

Deer Industry News

Young Chefs Visit



Deer Industry Conference

CONFERENCE PREVIEW
PROUD PARTNERSHIPS
THEME FOR 2016

Advance Parties

HAWKE'S BAY FAST
FINISHERS AND NEW
VELVET BREEDING
OPERATION UNDER WAY

Velvet Antler Research

VARNZ ANNUAL REPORT
UPDATES PROGRESS ON
WOUND HEALING
RESEARCH PROGRAMME

Deer Industry News

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Contents

Editorial 2

Deer Industry Conference Preview
 Dunedin to host "Proud Partnerships" conference 3
 AGM constitutional matters 5

On Farm
 Integrated velvet operation pushing for further improvement 6

Matuschka Award 2016
 Wellingtons deserved winners 10

Markets
 Venison 12
 Velvet 15

General News
 Tb testing reduced 19
 Videos focus on environment 23
 Wapiti solutions proposed 28

Advance Parties
 Borlands tackling challenges with gusto 16
 Fast finishers targeting higher venison productivity 20

VARNZ
 Velvet Antler Research New Zealand Annual Report 24

Cover: Visiting German young chef, Walter Triebel (left), with Depot restaurant's Kyle Street. See venison report page 12.

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Looking beyond the good times

NOTHING STAYS STILL for long in farming. Three years ago, many of us were looking over the fences of dairy farmers with a touch of envy.

The relative profitability of milk production and the weakness of venison has now been turned on its head.

With dairy and lamb returns soft and venison prices recovering, many farmers seem to be rebuilding their breeding hind herds. As a result, the venison kill is falling and changing the supply–demand balance in our key markets.

As we have learnt in the past, consistent product availability and sustainable increases in price that prevent product substitution are critical to market stability.

Breaking free from the worst of these supply–demand cycles is one of the main motivations of the work DINZ does with farmers, exporters and others who make a living from deer farming. It's why we are making a large investment in the Passion2Profit initiative and why our 2015–2020 work plans remain on track.

Having good market prices for venison and velvet is satisfying, but in the long term we need customers who are willing to pay a premium for our products, year after year, regardless of the season. We also need them to be spread across the globe, so we're not overly exposed to a single market or currency.

On the farm, we need to increase productivity, just as other livestock industries have done. That is why one of the two main P2P goals is to provide deer farmers and their staff with the knowledge, confidence and motivation to embed permanent improvements in profit that are independent of price swings.

To paraphrase Warren Buffet: such change ensures you are wearing swimming togs when the tide goes out!

To pay our share of P2P and to offset the loss of levy income from a declining venison kill, we will this year need to increase the levy on venison for the first time in 10 years.

The increase will be 3c per kilogram. As half the venison levy is paid by farmers and half by processors, the increase will be 1.5c/kg each.

We will not increase the velvet levy, because our velvet levy income is increasing in line with production. This increase is needed to build access to, and demand in, the healthy foods sector in Asia – the market with the greatest potential to absorb our growing velvet production at premium prices.

We don't increase levies lightly. In line with our strategy, we regularly review our objectives and work plans to see whether they are still cost effective and delivering to the needs of levy payers and consumers of our products.

Our 2015–2020 work plans pass those tests. Some of them are still being finalised, while we investigate where our investment will give us the biggest bang for your bucks.

In this issue of *Deer Industry News*, we have included a 4-page insert, *The path to 2020*. This explains why we do what we do and what it costs.

Please take the time to read this and our 2015 annual review. We hope you agree with your board's assessment that we are on the right track.

I look forward to seeing you at the conference in Dunedin! ■

– Andy Macfarlane, Chair, Deer Industry New Zealand



Andy Macfarlane

To pay our share of P2P and to offset the loss of levy income from a declining venison kill, we will this year need to increase the levy on venison for the first time in 10 years.



TUESDAY 10TH – THURSDAY 12TH MAY 2016 | DUNEDIN CENTRE, THE OCTAGON, DUNEDIN

THE 41ST ANNUAL Deer Industry Conference, “Proud Partnerships”, will be held in the historic Dunedin Town Hall in the city’s Octagon on Tuesday 10 and Wednesday 11 May. It will be followed on 12 May by a field day, research and environment update and a venison plant visit at AgResearch’s Invermay Agricultural Research Centre.

Under the overarching “partnerships” theme, the conference draws on the Passion2Profit programme, venison marketing initiatives, Advance Parties, technology transfer and the increased use of velvet in healthy foods.

The NZDFA and DINZ co-host the event and we are pleased to be able to share conference activities with other industry players and our large range of sponsors. This year the NZ Veterinary Association’s Deer Branch is holding its technical conference in parallel with the industry conference and they will join us for some sessions and social functions.

Getting registered

Register online at www.deernz.org

If you are unable to access online or would like assistance, please contact conference organiser, Pat Johnston, Destination Conference Management, phone 03 477 1377, 027 215 9807, pat@dcms.co.nz

The registration process allows delegates to book accommodation at the venues that have been reserved for conference guests. These are:

- **Distinction Hotel** at The Exchange (Old Chief Post Office Building, 6 Liverpool Street)
- **Scenic Circle** at 123 Princes Street (Dunedin’s main street)

These options for accommodation can only be booked and confirmed through the registration website or by calling Pat.

Be quick!

Early Bird registration at \$440 incl GST closes on 1 May 2016.

Registration details

Full registration

Cost is \$382.61 plus GST (\$440 inclusive) before 1 May 2016. After 1 May the full registration is \$426.09 plus GST (\$490 inclusive).

Registration covers all conference sessions, evening social functions, lunch, food and beverages, and breakfast at preferred accommodation.

The social functions are Tuesday evening’s Welcome night, Wednesday evening’s Awards dinner, and breakfast at Dunedin Town Hall venue on Wednesday 11 May.

Sessions on 10 May open with the NZDFA AGM at 11.00am, which is open to all by right. The conference proper opens with the Agribusiness session at 1.30pm with lunch from 1.00pm.

Day registration (with evening functions)

- Tuesday 10 May: \$170.00 (incl GST) (includes Welcome function)
- Wednesday 11 May: \$290.00 (incl GST) (includes Awards dinner)
- Thursday 12 May \$30 (incl GST) (Otago Branch/AgResearch field day* including lunch)

Day registration (no evening functions)

- Sessions only Tuesday 10 May: \$100 (incl GST)
- Sessions only Wednesday 11 May: \$190 (incl GST)
- Thursday 12 May \$30.00 (incl GST) (for field day* including lunch)

*Day visitors from Otago, SCNO and Southland Branches must register on arrival

Day registration includes conference programme, conference daytime catering (and the evening function if selected).

Additional tickets for social functions

Welcome function 7.30 – 11.00pm Tuesday 10 May: \$70.00 (incl GST)

Proud partnerships Awards Dinner and entertainment 7.00 – 11.30pm, Wednesday 11 May: \$100.00 (incl GST)

Platinum Conference Partners



continued on page 4

Conference preview: continued

(Conditions apply)

Options are available for day registrations on the Tuesday and Wednesday, social functions and partners' programme.

Social

Pure South Welcome Function: Tuesday 10 May | sponsored by Alliance Group Ltd

This evening features a balanced social and dining experience with a theme of Pure South food and wines with a variety of venison dishes and dessert available from four serving stations. Taste and mix with New Zealand wines, beers and quality non-alcoholic options (cash bar available after limited drinks included with meal). This is a great chance to catch up with friends, sponsors and service organisations and reflect on this season before looking forward to 2016 and beyond.

Proud partnerships Awards Dinner: Wednesday 11 May | sponsored by Silver Fern Farms

The Awards Dinner will be spectacular in the spacious Dunedin Town Hall. Our entertainment features rugby royalty with Super Rugby champion Highlanders Coach **Jamie Joseph** along with **Ben Smith**, captain of the mighty Highlanders and full back for the world champion All Blacks. This exchange will be initially about building a winning culture and team work, with opportunities for interaction from the floor. The evening will also feature the annual Deer Industry Award.

Support our partners!

This year's support from Platinum and Gold sponsors, exhibitors and other partners continues to be outstanding and there will be a large variety of exhibitor stands in association with the meals and entertainment.

A full programme and conference timetable will be available in your registration packs and will be published on www.deernz.org/events

Programme*

Tuesday 10 May, Dunedin Town Hall		Wednesday 11 May Dunedin Town hall	
9.30–10.45	Arrival, registration, coffee	8.30–9.30am	The Rabobank perspective: Tony Hammington on managing change. Succession – its challenges and role as a process to manage and monitor progress.
11.00am–1.00pm	New Zealand Deer Farmers' Association 41st AGM, Gallery level 1st Floor. Chair: Kris Orange	9.00–12.45pm	World protein markets and trade
1.00–1.30pm	Lunch	9.00–9.30am	Keynote: NZ and the TPP – the future for agricultural products. International perspective on TPP membership: Mike Petersen , MFAT NZ Special Agricultural Trade Envoy
1.30–2.30pm	Welcome and state of the industry overview Andy MacFarlane , DINZ Chairman; Dan Coup , DINZ CEO	9.30am–12.45pm	Venison: The product and the markets. Chair Marianne Wilson , DINZ Venison Marketing Manager
2.30–3.00pm	Partnerships in Biosecurity: A future view from OSPRI NZ Michelle Edge , CEO OSPRI NZ	9.30–10.15am	Keynote: The North American market for venison and the role of distribution in finding customers and delivering venison to these customers. Rodd Willis , Dot Foods USA with Mark Mitchell, Broadleaf and Glenn Tyrrell, Duncan NZ Venison
3.00–3.30pm	Afternoon tea	10.15–11.00am	Keynote: Introducing Cervena to summer menus – challenges and opportunities in The Netherlands. Ben Veldkamp , Hanos, The Netherlands, with Gerard Hickey , Firstlight Foods.
3.30–5.30pm	Passion2Profit: Action on farm. Chair, Dan Coup	11.00–11.30am	Morning tea
		11.30am–12.20pm	Venison exporter perspectives DINZ work programme and market overview: Marianne Wilson Mountain River Venison: John Sadler Silver Fern Farms: Sharon Angus Alliance Group: Katrina Allan
		12.20–12.45pm	Venison Q&A open session
		12.45–1.45pm	Lunch
		1.45–2.30pm	Velvet: Market conditions and development programme. Chair: Rhys Griffiths , DINZ Marketing Manager Asia
		2.30–3.15pm	Next Generation Programme: Panel discussion on profitability and sustainability
		3.30–4.00pm	Advance Parties How to run an effective one: Dr Pania Flint Short stories from Advance Party farmers/facilitators. Changes and improvements: Glen Harrex Cam Nicholson John Falconer Tim Aitken
		4.00–5.00pm	P2P Theme groups: Farm strategies for profitability Setting Targets with deer growth curves: Jason Archer , AbacusBio Forage planning: Glen Judson , Animal Nutritionist, Agricom Hit targets with healthy deer: Lorna Humm , DINZ Deer Health Project Manager Using BVs to hit target weights: Sharon McIntyre , DEERSelect Manager
		5.00–5.30pm	Discussion and feedback: DINZ Board and P2P programme
		6.15–7.15pm	Silver Fern Farms: Carcass quality and boning out demonstration. Silver Fern Farms Head Office
		7.30–10.30pm	Proud Partnerships Pure South Welcome Function sponsored by Alliance Group

continued on page 9

NZDFA 41st AGM 2016: Constitutional matters

1. AGM: Notice of meeting

NEW ZEALAND DEER Farmers' Association, Annual General Meeting.

Notice is hereby given that the 41st Annual General Meeting of the New Zealand Deer Farmers' Association (Inc) will be held at the Dunedin Town Hall, The Octagon, Dunedin Marine Parade, Napier on Tuesday, 10th May 2016, commencing at 11.00am.

