer Industry News* Editor, Phil Stewart, with assistance and advice from Tony Pearse and Clive



From left: Primary ITO Learning Resource Developer Jasmine Smith, Primary ITO Chief Executive Linda Sissons and Phil Stewart, look over the finished resource material.

Jermy. Phil, who admits to a short career as a secondary teacher in the distant past, has also produced education resources for the former MAF on biosecurity and fisheries conservation. He says compiling the deer husbandry qualification really highlighted what a large body of knowledge the deer industry has produced over a few short decades.

"This information is now finding a home in places like the *Deer Fact* series and of course the Deer Hub, but beyond that there is a huge range of very good published work. Having this available, and ready access to experts like Geoff Asher, Lynne Currie and Simone Hoskin, made my job a lot easier.

"Learners doing this qualification will be using the same resources that are available to all deer farmers, so they will be well in tune with current practice and make great employees."

Production of the resource material was done by Primary ITO.

"I'd like to especially thank Primary ITO's Product Development Manager Denise Williams and Learning Resource Developer Jasmine Smith for their help in shaping this material – it's been a big task," Phil concluded. ■

Johne's: continued

easy with the recently released Deer Health Review Workbook. Developed by Lorna Humm (Deer Health Project Manager) the booklet is available on-line from the Deer Hub (<http://deernz.org/annual-health-review>). It is a significant step forward for the industry and a real achievement for Passion2Profit. It has the outstanding qualities of being rational, straight forward, and comprehensive (without being onerous). What's more, it brings together the bits of the puzzle you need for making confident measures of productivity as well as health. Evidence-based

management decisions to get the best out of your deer – it's the way to go. Watch it replace the (not so) trusty old eyometer, rules of thumb, and universal diagnosis of "she'll be right".

Good work, Lorna.

In the next few editions of the *Deer Industry News* we'll report on some interesting examples of farmers using the Deer Health Review process and DeerPRO venison productivity information to assess the performance of their deer herds and options for meeting their production goals. ■

ANNUAL REPORT

1 OCTOBER 2015 – 30 SEPTEMBER 2016

FROM THE CHAIRMAN

VARNZ's year started with the high of finally opening the RepaiRx clinical trial for enrolment and finished with the disappointment of closing it after just one patient had been recruited. Along the way, VARNZ also commissioned other research to provide insight into velvet properties, opportunities and risks.

VARNZ's science strategy over the last few years has been to principally focus on 'new product development', this essentially being research to underpin the credentials of RepaiRx as a wound healing product. An area of secondary focus was to generate more Western-style evidence to validate velvet's functionalities as recognised by traditional oriental medicine. Such evidence is sought by velvet marketers who promote the incorporation of velvet into non-traditional nutritional supplements or foods. The third element of the strategy was to support the freedom of the velvet industry to operate.

VARNZ's work in the last year has focused on the RepaiRx first-in-human clinical study. Unfortunately, the trial has been discontinued due to an inability to recruit patients. Wishing to raise consumer awareness of a new velvet function we have decided to license the RepaiRx intellectual property to large marketing companies who can tailor any additional research to meet their needs.

VARNZ also started planning other functional, freedom to operate and premium positioning (traceability) research to benefit the velvet industry. As we operate in a financially constrained environment we have carefully assessed any project proposals before committing to invest in them.

Regular, ongoing engagement with velvet processors, marketers and the NVSB to understand the research needs of stakeholders is key to delivering research outputs with the greatest potential to create impact for the velvet industry. VARNZ therefore encourages them to talk often to the DINZ Executive. We would like to thank individuals and companies who have directly assisted us on research projects.

After many years helping steer the velvet industry's research direction, both Doug Wilson and I decided to step down from the VARNZ Board shortly after year end. We have enjoyed applying our insights into the primary sector, medicine, applied science, business and innovation to this world-leading sector of the New Zealand economy and we will continue to follow its development with great interest.



