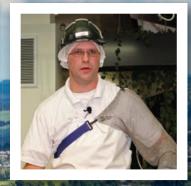
Deer Industry News

Deer Industry Conference Special









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Deer Industry News

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

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Cover: Dunedin turned on a balmy spell of weather to welcome its first deer industry conference in 20 years. Full report inside. Photos: Shutterstock, Phil Stewart.

Important decisions coming up

GIVEN THE CHALLENGES facing some alternative land uses, we certainly have a tail wind in the deer industry at present. The challenge is to maximise the current opportunity we have, while being super alert for circumstances that could disrupt the execution of our strategy. Two of our four strategies are top of mind: "market development and diversification" and "sustainable on farm value creation".

Those who were at the Dunedin conference gained a good insight into market development, hearing great presentations from our five exporters and also from three in-market partners. You can view these presentations online (http://bit.ly/24goss6).



Andy Macfarlane

Our new challenge is to satisfy the demand for venison from distributors supplying in the traditional chilled season, while also meeting the newly created (small but growing) demand for the Cervena® programme in the European summer. The rebalancing of that supply/demand is reflected in our current and projected schedules.

We are in a similarly positive position with velvet, but with a different dynamic. While a more positive long-term outlook for venison is, in the short term, reducing venison supply as females are retained, we are still growing velvet tonnage.

I am proud of the way the industry has taken collective responsibility, over the past five years, for improving our profitability. Collective responsibility starts at home, by asking "how I can mitigate my own business risk which, when scaled up, helps us all?"

First: plan well, and communicate that plan for volume and timing to your preferred exporter, so they can, in turn, inform their in-market distributors now.

Second: don't be tempted to retain poorer-quality livestock, be they underweight hinds, or the bottom end stags. In my experience, those who cull hard make more money. In the case of retained R2 stags, that may mean culling a few pre-velvet, more post-velvet, and if all the R2s are fantastic, cull more older stags!

Third: manage your growth. As Collier Isaacs noted at conference, most markets can absorb five percent growth each year. With velvet, we have absorbed a higher-volume growth due to diversifying the market (healthy functional foods in Korea) and a slow-down in supply from other global producers. Our opportunity now is to retain current pricing through being disciplined about growth.

Fourth: manage cost of production. It is easy to allow costs to creep into the farm business when prices rise. The dairy industry experienced that, especially in the cost of feed, and is now going through the difficult (but successful) task of reducing those costs again. Better prices do not mean more supplement. Feeding well and feeding expensively are two different things!

Fifth: really concentrate on getting that fawning percentage up, especially for first fawners. Planning to meet target mating liveweights for first fawners should be front of mind now. Liveweight target information and graphs are available on the Deer Hub now, or

continued on page 3

Deer Industry News is published by Deer Industry New Zealand in February, April, June, August, October and December. It is circulated to all known deer farmers, processors, exporters and others with an interest in the deer industry. The opinions expressed in *Deer Industry News* do not necessarily reflect the views of Deer Industry New Zealand or the New Zealand Deer Farmers' Association.

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Strategising for a positive future

by Phil Stewart, Deer Industry News Editor

The deer industry faces a paradox right now. Prices for cornerstone products are stable and at good levels – yet the national breeding herd is the smallest it has been for many years. That said, the other drystock sectors have seen similar declines.

IN A "STATE of the industry" overview, DINZ CEO, Dan Coup, said the decision to stick with deer depended on profitability but also enjoyment from working in the sector as well as confidence for the future. He laid out DINZ's four strategic objectives - which together were intended to reverse the decline in deer numbers and lock in a stable, sustainable future:

- 1. Premium positioning for our products. This is underpinned by robust assurance systems and constructive partnerships with the people who sell our products and communicate their benefits.
- 2. Market development and diversification. We must partner with exporters who will help us mitigate the "concentration risk" and who value and respect our products.
- 3. Sustainable on-farm value creation. This means creating greater profit on-farm, but done in line with societal ethical and environmental values, which encompass areas such as water quality and animal welfare.



DINZ Chief Executive Dan Coup said profitability and enjoyment are two factors in farmers' decision to stick with deer.

4. Cohesive, respected industry. This will be enabled through better communication and sharing of ideas and information within the industry, and ensuring the deer industry is perceived as an innovative and attractive place to invest - a mainstream part of agriculture.

Coup said all of DINZ's work programmes feed into these four objectives.

Investment

Most of DINZ's half-million dollar promotional investment on behalf of the velvet sector is in the Korea market, with spending split between the traditional and healthy food segments. Most of the anticipated additional levy income from increased velvet

continued on page 4

Editorial: continued

talk to DINZ. If we could achieve a five percent increase in fawning this year, we would mitigate a significant portion of the reduced kill, and increase our capital stock numbers.

Sixth: don't be tempted to increase effective stocking rate within a defined area. I love to see new deer fenced areas, but I get really nervous when I see low feed covers and high stocking intensity together. Low feed intake equals low profit.

Seventh: have those intelligent strategic conversations with your trusted circle of advisers. For some, that is your rural professionals, one on one. We at DINZ and the DFA also welcome contact. A third group are also getting really good value out of the Advance Parties. Maximise your opportunity to chew the fat!

It was great seeing over 60 producers, along with facilitators, experts, and DINZ staff, at the P2P Advance Party workshops in Methven earlier this month. The positive vibe was leveraged off a sense of ownership, a quest for knowledge and a willingness to have a crack. Even more importantly, the group of predominantly younger "next generation" farmers mixed well with the more experienced ones, who themselves were keen to explain that they are still learning and improving.

That is the sort of culture that will delivery strategy 3, "sustainable on farm value creation" and strategy 4, "a cohesive and respected industry".

Winter well, communicate well, feed them well, but remain

- Andy Macfarlane, Chair, Deer Industry New Zealand

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DINZ strategising: continued

volumes will be targeted at the healthy food market. Helping clarify the regulatory pathway for velvet as a healthy food in China is also an ongoing priority.

Coup said venison marketing accounted for the biggest single chunk of spending levy funds, with more than \$2 million a year committed (including Passion 2 Profit market development funding). The resources are split between the European and North American markets, spread over joint venture promotions with processor/exporters and production of generic promotional material.

Investment in research was split about 50:50 between velvet research through VARNZ, and general deer research through DEEResearch. Coup said progress on the research for the woundhealing product RepaiRx had been frustratingly slow. Human trials were ready to go, but the wait was now for suitable participants.

Other deer research was focused mainly on internal parasites, genetics (to help breed better deer) and genomics (to help identify the healthiest deer). The research programme balanced short and long-term benefits. Work on anthelmintics had short-term benefits, while genomics research had a much longer time horizon.

The current year will see about \$2 million invested in the P2P programme; just under half of this will come from the Crown, with the balance made up by levy funds. The spending is split fairly evenly between on-farm and in-market programmes.

Coup said DINZ reserves will be progressively run down to help fund the industry's share of the P2P programme cost, although they would not be completely exhausted. (See *The Path to 2020* in the April/May *Deer Industry News* for details of the numbers over the life of the programme.)

The big drop in venison production in the first quarter of 2016, as people retain hinds and rebuild herds, is a "fly in the ointment" for plans, Coup added. While it's great news for the industry long term, it creates short-term budgeting headaches for DINZ and, more importantly, for exporters as they juggle diminishing volumes and processing capacity to keep long-standing loyal customers supplied. "Our marketers are going to have to make some tough decisions about who gets product."

Keep to the plan

DINZ Chair Andy Macfarlane said the current good prices shouldn't lull us into complacency and it was important to "stick to the plan" and keep downward pressure on costs of production. "We need to support those supply chains as they open up."

Referring to the "flywheel" effect in developing markets, he said we were starting to see some results as momentum picked up. "These things take a little time, but we're a yacht, not an oil tanker, so we can make decisions faster."

Macfarlane said communications in the industry were improving but "we're not there yet".

He urged the industry to utilise the concept of "productive paranoia", by keeping the foot hard down even when things seem to be going okay. "We can start firing cannonballs once we know the bullets are hitting their targets," he added. "That's at the core of P2P. We'll get some things wrong, but collectively we can have a crack and figure out what is working and what isn't."

Building trust between farmers and marketers is important if progress is to be made, he said.

Macfarlane reminded farmers of the goal of an additional profit of \$2/kg from venison that was first floated at the Wanaka conference in 2012. This could comprise \$1.27 through on-farm gains and \$0.73 beyond the farm gate, or \$137 per breeding hind. "Nothing has happened since then to change our view that this is attainable. We need to be committed, tenacious and collaborative for this to happen. Once these gains start to emerge, we can start to scale up the things that work."

Board Q+A

The prospect of access for chilled meat exports to China has recently been raised by Prime Minister John Key. What are the implications for the deer industry?

Dean Hamilton said the announcement had caught the meat industry by surprise and a lot of meat plants were still awaiting accreditation for frozen product into China, never mind chilled. Before developing a chilled trade into China, it was important to get consumers there eating venison first. Even chilled beef and lamb access to China was a good 12 months away, he added. There was also a lot of work to be done on the supply chain in China before chilled product could be properly taken from port of arrival to end user.

Glenn Tyrrell said Chinese consumers don't typically enjoy rare meat, so the prospects for slow-cooking, braising-type meat cuts were probably better there than for chilled high-value cuts. How will the industry cope with the hind and stag retention that is happening at the moment?

Dean Hamilton said Silver Fern Farms (accounting for 40 percent of New Zealand's venison) had been temporarily shutting plants, shortening weeks and rearranging shifts, so there could be staff retention issues. That could be a problem for the industry if skills were lost, but they weren't anticipating outright plant closures at this stage. He agreed that maintaining support to loyal customers when volumes were down 20 percent could be challenging. "We need consumers to keep eating New Zealand venison."

Danny Hailes said Alliance handled about 30 percent of the national kill, so was also affected. In the meantime they would be reconfiguring shifts as they adapted to the lower volumes. It was hard to maintain customer confidence in the current climate.

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Is there room to accept bigger (R2 or older) stags into the chilled market?

Glenn Tyrrell said Duncan New Zealand could usually accommodate everything in the 45-75kg carcass weight range, but age was important with Cervena needing to be younger than 3 years. A few stags in the 75-85kg range could be managed, but not in large numbers.

What is the strategy for dealing with higher volumes of velvet?

Colin Stevenson said the industry is not moving fast enough to generate alternative markets to absorb the additional velvet being produced through improved genetics, greater stag retention and natural growth. "At a recent meeting I was horrified to find there wasn't one farmer who hadn't kept extra stags this year. We've coped well until now, but I'm [concerned that] we might create a bubble. We've worked hard over the past five years to get stability but we need some discipline from you guys because we don't know how big [production] is going to be."

Clive Jermy said the current conditions presented an ideal opportunity to cull stags more ruthlessly, removing the bottom producers. This would increase velvet quality while helping ease the shortage of venison. "We are not subsidised and there are no quotas and so [there is a danger that] we keep producing more and more until it blows out."

From an on-farm perspective, William Oliver agreed that weaker animals should not be retained. "We should be making our herds stronger."



DINZ Board member, Colin Stevenson, called for discipline from velvet growers so that a bubble is not created.

[Speaking from the floor, Grant Charteris maintained that velvet producers don't need to send stags to the works to improve their herds - they also had the option of selling them to other farmers and therefore keeping them in the system.]

Oliver said the Board can't tell farmers what to do. "We can only give you a longer-term view."

[Bill Taylor agreed from the floor that farmers can't be told what to do, but "they aren't stupid" and will respond if the risks such as overproduction are communicated properly. "I haven't seen stags advertised recently that aren't being sold on their velvet genetics."]

Collier Isaacs said history had shown the industry could cope with volume fluctuations of up to five percent, but production swings much bigger than that were an invitation to trouble. It's a commercial decision for individuals, but [a big lift in production] can cause problems at an industry level.

Clive Jermy said genetic improvement meant fewer stags were producing more velvet that in itself was contributing to the increasing volume of velvet which could quickly rise to 600 tonnes.