The Chairman and Executive Committee of the NZDFA invite all members of the NZDFA and industry levy payers and interested parties to attend.

2. Executive Committee Appointments

Members of the NZDFA Executive Committee (one member representing the North Island and one representing the South Island and the two "Members at Large" positions created by the Constitutional change in 2012) are elected for a two-year term. Members retire by rotation and are eligible for re-election. According to the NZDFA constitution rules, the Executive Committee elects a Chairman from among the four members, for a term that is also decided annually. This has been traditionally a 12-month term.

Nominations have been called for the two vacancies created by retirement by rotation.

Member at Large (1 position)

For the vacancy created by retirement by rotation of John Somerville, Southland the single nomination of **John Somerville** (nominated Peter Allan, seconded Russell Marshall) was received and he is declared appointed for the 2016–2018 term.

Executive Committee North Island (1 position)

For the vacancy created by retirement by rotation of Grant Charteris, Hawke's Bay, the single nomination of **Grant Charteris** (nominated John Spiers, seconded George Williams) was received and he is declared appointed for the 2016–2018 term.

The successful candidates will join sitting members **Kris Orange** and **David Morgan South Canterbury** as the 2016/17 Executive Committee of the NZDFA following the conclusion of the 41st NZDFA AGM on 10 May 2016.

3. Selection and Appointments Panel (SAP)

The SAP consists of the four-man Executive Committee and four non-Executive Committee elected members. Two of the non Executive Committee elected members of the Panel retire annually by rotation.

SAP South Island (1 position)

A single nomination has been received for the vacancy created by the retirement by rotation policy, that of the sitting member, **Paddy Boyd**, (nominated Kelly Bennett seconded Mark Hawkins) who is eligible for re-nomination and is declared appointed unopposed.

SAP At large (1 Position)

A single nomination has been received for the vacancy created by the retirement by rotation policy, that of the member, Andy Jarden, who has announced his retirement from the position. **Leith Chick**, Waipa (nominated Andy Jarden, seconded Craig Hocken) is declared appointed unopposed.

Paddy Boyd and **Leith Chick** will join current non-Executive Committee elected members **Brian Russell** and **Donald Whyte** on the 2016/17 NZDFA Selection and Appointments Panel.

4. Nominations for NZDFA producer appointments to the DINZ Board

Producer-appointed Board members are appointed directly to the DINZ Board for a three-year term and that appointment is advised to the Minister for Primary Industries as a formality. There are two vacancies for the 2015–2017 Board term, created by the retirement by rotation of sitting members, **Andy Macfarlane** and **Collier Isaacs**.

Seven nominations have been received:

Bryce Heard, Rotorua (nominated Sharon Love, seconded Robin Hopkirk)

Andy Jarden, Central Regions (nominated Craig Hocken, seconded Ed Noonan)

Andy Macfarlane, Canterbury, (nominated Andrew Fraser, seconded Mandy Bell)

Graeme Mulligan, Wellington (nominated, Simon Liggett, seconded Steve Carden)

Mike Salvesen, Canterbury (nominated Malcolm Gilbert, seconded Warwick Wright)

Bill Taylor, Southland (nominated Dave Lawrence, seconded John Scurr)

Ian Walker, Hawke's Bay (nominated, John Spiers seconded Ponty von Dadelszen)

The candidates are invited under the NZDFA constitution to present a short overview of their candidature at the 41st AGM in Napier on 10 May 2016 before the meeting's general business session. The Selection and Appointments Panel will carry out its interviews and make an appointment before 1 July, as required. ■

AJ Pearse, Returning Officer for the NZDFA
4 April 2016

Wanted To Buy

Hydraulic deer crush suitable for velvetting.

Please phone Malcolm on
027 249 4662 or 06 342 4796 any time.

Integrated velvet operation pushing for improvement

by Phil Stewart, *Deer Industry News* Editor

With a healthy gross margin for the whole business of 26.5 cents/kg dry matter (DM), the Rupert family have already made excellent progress in their integrated breeding and velvetting operation, but they are keen to build the return further, to 30 c/kgDM. The approximately 60 visitors at a "Feed to Profit" Focus Farm day on the two farms last month got a close look at how the Ruperts are getting there.

MARTIN AND RIKIE Rupert bought Leamington, their 183-hectare home farm near Aurundel in South Canterbury, 14 years ago. They'd come from the North Island and brought their velvetting herd with them. The property is close to the foothills and fairly summer safe with annual rainfall of about 1200mm.

In 2012 they bought Scotland, a 141-hectare block 5km further east. The former sheep farm was converted to deer and now serves the business as a breeding unit. It's billiard-table flat with plenty of shelter belts and, although drier with lighter soils than Leamington, still receives a reasonable 600–700mm of rainfall and has an earlier spring than the home block.

For the past 12 months, the Ruperts' daughter Kiri and her partner Josh Brook have been living back at the home farm and are helping manage the business – the two farms are run as a single unit.

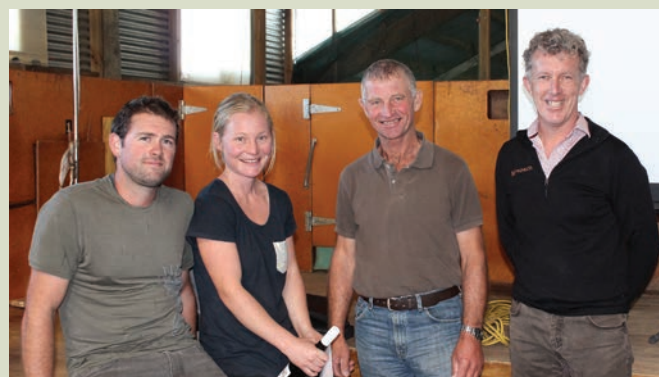
The velvetting unit at Leamington runs about 600 mixed-aged stags, with about 500 hinds at the Scotland block. Up to 600 dairy heifers have also been carried, although this has recently been cut back to about 400. The return for the grazing is relatively modest compared with the velvet enterprise, but the cattle perform an invaluable task in terms of pasture control and quality, which doesn't necessarily show up in the gross margin analysis.

The heifers will be wintered on fodder beet in two mobs this year, taking some of the pressure off pasture at the home farm until spring growth starts to come away. The cattle provide some flexibility in their system – numbers can be cut back if things get

Provelco supported

The Ruperts are Provelco suppliers and Martin Rupert, a director, was candid about their reasons. "If there is value to be gained taking velvet into the market, we want to be part of that. Private traders are in it only for their profit, not the grower's."

Ross Chambers of Provelco was at the field day and presented the Rupert family with two awards. They won the 1,000kg plus category and were the overall winners of the 2016 Provelco Commercial Velvet Awards, the criteria being style, presentation and percentage in the contract grades that deliver the best return.



Pictured from left: Josh Brook, Kiri Rupert, Martin Rupert and Ross Chambers (Provelco).



Hinds at the Scotland breeding unit. The Ruperts have been adding extra wires to better fawn-proof the fences.

tight, or their stock agent can help source more if pasture growth is getting away.

With a decent-sized breeding herd, the Ruperts are able to exert good selection pressure for both their velvetting stags and hinds. (More than 50 percent of the two-year-old stags are culled and 30 percent of the replacement hinds.) About 80 hinds are AI'd each year and external bloodlines are introduced to help with genetic improvement. Where home-bred stags are used as sires, these are introduced young to help accelerate genetic progress.

"We have the blinkers on when it comes to breeding priorities here," Martin Rupert cheerfully admitted. "It's all about velvet!"

They cut an enviable 4.4 tonnes in 2015/16 with average weights ranging from 3.6kg for the two-year-olds up to 7.25kg for the nine-year-olds.

Once the cull two-year-olds have been removed from the equation, the average for that age class lifts to 4.3kg.

The only feed brought onto the properties from outside is palm kernel (PK). Everything else fed to the deer – pasture, baleage, swedes and fodder beet – is home grown.

Martin Rupert is a fan of PK and said they currently use between 120–150 tonnes a year, feeding it to the stags as well as

the hinds and heifers.

This year they were feeding PK to the fawns as early as January, as a form of insurance. At the time it seemed unnecessary to use the supplement – there was still a good base of clover and the place was "looking like the Garden of Eden" when the baleage was cut at the start of February. But then it didn't rain for six weeks. "It was the PK that got us through," Martin said.

Facilitator Justin Geary showed a Farmax graph that combines feed supply and demand for both properties (see illustration). There are several times during the year when demand exceeds supply, so the cropping and feed conservation play an important role, alongside the bought-in PK.

Martin is philosophical about the biological clock for stags that sees them shedding body weight once the roar starts, but they work hard to get them into good nick by the end of winter. In June they are put onto fodder beet and kept there through to August. PK is introduced ad lib at about 1kg/stag/day towards the end of winter, lifting to 3–4kg/day by velvetting. Once that's done they come off the PK and go onto good pasture until the next roar. The oldest stags are velvetted first in late September or early October. Martin preferentially feeds these senior stags and they repay him with good yields and quality velvet.

The R2 stags are wintered on swedes, the objective being to supply a high protein diet for the growing animals. They also start on PK around mid August, until velvetting in November.

One stock management issue they're considering is when to introduce young stags to the "big boys" in the mixed-age mob. It had been suggested earlier that the three-year-olds stay with the two-year-olds, or on their own, to prevent them getting bullied if they're introduced too soon to the grown-ups.

The Ruperts' farm business is part of a dual South Canterbury/North Otago deer industry Focus Farm programme (the other is Raincliff Station – see *Deer Industry News* December 2015). Justin Geary is working with the Ruperts to identify key performance indicators (KPIs) that will underpin their business statement: "profitable, sustainable and enjoyable".

Among these KPIs are:

- kilograms of velvet per stag
- total kilograms of velvet
- feed grown per hectare (this translates into body condition and next year's production)
- environmental enhancement and protection
- farm working expenses as a percentage of gross farm income (the objective is to keep this at less than 50 percent – last year it was 42 percent)
- EBIT per hectare
- increasing the gross margin per kgDM consumed from 26 to 30 cents.

Feeding is a priority for this business, and the Ruperts don't hesitate to make up any shortfall in crops or pasture with supplement if needed to avoid animals going hungry.

Martin said environmental values help drive the business and a six-hectare block on Leamington has been put into a QEII covenant. The more sensitive river terraces are being fenced and planted – part of an environmental work in progress. All of the water is bore water and supplied to deer in troughs – they have no access to running water.

The business is also part of the South Canterbury/North Otago

Stop the rot

Some rot caused by *Rhizoctonia* and/or *Fusarium* has affected the HT swede crop at Leamington and agronomist Steve Bethell of Carrfields Grain and Seed advised field day visitors that the problem shouldn't be ignored. It can affect a high proportion of a swede crop and can also spread into fodder beet the following season although usually it affects about 10 percent of the beets. Kale is another crop that can be affected, although to a lesser degree on the stalks.

If a crop has been affected, there shouldn't be any more swedes or fodder beet grown in the paddock for about four years, Bethell said. With the popularity of cropping, this enforced break can start to cause logistical issues. He said it was good practice to grub up and graze out any chips from beets at the end of a crop as these could help retain disease and also throw up bolters the following year.

He said the soil-borne diseases can be spread by stock or seed drills, so keeping cultivating equipment clean could help.

While seed can be protected against *Fusarium*, this does not protect the growing plant. Bethell said infection can happen if a bulb has been damaged, for example by hail or by splitting with dry-rot, and soil splash introduces the spores. There is a fungicide mix available to help protect a damaged crop in the aftermath of a hailstorm, which costs about \$30/hectare, he said.