William Rolleston



DIRECTORS

As at 30 September 2016 the Board of Velvet Antler Research New Zealand Ltd. comprised:

William Rolleston (Independent Chair appointed by the shareholders); Collier Isaacs from 17 February 2017

Doug Wilson (Independent, appointed by the shareholders), until 13 February 2017

Dan Coup (Deer Industry New Zealand)

Greg Murison (AgResearch)

RESEARCH PROGRAMME HIGHLIGHTS

RepairRx

For several years VARNZ had been preparing for a small-scale first-in-human clinical study into the safety and efficacy of RepairRx. VARNZ's intention was to gather the minimum human safety and efficacy data necessary to engender product development by a pharmaceutical company. Permission to start a trial at Middlemore Hospital was obtained in July 2015. However, after a year, with only one patient having enrolled, it became clear that obtaining 20 patients in 18 months was not achievable. The Board adopted a revised strategy of getting a non-pharmaceutical form of RepairRx into the market as soon as possible. Its objective is to increase demand for velvet generally, by raising awareness of its functionality in a new area, that of wound healing.

VARNZ is highly motivated to find the best partner for RepairRx as soon as possible. The ideal licensee will be active in the health and nutrition space, have customers with an affinity for the velvet story and use product channels not dependent on human clinical evidence. Finding this partner will involve discussion and relationship-building with potential partners in key markets.

Parallel to the clinical trial, VARNZ also conducted stability studies on the gel form of RepairRx, to refine its shelf-life estimates.

Velvet markers for immune function (healthy functional food)

VARNZ completed an investigation into possible peptides in velvet that may be responsible for velvet's immune activity. The project found that a fragment of haemoglobin is responsible for at least some activity in an in vitro system. If there is commercial interest to develop a velvet-containing healthy functional food to support immune function, the next stage would be to isolate and identify this fragment.

Research to support freedom to operate (residue testing)

A small-scale survey to assess the risk of velvet containing excessive residues of velveting analgesics was commenced. Results were received from the laboratory by year end but analysis to detect trends in residue limit exceedances had not been completed.

Post-velvetting healing processes

Following the observation in a previous literature review that deer appeared to deal well with the velveting process compared with the responses of other ruminants to painful husbandry procedures, VARNZ commissioned a literature review of any studies into the healing processes undergone by deer, particularly post-velvetting and post-casting. The search showed that stem-cell mediated healing was strongly implicated in post-velvetting healing. This alternative (non-inflammatory) process is the subject of considerable human medical research owing to its potential use in tissue regeneration. The finding encouraged VARNZ to invest in the current year into a doctorate study to elicit more about stem-cell mediated healing in deer and the potential for production of velvet extracts rich in factors that stimulate the process.



EXTRACT FROM VARNZ'S 2015/16 AUDITED ACCOUNTS

This report includes an extract from the financial statements of VARNZ for the year ending 30 September 2016 for general information purposes only. This extract should be read in conjunction with the notes to the Financial Statements, which are available on request from info@deernz.org.

The complete set of audited financial statements was approved and signed on 30 November 2016 on behalf of the Board of Directors by W Rolleston and D Coup (directors).

STATEMENT OF FINANCIAL PERFORMANCE
FOR THE YEAR ENDED 30 SEPTEMBER 2016

	2016 \$	2015 \$
Research Revenue - Exchange		
Deer Industry New Zealand Research Trust	179,520	236,205
AgResearch - RepairRx	-	11,445
Deer Industry New Zealand Research Trust - Project Management	41,544	46,607
Other Revenue - Administration Funding		
Deer Industry New Zealand	11,279	7,608
AgResearch Limited	11,279	7,608
Interest received	4	40
Total Revenue	243,625	309,513
Less Expenditure		
Research Expenditure		
Development of RepairX (2009-01)	120,215	107,182
Project Management	41,544	46,607
Velvet Research in China (2013-01)	-	76,914
Post-operative Pain (2015-01)	-	5,064
Healthy Functional Food (2015-02)	27,533	55,067
MRL Testing (2016-01)	12,756	-
Wound Healing Function (2016-03)	4,950	-
Researcher Forum (2016-04)	4,413	-
Health & Safety (2016-06)	3,500	-
Patent Costs (VARNZ IP)	6,153	6,280
Total Research Expenditure	221,063	297,114
Administration Expenditure		
Audit and Accounting Fees	6,060	4,310
Directors' Fees and Expenses	8,275	516
Depreciation	3,364	3,270
Sundry Expenses	4,863	103
Total Administration Expenditure	22,562	8,199
Total Expenditure	243,625	305,313
Total Surplus/(Deficit) Before Taxation	0	4,200
Taxation	-	-
Total Surplus/(Deficit) After Taxation	0	4,200