A further DINZ Board Q+A session was held later in the day. A video of the highlights from this session can be viewed at: http://bit.ly/24Pwag4

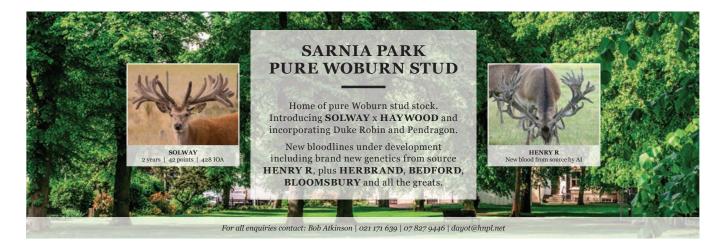


Deer Industry Conference 2016: Watch the show

FOR THE THIRD year running, the Deer Industry Conference was live streamed by the good people at Rural TV. If you couldn't be in Dunedin and you missed the live streaming, all is not lost. Rural TV has also uploaded the presentations from two days of conference sessions in the Dunedin Town Hall, plus one-one-one "on the couch" interviews with some of the key speakers.

You can browse and view the presentations by going to: http://bit.ly/24goss6

And of course if you prefer to catch up on the conference the good old fashioned way, we have comprehensive coverage right here in Deer Industry News.



DINZ venison market activities

by Phil Stewart, Deer Industry News Editor

Passion2Profit work in the Benelux countries, market research in China and the growing US market were the focus for a presentation by DINZ Venison Marketing Manager, Marianne Wilson.

SHE SAID THE aim for the Benelux (Belgium, The Netherlands and Luxembourg) was 80 tonnes of chilled Cervena this year. Given the tight supply situation, this would be kept under review.

In addition to the Firstlight-Hanos trade (see article on page 7), Silver Fern Farms is marketing Cervena into Europe through Luiten Food, and Alliance through Bimpex Meat, Wilson said. Duncan New Zealand and Mountain River are also part of this wider marketing working group.

DINZ was helping create commonality with marketing messages around the unique attributes of Cervena venison (free range, grass fed, good welfare standards and so on) and these were being used as a starting point for the participating European wholesalers. For example, Hanos and Firstlight promoted Cervena as having the ingredients "grass, water and sunshine".

"There are consistent messages going to chefs about what Cervena stands for, and that it is linked to the summer season and a lighter, fresher way of eating," Wilson said.

Turning to the China market, she reported on the six months of research that had been done there so far. Talking to consumers and chefs had revealed some challenging insights.

Echoing the comments of venison exporters, Wilson said the Chinese experience of venison was generally not positive – it was seen as a tough and gamey velvet by-product. Cervena is best cooked medium—rare, but this way of eating meat is not generally favoured by Chinese consumers, so getting venison into the market might take some new approaches to overcome these barriers – perhaps more bone-in cuts or use as a hamburger ingredient, or a style that's suitable for chopsticks, for example. "We are looking to continue our research in China in the next half of 2016 to explore potential solutions to some of the challenges we've come across," she said.



Marianne Wilson updated delegates on in-market activities in Europe, China and North America as well as in the domestic market.

Moving on from the P2P in-market work, Wilson discussed the account development work being done in Europe and North America, joint promotion and New Zealand promotional work.

Strong key account support in Germany continued alongside efforts to diversify into other European markets. Chef support remained an important part of this, with Berlin-based Kiwi chef Shannon Campbell providing backup for Graham Brown.

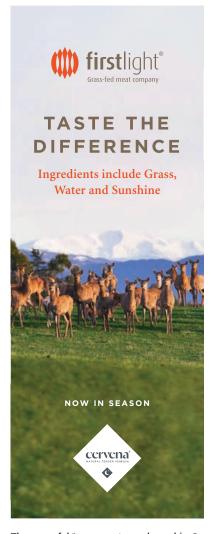
Work with chefs included finding innovative ways to use some of the more neglected cuts, while introducing the next generation of chefs to New Zealand farmed venison.

New Zealand promotion is a smaller area of work, but DINZ works with chefs to keep the message out there. This year they are working with Tom Hishon of Orphan's Kitchen, Auckland, *Metro* magazine's chef of the year and also the grandson of a deer farmer.

Venison sales in the United States have grown steadily in recent years, Wilson said. From 2012 to 2015, total venison exports had leapt 70 percent to 2,410 tonnes, and the United States has overtaken the Netherlands and Germany as New Zealand's top destination for chilled exports (575 tonnes in 2015).

DINZ now has a full-time US presence through LA-based Nigel Morris to support this expanding market. Wilson said Morris works with in-market partners to make selling venison as easy as possible. For example, he and Graham Brown work with customers and chefs to find products that will meet certain price points. Morris also helps identify potential new channels for venison, such as casual dining restaurants to complement the fine dining market.

Another exciting new possibility is major tech industry employers like Facebook and Google, that have thousands of staff on site and like to cater their meals with high-quality, healthy food to keep them productive and focused. "The story of Cervena works really well in these channels."



The powerful "grass, water and sunshine" imagery used to help create a unified marketing message around Cervena in Europe.

Call for competitors to help grow summer market

by Phil Stewart, Deer Industry News Editor

Last year he joined us by video link – this year he came in person. Ben Veldkamp, the lead game buyer for Netherlands-based food service supplier Hanos, updated conference delegates on progress with the three-year Passion2Profit project introducing Cervena® to summer menus in the Netherlands. And although his instinct is to seek exclusivity with such a high-value product, Veldkamp is urging his competitors to get on board with Cervena to help create some real momentum in this new market.

HANOS TURNS OVER more than €1bn and has more than 100,000 product lines. It has 26 outlets in the Netherlands and Belgium, including warehouses, distribution centres and cash and carries. They supply direct to professionals such as restaurants, not to consumers. Hanos also owns subsidiaries in the same industry, including companies that do restaurant kitchens and fitouts, and a wine importer.

As part of the P2P programme, Hanos is taking part in a threeyear trial with Firstlight to establish consumption of Cervena during the April-August barbecue season. Silver Fern Farms and Alliance are also involved.

The current effort started in 2014 when Hanos was caught short by supplies of ostrich and antelope meat from South Africa drying up because of disease outbreaks. They sought out venison from Firstlight to help fill this gap and 8 tonnes was supplied that year. This led on to Hanos taking part in the first year of the P2P programme in 2015.

Last year the trial was focused on 14 outlets, with seven emphasising "lean and healthy" and the other seven promoting the "soft and tender" aspects of Cervena. This year that distinction is being dropped and all of the product benefits are being promoted.

The company set up 28 customer "Ambassadors" for Cervena in 2015, two for each of the 14 outlets, and Graham Brown was brought over to run a workshop for them. In return they got a 10 percent discount on their Cervena cuts and exposure in Passion Hi, a high-quality culinary magazine. A competition among Ambassador restaurant chefs to create a "best Cervena dish" attracted 10 entries and yielded some magnificent dishes, Veldkamp said.

He said Cervena, with its high quality standards, was much more appealing than game that had been shot and dressed in the field.

The trial has targeted mid-range customers such as steakhouses, barbecue restaurants and grills rather than high-end restaurants, although some of these have also become interested in Cervena.

Hanos is promoting Cervena as "Boerderijhert" ("farm deer" - a subtle linguistic difference from "farmed deer"). There have been instore promotions, and a seven-page feature in the 150,000-circulation Hanos newspaper is being reprinted as a separate handout this year. They also made a range of point-ofsale materials for the 14 outlets and materials for the Ambassador restaurants to use.

The Ambassador chef concept is being continued this year, although the numbers are to be cut back, and the chefs'



Hanos's Ben Veldkamp (left) and Firstlight Managing Director, Gerard Hickey at the conference Welcome function.

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Summer market: continued

competition is also being repeated.

Firstlight's Gerard Hickey said they have created cuts for this spring/summer market that cover a range of price points and differentiate the product from the venison that's available in the traditional game season. It was important to complement the existing market for middles with cuts that used leg, shoulder and trim.

Hickey said it was important to shift as much as possible from airfreight to sea freight in the interests of cost, but this did create logistic challenges.

Veldkamp admitted that it's also a challenge to change chefs' perceptions and get Cervena on menus at a non-traditional time, while also facing competition from other proteins. That is why it was important to differentiate the product with its unique New Zealand farm story, he said.

He said communication, cooperation and coordination were important in establishing a new market and he has been impressed by the close links between farmers and processor/exporters in New Zealand.

Gerard Hickey said the aim of the programme is to boost chilled

sales and create a premium for producers. New Zealand chilled production from February to July is supplying the new April—September market in the Netherlands. The trade offers a premium of about \$4/kg over frozen. Currently that adds up to a premium of about \$100,000 a year, but there's potential to lift this to \$800,000, Hickey said. Beyond that, success in the Dutch market could be a pioneer for other non-traditional European markets. This spring/summer premium market could also be complemented by a demand for lower-cost frozen cuts for those who want a cheaper meal.

Following the 8 tonnes sold through Hanos in 2014, the first year of the P2P programme accounted for 12 tonnes of 15 tonnes supplied in 2015, with sales of 20 tonnes of chilled Cervena forecast for the current season.

While it's a crowded market – there's beef, veal, fish and lamb to compete with – Veldkamp said conditions for Cervena in Europe have become more favourable. Overall there is a growing demand for healthy food, produced to high ethical standards. He said the market is also receptive to New Zealand's integrated supply chain offering.

Women in Agriculture

by Phil Stewart, Deer Industry News Editor

Twelve women enjoyed learning and networking at a "Women in Agriculture" session hosted by AbacusBio CEO, Anna Campbell, followed by a street art tour and lunch.

CAMPBELL POSED A series of questions for her guests during their working session, with the ensuing discussion revealing what has become very clear in recent years – that the contribution of women to farming business has grown well beyond traditional, unsung roles.

The word "partnership" is far more prevalent in describing the business and family dynamic and women are increasingly taking off-farm roles.

The group agreed that women were taking a more central role in science and technology on the farm, and that those with a science background are making a big contribution in terms of record keeping, data analysis and decision making.

Women were also acknowledged as having key connections with financial services and other rural professionals.

Looking at the challenges faced by women co-managing a farm business, juggling time between family and business featured strongly, along with professional development and the need to build confidence.

The changing face of rural communities, with the loss of traditional centres such as halls and schools was a concern for many, but the group agreed that social media networks were now helping women and rural communities stay connected – Farming Mums NZ, for example.

Opportunities for women in agriculture are definitely expanding and this was seen as a good thing. For example it's now much more common for women to farm in their own right. Succession planning was still seen as a challenge, however, with

young women needing to "have a thick skin" at times.

Finally, the group suggested that there is still scope for women in agriculture to receive more mentoring and support, professional development and leadership opportunities.

Following the feedback from this varied and interesting day one programme, there are plans for future conferences to include and expand this theme as a parallel option for conference partners and Next Generation Women in Agriculture.

• Acknowledgement: Trish Macfarlane for notes on this session, which form the basis of this report.



The Women in Agriculture group enjoy lunch at Dunedin's Vogel Street Kitchen following their morning session.

Following the value chain

by Julie Howard, Deer Industry News guest writer

Grass-fed and and antibiotic-free are two attributes that are hot right now in the United States. Those trends and more were discussed in a session that followed New Zealand venison through the value chain into North America.

DOT FOODS USA natural and specialty director, Rodd Willis, Broadleaf founder, Mark Mitchell, and Duncan New Zealand general manager marketing Glenn Tyrrell gave keynote addresses on "the North American market for venison and the role of distribution in finding customers and delivering venison to these customers".

Dot Foods is the largest food redistributor in the United States while Broadleaf is one of the largest importers of venison. Duncan New Zealand owns and operates venison processing plants in Rotorua and Mosgiel and supplies venison worldwide.

Glenn Tyrrell said Duncan New Zealand needed to ensure deer farming was sustainably and consistently profitable. He said Duncan had delivered on its new brand, but the product supplied in the United States through Broadleaf (see below) was packaged under Broadleaf's brand. "For the rest of the world we pack under Duncan New Zealand's brand."

Some 95 percent of Duncan New Zealand venison ended up in restaurants, so the branding on the carton, seen by the chef, was critical, he said. "They are paying a real premium for this product so we want to convey that value."

He said the United States was



Glenn Tyrrell: United States a big growth market.

continued on page 10



Value chain: continued



Mark Mitchell, Broadleaf, has supported Cervena from the beginning. a growing market, taking 25 percent of our chilled exports. The biggest growth had actually been in manufacturing grade – which ties in with the demand for high-quality natural grass-fed venison burgers. There was a lot of competition in the chilled premium space, but Duncan had a long-term investment in this market, working with people like Mark Mitchell.