Bethell said overseas experience had shown that preventative treatment with a fungicide on beets in about January could help boost yields by up to 2 tonnes per hectare. However, with crops already expensive to establish, farmers were understandably reluctant to add further cost.

He said a couple of fungicides were soon to be registered for use in New Zealand to better protect crops against these diseases. Once registered, withholding periods would be made clear.

Another disease to watch for is beet western yellows virus, which is spread by aphids and affects fodder beet at seedling stage. "If you are seeing signs – yellow leaves and bulging green veins – it's too late to do anything about it at that point," he said

continued on page 8

Ruperts Focus farm: continued



The older stags are well looked after and repay the indulgence with high-quality velvet.

Advance Party so receives plenty of attention from fellow deer farmers.

Kiri and Josh have been working on an Advance Party project to improve fawning performance at Scotland, especially among the R2 hinds. Fawning for this past season was 88 percent overall – not as good as they would like. The fawning percentage (to hinds mated) for the R2s was only 76 percent and they are keen to improve on that as well. They had to assist calving in 10 of the hinds and four died, along with 10 fawns. Too much condition might have been a contributing factor.

Kiri Rupert said the lack of cover during fawning on the flat paddocks at Scotland isn't ideal and one strategy they are trying

is to let the covers get longer in the leadup to fawning, with access to better quality feed for the hinds in an adjacent paddock. The covers get up to more than 3,000kg DM by the end of fawning and this is eventually made into baleage, which helps cover deficits in late summer/autumn.

They are also adding extra wires along the bottom of the deer fences to fawn proof them, as escapes into shelter belts and lanes had also led to losses. And they are keeping an eye on copper levels and ensuring the R2s are on a rising plane of nutrition leading into mating. ■

- The field day was sponsored by **Provelco, PGG Wrightson, BNZ, Mountain River Venison and FARMAX.**

Genetics: Know what you want

DEERSelect manager, Sharon McIntyre, reminded visitors that they need to have very clear breeding objectives when selecting sire stags, whether it's for velvet or venison production.

For increased productivity she said it was vital to look after all three key inputs – genetics, feeding and animal health – to make a meaningful improvement in productivity. “It's no good investing in better genetics if you aren't feeding them,” she said.

Velvet traits are highly heritable so fast genetic progress has already been made. And while attention always seemed to gravitate towards what the velvet sires were carrying around on their heads, McIntyre reminded farmers that the hinds contribute 50 percent of the genes. “They don't grow velvet, but their fathers, brothers, sons and uncles all have records. Breeding values for hinds can add greater accuracy to hind replacement selection.” She noted that at sales in recent years, buyers of hinds were paying more for those with higher velvet breeding values.

McIntyre said DEERSelect currently has three velvet breeding herds in the system. “Velvet breeders usually keep very good records.” She said DEERSelect estimates merit from first cut velvet weights on two-year-old and mature stags, but has the ability to record regrowth, velvet grade and dimensions.

She said it was important to maintain some genetic diversity in a velvet breeding herd and bringing in outside bloodlines helped

with this. In a closed herd there was a danger that the influence of a small number of sires might become too strong.

DNA parentage testing was ideal for accurate pedigree, but in a commercial velvet herd the cost benefit of this was only marginal, McIntyre said. The Ruperts used observation for matching and, although not as accurate as using DNA, it would still be effective.

For those seeking good venison genetics, McIntyre warned against choosing sire stags on the basis of breed alone (e.g., English, European or Wapiti). “Within each breed, stags vary hugely in merit. For example, in English stags, within DEERSelect we see venison breeding values ranging from +20kg to -10kg,” she said.

Hinds are farmed in a wide variety of farm types and climates. Choosing quality genetics that add value to your system is what is important. That might mean terminal-type sires that could be very high growth red or wapiti, or all maternal breed sires for others.

“Breeders are recording more traits, such as eye muscle scanning and fetal aging, meaning more and better breeding values. DEERSelect is working towards having maternal traits such as first calver conception rates, as hind productivity is important

“Currently all DEERSelect herds are linked and breeding values published on the DINZ website, but it will require greater breeder cooperation to share genetics to maintain strong between-herd links following the deer progeny test. It will be particularly difficult to keep velvet and venison herds linked because the breeding objectives are so different.”

Update from DINZ

Environmental regulation was one area of focus for DINZ at the moment, Chief Executive Dan Coup told visitors. Environmental policy manager, Lindsay Fung, was working full time in this area. He could provide some assistance at local level, for example on submissions to regional councils on plan changes, but this also needed involvement of local deer farmers.

Coup said a major concern in many regions was the adoption of 'grandparenting' type approaches, which meant that high-emitting land uses could continue at these levels, but if the catchment was under pressure, the opportunity to intensify extensive drystock operations could be taken away.

Commenting on the venison market, Coup said Europe's recovery from recession was still a little shaky but there was good demand for New Zealand venison. The drop in the kill observed over January and February had also underpinned prices. He said the drop in supply of venison animals was probably partly because people were retaining hinds to rebuild herds. With the number of animals available for processing still low, a balance was needed between maintaining loyalty and supply to traditional markets, and developing new markets such as China.

A lot of work was being done to diversify markets and to extend the season. There was still competition in Europe from feral venison but that tended to be in the low end of the market. The sanctions on Russia were also causing some market distortion. "There's a lot of cheap protein floating around Europe at present,"

Coup said.

The velvet business had made huge progress but it was still an inherently risky trade, he said. Continued diversification into new products such as healthy functional foods would help mitigate some of this risk.

He reminded velvet producers not to take their eye off the ball on animal welfare. While the deer industry had a unique and robust system for self regulation around velvet removal with a strong scientific basis, there was no room for complacency.



DINZ CEO, Dan Coup.

Conference preview: continued

3.15–3.45pm	Afternoon tea
3.45–4.30pm	Discussion and Q&A with the DINZ Board and DFA
4.30–5.15pm	Keynote: Pinot Noir and NZ venison – excellence in common. Steve Green CEO Carrick Wines, Chairman NZ Winegrowers
7.00pm	41st Annual Conference Dinner sponsored by Silver Fern Farms . Featuring an audience with the Highlanders' Jamie Joseph and Ben Smith

Thursday 12 May: Otago Branch NZDFA/AgResearch Deer Research Group and Associates Duncan NZ Invermay field day

8.00am	Transport to Invermay for delegates from hotels
9.00am–1.30pm	Three streams rotating over three repeated programmes: 1. Invermay's deer farm environmental management challenges and responses – farm tour and discussion. 2. Tomorrow's Deer: Short technical papers (genetics, parasitism, DPT, nutrition) coordinated by Dr Geoff Asher. 3. Duncan NZ plant tour with technology and market update A fourth option of special interest would allow delegates to attend short single topic and deer health case study presentations associated with the NZVA Deer Branch Cervetec 2016 conference

12.30–1.30pm	Lunch (day also includes a morning tea) Shuttles to airport can operate by arrangement
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*Correct as at 11 April – details may change



Rural TV streams conference sessions live

The conference will be available via Rural TV. Anyone can join this and can be part of the audience and feedback through:

- Facebook: **deer industry conference 2016**
- Twitter: **@DeerNZ16** and hashtag **#dinzconf16**

The live stream allows communication with all stakeholders, without any filters, wherever they are in the world. They in turn can see and hear the speakers respond to questions and comments from both the physical and on-line audiences.

Rural broadband services have now improved to the point where live-streamed video is easy for most rural people to watch.

- To find out more about the 2016 Deer Industry Conference and register: **www.deernz.org/events** ■

Wellingtons deserved winners

Brian and Jacqui Wellington, Te Awamutu Station, Waipa, are the recipients of the 2016 Matuschka Award, which was presented at a special branch function earlier this month.

THE WELLINGTONS

HAVE been prominent in the deer industry for many years, both for their achievements as farmers and for their contribution to deer farming and their community. And true to the spirit of the Matuschka Award, they've done this with quiet dignity, and selfless generosity, never seeking the limelight but always willing to share their knowledge and experience.

There will be few if any in the industry who aren't aware of the highly successful

and environmentally responsible enterprise they have developed over the years, but for the record, here's a brief outline.

Te Awamutu Station is about 17km southeast of the Te Awamutu and has been in the Wellington family more than 35 years. The 620 hectares of rolling hill country (600 ha effective) ranges from 150–200 metres above sea level and receives 1,500mm of annual rainfall.

Overall (2012 figures) Te Awamutu Station winters about 10,600 stock units, of which about two-thirds are deer (venison



Brian and Jacqui Wellington: hugely admired and respected by their peers in the deer industry.

“This award is the DFA's premier recognition for the quiet achievers and the guys that just contribute without ever seeking thanks or reward, and are the essence of commitment to excellence and the industry.

“Brian and Jacqui represent the very heart of this award and its intentions and can stand alongside the other recipients and nominees with great pride.”

Kris Orange, Chairman, NZDFA

“What Brian and Jacqui have achieved with their sheer hard work, and determination to overcome obstacles, is clearly reflected in their magnificent property and high-performing animals.

“If the deer industry see P2P as the way forward for financial success, then the Wellingtons are already there and moving ahead at a rate that others will seldom comprehend; and frankly the physical and mental effort required to emulate their actions are human attributes seldom found in today's world.

“But the true test of someone extra special is that it is done with humility, a great modesty and a totally unassuming approach.

“Brian will only see the problems not totally overcome, the challenges of a fickle market, and the knowledge yet to share with fellow farmers. All of life is approached with a level of personal integrity that those who deal with Brian cannot but leave feeling that little bit more humble and understanding better the true meaning of respect.”

Ian Scott, Oraka Wapiti, Tirau



Te Awamutu Station was recognised in the industry environmental awards in 2012.

“Brian and Jacqui deserve this or any award in the deer industry, as they are the top class environmentalists focusing on sustainable management of natural and physical resources. They have developed a successful business in a challenging sector while enhancing environmental values. This has been achieved through productive family partnerships, passionate dedication and clever business management. They provide excellent role models for farmers while also being open to new ideas and information.”

Bala TikkiSETTY, Sustainable Agricultural Adviser, Waikato Regional Council

and velvet production), with most of the balance made up by cattle. Sheep make up a smaller component.

The Wellingtons’ hard work and environmental stewardship has been recognised in recent years with a number of coveted awards, including, in 2012:

- Beef & Lamb New Zealand Livestock Farm Award and the Massey University Discovery Award.
- Silver Ferns Farms Plate to Pasture Award Finalist
- NZ Landcare Trust Award for excellence in sustainable deer farming through action on the ground.
- Fish and Game New Zealand Award for excellence in riparian management.
- Premier Elworthy Environmental Award sponsored by Deer Industry New Zealand.

Brian and Jacqui have been extraordinarily generous over the years, hosting agricultural exchange trainees, local agriculture students, research trials and veterinary students.

Te Awamutu Station was part of the Deer Industry Focus Farm programme from 2011–2013 and became a great seat of learning for deer farmers looking to improve their productivity and tackle environmental, animal health and other challenges. The Wellingtons are currently part of the Waipa/Waikato Advance Party and continue to share their considerable knowledge while also being willing to keep learning from the experience of others.

The citations in support of the Wellingtons’ nomination are fulsome, extensive and represent a who’s who of the deer industry. We can’t possibly do them justice within the confines of *Deer Industry News*, but here is a small sampling to give readers a sense of the esteem this farming couple are held in by their peers.

Deer Industry News and the deer industry congratulate the Wellingtons on this thoroughly well-deserved award. ■

“Jacqui and Brian have made a huge contribution to the DFA’s Waipa branch and the industry as a whole. They have willingly made their home and farm available for meetings, functions and field days.