STATEMENT OF CHANGES IN EQUITY
FOR THE YEAR ENDED 30 SEPTEMBER 2016

	2016 \$	2015 \$
Opening Equity	14,091	9,891
Net Result After Taxation	0	4,200
Total Surplus/(Deficit)	0	4,200
Closing Equity	14,091	14,091

STATEMENT OF FINANCIAL POSITION
AS AT 30 SEPTEMBER 2016

	Notes	2016 \$	2015 \$
Share Capital	2	119,390	119,390
Retained Earnings		(105,299)	(105,299)
Total Equity		14,091	14,091
<i>Represented by:</i>			
Current Assets			
Cash & Cash Equivalents	3	2,421	4,126
Accounts Receivable	4	106,243	7,684
Accounts receivable - AgResearch		12,970	2,946
Total Current Assets		121,634	14,756
Non-Current Assets			
Plant & Equipment	6	8,407	11,677
Less Accumulated Depreciation		(3,364)	(3,270)
Total Non-Current Assets		5,043	8,407
Total Assets		126,677	23,163
Current Liabilities			
Accounts Payable and accruals	5	112,586	9,072
Total Current Liabilities		112,586	9,072
Net Assets		14,092	14,091

STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED 30 SEPTEMBER 2016

	2016 \$	2015 \$
Cash flows from Operating Activities		
Funding Received	135,043	305,665
Operating Payments	(136,748)	(306,454)
Net cash outflow from Operating Activities	(1,705)	(789)
Cash flows from Investing Activities	-	-
Cash flows from Financing Activities	-	-
Net decrease in cash and cash equivalents	(1,705)	(789)
Cash and cash equivalents at the beginning of the year	4,126	4,915
Cash and cash equivalents at the end of the year	2,421	4,126

Table 2

SUMMARY OF VARNZ INVESTMENTS IN 2015/16							
Investment type	Project's short title	Research provider	Project duration	2015/16 INVESTMENT (\$)			Further investment in 2016/17
				Total	DINZ	AgR	
New Products	RepaIRx	Clinical: Middlemore Clinical Trials; Stability Studies: AgResearch, South Pacific Sera	2002-2019	120,215	120,215		Yes
	RepaIRx IP (patent maintenance)	-	2008-2016	6,153	3,076	3,077	Yes
Strategic Intent research	Research to provide support for velvet's wound healing function: literature review on post-velvetting healing processes	AgResearch	2015-2016	4,950	4,950		No
	Velvet markers for immune function (healthy functional food)	AgResearch	2014-2016	55,066	27,533	27,533 ¹	No
	Research to support velvetting freedom to operate (MRL testing)	AsureQuality	2015-2017	4,413	4,413		No
Capability development	NZ-based velvet science researcher forum	-	2015-16	4,413	4,413		No ²
Total				195,210	164,600	3,077	

¹ AgResearch's funding was by direct investment of core funding into the research project hence does not appear on VARNZ's financial statements