In Europe, a succession of mild winters had increased the local supply of wild game as competition. There had been some concern about the amount of frozen product earlier this year, but those fears were abating. "This year we'll see those frozen stocks hoovered up."

Tyrrell said things would change next year as venison supply from New Zealand tightened. He noted that there was a price tipping point where consumers would turn to other proteins. Venison prices were in a good space, "but let's be sure we don't damage the opportunities ahead of us".

Broadleaf's Mark Mitchell said his operations based in Vernon, California, were purpose-built in 2001 and was right next to downtown Los Angeles.

Broadleaf was 30.5 km from Long Beach and 24 km from Los Angeles International Airport, he said.

"We have been a part of Cervena since it started."

His company had a 56,000 square foot distribution centre which was fully refrigerated and had 5,000 pallet positions.

"We do grinding, mincing, cutting steaks. Cutting to order to what the customer requires. We ship six days a week all over the country and we have an in-house FedEx department."

The real key to marketing was talking to customers and teaching sales staff the qualities the product had to offer such as grass-fed, Mitchell said.

This was "a big buzz right now," he said.

They attended food shows and educated where [venison] fitted

on a menu and where it fitted cost-wise on a menu, he said.

"We cut the product and show the chef how it cuts. Chefs, big caterers like consistency."

Rodd Willis said New Zealand venison quality was superior to anything Dot Foods could source in the United States.

The company had its own fleet of trucks, drivers and distribution centres, he said.

A chef-driven, fast and casual concept was the culinary trend in the United States, and the market was looking for authentic, unique and natural ingredients. He said ethnic-inspired breakfast items, food trucks, street tacos, local and fresh food such as inhouse made sausages, chefs using the whole animal for interesting dishes and minimal processing, were contemporary trends, he said.

Antibiotic-free food production is a big thing, he added.

Opportunities included the millennial market who were not big on cooking their own food. Natural and organic foods were selling faster than conventional foods in the retail grocery category, and even Walmart had started selling organic, Willis said.

"Anything tied to natural, non-GMO or organic is red hot." The chef in the back of a restaurant cared how the product performed, he said.

Cheaper fuel freed up income for more eating out, while operators like Uber and Amazon were now delivering food and disrupting traditional channels.

Restaurants represented 51 percent of food consumption for the first time ever in 2015, he said.

The United States foodservice market was valued at \$650 billion dollars and growing. They are serviced by more than 10,000 distributors. ■

· Additional writing: Phil Stewart, Deer Industry News Editor



Rodd Willis: Attributes like grass-fed and antibiotic-free are big in the United States.



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Venison exporters broadening horizons

by Phil Stewart, Deer Industry News Editor

Stymied by terrorists in Europe, overcoming old-fashioned prejudices at home and delivering by chillybin in China – despite challenges like these faced by three of New Zealand's processor exporters, they share an overwhelming optimism for prospects in existing and new markets.

Alliance tests the waters

KATRINA ALLAN, ALLIANCE Group Sales Manager said their first year selling Cervena® in Europe as part of the P2P programme had been exciting, but not without its ups and downs. The most dramatic of these came when a planned promotional launch in Belgium had to be shelved as a result of the Brussels Airport terrorist bombing. The inconvenience that might have been caused paled into insignificance in light of the tragedy, Allan said.

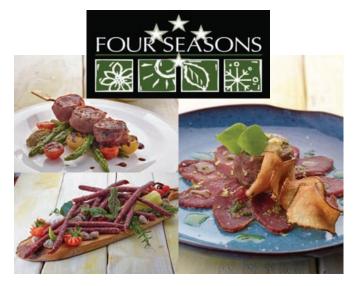
While sales figures for the March-to-August Cervena campaign aren't available, Allan was excited by this extension of their selling season. She said the Cervena is being clearly differentiated from Alliance's "Pure South" brand, using distinct marketing elements ("the taste of summer", and "enjoy it while it's in season"). Market research has suggested they should "let the product speak for itself". Just saying it was from New Zealand was no longer enough - the marketing needed to tell an explicit story about the way the product was raised.

She said they've had good support from Metro in Belgium and the company's Category Manager for Fresh and Frozen Meat, Poultry and Game, Pascal Gilissen, was hosted at Minaret Station in February, where Graham Brown prepared some exquisite Cervena dishes.

Although the launch had to be abandoned, other events went ahead, including Cervena tastings with the Keurslagers Group, an independent group of more than 250 specialist butchers. "We got really positive feedback from this event," she said.

Allan said the dishes that had been prepared for the launch in Belgium were very different from the traditional winter cuisine that involves venison. Other activities include instore tastings in Metro/Makro stores, working with the Jeunes Restaurateurs young chefs aged 23-42 - and the launch of a Flemish and French language www.cervena.be website.

None of this level of promotion would have been possible without the support from DINZ, Allan concluded.



Alliance is using well-differentiated branding for its Cervena in Europe.

Silver Fern Farms: NZ a valuable market too

SHARON ANGUS, GENERAL Manager Marketing with Silver Fern Farms, said the company had been working hard to build the story around New Zealand venison, showing how and where it was raised. Words like "freedom", "elegant", "agile", "lean" and "delicate" pepper their marketing story and featured in a high-end promotional video that included stunning shots taken on the deer farm of Mark Tapley.

Angus said the chefs using our products needed the freedom to be creative and have something that will give them an edge.

Silver Fern Farms has launched New Zealand lamb and venison into Germany for their summer. The company has done some detailed market research there to get inside the heads of consumers and is targeting segments known as "adventurers", "foodies" and "impressers" who want to know the story behind the

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Venison exporters: continued

food and share some of the brand values.

For frozen products it was important to communicate to German consumers that the quality stood up. Germans were especially sensitive to issues like carbon footprint so needed to know that the environmental cost of getting New Zealand venison there is actually quite low.

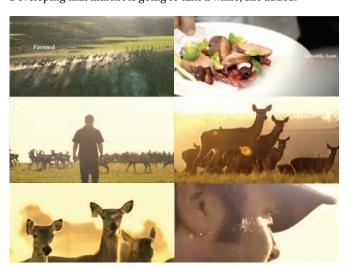
Silver Fern Farms hopes to be in up to 2,000 stores in Germany by the end of the year and is supporting this presence with plenty of point-of-sale material and even their own branded fridges.

New Zealanders actually buy about 100 tonnes of chilled venison products each year and it's the most profitable venison market of all for Silver Fern Farms. It's mostly leg, and one of the biggest sellers is mince, Angus said. She added that a lot of consumer education was needed to break down old misconceptions about toughness and gaminess.

Celebrities like Hilary Barry are featured cooking venison in Dick Frizzel's "Cooking for Change" project. Another highprofile advocate is Stuart Rogan of Auckland's Botswana Butchery restaurant, who won the Silver Fern Farms Premier Selection Award last year. Angus said one-third of all entries featured venison and it was used in five out of the 12 finalist dishes.

She also piped in a video message from Marx Foods, a Silver Fern Farms partner in the United States. Justin Marx said the GFC had hurt venison sales and the high prices meant it had gone from many menus. However they were now aggressively working to get it back into restaurants with good support by way of marketing materials from Silver Fern. He said attributes such as leanness, welfare, safety, pasture-raised and freedom from hormones were part of the message.

Angus said they expect to sell about 20 tonnes of chilled venison into Europe over the northern summer, similar to 2015. Developing that market is going to take a while, she added.



Images from the high-end promotional video by Silver Fern Farms.

Mountain River. Tackling China

JOHN SADLER, MARKETING Manager with Mountain River Venison, talked about the paradox that is China. "Things happen slowly and quickly there," he said. While he agreed there are barriers to getting venison into this market, they have been making some progress since they first started thinking about China 12 years ago. Thirty customers in Shanghai have started using New Zealand venison in the past six months on a regular basis. The restaurant "M On the Bund" has been taking venison for the past four or five months.

Access has been difficult and sporadic, Sadler said. Airfreighting made prices high and it could take a long time to get the product cleared and delivered to its destinations, making continuity of supply difficult.

Distribution networks are somewhat quirky, with meat being moved variously by motorbike or trolley, packed into chillybins.

Sadler agreed that "pretty much the Chinese don't like venison," but this offered an opportunity to create a niche for our product, which is a different product to what has been available to Chinese consumers in the past.

Mountain River sends containers of product to Shanghai and works through local resident Hunter McGregor, who sells and distributes the product - often by chillybin and trolley. He also carries out on-the-spot research through good personal relationships with chefs among their 30 customers.

Venison braised/slow-cooked with bone in worked well for Chinese on buffet menus, he said.

A smoked venison starter on the M on the Bund menu came in at \$NZ57, but "there are lot of Ferraris in Shanghai," Sadler observed. In another restaurant, "1515 West" a venison dish of



John Sadler said this is the type of venison dish that Chinese consumers would prefer.

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P2P: Farm strategies for profitability

by Phil Stewart, Deer Industry News Editor

The brains trust behind the on-farm side of Passion2Profit was put on show during the final session of the Deer Industry Conference's Day one.

Feeding your way to profits

ALL DEER FARMERS received a copy of the P2P venison production growth targets chart in their February/March Deer Industry News. Abacus Bio's Dr Jason Archer, who leads the P2P feeding group, explained the thinking behind the chart and the accompanying spreadsheets that can be downloaded from the Deer Hub: deernz.org/deer-growth-curves.

Archer said a culture change was being sought where deer farmers took charge of their venison business by setting out clear goals for weights, dates and returns, then charting a pathway to get there. This required regular weighing and monitoring progress against the growth curves they had plotted, so that interventions could be made in plenty of time to keep growing finishers on track to reach target weights. Good awareness of the limitations of a farming system were also necessary, so realistic targets could be

He explained that the typical spring (chilled market) and summer kill systems outlined on the chart were based on realworld data from DEERSelect, with tables showing likely returns based on assumed schedule levels (these figures can be tweaked on the downloadable spreadsheets). The tables on the chart showed a difference of \$51 per animal (about \$1/kg) in returns between the spring and summer kill systems.

Archer urged farmers to use the charts and the tables to create their own "what if" scenarios and set up targets best suited to their

Keeping things down to earth he suggested a Speights can would do as a pasture measuring device – introduce animals for grazing when the grass was up to the top of the can and take them out again when the residuals get down to the line of stars.

Looking ahead, he said the group will produce growth curves for replacement hinds, based on reproductive performance

"We're also looking at how we can generate retrospective growth curves from your slaughter data, so you can look back and then monitor your own deer against last year and see if you can improve on that." A simple calculator to work out the cost benefits of simple interventions like feeding some grain was another innovation the feeding group was considering, Archer



Jason Archer presents his pasture measuring

Senior agronomist and product development specialist Allister Moorhead of Agricom (presenting on behalf of Dr Glen Judson) looked at forages and rotation systems for deer.

Moorhead said stocking rate was an important factor in demand - if the rate was too high, deer wouldn't grow, he said. Other factors were expectations for weights and growth rates and the timing of events such as weaning, sale and flushing.

On the supply side, it was not only the species that were important, but also the way they were utilised, he said. Species like plantain were still relatively new, while others such as red clover and lucerne had been around a long time but could play a much stronger role in deer grazing systems.

While there were plenty of forages available, it was important to know their strengths and weaknesses and how best to manage them. For example, Italian ryegrass's quality during lactation was affected by development of seedheads – in fact using grass alone makes it difficult to manage deer well through lactation. "By the time you're ready to set stock, grass is ready to go to seed, so it's important to understand the flowering dates of the species you're using."

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Venison exporters: continued

short ribs was just \$NZ35, while an Australian beef dish for three to share was as much as \$NZ800.

Being able to provide the border certification with the product when it was delivered to the final customer was an essential part of the distribution process.

Sadler said pork is the biggest meat in China, with 50 million

tonnes a year consumed. Chinese consumers were becoming very conscious of the environmental impact of the meat they ate, especially pork, which had been getting a bad rap as the authorities cracked down on small producers around city fringes.

"Our credentials must be unchallengeable," he concluded.

P2P Groups: continued

Hinds would support their fawns through lactation off their own backs, and after a difficult season this could leave them poorly set up for the next breeding cycle, Moorhead warned.

He said having a clear idea of targets makes it easier to pick a forage system and rotation that would support those goals. Developing a good forage system can actually simplify matters, he said.

"Our aim is always to increase the weight of product as well as the profit per kilogram."