“The hands on approach they take to farm work is something which is rare in an operation of their scale.

“Brian’s quiet contributions at meetings and discussion groups are always well thought through and worth listening to.

“Jacqui and Brian show a passion and commitment to this industry and I feel they are most deserving of recognition and are worthy recipients of the 2016 Matuschka Award.”

Leith Chick, Chairman Branch NZDFA Waipa



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Venison update

2015 production summary

IN 2015, THE national kill was 383,646 deer, down 7.5% year on year (Table 1). Production for the year came in at 21,357 tonnes (carcass weight equivalent), down 6.8% on 2014 (Table 2).

The kill in the month of December 2015 (by numbers) was similar to the preceding year – down 1.6% (Table 1).

The total number of hinds killed in the 12 months to December 2015 was 210,876, equating to 55% of the total kill (Table 3).

Table 1: Slaughter statistics by month (deer numbers)

	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	% change
October	37,379	41,564	52,207	48,909	44,118	38,312	-13.2%
November	51,820	54,064	51,337	47,356	46,693	44,966	-3.7%
December	46,516	39,047	36,972	37,589	37,251	36,655	-1.6%
January	40,473	44,881	45,021	42,406	43,369		2.3%
February	38,958	50,860	41,258	42,767	41,517		-2.9%
March	49,730	41,711	46,683	47,515	44,509		-6.3%
April	31,019	24,066	33,830	33,246	27,161		-18.3%
May	25,751	24,052	27,345	23,820	18,722		-21.4%
June	22,085	19,981	20,582	24,568	21,403		-12.9%
July	19,377	20,566	26,193	25,576	19,129		-25.2%
August	20,743	23,454	21,125	19,576	17,822		-9.0%
September	30,661	22,535	28,436	27,064	29,485		8.9%
Year to Sept.	414,512	406,781	430,989	420,392	391,179		-6.9%
12 months to Dec	382,401	413,472	412,622	424,327	414,600	383,646	-7.5%
December	46,516	39,047	36,972	37,589	37,251	36,655	-1.6%

Table 2: Production statistics by month (tonnes)

	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	% change
October	2,043	2,324	2,925	2,666	2,413	2,075	-14.0%
November	3,011	3,127	2,994	2,738	2,651	2,552	-3.2%
December	2,634	2,274	2,128	2,124	2,117	2,112	-0.3%
January	2,341	2,616	2,639	2,639	2,479		-6.0%
February	2,223	2,943	2,364	2,449	2,346		-4.2%
March	2,729	2,297	2,547	2,574	2,538		-1.4%
April	1,632	1,290	1,770	1,780	1,415		-20.5%
May	1,334	1,256	1,412	1,244	1,244		0.0%
June	1,153	1,045	1,049	1,291	1,101		-14.7%
July	1,027	1,103	1,346	1,316	993		-24.5%
August	1,114	1,265	1,091	1,012	936		-7.5%
September	1,680	1,273	1,508	1,434	1,565		9.1%
Year to Sept.	22,920	22,812	23,773	23,266	21,799		-6.3%
12 months to Dec	21,219	22,955	23,134	23,254	22,918	21,357	-6.8%
December	2,633	2,273	2,127	2,123	2,116	2,112	-0.2%

Table 3: Slaughter split by hinds and stags – 12 months to December

	% split of herd YTD	No. slaughtered YTD	% change December 2014/15	% change
Hind	55%	210,876	3.06%	-8.02%
Stag	45%	172,268	-3.58%	-7.05%

Exports – 12 months ending January

- Total venison exports for the 12 months ending January 2016 were 15,158 tonnes, down 5.2% year on year (Table 4).
- The value of these exports was \$183 million, up 3.1% versus 2015.
- The average FOB sales price per kg over the past 12 months increased by 8.8%.
- Exports volumes into the United States are up 16.3% and 23.7% by value. Germany has dropped 8.2% on volume, with value holding steady versus the year before.
- The favourable currency conditions we have been experiencing of late are reflected in that; while chilled volume dropped slightly (1%), total value increased by 12%.
- Chilled exports made up 16% by volume and 32% by value of venison exports in the 12 months ending January 2016.
- The United States continues to lead export sales in chilled venison by value, up 14%, with volume holding steady (Table 5).
- Exports by volume and value into Germany have increased by 17% versus the year before.

Table 4: Top 10 New Zealand venison export markets by volume and value – 12 months to January

Market	Volume (tonnes)			Value (NZ\$FOB, millions)			Ave \$/kg		
	2016	2015*	% change	2014	2015*	% change	2014	2015*	% change
Germany	5,047	4,632	-8.2%	\$53.45	\$54.19	1.4%	\$10.59	\$11.70	10.5%
USA	2,076	2,414	16.3%	\$21.55	\$26.65	23.7%	\$10.38	\$11.04	6.4%
Belgium	1,456	1,317	-9.5%	\$20.78	\$19.98	-3.8%	\$14.27	\$15.17	6.3%
UK	1,415	1,171	-17.2%	\$12.16	\$11.37	-6.5%	\$8.59	\$9.71	13.0%
Netherlands	1,367	1,136	-16.9%	\$22.18	\$22.02	-0.7%	\$16.23	\$19.38	19.5%
Finland	1,244	952	-23.5%	\$7.56	\$6.54	-13.5%	\$6.08	\$6.87	13.0%
Switzerland	1,032	922	-10.7%	\$16.17	\$14.87	-8.0%	\$15.67	\$16.13	2.9%
Sweden	385	549	42.6%	\$3.57	\$5.19	45.4%	\$9.27	\$9.45	2.0%
Canada	305	328	7.5%	\$3.02	\$3.48	15.2%	\$9.90	\$10.61	7.2%
Taiwan, Province of China	286	50	-82.5%	\$1.45	\$0.31	-78.6%	\$5.07	\$6.20	22.3%
Sub total	14,613	13,471	-7.8%	\$161.89	\$164.60	1.7%	\$11.08	\$12.22	10.3%
Others	1,371	1,687	23.0%	\$15.94	\$18.82	18.1%	\$11.63	\$11.16	-4.0%
Total	15,984	15,158	-5.2%	\$177.83	\$183.42	3.1%	\$11.13	\$12.10	8.8%

Table 5: Top 10 New Zealand chilled venison export markets by volume and value – 12 months to January

Market	Volume (tonnes)			Value (NZ\$FOB, millions)			Ave \$/kg		
	2015	2016 (p)	% change	2015	2016 (p)	% change	2015	2016 (p)	% change
USA	592	598	1%	\$11	\$13	14%	\$19.31	\$21.86	13.2%
Germany	469	548	17%	\$9	\$11	17%	\$20.15	\$20.18	0.2%
Belgium	464	450	-3%	\$10	\$9	-3%	\$20.73	\$20.82	0.4%
Netherlands	401	421	5%	\$9	\$11	32%	\$21.47	\$26.98	25.7%
UK	244	162	-34%	\$3	\$2	-30%	\$11.76	\$12.35	5.0%
Switzerland	166	131	-21%	\$4	\$5	5%	\$26.69	\$35.50	33.0%
France	104	130	25%	\$2	\$2	47%	\$16.15	\$19.00	17.6%
Canada	61	58	-5%	\$1	\$1	-8%	\$21.64	\$20.86	-3.6%
Australia	16	16	0%	\$0	\$0	5%	\$25.63	\$26.88	4.9%
Russia	13	0	-100%	\$0	\$0	-97%	\$26.92	\$-	-100.0%
Sub total	2,530	2,514	-1%	\$50	\$56	11%	\$19.83	\$22.13	11.6%
Others	22	21	-5%	\$1	\$1	12%	\$26.36	\$30.95	17.4%
Total	2,552	2,535	-1%	\$51	\$57	12%	\$19.98	\$22.49	12.5%

continued on page 14

Venison update: continued

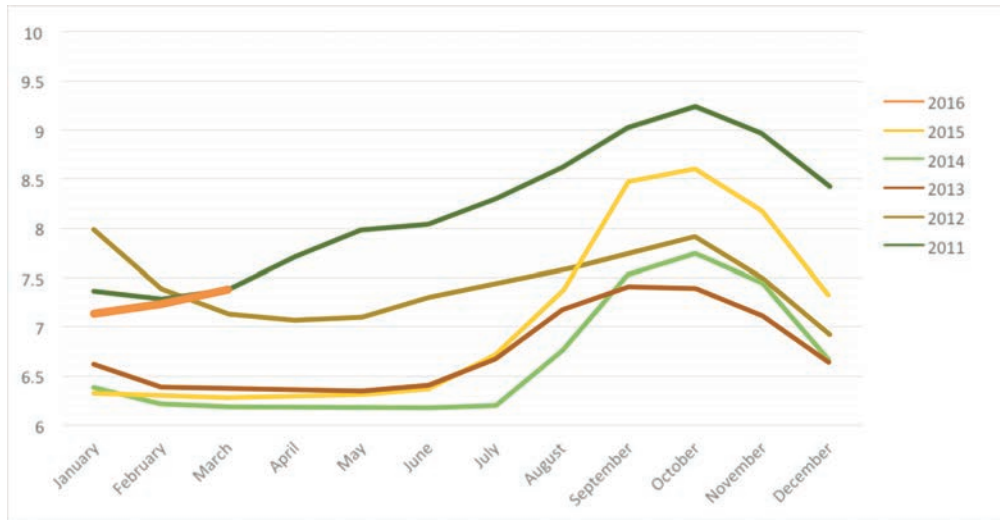


Figure 1: National published schedule: 55–60kg AP stag

Schedule and currency movement

For the week starting 28th March, the average stag 60kg schedule was \$7.38/kg, compared with \$6.27/kg at the same time last year – an increase of 18% (Figure 1). This is largely driven by an increase in demand from exporters coupled with a decrease in supply, along with favourable currency conditions. During March weeks the schedule increased by about 1%, from \$7.28/kg to \$7.38/kg.

The New Zealand dollar fell after the terrorist attacks in Brussels in late March as investors sought “safe haven” assets such as bonds and gold and avoided higher-risk bets such as the Kiwi dollar. As the week progressed the NZD recovered and at the time of writing the NZD was trading at 0.67 USD and 0.60 euro, reflecting minimal changes from exchange rates seen 4 weeks earlier. The euro is down 14% and US dollar down 12% year on year; these levels have contributed to the higher than usual schedules that we are seeing at the moment.

Market conditions

- The decline in kill numbers and its impact on being able to sustain supply is a general concern in the market.
- Selling prices are coming under pressure as the gap between venison and competing alternative proteins continues to widen.
- Overall sentiment is that the EU frozen business is progressing positively with steady price stability. Some exporters observed the completion of good sales being in place for the remaining production season until chilled exports start.
- The US market remains firm for both chilled and frozen with some changes in product mix, reflecting seasonal demand patterns heading in the US spring. Chilled orders are still being received by some exporters. Sales into food service are steady and positive into manufacturing channels.

Product mix

- There is strong demand for middles, but there is a danger that the price is getting too high to remain competitive.
- Leg demand is more challenging and some exporters are implementing promotion to demonstrate the versatility of the cuts as a viable alternative to middles.

- Shoulder demand has been slow but has started to improve in recent weeks.
- Demand for edible and inedible offals is steady with particularly strong demand being seen by the US market for edible offal destined for pet food manufacturers. Sinews have been dropping sharply.

Market promotion

Young German chefs tour

The four winning German young chefs hosted by DINZ touched down in Auckland in early February for a month-

long tour to discover more about venison and New Zealand’s culinary scene with some of the country’s top talent including Michael Meredith (Meredith’s) Kyle Street (Depot) Shaun Clouston (Logan Brown) and Vaughan Mabee (Amisfield).