² The forum will be repeated in 2017

Chart 1

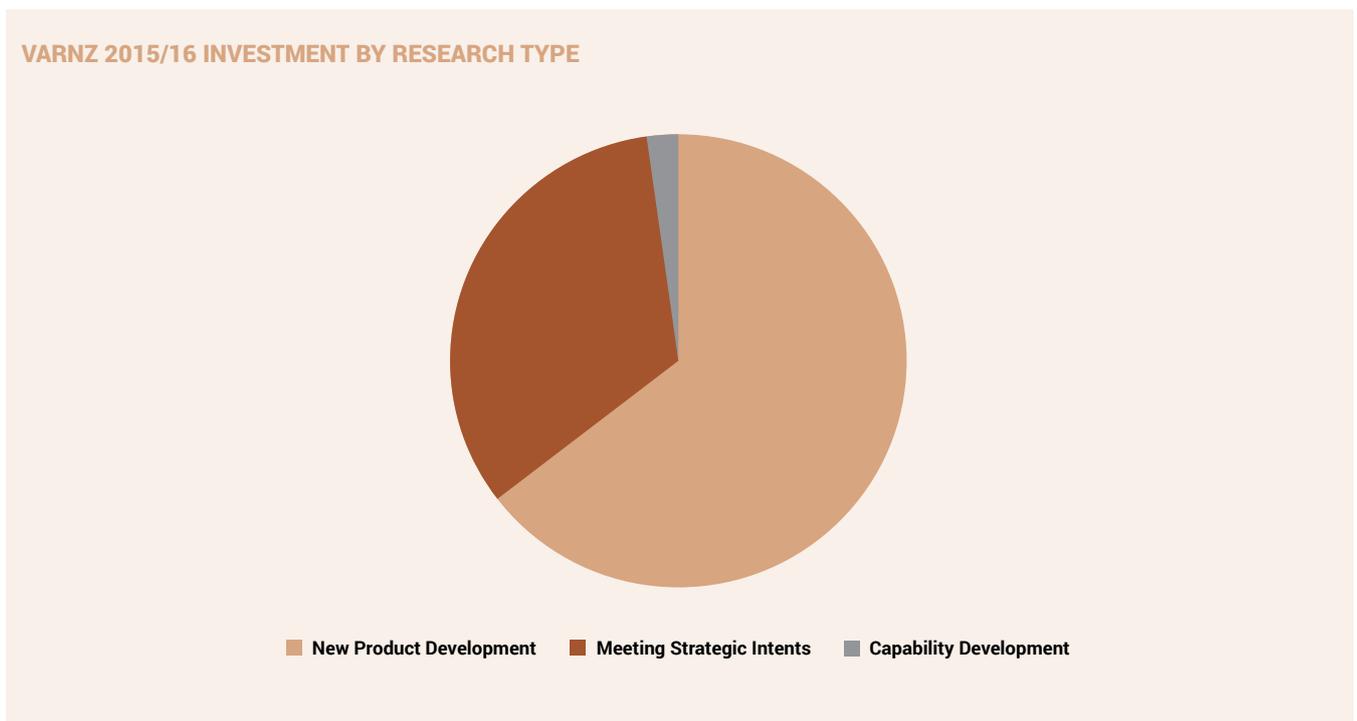


Table 3

VARNZ 2016/17 RESEARCH PROGRAMME (NEW ITEMS IN BOLD)

Investment type	Project's short title	End date
New Products	RepaiRx	2018
	RepaiRx IP (patent maintenance)	2025 ³
Strategic Intent research	Stem cell-mediated healing	2019
	Research to provide support for velvet's cognitive function	-
	Isotopic Signature Test pilot	2020
Capability development	NZ-based velvet science researcher forum	2017
	Preparation for Fourth Antler Science and Product Technology Symposium	2018

³ Earlier if patents assigned to third parties



Deer antler velvet processed by Rokland Corporation, Christchurch

1 STANDARD THAT PROMOTES US ALL

All five venison marketing companies have agreed to base their on-farm quality assurance (QA) programmes on one industry standard

Ask your venison company about their on-farm QA programme



HELP KEEP OUR CUSTOMERS CONFIDENT

On-farm QA proves that we as farmers are as good as we say we are. That our venison and velvet is good to eat and that our deer have been raised humanely.

Having one on-farm QA standard supported by all venison companies will make it easier to communicate these messages to our customers and the wider NZ public. It will also make it easier on the farm.

Each venison company has its own time-frame for introducing its new or revised QA programme based on the Deer QA on-farm standard. Ask your venison company rep when it will take effect and how you can be involved.



TO FIND OUT MORE:

Look for the *Deer Fact*: Quality assurance on your deer farm, in this issue of *Deer Industry News*.