Hitting targets with healthy deer

Veterinarian and deer farmer, **Lorna Humm**, heads the P2P Deer Health project. She said healthy deer were essential for improving productivity, but animal health overlapped with the other P2P streams: feeding and genetics.

Reducing preventable deaths from diseases like yersiniosis was an important part of animal health planning, but so was avoiding unnecessary animal health treatments, such as drenches for adult hinds. A series of small, incremental gains around animal health – for example, being able to kill a week earlier than before, 5 percent better fawn survival or 2 percent faster growth – has been estimated to yield an additional \$95 million in improved productivity over ten years, she said.

Part of the deer health project is to identify gaps in knowledge, although good progress is already being made in some key areas such as internal parasite control.

Subclinical disease should not be overlooked, Humm said. "Anything that challenges the immune system will divert resources from growth."

She said a good animal health plan involved more than just a wall planner. "It's an information-based process involving discussion about the risks that need to be managed and based on business KPIs. It's also important to review the plan each year."

Humm said that in addition to finding the areas where knowledge is still lacking, the P2P is supporting the New Zealand Veterinary Association professional development modules for deer vets and is working with the vet school at Massey to ensure deer are still featured in the curriculum.

Genetic progress accelerating

It underpins everything you do with your deer and, like feeding and animal health, genetics presents a big opportunity for the industry to improve its productivity, said DEERSelect Manager, **Sharon McIntyre**.

Because deer, farmer preferences and deer systems are so diverse, one size doesn't fit all, she added.

Although reproductive success and fawn survival didn't have a strong genetic component, they could be adversely affected by other traits, such as growth – something that's been experienced in the beef cattle industry (delayed puberty). For that reason it is important to consider reproduction and survival when advancing genetic progress, to ensure that no negative traits are introduced.

Genetic progress around growth rates has accelerated, McIntyre said. Before the Deer Progeny Test (DPT) began in 2011, breeding values for growth had been improving by about 0.4kg/year. Since the DPT, this rate of improvement has trebled to 1.2kg/year.

As well as growth, there are exciting possibilities for genetic progress with traits like yield, and it was exciting to see growth traits were positively correlated with others such as eye muscle area and tenderness.

"We've done a good job on growth rates, but there's more to be done putting more meat on the carcass with better muscling," she said. It was also important to keep an eye on how growth breeding values were affecting breeding hinds. "We don't want the hinds getting too big or creating a feed pinch, for example."

The P2P had engaged AgResearch to produce an economic model that can be used by farmers to show the value of improved genetics for growth rates, she said. This showed a wide range of performance potential or limitations within any system.

"You can choose the best sires for you, to fit within your system limitations and your potential. Every year you should be confident that your hind replacements are a little bit better than before."

McIntyre also reminded farmers that genetics is a long game. The influence of stags being put to the hind this autumn would still be in the breeding herd in 2025.

"When choosing stags it's easy to be swayed by the antlers they are carrying. Don't let those distract you!"

In answer to a question on twinning, McIntyre suggested there was a genetic component in twinning, but it was very small. "Deer have evolved to produce one small fawn with a short pregnancy. A Wairarapa couple who have been working for a long time on selecting for twinning are still achieving only about 107 percent fawning."

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Advancing the cause



by Phil Stewart, Deer Industry News Editor

Advance Parties, a farm-based programme that's a key part of Passion2Profit, have been picking up pace in recent months. The stability of the groups and positive reports from participants show the initiative is already yielding rewards.

THERE ARE NOW 17 Advance Parties into their programmes, five more being formed and and DINZ is now planning for at least another 10. Dr Pania Flint coordinates the programme and also facilitates the Central Regions Advance Party in her own patch (see Deer Industry News, February/March 2016).

She updated the conference on the programme before introducing a panel of five farmers who told their own stories.

Message from MPI

Before the session kicked off, Justine Gilliland of the Ministry for Primary Industries congratulated the industry as it approached the end of the first year of the seven-year P2P Primary Growth Partnership (PGP). She said there had already been great progress in both the on-farm and in-market sides of the programme and

was pleased to see the five processor/exporters, which account for more than 95 percent of exported venison, cooperating in year two of a programme to boost out-of-season consumption in Europe.

"The number of Advance Parties, partly funded through the Sustainable Farming Fund, has exceeded the original targets - a great sign they're providing value to farmers."

She said the collaboration with other PGP programmes such as the Red Meat Profit Partnership and Farm^{IQ} would allow the programme to share and leverage findings and improve chances of success.

Flint said the groups are self-starting and usually had eightto-10 members. The presence of Landcorp farms in some of the groups was a great bonus, as they already had good systems for

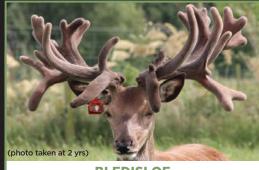
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Advance Parties: continued



Advance Party coordinator, Dr Pania Flint

generating and recording data - an important part of what the participants do.

She identified several critical success factors:

- The groups are farmer centred and driven.
- They are facilitated, but the facilitator is only there to get discussion under way - not to tell farmers what to do.
- There is a formal structure for recording discussions and reporting back.
- Members need to make a commitment to action once an issue has been identified on their property.
- There is an atmosphere of trust and camaraderie within the groups, giving members the confidence to try things out.
- There is scope to extend what the group has learned to other farmers through their local DFA branch and via field days.

Flint said the groups encompass a range of people, from the very experienced to farmers new to the industry. Showing you're never too old to learn, she quoted the example of Mike and Jan Holdaway. The couple are retiring from the industry, but before they did, were persuaded to join the Central Regions Advance Party where they quickly became highly valued members of the group.

As well as sharing their experience and helping add a touch of realism if people got too carried away by an idea, the Holdaways themselves kept trying new things and learning, right to the end. For example, Flint said, the Holdaways were worried about R2 fawning performance, so committed to some more intensive monitoring (e.g., double scanning and measuring paddock-bypaddock performance) to get a better fix on what was going on. They also committed to a pasture renewal programme with three



Regrassing programme on the Holdaways' property - a mix of Rohan NEA2 ryegrass with Apex white clover and Tonic plantain.

different mixes in three paddocks, including a "left field" diploid/ tetraploid mix to provide better fuel for their weaners.

As it turned out, there were no fetal losses among the R2s and the 2015/16 season saw some very good survival figures for all the paddocks. Flint said this confirmed the Holdaways had been providing a good fawning environment and performance had improved following a bad year in 2013. "It's not so much about the result as it is about committing to action and following through - then discussing it with your peers. We've identified a couple of issues with the first fawners that we can follow through with the new owners."

Five Advance Party members from different groups shared their experiences and perspectives on what their participation had done for them.



Advance Party discussion panel, from left: Dr Pania Flint, Tim Aitken, Ben Beadle, Glen Harrex, Cam Nicolson and Richard Greer.

Richard Greer, Sunnyside Station: Southland Advance Party

Basic facts and figures

This sheep, beef and deer breeding/finishing operation has 1,600ha effective, of which 1,200ha is deer fenced. It runs from river flats to steep hill with National Park boundary.

The livestock classes are 4,260 deer stock units (SU), 3,260



Sunnyside station: Deer gross margins lifted by 53 percent. cattle SU and 7,090 sheep SU. Deer are stocked at 3.5 deer SU/ha, with overall stocking rate 9.1 SU/ha.

Advance Party projects: Finishing and cutting feed wastage

Greer said he had worked with deer for 20 years but not in a big way – an invitation to join the Advance Party was an opportunity to upskill in this sector. The station had previously sold its weaners but made a strategic decision to finish their own. Doing a gross

margins comparison project between store and finishing showed a significant financial gain from retaining finishers. With overall deer SUs lifted from 4100 to 5,248 and a change to finishing, the deer gross margin was raised from \$317,417 to \$487,790. Gross margin per hectare lifted by 53 percent and per stock unit by 21 percent.

In a separate project, the station made changes to cut down the estimated annual wastage of 70,000kg of silage when 500 hinds were wintered on two 33 metre whole crop silage bunkers. Increasing the number of hinds wintered from 900 to 1,000 using these pits and cutting down the time they spent on the pads halved the wastage and saved an estimated \$10,500. Using boards as a barrier stopped hinds getting their feet through to pull the silage forward, standing on it. "They just have to stand there and eat it."

Ben Beadle, Landcorp: Southland Advance **Party**

Basic facts and figures

Of the 2,300ha of flat to rolling land at Te Anau, 308ha is deer fenced for finishing weaners supplied by other Landcorp breeding properties. With intakes in autumn and spring, 3,200 deer are finished, stocked at 10.1 deer SU/ha. Ben said the finishing operation is somewhat "at the mercy of the breeders" but they set a minimum entry weight of 50kg.

The farm also carries 16,000 sheep (breeding and finishing)



Landcorp Te Anau: Trialled different forages for finishing. and 6,240 cattle SU (finishing), with an overall stocking rate of 11

Advance Party project: Growth rates on different forages

The farm carried out a comparative trial to look at growth rates among wapiti cross weaners on three different forage systems through winter and summer: plantain, lucerne and grass/clover.

For April and May the plantain-fed weaners grew fastest, with lucerne-fed weaners next and grass/clover-fed third. The differences started to level out in May. In spring the overall growth rates were, as expected, much higher, but for October and November there was little difference between the three systems. In December the growth rates on grass started to lag behind the other

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Advance Parties: continued

forages, and even more so in January, when plantain was again giving the best growth rates with lucerne next (see the video of this session on http://bit.ly/246yq2a for the comparative figures).

Beadle said the differences weren't quite as pronounced in sheep. In the wake of this trial, another member of the Southland Advance Party is now considering trying a plantain/clover mix on his property. On the Landcorp farm they are looking at increasing the stocking rate on the plantain to see how much pressure the crop can cope with.

Glen and Renee Harrex, St Bathans: Otago Advance Party



Moving fawning off the irrigated pasture made a big difference.

Basic facts and figures

The Harrexes breed and finish deer on 300 of their 800ha of flat to rolling country. They also finish cattle. They currently carry 2,800 deer SU including 730 hinds at 9.3 deer SU/ha.

Advance Party project: Increasing deer fenced area on dryland

The Harrexes had been fawning and finishing on irrigated land. Fawning performance wasn't very good, although the weaners did well. Taking the lead from others, they deer fenced some of the dryland, using fawn-proof netting, and put most of the hinds on there for fawning. This led to much improved fawn survival, with no escapes. Glen Harrex highly recommended the 16-line netting used, which costs somewhere between the prices of 6 and 12 inch netting. The change also meant they could utilise the irrigated land more profitably.

The change enabled better use of the irrigated land, with an extra cut of 50 R1 deer away in October and carcass weights up by 1kg, with an estimated financial benefit of \$3,200. The better performance also flowed through to mating, with heavier R2s better set up as first fawners.

A separate project is trialling leptospirosis vaccination on half the R2 hinds to see if it has an impact on scanning percentages and fawn survival.

Cam and Amy Nicolson, Ida Valley: Otago Advance Party

Basic facts and figures

The Nicolsons run 360 red hinds which are mated to a terminal sire. Their dryland property has just 383mm annual rainfall and has cold, sunless winters – not a great environment for growing. Of the 500ha effective, 358ha is deer fenced. They also breed and finish sheep (2,800 sheep SU) and carry 100 cattle SU. The 1,760 deer SU are run at 5 deer SU/ha, with an overall stocking rate of 9.3 SU/ha.



The Nicolsons farm in a cold, dry environment but have found regular weighing and recording are a big help.

Advance Party project: weighing

The Nicolsons aim to get big weaners away to slaughter as early as possible and started an intensive weighing regime to keep on top of their performance against targets. They weigh everything from weaning onwards and monitor growth rates.

Cam Nicolson admitted the weighing and report card regime was "like a drug" and very useful. They achieved growth rates of 115g/day last winter – better than expected and providing a benchmark to be improved on. The weaners are drafted by weight and fed accordingly. They were delighted last season to have 93 percent of their stag fawns away by a mean kill date of 20 October, with an average carcass weight of 53kg.

Nicolson said he wouldn't want to leave the Advance Party group. People were open and honest and told you if they disagreed with you. "There's good trust in the group and if someone sees an opportunity it's pointed out. Most people take this on. The group pushes you on to try harder and helps when you have a 50:50 decision to make. These groups could help attract more young people into the industry."

Tim Aitken, Hawke's Bay Fast Finishers Advance Party

Tim Aitken and Lucy Robertshawe have been farming deer in Central Hawke's Bay for a while now and have been through a three-year Focus Farm programme, but readily agree there is always more to learn.