Many of the top chefs were lucky enough to have additional one-on-one time with chefs outside service, to teach them more about the New Zealand food scene and allow them to create venison dishes to trial on their menus.

Unsurprisingly, the chefs had a fantastic time and were blown away by the hospitality and warm welcome. The chefs were surprised and impressed by the New Zealand food scene and couldn’t help but make comparisons with their homeland.

Chef Tobias Horsch noted “the dining scene is New Zealand has struck a great balance between fantastic high quality food being served in a relaxing environment. In Germany we are seeing slightly less enthusiasm for the fine dining experience; there is still a place for this but increasingly people want to feel relaxed and have fun while still eating something delicious. I have come away with some great ideas on how a top food experience and relaxed service is done in New Zealand.”

Back home in Germany, the tour continues to receive strong



Loving the Kiwi food scene: Visiting German chefs (from left) Tobias Horsch, Ronny Bell, Fabian Obergfell and Walter Triebel.

continued on page 15

Velvet update

The velvet season has finished with prices holding at similar levels to those achieved last year. The season completed a seventh year of continued stability; however most velvet exporters would breathe a relief that the season ended up as positively as it did. Exporters report that most velvet has been sold or committed to.



A second company sourcing velvet directly from New Zealand signs up to the Country of Origin Programme in April.

WHILE MARKET SIGNALS generally indicated further stability for this year (particularly in Korea), the sharp price increase experienced the previous season had some importers concerned. Large food companies investing significant resources into developing health food products containing New Zealand velvet viewed the increase as potentially volatile. Coupled with some downward pressure experienced in China, New Zealand velvet exporters had to work extremely hard to ensure prices remained at stable levels overall. Fortunately the exchange rate provided some counterbalance against the downward pressure.

Recent improvement to trade conditions in Korea, with the implementation of the free trade agreement (a 2.7% advantage for processed New Zealand velvet over competitors) and the removal of velvet's excise tax (10.1% of associated and accumulated taxes), has also assisted with continued price stability.

Venison update: continued

support and publicity, with social media being used extensively to promote the quartet's experiences.

"The tour is a tool to communicate directly with our target market of young European chefs," says Marianne Wilson, DINZ Venison Marketing Manager. "Seeing their enthusiasm and passion for what they experienced in New Zealand creates authentic content for them to share with their colleagues and friends back home. It's a strong means to get the message out about New Zealand venison and even more credible coming from the chefs themselves. The tour also gives us another avenue to communicate the versatility of venison – New Zealand cuisine is not constrained by tradition and the chefs find this particularly surprising and liberating."

Velvet as a healthy food in China

The velvet industry's strategy of growing consumption in the healthy food market through working with key Korean health food companies appears to be strengthening the position of New Zealand velvet overall. Recent clarification on the regulatory pathway of New Zealand velvet in China will provide an opportunity to copy the success of the work done in Korea. DINZ and New Zealand exporters have an existing relationship with some well-established and sophisticated Chinese healthy food companies that have expressed a keenness to use New Zealand velvet. While there is plenty of work ahead before any positive commercial effects may be felt, clarifying this pathway is an important first step to augmenting the healthy food successes in Korea.

Marketing programme trialled

DINZ continues a small-scale pilot with its Country of Origin Programme introduced last season with a New Zealand velvet marketer in Korea. Through DINZ's registered velvet mark, the programme allows the customer to identify that the product contained within the mark undergoes an approved process designed to enhance product integrity. The process is auditable by DINZ's Korean-based contractors and provides better transparency of New Zealand velvet destined for the Korean market.

Continued support of your long-established velvet buyers going into next season is essential. The velvet industry has an opportunity to step up another gear, but there are also plenty of risks. While we are confident that consumption is growing, there is evidence that production is also growing. DINZ estimates that global supply and demand is currently in good balance, but this can change quickly. ■

The chefs finished their visit with a tour of Mountain River Processors and hands-on butchering demonstration showing the versatility of the Denver leg, with DINZ Executive Chef Graham Brown. Their last day took in a visit to Mt Hutt Station which was a memorable finale to their month-long experience. ■

Technology day in Southland

AS PART OF the Deer Industry Focused Farming programme, the Southland Branch NZDFA is planning a Deer Technology day at the Gore Town & Country Club on Wednesday 29 June

The day will be facilitated by Dave Lawrence. Contact Dave for further information: info@tikana.co.nz or 03 236 4117

Borlands tackling challenges with gusto



P2P
Advance Party

by Phil Stewart, *Deer Industry News* Editor

The Shabor breeding unit at Oparau, being managed by the Borlands wasn't quite a blank canvas when they took over nearly two years ago, but the outlines of the finished work were still quite sketchy. This presented challenges but also huge opportunities and Steve, Judy and son Chris haven't wasted any time developing the property as part of a well-designed integrated velvet operation. *Deer Industry News* visited the Advance Party farm in mid February, when it was their turn to host the Waipa group.

THE FARM COMES under the umbrella of Shabor Limited, the exotic-sounding name an amalgam of (Bob) Sharp and Borland. The Borlands' property is part of the Waipa/Waikato Advance Party facilitated by vet Ginny Dodunski. Because it's still in a strong development phase, it's an ideal business to be part of the programme. There are plenty of opportunities and the Borlands are keen to share in the group's ideas.

A quick round robin among the group showed most had been enjoying a good season with excellent pasture and quality. The sustained good prices for both velvet and venison were also cause for satisfaction with one member noting the \$7.00 plus schedule later in the season was at a "meaningful" level.

Shabor profile

Steve Borland said the company and operation have been set up as a succession planning exercise for his son Chris, who is taking over as manager of the deer operation, and Bob Sharp's three adult children. Steve is keen for the next generation to apply their own ideas to the opportunities available. "Bob and I are farmers and our thinking is limited. Our kids are the innovators. They can see the potential." As an example, Steve said a 98-hectare bush block at Oparau could be form the basis for an eco-lodge – but that was for the next generation to explore.



From left: Chris Borland, Steve Borland and Bob Sharp.

The Borlands' block is 800 effective hectares (982 total), mainly medium hill country and summer safe. It's near Kawhia in western Waikato and quite isolated but ticks a lot of boxes as a home to a breeding operation that feeds velvet stags into a very productive velvetting business. The velvetting stags are run at Bob Sharp's Whakamaru farm, two and a half hours away. Ideally, each crop of weaner stags will be put straight onto the truck and sent to Whakamaru, but with the wet winter and difficult conditions last year the 183 young stags were carried through winter on their mothers and sent later in the year. This year they were to be weaned straight onto the truck and the CIDRs put in for the AI programme at the same time.

About 700 velvetting stags are carried at Whakamaru at present. Bob Sharp said there was capacity to grow the velvetting herd, perhaps to 900 with some retained at Oparau, but he was wary of the operation getting too intensive. "Until the drought of 2008/09 the last one we'd had down there was in 1977. It's been a bit more torrid recently."

Likewise they would be cautious about building up stock numbers too rapidly at Oparau, as spring can come quite late and there's work to be done lifting fertility. Olsen P over much of the farm is 4–6 units, with some areas up to 12 units. The aim is to increase the figure to 20 plus. Because there is so much potential to lift pasture production, stock capacity and productivity, there are no plans at this stage to use crops. A recent application of triple super to 400 hectares at 400kg/hectare would give fertility a timely boost.

About two-thirds of the stock units at Oparau are made up by nearly 4,000 sheep, a Wiltshire flock that the Borlands bought with the farm. The stock manager for the flock also stayed on. The property also suits cattle for production and pasture control purposes, although the wet winters mean there's a risk of pugging and pasture damage. There are currently only a handful cattle and with stock being in strong demand, those numbers can't be built up too quickly yet.

The Borlands have 500 mixed age hinds, 208 R2s and 200 R1s. They use AI with backup stags and achieve about a 70 percent conception rate. The weaner stags are "sold" to the Whakamaru

velvetting operation for \$350 (for analysis purposes), which provides a premium over their value as venison stores. Cull yearling hinds and stags will go fairly early – in August/September – to catch the chilled market and are finished on the farm.



Breeding hinds at Oparau.

It's early days and there is still much data to gather, but the economics of the operation are looking promising at this stage. Preliminary Farmax® estimates show deer at Oparau, are yielding a creditable 18 cents/kg dry matter (DM) consumed, compared with 14.7 c/kgDM for the sheep (similar to the return for dairy heifers). Beef cows yielded only 9.4c/kgDM, "but they are there to do a job". The assumptions for deer include the nominal \$350 for the velvetting stags supplied to the Whakamaru property and a conservative schedule of \$5.90 (the 12-year average) for the venison income.

On the limited analysis available thus far, velvet returns are an impressive 47c/kgDM consumed. Over a larger number of stags and including spikers this figure will drop, but under current returns the velvet enterprise will still be a great earner.

Facilitator Ginny Dodunski said more robust figures will be available once the first year's accounts are fully analysed, but it's a promising start. "It will be interesting to see where it sits once we have a couple of years of data," she said.

Although the sheep enterprise is peripheral to what the Advance Party is looking at, it's nonetheless integral and did very well last year with a 142 percent lambing performance (scanning 176 percent). Lambs can be finished on the farm – unusual for the area – but if conditions get tight they can be sold as stores, acting as a relief valve for the property. The group discussed the idea of deer fencing some of the easier country currently used for sheep

to run a velvetting herd, but that's a decision yet to be made. The Borlands currently run about 20 stags at Oparau as a small trial to see how their velvetting goes.

The 2015 winter was challenging and feeding out took up to six hours a day. Steve said it was tough not being able to feed their animals as well as they'd like, but they are working hard to prevent a repeat. "The grass stopped growing in April and that was it."

Getting the infrastructure right

The fences at Oparau were built way back in the time of subsidies and infrastructure for deer farming was fairly basic when the Borlands moved in, so they've been busy on both deer and sheep fencing.

The Advance Party group looked over the "\$1,000 deer shed" and yards, built from recycled materials. It has a well-designed circular central pen that enables drafting in multiple directions and also feeds into the crush. The group was impressed with the shed. Ideally it would have been higher, but that was a limitation of the existing materials used. The only other issue was the metal surface in the yards which did cause some foot problems last season. The group suggested topping the metal with lime fines or crusher dust.

The Borlands have put a lot of thought into the deer fencing layout and are creating smaller paddocks with a good environment for fawning. A lane that runs right around the farm, with smaller holding paddocks, will help make stock movements easier. Although smaller paddocks help with pasture management, Steve said deer can get unsettled in these, and some larger (20 hectares plus) paddocks will remain.

They were flat out fencing when the Advance Party visited and hoped to have the work completed by the end of this year. They are using a bulldozer in places to even out ground along fencelines so that post spacings don't have to be too close. Steve is keen to avoid fawn losses and has bitten the bullet to invest in 6-inch mesh to prevent escapes. A neighbour requirement is to deer fence the boundary, which will create a great relief valve by enabling deer to be grazed outside the core deer unit in difficult seasons.

Steve admitted that he and Chris are spending a lot of time on the fencing at present and the group suggested some of this work be farmed out so they could spend more time on stock management and operational decision-making.

continued on page 18



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Annual lesion incidence (%)

Season	Annual lesion incidence (%)
2006	1.5
2007	2.0
2008	2.2
2009	3.8
2010	3.5
2011	3.0
2012	1.0
2013	1.5
2014	2.5

Season

Borlands: continued



The Borlands are investing in 6-inch mesh to help prevent losses through mismothering and fawn escapes.

The farm has a good network of tracks with gravel sourced on the property. They proved their worth last year when they withstood a 100mm downpour over three hours.

Work is also being done to improve the quality of stock water.

Steve said that although they are putting in long hours during the development phase and there are only two full-time labour units beside himself, he makes sure the team get time off. “They work a five-day week here – that’s important.”

Environmental work

The Borlands are being mindful of environmental impacts as they undertake their development work and are putting together a Level 2 Land and Environment Plan. “Everything we’ve done here has environmental planning built in,” Steve said. “We fenced off sensitive areas from the beginning because we know we’ll eventually need to do this work.”

The light Mairoa ash soils on a clay base present challenges and sediment runoff is the biggest risk. They need to be careful especially when cultivating, to avoid ruts developing.

The flats at the top of the farm are windy and exposed, and Steve is planning to plant some stands of manuka to provide some protection.



On these soils, care is needed to help prevent ruts developing.

Self-feed silage pit

Feeding out during last year’s wet winter, with inadequate deer paddocks, was a bit of a trial and the Borlands are planning to install a self-feed silage pit to help prevent a repeat. They’ve found a good location next to a hunting block near the back of the farm

in a spot where there is no risk of outflow getting into waterways. Getting concrete to the site may be a challenge, however. The silage for the pit will be cut in adjacent paddocks. Steve pointed out that the cost of putting grass for silage straight into the pit is two-thirds less than the cost of making baleage.

Advance Party group members Brian and Jacqui Wellington were able to provide the Borlands with some useful tips about the location and design of the pit and recommended a nearby north-facing site rather than a knoll that Steve had been considering. (They set up a highly successful self-feed pit at their own property, Te Awamutu Station, for hinds being wintered in a pine block.)



Grassy knoll: The Advance Party group discuss the best spot to locate a self-feed silage pit.

Animal health

There are no major animal health issues among the deer, and ticks – a big problem in the northern North Island – don’t seem to be present. They want to build a cattle herd to perhaps 100 cows but won’t get into trading as they want to avoid introducing pests and diseases through that route. The Borlands are keen to keep animal health inputs at a minimum, providing deer with copper but no clostridial vaccinations, for example.

Overall the sheep are not performing so well on the animal health front and the group discussed the possibility of drench resistance on the farm. Steve noted there had been a lot of goats roaming the farm when he took over. He’s since shot these out, but they could have contributed to parasite problems. The group suggested more could be done to find out what underlying health issues might affect sheep production, such as trace element deficiencies, parasites or viral pneumonia.

Brian Wellington said deer and sheep go well together in terms of both pasture management and worm control.

Advance Party projects

The Borlands have chosen two projects that will help them get a better handle on pasture and animal management and test different scenarios.

They are using Farmax to help them measure and then manage their farm system. The Taranaki hill country pasture growth model that has been adapted for use at Oparau allows for a strong burst of late spring growth. As well as showing total pasture covers, the Farmax software provides a useful breakdown of pasture composition (green leaf, dead and stem). It also shows what will happen to pasture quality if you introduce various stock classes at

continued on page 19

Tb Testing reduced

OSPRI has lifted stock movement restrictions and reduced testing requirements in an area totalling 5.3 million hectares and covering nearly 10,000 herds, resulting in 500,000 fewer TB tests. The changes became effective on 1 March.

IN REGIONS WHERE movement control areas have been removed farmers will be free to move stock without pre-movement tests. Significantly fewer TB tests will be needed as special testing area requirements are reduced.

Since 2011, OSPRI's TBfree programme has eradicated TB from 1.2 million hectares and infected herds are down to 35 – a huge decrease from nearly 1,700 in 1994.

OSPRI Chief Executive Michelle Edge explains that as OSPRI's work proves successful in each area, disease control areas are reviewed based on detailed scientific analysis and data modelling. Accordingly, where TB eradication targets have been met, testing requirements are reduced.

“The progress of OSPRI's TBfree programme is a credit to farmers and the industry and government organisations that are shareholders and investors in the TBfree programme and is another step towards New Zealand becoming TB free.”

The plan for how OSPRI manages TB is likely to change from 1 July 2016 after a recent review of the National Pest Management Plan. A proposal in response to the review was developed by an independent group comprising key investors and stakeholders of both industry and government. This process included scientific modelling, a review of operational outcomes and public consultation. The review established that eradication of TB is achievable. The proposal is with the Minister for Primary Industries for approval.

OSPRI's TBfree programme divides the country into disease control areas, each with different TB testing requirements depending on the risk of TB being transferred from infected wildlife (mainly possums) to cattle and deer.

- For further information: <http://bit.ly/1oH7kki>

Borlands: continued

different stocking rates. The impact of a dose of urea, or paddocks shut up for crop or silage, will also be reflected in the figures Farmax spits out. A graph showing actual covers getting perilously close to minimum requirements for the September pinch period (without urea or silage/hay cut) showed how useful this scenario modelling can be.

Ginny Dodunski said the Farmax project will help formalise the information coming out of the farm and show more accurately where the profits are coming from.

The second project at Oparau is to use a Gallagher tag reader mounted in a gateway to help pair up dams and fawns. The technology is based on a unit developed for sheep and has a solar-powered unit and data collector. Steve said it doesn't require much more than is used for a regular weighing system – all that's needed is the additional reader in the gateway. ■

Ongoing vigilance needed

The discovery of TB in livestock on four farms in the Mount Cargill area north of Dunedin late last year is a reminder that the disease can still spread into new areas. A total of 1,364 possums were recovered from the operation. Every possum recovered was sent for further investigation by an experienced independent necropsy contractor. Any possums found with lesions suspicious of TB underwent further, more intensive, laboratory diagnosis.

Ten possums with suspicious lesions were sent for laboratory diagnosis and DNA strain type analysis. Six possums were identified as being infected with an Otago strain of TB – the same strain type found in the infected herds.

One deer farm, a closed herd, was involved. It has tested clear since one infected animal was confirmed and removed at slaughter. While the issue seems to be vector based, the outbreak may still have been triggered by stock movement into the area, which includes a number of cattle trading properties and lifestyle blocks. ■

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Fast finishers targeting higher venison productivity



P2P
Advance Party

by Phil Stewart, *Deer Industry News* Editor

The Hawke's Bay "Fast Finishers" Advance Party met at Richard and Emma Lawson's farm, Glenbarr, on 15 March to talk over progress since they had set some objectives six months earlier. *Deer Industry News* tagged along.

Farm profile

GLENBARR (258 HECTARES) is one of four properties totalling 700 hectares that make up the Lawson family's Riverslea Trust. Deer are run on three of the four blocks in an integrated breeding and finishing operation, with 430 hectares deer fenced. The trust's land ranges from flat to rolling and goes from 250 to 540 metres above sea level.

The main enterprises are deer breeding and finishing for Firstlight Venison, with cattle finishing and some sheep. Crops on the lower blocks include lucerne, plantain, barley, maize, grass seed and potatoes.



From left: Nick Lawson (Richard's father), Emma and Richard Lawson.

Rainfall over the properties ranges from 900–1800mm with the summer safe Glenbarr the deer breeding base. Pasture growth slows right down in winter on this property and the Lawsons need to take care to avoid feed getting too tight – otherwise fence pacing increases and there is greater risk of runoff and sediment loss. The terrain and altitude mean that baleage can't be easily fed out in wet conditions.

Weaners are trucked from Glenbarr to the finishing blocks at Te Katea and Orua Wharo Road at the beginning of March and the

replacement hinds come back up to Glenbarr as R2s, ready to go to the spikers. The fourth block, the 150-hectare Kindar, is partly irrigated and used for cropping and wintering cattle, and does not carry deer. Richard Lawson said the freight cost for the weaners is only \$3-\$4/head as there is a backload with the replacement hinds.

Glenbarr carries 750 hinds producing about 700 home-bred weaners. These are supplemented by a further 100–200 bought-in weaners but the Lawsons are keen to source up to 300–400 this year to boost their finishing operation on the lower blocks. About 120–140 replacements are retained from the home-bred hinds each year, selected on breeding, weight and conformation. Of these, about 95 eventually go to the stag.

They are using a half-English Deer Improvement stag this year and have also been using Firstlight stags. Good growth, hardiness and temperament are among their breeding objectives and they are looking for a balance of those characteristics in their sire stags.

Spikers are used for the R2 hinds and for some of the mixed-age hinds, which are usually between 95–100kg by mating. Older stags are also used in the mixed-age hinds, either as single or multiple sires. Richard said the size of their breeding hinds has been gradually increasing; the mature weight is now 115–120kg and he'd like to keep it about there. Their oldest hind was born in 1997 and has reliably pumped out a fawn every year since. "Keep her daughters," was one comment from the group.

They aim to have all weaners finished by the end of February each year to make way for the next crop. The weaner hinds and stags are run separately and the supply of finishers to Firstlight has to be managed carefully to ensure a steady flow. Because velvetted stags can't be used for the UK markets being supplied, the stags need to be processed either before their spikes reach the 110mm limit, or later once they have calcified and been removed as hard antler – acceptable by UK customers.

Heifers are wintered on the Kindar block and then walked up to Glenbarr where they are put to work helping control the spring and summer growth (Glenbarr isn't suitable for wintering cattle). The 300 or so sheep at Glenbarr are used for ragwort control.

The pastures at Glenbarr are largely old with a high proportion of native grasses, so pasture renewal is on the agenda. The light

soils mean it's not suitable for cropping, but 50 hectares of Moata ryegrass has just gone in on three of the Trust's blocks, including at Glenbarr. The new ryegrass suppresses the native grasses, but plantain, chicory and clover require herbicide to help keep the native grasses at bay. Regrassing has to be done carefully at Glenbarr to avoid topsoil loss.

Richard said they would like to get better winter grasses such as Moata established to maintain weights through the year and then get the young stock "smoking" in spring as lucerne growth starts to kick in on the finishing blocks.

Silage (450 tonnes in silage tubes) and baleage (200 bales) is made from surplus grass and fed out in winter. The 75-metre silage tubes each hold about 90 tonnes and are to be fed in situ to the weaners with cattle coming in to clean up what the young deer leave behind. Richard said the marginal cost of putting silage in the tubes rather than in a stack is only 2 cents/kg. This is the first year they are being used, with the nearest contractor with the gear coming up from Manawatu. Ideally they'd like to make lucerne and maize silage too, but it's a useful way to conserve surplus grass for now.

Hay and straw is also made from the grass seed crop grown at Kindar. Maize is the only imported feed and is fed before and after weaning to get fawns accustomed to it before they are shipped off to the finishing blocks.



Mixed-age hinds tuck into some maize at Glenbarr.

Animal health

The animal health programme at Glenbarr is fairly simple and the Lawsons agree it needs reviewing. Fawns are drenched at weaning with Genesis® Hi Min Oral (abamectin plus closantel). Advance Party facilitator Simone Hoskin was concerned that this drenching schedule could be helping accelerate drench resistance by limiting the refugia (populations of susceptible parasite larvae) on pastures at the finishing blocks.

The weaners stay on this at five-weekly intervals or Oxfen® C (oxfendazole plus levamisole) four weekly. It was suggested more attention could be paid to internal parasites, with a faecal egg count reduction test done to establish drench effectiveness and quarantine drenches with multiple active ingredients used when stock are moved between properties. Vet advice is essential for this.

No vaccines are given. Richard said "Darwinian" principles apply to the adult hinds – no drenches or other treatments are given.