Aitken said the group has a big range of experience, but "I learned more from our Focus Farm field days than I gave out". He said the younger ones in his Advance Party group really challenge him and keep him on his toes. "I'm in the group to learn."

He said facilitator Dr Simone Hoskin is a nutritionist, which was a good fit with a finishing group, but beyond that she facilitates rather than telling the group what to do. As well as comprehensive minutes she also guides the group to useful reading materials to expand their knowledge.

Where to from here?

While the Advance Parties are highly successful, conference attendees were keen to know how the benefits and lessons could be spread out to the wider industry.

Paddy Boyd (a member of the Mackenzie Advance Party) noted that once it's clear a group is getting value out of the programme, the lessons for other deer farmers can be documented. The

Velvet: Dream run continues

by Phil Stewart, Deer Industry News Editor

After a seventh year of stability and solid prices, the velvet industry's fortunes have been buoyed by hard work and some luck, said DINZ Market Manager – Asia, Rhys Griffiths.

ON THE LUCK side of the equation, a 15 percent currency devaluation over a 12 month period (NZ dollar versus US dollar) had helped our cause, while market access gains such as the steady paring back of tariffs and taxes at the Korean border were also starting to show dividends. At the same time, the market positioning of New Zealand velvet was improving, and the burgeoning healthy food sector was providing exciting opportunities.

Griffiths said the fall in our dollar helped offset the effects of a crackdown on excessive gift giving in China, which forced down the costs of some very high-priced items containing velvet. While the economy had slowed in China, it was still growing at an excellent rate by world standards, and the proportion of highincome households is expected to soar.

"This is a market worth backing."

In Korea the 20 percent tariff for processed New Zealand velvet is gradually reducing to zero over 15 years and is currently down to 17.3 percent. Griffiths said the New Zealand-Korea free trade agreement gives us a competitive advantage that no current velvet exports to Korea will enjoy.

The abolition of the 10.1% individual consumption tax (formerly known as the SET) for all velvet imported to Korea, was another great development during the season.

All these factors were underpinned by some very hard work on the part of exporters, Griffiths said.

Supply-side risks

The velvet sector still faced risks, Griffiths warned. "These are only intensifying."

The first of these was overproduction. While supply is growing - New Zealand produced 572 tonnes of velvet last year, up from 485 tonnes – global supply and demand are currently in relative balance at about 1,425 tonnes. This could change, however, if supply growth outstripped increasing demand. New Zealand

currently has a competitive cost advantage and Griffiths urged velvet producers not to over capitalise.

The second risk was the over-reliance on a few commodity traders, with more than 50 percent of our velvet still sold this way. Some traders profit from volatility and this was something to be discouraged. Griffiths said we need to partner with those who take a long-term view, share our common direction and will add value to our products.

A third area of risk was the imposition of non-tariff trade barriers, something that can cut through free trade agreements. Griffiths reminded his audience that use of such barriers for such things as biosecurity protection can cut both ways. Some, such as Australia's decades-long ban on New Zealand apples, seemed unfair, but New Zealand also imposed restrictions on some imports for similar reasons.

Griffiths expected non-tariff barriers in Asian markets to increase, but said New Zealand's high health status and strict regulatory environment would help mitigate this risk. However, sweeping changes in regulations can catch some products out, and Griffiths said the deer industry will keep working closely with New Zealand regulators so that we can respond quickly if that happened. "We have to accept that there could be [new] requirements that change the way we take our products to market," he said.

Opportunities

While we must be mindful of risks, there are also plenty of opportunities beckoning for New Zealand velvet producers.

It was clear from experience in Korea that there is big potential in China for marketing velvet in the healthy food sector. However, there was a lack of clarity about the regulatory pathway for use of imported New Zealand velvet in healthy foods in China and unravelling these pathways would help us maximise value in this market.

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Advance Parties: continued

liveweight gain trials done on the Landcorp property were a good example of this.

Flint said the programme was a work in progress and there was scope for more groups to get started. After the programme had run its course, she hoped groups would become self sustaining. She said the peer-to-peer support was the key factor.

Boyd said joining and following through was a big commitment and this work needed to be captured and made available to others. It was important to measure and record starting points and then progress against targets.

Glen Harrex cautioned that it can take a while for usable results to come out of an Advance Party project, as it can take at least a year for "before and after" results to be compared and analysed.

"You are starting to sound like a scientist," Paddy Boyd concluded.

Postscript

DINZ and NZDFA are now working on a programme to deliver the outcomes of Advance Parties to local deer farming communities. Watch this space for more detail.

Velvet: continued

Last year's acceptance of velvet as a food, combined with a sample of New Zealand velvet tested as the Chinese pharmacopeia recognised species, was a big step forward. DINZ was working with the government agency responsible for standards of imported ingredients for traditional Chinese medicines to help verify the origins of velvet from this country. The test at a government-approved laboratory there had confirmed the velvet was "100 percent Malu", the species type recognised in the Chinese pharmacopeia. This had cracked a significant regulatory hurdle, Griffiths said.

Building on this recognition required development of good partnerships with a new generation of oriental medicine doctor marketers. In Korea, DINZ was making good progress in this regard. This new generation is innovative and quality driven, Griffiths said, and there was a marked generational shift in values as better-educated youngsters took over the business from their parents. They also love to promote the New Zealand origins of their velvet. Omniherb, which sells only New Zealand velvet, is a prime example.

The growth in the healthy food sector presented real opportunities, Griffiths said, recalling the appearance at last year's conference of Dr Il-Moo Chang, President of the Korean Ginseng Research Institute. Griffiths said Cheongnuksam, a high-value KGC product and their 19th containing New Zealand velvet, had surpassed its annual target by May last year and had doubled budgeted sales by year end. Sales this year were also well ahead of targets.

And following a joint promotion with DINZ, another Korean healthy food company had increased its purchases of New Zealand velvet from 8 to 27 tonnes last year.

Griffiths said that as we succeed, others will want to emulate us, so it was increasingly important to protect the integrity of our products.

Customers were seeking more assurances on proof of origin and DINZ had run a successful proof of concept trial with one company that was now being rolled out to others. The system was based around unique numbers allocated through DINZ. "This creates a direct and more transparent connection between the New Zealand supplier and its market intended for consumption. It also encourages pride and adds value."

Once the country of origin promotion is perfected in Korea, DINZ is hopeful of rolling it out to companies in China, all keen to promote New Zealand as the source.

Panel discussion

Ross Chambers (Provelco), Colin Stevenson (CK Import Export) and Tony Cochrane (PGG Wrightson) joined a panel discussion after Griffiths' presentation.

Cochrane agreed that more product should be going into the healthy food sector – probably more than 50 percent (it's currently about 25 percent). Chambers said that while the share of the velvet pie between traditional commodity traders and the newgeneration healthy food segment was changing, the overall size of the pie was not so clear.

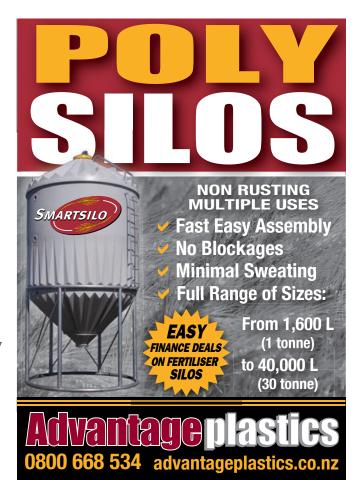
Stevenson said the biggest growth will definitely come from China. One Chinese company alone turned over \$17 billion in health food products, he said.

Reflecting Griffiths' earlier comments on the challenges last

season, Stevenson said it was challenging shifting an extra 50–70 tonnes of velvet. Chambers said that if volumes keep rising, growers might need to exercise some patience regarding when it is sold. ■



Ross Chambers (Provelco) fields a question during the panel session.



Special envoy bullish on trade

by Phil Stewart, Deer Industry News Editor

While it might sound impressive that New Zealand exports enough to feed 40 million people, it would scarcely cause a ripple in world trade if we disappeared off the map. That's why, said New Zealand Special Agricultural Trade Envoy, Mike Petersen, we have to work so hard to earn and protect our access to overseas markets.

PETERSEN, A GUEST speaker at the Deer Industry Conference, said he was appointed to represent the agricultural sector, not the Government, so maintains an independent stance.

Although we are small in world terms - for example we account for only 3 percent of world dairy production - New Zealand is in a great position to leverage its clean and natural reputation. "Grass is king. Grass fed is absolutely the opportunity for New Zealand." But there is still work to do on that front, he said. The lack of a new "pure, natural" primary industry standard was one constraint. Petersen said Ireland's "Origin Green" branding had been highly successful and New Zealand needed to reclaim this space and replace the now-discarded "100% Pure" label.

Turning to the tough patch being experienced by the dairy sector, Petersen said there was debate over whether the problems represented a structural shift in prices or we were just at the bottom of a cycle. It was more complex than that, he said, citing several factors at play. These included the removal of quotas in Europe, the Russian import ban, increasing New Zealand production and a slowdown in China, where stocks are building up.

He said the relatively mild economic slowdown in China had a strong effect on New Zealand dairy and sheepmeat exports, but there were signs Chinese demand for sheepmeat was firming.

One factor in this has been a spike in pork prices in China, up 48 percent in the past 12 months. Given pork accounts for about two-thirds of meat consumption in China, that's a significant shift. Part of the cause was the liquidation of about 100 million boars and 10 million sows over 18 months in response to overproduction - the equivalent to total US, Canadian and Mexican pork production combined. Waves as big as this were bound to affect the markets for other meat products.

Petersen said trade is absolutely critical for New Zealand. While free trade agreements (FTAs) were a great step forward, they are just a door-opener - a framework for companies to go in and start doing business.

Historically, countries sought food self-sufficiency for their own security, but this is never efficient and most often not feasible, hence the need for international food value chains to be developed, he said. While governments can negotiate FTAs, products like dairy are still heavily protected in many markets covered by the agreements. And even when FTAs are in place, nontariff trade barriers such as sanitary, phytosanitary and labelling requirements can impede free trade in agricultural produce.

"The Government in New Zealand is looking at FTAs as well as the challenges of these barriers in markets," he said.

Turning to the Trans-Pacific Partnership (TPP) Agreement, Petersen said this was a huge deal for New Zealand. The agreement



Mike Petersen: TPP is a "huge deal" for New Zealand.

encompasses 800 million people and 40 percent of world GDP and within those markets it eliminates tariffs on most agricultural produce. The exceptions are dairy products and beef in Japan - but on the plus side, the beef tariff would drop.

If New Zealand dropped out of the TPP, the other 11 partners would happily carry on without us, Petersen said. "In fact some of them would love it if we weren't involved!" Five of our top 10 goods markets are in the TPP and we would never have got a separate FTA with two of them: the United States and Japan.

Petersen said the concessions made by New Zealand were unlikely to adversely affect us. The much-criticised investor state dispute provisions were also present in our FTAs and to date, no foreign corporation had ever invoked these. While the risk of this was present, it was low, he said.

Maori rights had been preserved - New Zealand alone maintained the right to make provisions for indigenous people.

The cost of medicines, another sore point for TPP critics, would increase with the extension of patent periods for some biologicals and animal health products. However the additional expected annual cost of about \$2 million was dwarfed by New Zealand's total health spend of about \$350 million a week, Petersen said.

Looking at other trade priorities, Petersen said an FTA with Europe is firmly in New Zealand's sights. He said New Zealand is one of only six World Trade Organization members that does not have an FTA, or one under negotiation, with Europe.

Considering what New Zealand had done for Europe in the past, it was time we were treated better on the trade front, he said. However, things were "brutal" in Europe at the moment, where they were dealing with a refugee crisis and politics was becoming inward looking. The upcoming "Brexit" referendum in the United Kingdom was adding extra pressure.

Pinot noir and NZ venison

by Ross Tucker, Deer Industry News guest writer

Diners and restaurant owners around the world agree that pinot noir and venison are a match made in heaven.

IN HIS KEYNOTE address at the recent Deer Industry Conference in Dunedin, Carrick Wines chief executive and chairman of New Zealand Winegrowers, Steve Green, outlined how New Zealand pinot noir and venison could "provide a framework" for growth within each industry and even the economy as a whole.

Mr Green said pinot noir, like venison, attracted high prices and was loved by restaurateurs. Both were often the stars of a menu and were served to share a great meal or to impress colleagues.

Thirty years ago, the wine industry was not "significant or even relevant", but that had turned around and annual wine exports had now reached \$1.42 billion. Even though pinot noir sales were a tiny part of this, especially when compared with sauvignon blanc, they helped the whole industry through their "halo effect", he said.

He credited the Lange government with providing the catalyst for change when it subsidised growers to pull out vines. These were eventually replanted with French varieties and soon the traditional winegrowing regions of Henderson and Te Kauwhata had been surpassed by areas like Hawke's Bay, Marlborough, Martinborough and Central Otago, where new producers brought modern winemaking techniques into the industry.

As for venison, globalisation had positive and negative effects on New Zealand wine exports. While new opportunities opened, up so too did new competition. Unfortunately the competition was often subsidised, he said.

To counter this, Green believed wine exporters' market advantages were good, efficiently made products. It was a commonly held belief that New Zealand wine producers utilised sustainable practices, in a clean green environment and employed an engaged workforce. However, food contamination scares and pollution of waterways could erode the market advantages derived from this positive image.

Asked if there was much Chinese investment in the wine

industry, Green said many New Zealand wineries were already overseas owned. Overseas investment in the New Zealand wine industry from China was not necessarily a negative thing; rather it was seen as making capital available.

Asked about production fluctuations and whether this caused people to leave the wine industry, Green responded that winegrowers were sometimes guilty of overproducing to compensate for low years. While this was a natural reaction from growers



Steve Green said pinot noir and venison each starred on restaurant menus.

who wanted to maximise their returns, it did create tensions. He shared the example of Irish comedian Graham Norton being a New Zealand wine producer. Even though Norton owned no infrastructure here, he could buy the finished product, package it in New Zealand and put his label on it. While at face value this may have seemed unfair to local growers, people like Norton and large companies like Woolworths helped by "taking part of that overproduction".

Looking ahead, Green said pinot noir producers wanted to "grow value not production". It was hoped this would be accomplished through high price markets in Asia, possibly with a focus on China.

Welcome to Dunedin!

The Alliance Group/Pure South hosted an excellent welcome function at the end of a busy first day in the Dunedin Town Hall.

THE SERVING OF four venison courses at "feeding stations" around the venue encouraged plenty of mingling and conviviality. This year the welcome included members of the NZ Veterinary Association's Deer Branch, who were running their annual conference in Dunedin to coincide with the industry gathering.

The first course was a char grilled venison short loin with shaved pecorino cheese and blueberry chutney. This was followed by pan seared venison rump served on truffle mash, short rib baklava and syrah jus (see photo), and pick of the night.

Course three was a Tuscan rubbed venison rack with confit garlic and porcini risotto. And for those with room left, the fourth course was venison hamburger (rissoles) with onions and ale. I can't vouch for this last course, because the guests had hoovered up the lot by the time I had finished some photography duties – but my sympathetic table-mates assured me the mini-burgers really

An excellent evening, and thanks to Alliance Group for your creativity and hospitality.

Partnerships in biosecurity: A future view

by Noah Graham, Deer Industry News quest writer

Under a new eradication plan New Zealand has the potential to become bovine tuberculosis free by 2055.

OSPRI GROUP MANAGER Programme Development, Dr Stu Hutchings, took to the Dunedin Town Hall stage at the 2016 Deer Industry Conference and introduced new risk-based testing and vector control plans. The new plans would enable OSPRI to eventually remove the risk of bovine TB from New Zealand deer (and cattle) herds by 2026, demonstrate freedom of it from possums by 2040 and to make New Zealand entirely free of bovine TB by 2055.

Hutchings began by elaborating on OSPRI's three-pronged strategic approach to bovine TB. The first part was pest management, which saw OSPRI focus on the 9-10 million hectares where possums with bovine TB were. The next related to movement control and the third part was to test, identify and manage any infections in herds. Although the number of infected herds had fallen from 1,700 in the 1990s to just 36 today, that was not enough to remove bovine TB completely.

Risk-based testing uses data about where the risk of bovine TB in wildlife is located, the history of previously or currently TB-infected herds, and monitoring at-risk individual animal movements from farm to farm in order to create a more efficient and focused test regime.

Hutchings was introducing the presentation in lieu of OSPRI CEO, Michelle Edge, who was unable to attend in person but joined the session through Skype. Edge emphasised Hutchings' opening points, including the importance of monitoring at-risk movements through the National Animal Identification and Tracing (NAIT) scheme in tandem with the new TB eradication initiative.

Schemes working together

She said there was a great need for the two schemes to work together and it was OSPRI's job to encourage deer and cattle farmers to continue tagging their herds. Combining the two programmes, along with cooperation from farmers, would create an efficient system.

In follow-up questions, one attendee pressed the issue of the bureaucratic nature of NAIT and the requirement to carry two identifiers on the ASD form (AHB herd number and NAIT number). Edge said OSPRI was aware of the problem and trying to find a way so deer would only need one identifier. Separate identifiers needed to be part of the process because of food safety requirements, but Edge said there was an opportunity to eventually limit these.

Another audience member asked about the number of deer number registered and whether New Zealand was on track. Edge replied that NAIT had only been in place for three years and there was "a way to go", but the livestock industry in New Zealand was further ahead than other countries in terms of implementing

a traceability system in cattle and deer. Minimising the cost of traceback could be an important future benefit of having the system in place.

Further species

On the question of adding further species to NAIT, Edge said this would not be an OSPRI decision and would require legislation. She acknowledged there were technical challenges involved in introducing other species, such as pigs.

On RFID technology, Edge would not speculate on future direction or what system was best, but said there would be opportunities to look at scanners and RFID tags that were better suited to the nature of deer. At the same time she said beyond the biosecurity and food safety traceback role of NAIT, there were opportunities to use the individual animal ID to add value to the product.

Funding approved

IN THE RECENT budget announcement it has been confirmed that Minister for Primary Industries, Hon Nathan Guy, had approved OSPRI's plan to eradicate TB from New Zealand and, as part of an industry and government partnership, the Crown will supply \$100 million over the next four years. The additional \$150 million required will be provided by the beef, dairy, deer and livestock exporting industries. OSPRI Chairman Jeff Grant welcomed the news, as it ensures OSPRI can continue its efforts to eradicate bovine TB. ■

Journalism students join the team

Every year since 2013, we've invited local journalism students to make up part of the reporting team at the deer industry conference. This gives students experience of reporting on a real event and getting their work published. The experience also introduces some of the next generation of journalists to the deer industry and encourages them to take an interest and report on what we're doing once they are out in the work force.

This year we welcomed four students from the Otago Polytechnic National Diploma of Journalism. You can see the work of Julie Howard (page 9), Ross Tucker (page 22), Noah Graham (page 23) and Tenoch King (page 24).

Succession planning for farming families

by Tenoch King, Deer Industry News quest writer

Most people do not look forward to making succession plans because the process can be difficult and unpredictable, Rabobank succession planning facilitator, Tony Hammington, told conference goers.



Tony Hammington: Succession planning is an emotional business.

BY USING A different approach and learning about new tools that make the process easier, farm succession can be an exercise in creative unity instead of division and exclusion, he said.

Changing how you think

Putting structure around your thinking is the first step, Hammington said. "This creates certainty and helps you achieve your succession goals.

"Trust and respect are important when discussing succession. With these two components, serious progress can be made and satisfaction achieved."

There is an emotional element to succession planning. Some emotions such as anger and happiness are enabling and energising, while a little discontent can provide the energy necessary to discuss the issues, Hammington suggested.

On the other end of the spectrum, sadness and fear are deenergising and can cause the succession dramas that are played out in the media.

There is almost always trepidation around succession planning, Hammington said. "This is because the stakes are high and everyone has an opinion about how it should be done. Families need to acknowledge the emotions that surface. Things will go much more smoothly by acknowledging and validating these emotions and concerns early on."

Shared vision

Hammington explained how people can look at the same thing

but see it differently. This is often the norm in farm succession conversations and it can be related to sibling rank, being from a different generation or being an in-law.

"When managing change, a shared vision around what success for the business looks like, and what success for the family looks like, is critical.

"Shared vision happens when there is engagement from stakeholders in the family business, when they are part of the process and their opinions are valued. Sitting down and talking about shared vision will help develop better communication and empower families in their succession goals. This can be achieved by creating an environment of transparency, where people feel comfortable voicing their thoughts and opinions, thereby taking the heat out of the conversation."

Document and share it

Whether it is one page or many, develop a business plan, write it down and date it, Hammington said. Once your plan is written and in place, it can be shared.

"Unspoken expectations around succession can cause a lot of heartache, so the discussion needs to happen sooner rather than later.

"Make contingency plans so your knowledge of the business is accessible by your successors. This knowledge is an important part of your legacy and without it, the business may struggle once you are gone."

Hammington said farm succession is about continuous incremental improvement around communication, business operation, documentation, planning and measuring.

He concluded by encouraging everyone to answer these five questions about succession:

- 1. Do you want to keep your business within the family?
- 2. Have your written personal objectives been communicated to the family?
- 3. Do you have a current business plan in place with measurable goals and documented strategies to achieve them?
- 4. Do you have a current will and allocated powers of attorney for health and finances?
- 5. If you were suddenly incapacitated by accident or illness, is most of your knowledge and experience replicated and accessible outside of your head?

"If you answered 'no' to any of the questions, it is time to get a succession plan in place."

AgResearch Invermay field day: Quickfire science

by Phil Stewart, Deer Industry News Editor

Visitors to AgResearch Invermay's field day on the final day of the deer industry conference were treated to four quick science presentations spanning everything from parasite control to deer temperament.

Dave Leathwick: Deer parasite control programmes

FARMERS CAN BE forgiven for getting confused about the best strategy for internal parasite control. Not only are there gaps in our knowledge, but also the resistance among *Ostertagia*-type gut parasites to various anthelmintics is changing.

AgResearch principal scientist, Dave Leathwick, threw a little more light on the subject, starting with one piece of advice that's been consistent in recent years although not always heeded: pour-on macrocyclic lactone anthelmintic treatments for deer (the ML or "mectin" family) are a waste of time for treating gastrointestinal parasites and are not recommended for that purpose.

Leathwick noted that moxidectin delivered orally or by injection still seems to work okay on many farms, which raised a question: is the poor result from pour-ons because of resistance, or is it because of under-dosing. In other words, is the active ingredient not getting where it's needed?

The answer was equivocal. "Maybe, but we're not sure." Leathwick said the plasma profile for the active ingredient in deer was very low after pour-on use, but plasma was not a good indicator for whether the drug was reaching its target. Orally administered anthelmintics could go straight to where the worm-killing action was – in the gut.

The route of administration was important, but so too was the dose, Leathwick said.

"We know deer and goats metabolise drenches faster than sheep or cattle, so why would you give the drench at the rate for sheep?"

He presented figures that showed the efficacy for albendazole (a white drench registered for deer) was just less than adequate at 94 percent when given at the dose rate on the label. But when the dose was quadrupled from 10mg to 40mg per kg of liveweight, a 99 percent worm kill was achieved. (With **oxfendazole**, even dosing at 4.5 times the recommended dose, researchers could get only an 84 percent worm kill, well below the minimum 95 percent minimum).

Taking another tack, if a much smaller dose of albendazole (2mg/kg or 4mg/kg) was administered five times at daily intervals, the worm kill was 95 and 99 percent respectively.

This showed that the period of exposure was more important than the size of dose with these drenches, Leathwick said. "This might show there's an opportunity for developing a better way to deliver the drug without using more of it." Turning to the MLs, Leathwick said the story was similar. Using abamectin, it was impossible to get a worm kill above 95 percent, even at two and a half times the recommended dose rate for sheep. But again, giving five much smaller doses of the same drug at daily intervals achieved a much higher kill. Moxidectin given at 1.5 times the recommended sheep dose rate, gave a good 97 percent worm kill, Leathwick said. (Abamectin and moxidectin are registered as pour-ons for deer, but not as oral or injectable treatments.)

In conclusion, he said:

- if using a sheep or cattle drench for deer, use a higher dose rate (at least 1.5 or 2 times) than what's on the label
- there is an opportunity to develop a way to deliver these drugs more effectively and this is the focus of ongoing research
- albendazole is probably a better option for deer than oxfendazole, because it also has activity against liver fluke
- injection can give longer activity against worms but this might also select for resistance
- it's better to use a triple combination oral combination but at a higher dose rate
- · don't use pour-ons with deer.