Copper and selenium deficiencies are likely issues on Glenbarr and better monitoring of levels will give the Lawsons a clearer

Ragwort

Ragwort is an ongoing issue at Glenbarr and despite use of sheep, spraying (Conquest®) and the presence of a couple of moth species that dine on the weed, it seems to be getting the upper hand recently. Use of Conquest to kill the weed is effective but something of a pyrrhic victory as it also suppresses clover and thus the volume of quality feed available for deer. Weaning weights were back a little this year and the loss of clover may have been a factor (although low copper may also have been a factor). The Lawsons are considering using maize to supplement pasture where the clover has been knocked back. The sheep used are "addicted" to ragwort and members of the group suggested offering hogget grazing to neighbouring sheep farmers to help get on top of the problem.



picture of where and when supplementation might be needed. Richard has seen some clinical signs of copper deficiency in animals last year. He said copper used to be applied with fertiliser but it became too expensive to apply this way. His vet had advised it can be applied to pasture as copper sulphate at 4kg/ha and grazed a week later, but this can be toxic to sheep so may not be safe on this property. Getting some blood tests done in spring (when levels are lowest) to provide a benchmark for the property will be an essential first step.

He noted the cattle had responded strongly to a selenium supplement and wondered if deer may also respond. "What's in the selenised drench isn't enough," he said.

Damage to feet in the concrete deer yards was not generally a problem, but could occur occasionally. Weaners are trucked on only the lower tier in the stock truck, where less foot damage is likely, and wet conditions are avoided (wet, soft feet are more



Advance Party facilitator, Simone Hoskin (right) leads discussion following a tour of the farm.

continued on page 22

Lawsons: continued



The willow paddock, one of the fawning paddocks used in the trial to help reduce fawning losses. The woolshed and deer shed are in the middle distance on the right.

prone to damage). Group members suggested a build-up of dirt and hair on the concrete actually helps protect young hoofs from damage.



Richard Lawson (left) discusses the outriggers they have been adding to help improve fence security.

Areas for improvement at Glenbarr

At their September 2015 meeting, the Lawsons and their Advance Party group had identified areas for improvement. Richard and Emma are keen to reduce losses between mating and tagging and were to focus on three possible sources of these: reproductive performance, in-utero losses and dystocia plus losses between birth and tagging.

The Lawsons have been monitoring reproductive performance for several seasons. Only a sample of the mixed-age hinds are pregnancy scanned, but all R2s are scanned.

In the mixed-age hinds the average performance over three seasons to 2014 has been reasonable (average 92.4% fawns tagged to hinds set stocked) but the range (77–100%) is highly variable, showing there is room to improve. Scanning percentages for the R2s have also been highly variable (50–99%) and the tagging percentage among pregnant R2s has ranged from 72–88% (average 80.8%), again showing there is plenty of scope to improve performance.

I get around

Having EID tagged all of the hinds, the Lawsons were in a position to gather good data and try to find out where the losses were occurring and they carried out a paddock-by-paddock assessment.

Data gathered over several years showed that fawn survival varied considerably between paddocks. To a certain extent the variation could be explained by the characteristics of each paddock (fences, gates gully guts, slope, cover and so on).

More intensive monitoring was carried out in 2015 in five paddocks used for fawning, covering about 40 hectares. Hinds were EID tagged and scanned in at set stocking in October and out of each paddock in mid January when hinds and fawns were mustered for tagging.

The results showed that the fences are a bit more permeable than they had realised, with each paddock having gained or lost hinds and fawns. Some turned up in other fawning paddocks (not necessarily a neighbouring one) or went missing altogether. It wasn't clear whether the breakouts were initiated by the hinds, or if they were following fawns that had found a way through a fence. The deer fences at Glenbarr are converted sheep fencing

Californian thistle tip

Richard Lawson has found a good trick for killing Californian thistle without spraying. He tows a horizontal metal bar behind his quad bike through the thistle, preferably just before rain. The bar lacks a sharp edge and knocks down the plant, scraping and bruising it, rather than cutting it off at the base. Richard says the thistle grows back if it's mown, but leaving it knocked over and bruised in wet conditions allows pathogens to invade and kill the plant.



and the Lawsons have started adding outriggers between some of the fawning paddocks to help improve security. The group strongly suggested use of 150mm mesh to help stop fawns slipping through or under (in gullies). Sheep netting was mentioned as a fairly inexpensive way to trial fawn proofing. The group agreed paddocks need to be completely fawn proof or allow a controlled creep system for fawns to get in and out – perhaps with lamb creep gates in gateways.

At its September 2015 meeting the group had suggested the set stocking rate for fawning of seven hinds per hectare was too high, and this was lowered to five per hectare where possible.

Fawning dates

Traditionally the stag had come out quite late at Glenbarr (first week of May) and it was suggested fawning could be tightened up somewhat by progressively bringing the stag-out date forward to 20 April by next year.

Improving growth rates in weaners

Suggestions from the group included:

- Managing the weaners in smaller mobs with more rotations and subdivision.
- When choosing replacement hinds, ensure fair comparisons between mobs are being made.
- Conversion out of native pastures on finishing blocks by transitioning through summer fallow, then Moata and then

lucerne or chicory.

- Make greater use of chicory, which can add significantly to carcass weight (although it needs to be grazed through the summer and can't be conserved like lucerne, so stock demand needs to match supply).
- More use of cattle to promote pasture quality (perhaps being put behind tapes to control areas of the large paddocks that have been left by the deer, e.g. in gullies).

Better data use

The group suggested more intensive collection and use of data so that the Lawsons can get a better handle on opportunities to improve performance in terms of weaning percentage, venison production per hectare and management of feed supply and demand. Avenues for this included:

- Pregnancy scanning all mixed-age hinds rather than just a sample (albeit cost is a constraint).
- Fetal ageing to identify late fawners as well as early conceivers (elite hinds).
- Testing for diseases that might be causing in utero fawn losses (e.g., leptospirosis, Johne's disease, toxoplasmosis).
- More use of weighing data (fawns are weighed at weaning and again about 170 days later, but there is scope to weight them more frequently on the finishing blocks to help stay on track to target weights).
- Animal health monitoring (faecal egg counts, copper status).
- Use of cents/kg dry matter consumed and other indicators. ■

Reducing environmental risks

NZ Landcare Trust has launched a series of five short videos showing what Canterbury deer farmers are doing to reduce environmental risks on their properties.

THIS IS THE second group of short videos produced by NZ Landcare Trust and this time the focus in Canterbury is on management of water and water quality.

Janet Gregory, Regional Coordinator with NZ Landcare Trust and facilitator of the project said the series also features coping with drought. "Ironically when we filmed the videos in April [2015] many of them were in the midst of last year's drought but it was the first day of rain that southern Canterbury had, which provided its own challenges."

The final segment in the series will include farmers from Southland and Waikato – these were due to be filmed in March.

"I hope those who view them gain ideas and are encouraged to look at their own properties and identify actions they can undertake to improve their own environment," Janet added.

She extended a big thanks to Lyal Cullen, Paddy Boyd, Hamish Orbell and Bob Kingscote for giving their time and participating.

The five videos cover best practice in managing:

- drought
- risks on a Canterbury extensive high country property
- environmental risks in North Canterbury
- irrigation risks in a dry climate
- soil, water and riparian management.



Hamish Orbell at Clayton Station near Fairlie talks about measures they are taking to improve their environment.

The videos are part of a three-year Sustainable Farming Fund project to encourage greater adoption of environmental best practice on deer farms.

The project is also supported by DINZ, NZDFA, Hawke's Bay Regional Council and involves Beef + Lamb NZ, Ballance AgriNutrients, and regional councils in Waikato, Bay of Plenty, Canterbury and Southland. Further information can be found on www.landcare.org.nz or by contacting Janet Gregory: 03 208 7883, 027 222 4005, or janet.gregory@landcare.org.nz

To watch the videos visit:

www.landcare.org.nz/DeerBestPractices. ■



Velvet Antler Research New Zealand Annual Report for the year ended 30 September 2015

From the Chairman

VARNZ's main focus was on the RepairX project in which, after delays due to key personnel changes for VARNZ and Middlemore Hospital, a considerable push was made with the hospital to get the study up and running, which happened in July 2015.

Completing all the regulatory, logistics and staff training tasks needed for a human clinical trial is a major undertaking and it is appropriate that passing this milestone is acknowledged as an achievement in itself. However, trial completion will be vital in indicating RepairX's potential for commercialisation as a human therapeutic of some sort. Since VARNZ's patent rights have just under ten years to run, the Board is acutely aware of the need to complete the trial as soon as possible to optimise returns on levy payers' and AgResearch's investment to date. To that end, we are currently doing all we can, using the best advisers, to facilitate speedy recruitment of a full complement of patients needed for the study.

Meanwhile several other research projects relevant to the velvet industry's strategic objectives – those relating to freedom to operate and market development and diversification – also ticked along.

The Government's National Statement of Scientific Investment (NSSI), which I read with interest, was published just after VARNZ's year-end. It recognises the immense potential for R&D to underpin economic growth, particularly for the primary sector. As such, the Government intends to support more primary sector-related R&D, albeit that this will be more at the fundamental end of the science spectrum and greater levels of industry co-funding will be required.

Through VARNZ, the velvet industry has been funding velvet R&D significantly for the past few years, so the Board will make best endeavours to leverage this commitment by influencing external programme design to bring velvet research into scope. Where co-funding for applied velvet research is required, however, we will need to rely more on collaboration with commercial entities. We are keeping a keen eye on the Government's implementation of the NSSI to ensure it does not compromise the science development pipeline within the agricultural sector.

We are also aware that existing external R&D programmes, such as the High-Value Nutrition National Science Challenge, are very much aligned to the velvet industry's strategy of getting velvet increasingly used as a functional ingredient in high-value nutraceutical products. As such, we will look to align VARNZ's

work with these programmes to achieve optimal leverage for funding and expertise.

VARNZ gratefully acknowledges the generous grant of \$51,000 for velvet functional research made by the Warnham and Woburn Deer Society. VARNZ intends to spend this money in researching velvet's effect on mental acuity.

We are also aware of the customer's and consumer's ever-increasing appetite for demonstrable product integrity, whether from an animal welfare, traceability or food safety perspective, and will continue to be responsive to the velvet industry's research needs in this regard. Research to develop traceability techniques provides an opportunity to not only gain market access but command premium prices in markets where particular production and processing techniques (Including welfare practices) are a point of difference.

Greg Murison of AgResearch joined the Board as AgResearch's appointee, replacing Jason Archer who left AgResearch to work as a consultant mainly in livestock genetics. I thank Jason for his contribution to VARNZ. We are delighted to have Greg on board since his connections to the many different programmes in which AgResearch is immersed and his relationships with leaders of other research providers is exposing VARNZ to research alignment opportunities from which the velvet industry can benefit.

William Rolleston, Chair, VARNZ



VARNZ Chair William Rolleston sampling Korean Ginseng Corporation's premium product containing New Zealand velvet (Cheongnuksam) as reward for chairing another VARNZ board meeting.

VARNZ and its work

Ownership

The shareholders of VARNZ are AgResearch Ltd (50%; a Crown Research Institute) and Deer Industry New Zealand (DINZ).

Purpose

The shareholders' "deed of participation" provides that VARNZ is the entity by which the deer industry will:

- generate, protect and control the exploitation of intellectual property in respect of velvet antler and deer co-products in the deer industry good; and
- invest into research and development relevant to deer velvet antler and deer co-products in order to advance the production, processing and ultimately the promotion, sale and distribution of deer products.

Governance

VARNZ's Board of Directors consists of the following members:

- William Rolleston, independent chair, appointed by agreement of the shareholders
- Doug Wilson, appointed by agreement of the shareholders
- Greg Murison, appointed by AgResearch; and
- Dan Coup, appointed by DINZ

Management and services

Management services are procured by VARNZ from DINZ (specifically the Science and Policy Manager and DINZ's contracted accountant). Research is outsourced by management from various providers. AgResearch is VARNZ's preferred research provider.

Accounts

Extracts from the financial statements of VARNZ Limited for the 12 months ending 30 September 2015 are set out in Tables 1 and 2 for general information purposes only. A full set of audited financial statements are available on request from info@deernz.org. Table 3 shows the research budget by project.

Research programme highlights

Focus

VARNZ's work in the 2015 year was in three areas:

1. **New product development** (RepairRx);
2. **Supporting the velvet industry's strategic intent** (functionality research to encourage healthy functional food development and market access to China);
3. **Maintaining freedom to operate** (animal welfare).

Summaries of project progress in the 2014/15 year are as follows:

RepairRx

This is a first-in-human clinical trial to investigate the "tolerability" (safety) of skin graft donor sites to RepairRx and confirm that there is a biological effect in humans from RepairRx compared with an inactive (control) product.

In July 2015, VARNZ achieved "site activation" of Middlemore

Hospital in Auckland, meaning that the surgeon leading the trial was legally permitted to start patient recruitment.

Leading up to that point, much time was spent negotiating a contract with the hospital that was transparent and affordable to VARNZ yet met the internal resourcing constraints of both the district health board's research arm and the Middlemore burns unit hosting the study.

After considerable input from experts, including wound healing research specialists, VARNZ obtained Ministry of Health and ethics committee approval for changes to the trial protocol to better suit the clinical practice of the hospital and obtain the most useful data.

Logistics in arranging formulation, supply and suitable storage of the RepairRx and control product as well as other non-standard clinical supplies or wound assessment apparatus were arranged and a trial-specific database to house and analyse patient wound healing data was created. VARNZ recruited experts to act as providers of independent opinions of wound healing rates or sit on a safety monitoring committee, whose role is to advise VARNZ when the trial protocol should be modified or suspended if RepairRx causes serious adverse events.

VARNZ organised staff training of all site personnel having a role in the trial, particularly the nurses and doctors who are involved in the trial.

Intellectual property

VARNZ has been successful in obtaining patents related to RepairRx. All applications have now been granted and will require ongoing maintenance. The patents cover 28 European and four other countries (New Zealand, Australia, Japan and United States). All VARNZ's patents relate to RepairRx and protect either the velvet extraction process for RepairRx or RepairRx's property of stimulating blood-vessel growth (angiogenesis).

Research to provide support for a healthy food registration

VARNZ embarked on a project (following-up the previous year's study done in collaboration with KGC Life & Gin) to identify the molecules in various fermented velvet extracts produced by that company potentially responsible for enhanced immune activity observed by KGC Life & Gin in vivo. The previous study with the company had identified two candidate molecules whose presence correlated with higher bioactivity of the extract in question relative to other extracts.

Analysis of nine different digests of a deer velvet protein fragment also correlating with bioactivity in the KGC Life & Gin fermented velvet extract revealed differential bioactivities under the same in vitro model, which is promising. Separation and identification of the particular sub-fragment correlating with bioactivity will require additional investment and the development of a specific bioassay to enable high throughput of samples and detection of more sensitive signals.

At this stage further development will depend upon the interest and preferably co-funding from a commercial partner with a strong interest in marketing a New Zealand-velvet containing healthy functional food based on its immune function.

continued on page 26

Annual report: continued

Table 1

These Financial statements should be read in conjunction with the notes to the Financial Statements, which are available on request from info@deernz.org

**Velvet Antler Research New Zealand Limited
Statement of Financial Performance
For the year ended 30 September 2015**

	2015 \$	2014 \$
Research Revenue – Exchange		
Deer Industry NZ Research Trust	236,205	116,108
AgResearch – RepairX	11,445	8,150
Deer Industry New Zealand Research Trust – Project Management	46,607	23,913
Other Revenue – Administration Funding		
Deer Industry New Zealand	7,608	3,382
AgResearch Limited	7,608	3,382
Interest received	40	91
Total Revenue	309,513	155,026
Less Expenditure		
Research Expenditure		
Development of RepairX (2009-01)	107,182	8,150
Project Management	46,607	23,913
Velvet Research in China (2013-01)	76,914	-
Markers for Velvet Immune Function (2014-01)	-	89,050
Sedative Testing (2014-02)	-	11,600
Toxicology Review (2014-03)	-	3,600
Post-operative Pain (2015-01)	5,064	-
Healthy Functional Food (2015-02)	55,067	-
Patent Costs (VARNZ IP)	6,280	9,002
Total Research Expenditure	297,114	145,315
Administration Expenditure		
Audit and Accounting Fees	4,310	8,765
Directors' Fees and Expenses	516	-
Depreciation	3,270	-
Sundry Expenses	103	946
Total Administration Expenditure	8,199	9,711
Total Expenditure	305,313	155,026
Total Surplus/(Deficit) Before Taxation	4,200	-
Taxation	-	4,242
Total Surplus/(Deficit) After Taxation	4,200	(4,242)

Undertake velvet research in a core market (e.g. China) through a recognised institute (the DINZ-VARNZ-manufacturer collaboration)

This project aims to use a New Zealand-made, New Zealand velvet-containing food supplement as the trailblazer for New Zealand velvet-containing products being approved by China as healthy functional foods. It builds on the observation that China-made Chinese velvet-containing products have been accepted for registration based on the accepted functional properties of velvet assumed from velvet's inclusion in the Chinese pharmacopoeia (accepted list of therapeutic agents).

The research element to this product is use of a China-based laboratory to assess the New Zealand product's composition and functionality and (hopefully) report for regulatory purposes that it indeed meets the registration criteria. Following a second manufacturing round, this project will continue in the 2016 year to ensure the test results are valid.

VARNZ is also keeping an eye on proposed changes to the Chinese legislation in this field, which could specify velvet as a pre-approved functional ingredient, thereby eliminating the need for velvet-containing nutraceuticals to individually prove their functionality.

Research to support velvetting freedom to operate (post-operative pain)

Triggered by some concern in the veterinary profession that approved practices for painful animal husbandry procedures pay insufficient attention to pain management after the immediate "hands-on" stage, the National Velvetting Standards Body recommended that the velvet industry assess the likelihood of recently velvetted stags experiencing significant pain. With a view to considering whether analgesic practices need be re-examined, VARNZ commissioned a literature review to assess the range and duration of pain responses when stags are velvetted under NVSB-approved techniques. Based on the limited data available, the literature review found no compelling evidence of stags suffering from pain whether in the immediate aftermath of velvetting or after any analgesic is likely to have worn off. As such, the velvet industry should be confident that current techniques meet animal welfare standards. However, it is important to note that further research may be needed to alleviate the public's concerns in this area.

**Velvet Antler Research New Zealand Limited
Statement of Changes in Equity
For the year ended 30 September 2015**

	2015 \$	2014 \$
Opening Equity	9,891	14,133
Net Result After Taxation	4,200	(4,242)
Total Surplus/(Deficit)	4,200	(4,242)
Closing Equity	14,091	9,891

Table 1: continued

Velvet Antler Research New Zealand Limited Statement of Financial Position as at 30 September 2015			
	Notes	\$	\$
Share Capital		119,390	119,390
Retained Earnings		(105,299)	(109,499)
Total Equity		14,091	9,891
Represented by:			
Current Assets			
Cash & Cash Equivalents	3	4,126	4,915
Accounts Receivable	4	7,684	14,415
Accounts receivable - AgResearch		2,946	3,378
Total Current Assets		14,756	22,708
Non-Current Assets			
Plant & Equipment	6	11,677	10,680
Less Accumulated Depreciation		(3,270)	-
Total Non-Current Assets		8,407	10,680
Total Assets		23,163	33,388
Current Liabilities			
Accounts Payable and accruals	5	9,072	12,486
Funding in Advance - AgResearch RepairX Project		-	11,011
Total Current Liabilities		9,072	23,497
Net Assets		14,091	9,891

These Financial Statements were approved and signed on behalf of the Board of Directors by:



 <hr/> Director	2/12/15 <hr/> Date
 <hr/> Director	2/12/15 <hr/> Date

Table 2

Velvet Antler Research New Zealand Limited Statement of Cashflows For the year ended 30 September 2015			
	2015 \$	2014 \$	
Cash flows from Operating Activities			
Funding Received	305,665	151,327	
Operating Payments	(306,454)	(155,707)	
Net cash inflow from Operating Activities	(789)	(4,380)	
Cashflows from Investing Activities			
	-	-	
Cashflows from Financing Activities			
	-	-	
Net increase in cash and cash equivalents	(789)	(4,380)	
Cash and cash equivalents at the beginning of the year	4,915	9,295	
Cash and cash equivalents at the end of the year	4,126	4,915	

Table 3

Research budget by project for the 2015/16 year		\$
NEW PRODUCTS (includes velvet as a wound healing OTC)		435,000
Development of RepairX 1		400,000
IP Costs		35,000
VELVET INDUSTRY STRATEGIC INTENT RESEARCH		151,000
Research to provide support for velvet's cognitive function		50,000
Research to provide support for velvet's wound healing function (literature review on post-velvetting healing processes)		5,000
Undertake velvet research in a core market (e.g. China), through a recognised institute		24,000
Research to support velvetting freedom to operate (MRL testing)		6,600
NZ-based velvet science researcher forum		2,000
Preparation for Fourth Antler Science and Product Technology Symposium		5,000
ADMINISTRATION (Directors' fees, meeting expenses, audit, annual report production)		13,500
TOTAL		599,500

(1) Forecast remaining RepairX commitments carried over from 2014/15 budget

Wapiti solutions

by Dave Lawrence, President, Elk and Wapiti Society of New Zealand

Deer Industry New Zealand's Passion2Profit programme is intended to be a game-changer in the production and marketing of venison.

DINZ CEO DAN Coup says “There are two clear opportunities in Passion2Profit. The first is branding and positioning lean, tender, farm-raised venison as a luxury red meat sold year-round in new markets and market segments. The second opportunity is helping farmers adopt systems and technologies that will enable them to deliver the venison that markets want, when it is wanted.”

The Elk and Wapiti Society of New Zealand (EWSNZ) has identified an opportunity for transformational change on farm. Currently a healthy proportion of yearlings destined for export venison are sired by a wapiti terminal sire and the vast majority of animals that qualify for an early-season premium for the chilled export market are sired by wapiti terminal sires. There is a huge opportunity through more extensive use of wapiti sires to capitalise on the gain in profitability on offer. Best estimates suggest that the industry could use up to three times the current numbers of wapiti terminal sires. This could be a game-changer for the industry and individuals.

EWSNZ has identified the two principle reasons for the under-utilisation of wapiti by the venison industry: a lot of farmers are not comfortable working with a 500kg bull and there is a perception that using a wapiti terminal sire will come at a cost to fertility.

In a proactive move, EWSNZ held a full day “in-house” workshop at John and Mary Falconer’s Clachanburn Station in early April.

“We have the collective wisdom, experience and knowledge to make handling wapiti a non-threatening experience,” says EWSNZ President, Dave Lawrence. “The perceived compromise to conception and fawning percentage from using wapiti is not supported by science (DeerMaster and DeerSouth data) and once again our members have the collective knowledge for best practice management solutions in this area.”

The central location for the workshop ensured good attendance. The aim is to have a network of wapiti farmers throughout New Zealand who are armed with these resources and who are willing to freely pass this information on to farmers who would like to consider the opportunity. It is also likely that a written format will be available in time.

These tips and tricks will make farming wapiti non threatening, enjoyable and, most importantly, improve the bottom line. ■



Elk and wapiti farmers have the collective knowledge and experience to help venison producers overcome perceived handling and fertility problems associated with the breed.



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-Licensed Exporter -Mpi Approved Processing facility



Sliced Top



Sliced Jelly Tip



Processing



Processing



Export