Suzanne Rowe: Genomic breeding values

In aviation terms, the microsatellite technology we have been using for genetic analysis in deer is about the same as flying a Tiger Moth. But the good news, said AgResearch genomics scientist, **Suzanne Rowe**, is that we're going to tranship to a Boeing.

Using the genomic (DNA) profile of an animal and not just parentage markers – it's possible to look at each marker of interest and create a score to show how well or not that animal will do, she explained.

This process can help identify "superstars" to breed from, but some of these can also carry "lethal" genes, so these need to be watched for as well. "Genomics is really about intelligent breeding – knowing what we are doing."

Rowe said about half of a livestock industry's productivity improvement came through genetics, and this was permanent and cumulative.

She said the deer industry can now move straight into the use of genomics for enhanced parentage, an important aspect as the previous technology is not cost effective any more and becoming obsolete

Other, more abundant markers are now available. The new technology is easier to use and more reliable and the cost is now

Invermay science: continued

coming down. New genotyping-by-sequencing (GBS) meant it was easy to do comparisons "on the fly".

As long as the DNA samples provided were high quality, the cost of the outputs using GBS were about the same as the old "Tiger Moth" technology, Rowe said. But the difference was that instead of seeing a handful of genetic markers, the researchers are getting about 100,000. Another advantage was that there was no need for high investment costs to develop specific "SNP chips" for the deer industry. Through initial investments by FarmIQ, MBIE, AgResearch CORE and DEEResearch, this GBS can now be used effectively.

In the short term, GBS – the "Boeing" technology – would yield good information on things like individuals' parentage, breeding values, inbreeding or proportion of breed type (Eastern, elk/wapiti and so on). In the medium term it would help identify genomic breeding values and both lethal and desirable traits, allowing more intelligent selection choices. The long-term goal was a robust genomic tool for accurately selecting highly productive deer.

Rowe said the parentage work was still puttering along using the old technology, but as of 1 July GBS was to be used for parentage, inbreeding and breed type, with stage 2 later to produce gBVs.



"Tiger Moth" technology is at last on the way out.

Jamie Ward: Opportunities to create more value

The Deer Progeny Test (DPT) is the research gift that keeps on giving, and Jamie Ward updated guests on the traits that will help deer farmers produce even better quality venison.

He said there is not a strong feedback loop from the processors or market to deer farmers about the best type of carcass to produce, other than what's on the kill sheet. In the meantime, however, the DPT was yielding some useful clues about what to look for when selecting on venison traits.

Ward reminded guests that the DPT had done a huge amount of phenotyping – measuring how genetic traits were expressed and correlated. This had shown a favourable correlation between venison quality traits like tenderness and pH and a taste panel's higher scores for venison sensory measures – aroma, flavour, succulence, texture and overall acceptability. He said there was also a positive correlation between eye muscle area and eye muscle depth, and venison quality.

He said eye muscle area and yield traits are moderately heritable so easier to select for. Other traits like tenderness and

pH had a strong environmental influence, which meant that as well as selecting good genetics, farmers could make a positive contribution to venison quality by ensuring stock sent for slaughter arrived in good condition and were unstressed during yarding.

"Tenderness and texture were the most important to the taste panels and these are genetically correlated with other good traits like eye muscle area and carcass yield. Get that right and you're going a long way towards raising the best possible venison production animals. Control the controllables."

Geoff Asher: Chill, deer

Farmers probably don't need reminding of this, but deer are very prone to stress. Many "poor doers" are nervous and flighty – but herds also include much more laid-back animals that perform well.

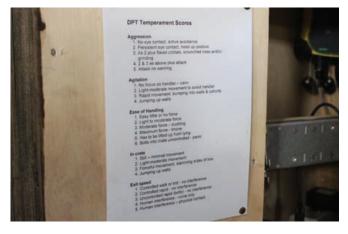
Building on Jamie Ward's comments about unstressed deer, **Geoff Asher** said temperament is about the way deer respond to noxious stimuli. Temperament was hard to measure and to complicate matters, farmer attitudes varied – some saw a bit of aggression as a good thing.

It is possible to genetically select for temperament traits, but it was also within the farmer's power to make the farm environment less stressful for deer and also to get their animals habituated various activities.

The DPT used some temperament scoring (see photo) and although the results were not random, the heritability of temperament traits was quite low, Asher said. The most heritable trait (on a range of O-1) was O.23 for agitation in the pen. As well as selecting for good temperament, and by culling bad temperament by providing troublesome animals with their "oneway ticket to Germany", farmers could also contribute by working on stockmanship and yard or farm layout.

He said that while deer could cope with short-term stress, sources of chronic, or repeated, stress should be removed. It was best to start training deer young, while still on mum. If they get habituated to handling early in their lives, they'll grow better, he said.

"At Invermay we trained a group of hinds to get used to having blood samples taken. We did it in a way that reduced the noxiousness and they became very quiet, putting on 15kg between 15–18 months of age, despite being part of a trial involving tight rations that should have restricted their growth to less than 5kg



Temperament checklist used at Invermay during the Deer Progeny Test.

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AgResearch Invermay confronts environment challenge

by Phil Stewart, Deer Industry News Editor

It's no secret that the Invermay deer research farm has received a "could do much better" on its environmental report card. Last year AgResearch launched a five-year plan to improve the environmental outcomes on its 130-hectare deer farm and visitors to the field day on 12 May were given a tour around the property to look at progress.

INVERMAY DEER FARM manager, Rachel Worth, told guests they were looking to build the deer herd to about 1,000 and will deer fence more suitable areas, cross-grazing with sheep in some places. (The risk of sheep passing malignant catarrhal fever to deer is considered low.) There is an active regrassing programme, with an objective of about 10 percent of the farm getting new pasture each vear.

As described in an earlier article about environmental work at the Invermay deer farm (see Deer Industry News, April/May 2015, page 26) AgResearch has been working closely with the Otago Regional Council to improve the farm's environmental track record.

"We were at rock bottom," Worth said, "so the research farm is an ideal environment to show what can be done to mitigate the problems."

A stakeholder group including Landcare Trust's Janet Gregory provided input into a land and environment plan (LEP). Following the Beef+LambNZ LEP3 guidelines, Geoff Asher, Invermay farm manager Kevin Knowler and microbiologist Jen Robson carried out a paddock-by-paddock assessment. OVERSEER had been brought up to date as part of this exercise and better fertiliser management - for example, more accurate matching of P applications to actual need - was being practised.

It isn't the easiest place. The research farm has 21km of waterways, including ephemeral streams and numerous springs. Waterways are in almost all deer paddocks and sediment loss is probably the biggest issue.

A turbidity measure taken in water flowing from the farm had shown a score of 65 Nephelometric Turbidity Units (NTU) - the

maximum acceptable score is 5 NTU, indicating there is plenty to be done. However nature did give an inadvertent helping hand in June 2015 when a flood (the same event that inundated Dunedin South) scoured out much of the sediment that had already been sitting in stream bottoms. An earlier survey in a 100-metre stretch of stream had shown zero fish life, but since the flooding and the start of the environment work there were signs of it returning, with eels up to a metre long being seen.

The Otago Regional Council was taking a realistic approach to the challenges at Invermay and accepted the problems won't be solved overnight. The council doesn't make prescriptive rules about how standards are to be achieved, but some things - such as loss of leachate from silage pits - are out of bounds. (There is a self-feed silage pit that can cater for up to 400 hinds, but half of that cannot be used because of the danger of leachate getting into a waterway. As it happened, the hinds that had to be fed silage in the paddock did a little better than those accessing the self-feed pit.)

Jen Robson told visitors it wasn't possible to fence off all waterways on the farm, but about 5km had been done to date at a cost of \$75,000. "We are working towards compliance."

Recontouring some areas and tapping springs into waterways or trees were also being done to help control sediment loss and helped stop deer making wallows.

Fencing, drainage and stock management were all part of the plan to improve the water quality coming out of the farm, as was the creation of buffers between crops and stream edges and moving winter grazing to safer paddocks. Deer had been excluded from some problematic paddocks and others refenced. Robson said that was inconvenient, as some of the excluded paddocks

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Invermay science: continued

over that period," he said. "The same thing has been observed with deer that are milked. Animals that are habituated to things like this won't waste energy dealing with stress."

He said growth rates of weaners vary hugely "Our weaning systems are still quite vexing. The average growth rate of weaners between 3-6 months of age varies from zero to 200 grams per day, which indicates there is a big opportunity cost associated with

the stress of weaning. It's the most highly variable component of growth we see on farms. There's a saying that liveweight at 1 June is the biggest determinant of slaughter weight. I believe that.

"No one system suits all farms so you need to work out what's best for your place.

"Genetics is an option, but most gains will be made by reducing deer perceptions of threat."

Invermay environment: continued

provided good fawning environments.

Lanes, another potential source of sediment runoff, were also receiving attention. Culvert crossings were being put in, creating an environmental and cost saving.

She said the relationship with the regional council and other stakeholders such as iwi and Fish & Game had been positive.





The benefits of excluding deer from waterways at Invermay can be clearly seen.

Invermay farm environment to feature

A year ago in *Deer Industry News*, AgResearch announced that it had identified issues on its Invermay deer research farm that were significantly affecting water quality. AgResearch, in conjunction with Otago Regional Council, developed a five-year plan to change on-farm management and reduce environmental impacts.

Starting from the next DINZ enews, AgResearch, will be posting regular updates on environmental activities at Invermay. It will also publish an occasional series of Deer Fact sheets and articles in *Deer Industry News*. While the changed practices are designed to address Otago Regional Council's "Plan Change 6" requirements, they may well be valid for deer farms across the country that face similar issues or regulatory requirements.

Improving deer performance

Amidst all of this environmental work, the Invermay team are also still committed to running a productive deer operation. One focus



Weaners at Invermay: Achieving good liveweight gains.

has been hind nutrition through lactation, with pasture topping and good grazing management helping keep condition on the hinds during this crucial period.

This is paying off, with hind and weaner liveweights improving by 10kg from 2014 to 2015.

Some red stags this year have been weaned at 114 days of age, tipping the scales at 70kg. By early May the weaner stags were pushing up to 80kg. ■

A well compiled half century

IF YOU'VE BEEN involved in the deer industry since its earliest days, the chances are you'll be hearing from journalist Lynda Gray over the next two or three years.

In 2019 it will be 50 years since the issuing of the first deer farming licence in New Zealand and Gray is planning to write a book to mark the milestone. She will be featuring not only the pioneers who helped set up the earliest deer farms but also the movers and shakers who have made it happen over the past five decades – the scientists, veterinarians, processors, entrepreneurs and others.

"We have a publisher but we will also be looking for sponsorship," she told conference delegates. "I'd love to hear your ideas!"

You can contact Lynda through: lyndagray@xtra.co.nz or by phone on O3 448 6222 or O27 465 3726

Boning champ shows his stuff

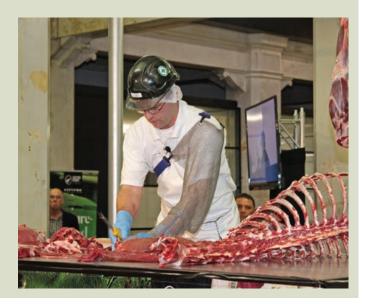
IT DIDN'T TAKE Silver Fern Farms leading hand **Gabe Brienesse** long to reduce a deer carcass to a tidy pile of venison cuts and very clean bones for an appreciative audience at the company's headquarters in Dunedin during the Deer Industry Conference.

Brienesse, who became an apprentice butcher in 1999, joined Silver Fern Farms in 2011 and now works at its Kennington plant. He's a two-time winner of the company's in-house "Venison Boner of the Year" award and his quick, neat handiwork showed why.

He is also a trainer, health and safety rep, first aider and ITO representative.

In answer to a question about the merits of boning a hot versus a cold carcass, Brienesse said that the yield from a hot carcass is higher, but the quality from a carcass that's been hung for three or four days with the muscles set is much better. "The venison has better flavour and it's more tender."

He said little is wasted from a deer carcass and all the bone other than the ribs is sold. ■



Awards night

by Phil Stewart, Deer Industry News Editor

There was just one award announced at the dinner at the end of day two of the conference: the Deer Industry Award.



Silver Fern Farms Chief Executive Dean Hamilton: Confidence in venison sector remains strong.

WELCOMING GUESTS WAS Dean Hamilton, Chief Executive of the sponsor for the evening, **Silver Fern Farms**. He reiterated the company's commitment to venison through its involvement in the P2P in-market programme and also its investment in New Zealand venison processing.

Silver Fern recently announced the closure of its Islington venison plant, which was on leased land and now found itself in the middle of a business park – not an ideal site. Hamilton said the Islington capacity would be replaced through a \$5 million investment in a modern venison processing facility at the Pareora beef and lamb plant in South Canterbury, south of Timaru. This plant will service the upper and central South Island.

Silver Fern Farms' confidence in the venison sector was also expressed through the expansion of its deer-focused livestock team. This now included Sam Earl, Rusty Andrews, Carl Lynch,

FF

Murray and Barbara Matuschka – winners of the 2016 Deer Industry Award.

Paul Harris and Malcolm Gourlie. While some may question the timing, given the contraction in deer numbers, Hamilton said now is exactly the right time to develop "deep, rich relationships with our suppliers".

He said he was heartened to see this positivity was shared by the other processor/exporters at the conference. Venison was an important part of the range of products handled by Silver Fern Farms. "We're passionate about the source, about it being natural and about it being grass fed."

The judges for the Deer Industry Award this year were Don Bennett, Dave Lawrence and John Spiers, selected by sponsors Porter Holdings, NZX Agri and NZDFA.

The Award, now in its 32nd year, goes to the individual, group or entity that have made an outstanding contribution to the deer industry. This year's winner has been around the industry "forever". He is a true industry pioneer, setting up his local DFA branch, helping numerous others getting a start in deer farming. He's not only a farmer but also a tourist operator and skilled artist, whose sculptures have helped define the New Zealand deer industry. He dislikes bureaucrats and loves deer farming in equal measure – he is, of course, Murray Matuschka.

For "the first time in my life", and to the disappointment of those who enjoy his bottomless supply of one-liners, Murray was lost for words and was genuinely moved by the accolade. He did however make special mention of the loyal support of wife **Barbara Matuschka** and the contribution to the industry of "all those wives out there".

"Without our wives, we're nothing," he said.

The after-dinner entertainment was a free-ranging "audience with Jamie Joseph and Ben Smith", in which the rugby greats chatted to DINZ Chair, Andy Macfarlane. ■



A meating of the minds: From left, Gerard Hickey (Firstlight), Ben Veldkamp (Hanos), Ben Smith (Highlanders fullback), Dean Hamilton (Silver Fern Farms), Mark Mitchell (Broadleaf), Rod Willis (Dot Foods), Andy Duncan (Duncan New Zealand) and Jamie Joseph (Highlanders coach).

NZDFA Annual General Meeting



by Phil Stewart, Deer Industry News Editor

Kris Orange, who has presided over a constructive and well-functioning Executive Committee for the past five years, announced he would be stepping down as NZDFA Chair at the 2016 Annual General Meeting. Current Executive Committee member, David Morgan, has been voted into the role, which is an annual event.



From left: Tony Pearse (DINZ Producer Manager) and Executive Committee members John Somerville, Kris Orange, David Morgan and Grant Charteris.

PRESENTING HIS FINAL report as Chair, Orange noted that the runaway success of Advance Parties might be seen to shade branch activities such as field days, but he noted that DFA branches will be playing a crucial role in helping share what the groups have been learning among the wider deer farming community.

In seconding the motion to accept the Chair's report, John Spiers echoed the sentiment that the industry is in a good space right now. "Many of the industry leaders have worked hard to get us to this position and as producers we must support them," he said.

He was pleased to see increasing interest in deer from outside, and the burst of energy that's being expressed through

Passion2Profit, Advance Parties and the Next Generation programme. "These groups are at the forefront of our continued improvement."

He urged farmers to make better use of new communication tools such as social media to capitalise on and share the good information now being generated. Congratulating Kris Orange and his team on their hard work and diligence, he noted that the DFA's financial performance over the past 12 months had been positive and hoped that the improving prospects for the industry would see membership starting to rebuild.

The 2015/16 NZDFA Annual Report can be downloaded from: www.deernz.org/publications

Finances good

The NZDFA achieved a surplus of \$11,457 versus a budget of \$4,750. Tony Pearse said savings in election costs, travel and annual report costs, combined with an increase in the subscription had all contributed. The fee was likely to stay at the same level for several years now.

He said current membership was 1,252 (budgeted figure 1,300) and it was difficult to know exactly how many deer farmers there were. JML figures indicated venison was being supplied by about 1,590 separate entities last season, so the total number might be around 1,800, he said. The 2016/17 DFA budget is based on membership of 1,200 and is set to break even.

DFA was totally committed to the Next Generation programme



and that was attracting good sponsorship.

Reserves had risen from \$116,000 to \$131,000, supporting a long-standing convention that these should stay above \$100,000 (not an inflation-proofed figure).

Special project spending was up, mainly accounted for by support for the \$500,000 two-year DRL/Callaghan Fund Johne's disease research identifying markers for susceptibility and resistance. The Southland branch had also generously supported this project. Other branches were not asked to front with their committed contributions this time but will be asked to support a new research initiative with DRL looking for similar markers for resistance or susceptibility to parasitism and potentially other diseases, albeit the research is relatively high-risk.

The 2016/17 budget allows for an increase in spending on nationally funded projects from \$10,000 to \$15,000. This will also include an allowance for the industry to develop training materials, supported by a Sustainable Farming Fund grant for a formal Primary ITO deer qualification.

The DFA financial report and 2016/17 and chairman's report were accepted by the meeting. In voting to maintain the Executive Committee honoraria at the same levels, Steven Borland commended the committee for their initiatives, adding that the honorarium could never compensate for the large amount of work done by the members.

Remits focus on research

The North Island DFA branch chairs submitted the following

"That current research (2011–2016) findings, specifically Johne's disease research, the Deer Progeny Test results and Deer Link outcomes, be made available to all deer farmers annually (including using Deer Facts)."

Mover Leith Chick said research, especially on Johne's disease genetic markers, hadn't been communicated enough – farmers needed better information on where to find resistant bloodlines.

DINZ CEO Dan Coup commented that research may not be quite there yet when it comes to identifying the most Johne's susceptible and resistant bloodlines. He added that DEEResearch and VARNZ were both looking at better ways to communicate research findings. "We'll try to improve those processes for communication between researchers and farmers."

Other speakers commented that Deer Facts was just one possible channel for communicating research outcomes – other options were also available - and the remit was amended slightly to reflect this before being voted on and carried.

The **DFA Southland branch** submitted the following remit:

"That research topics funded by DEEResearch have practical relevance to modern deer farming, and that the NZDFA, through formation of a DFA-based Research Advisory Group drawn from the branches, have input into selection of projects and are kept informed about this research including regular progress reports where possible."

This remit had some overlap with the previous one, and expressed frustration that DFA members didn't have enough input into research priorities, while research outcomes could be communicated better.

Geoff Asher, AgResearch Invermay, said he supports the idea of a research advisory group, but noted this already happens at a research project level in some cases, for example parasite research and DEERSelect. He added that others such as processors and vets should be included in consultation. It was also important to understand the expectations of the research funders. Asher said there was tension between the needs of farmers who wanted practical solutions delivered quickly, and the government funder that is also interested in basic research with a longer time horizon.

It was also pointed out that there are already channels for consultation about research through the Research Trust and the Passion2Profit groups (genetics, nutrition and animal health), which provide a direct conduit to farmers.

While there was resistance to the idea of forming yet another committee and some wanted the remit put on ice until next year, process demanded that a vote be taken and the remit was carried on a show of hands.

Kris Orange assured the meeting that the Executive Committee would take the concerns on board and avoid setting up anything that was too cumbersome.

Board candidates

SIX NOMINATIONS HAVE been received for the two producer vacancies on the DINZ Board. Chair Andy Macfarlane, who is retiring by rotation after two terms, announced that, if reappointed, he would step down as Chair after one year to

continued on page 32



DFA AGM: continued

help provide a smooth transition for a successor. The Selection and Appointments Panel is to make its decision on the two vacancies by 1 July. The candidates, and a brief summation of their presentations to the DFA AGM, follow.

Bryce Heard said the industry should not be timid about growing its markets and called for better coordination between the velvet and venison sectors. He said he has considerable experience in corporate governance, but had also plenty learned from the "school of hard knocks".

Andy Jarden was concerned that the size of the breeding herd was at a 30-year low and said there had been a disconnect between the DINZ Board and commercial farming reality. Jarden has long been a critic of the race to get young stock ready for the chilled market and wanted to ensure those who took deer through to, say, 15 months weren't penalised.

Andy Macfarlane said he was proud to have created momentum in the industry during his six years at the helm, and he was keen to help take the P2P programme through to its execution phase. If appointed he will stand down after 12 months to allow a succession plan to kick in.

Graeme Mulligan said the \$16m to be invested in P2P needs to be carefully accounted for and marketers need the support required to help them tell a compelling story. He has been in agribusiness for 38 years, 29 of these with Landcorp. He said he offers a deep understanding of the pastoral sector, quality assurance programmes and welfare.

Bill Taylor said he can offer a better "grass roots" connection between deer farmers and the Board. He has extensive experience at DFA national level, including four years as Executive Committee Chair. He said it was important to maintain a balance between in investment in the markets and in on-farm productivity.

Ian Walker has extensive governance experience and has just retired as Managing Director of Vet Services Hawke's Bay after a 38-year veterinary career. He said he now has more time to devote to the industry and would work to ensure producers got value for



Outgoing NZDFA Chair, Kris Orange (left), with David Morgan, who has stepped into the role.

their levy investment. The five-year strategy was a credit to the industry, he said.

Elections

NO ELECTIONS WERE necessary this year for the vacancies on the Selection and Appointments Panel (SAP) or the NZDFA Executive Committee.

Paddy Boyd and **Leith Chick** were elected unopposed to the SAP, joining Brian Russell and Donald Whyte as the other two elected members.

John Somerville and **Grant Charteris** were re-elected unopposed to the Executive Committee, joining current members Kris Orange and David Morgan.

Announcing that he was stepping down as Chair of the Executive Committee, Kris Orange said he would finish his current term in 12 months and not seek re-election. David Morgan has now assumed the role of Chair.

John Somerville paid tribute to Kris Orange: "It's been a privilege to work with Kris and I'd like to thank him for the five years of dedication he's put into the Executive Committee." ■

Creating advantage for red meat

by Ali Spencer, Deer Industry News writer

Scientists and the red meat sector have been putting their heads together to find ways to create advantage for New Zealand meat.

MORE THAN 100 attended the annual AgResearch Meat Industry Workshop, held at the Crown research institute's Ruakura Campus in mid-March. This included representatives from most of the country's large meat processors, including those handling venison – Silver Fern Farms, Alliance Group and Firstlight Foods.

"Creating the advantage" saw 20 speakers covering three current themes in meat research: added value products, value from quality, and food provenance and assurance. While most were geared towards beef and lamb, there was plenty of relevance to

venison, especially in terms of growing New Zealand's exports. But how can that be done?

Finding higher value for every part of the carcass – including the bits such as offal, pelts and bones that were once considered waste – is one way. "Tertiary" coproducts – or "bio-resources" – account for 20–25 percent of the red meat industry's export values, said AgResearch senior research engineer Shane Leath.

Looking towards the "pots of gold" – pet food, protein and nutraceuticals – he suggested that items such as lamb pelts,

Family's hard work and skill recognised

by Phil Stewart, Deer Industry News Editor



Visitors pour in for the next stop on the field day farm tour.

Grant and Sally Charteris' Forest Road Farm has been in the spotlight a bit recently and last month their hard work and passion for the industry was once again in the public eye when they were named Silver Fern Farms 2016 Hawke's Bay Farmer of the Year.

THE POPULAR WIN was celebrated with a well-supported field day on the property on 17 May, with around 260 people attending.

Grant and Sally have made impressive strides developing their velvet-based operation and it's founded on values and a vision that put family front and centre, with business objectives aligned to their personal goals.

Consultant Roy Fraser said that for the year judged, the farm grossed \$2,000 per hectare, with an economic farm surplus of \$1,250/ha. "That's an incredible result for this type of cold, high hill country. The key is Grant and Sally's ability."

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Red meat: continued

currently attracting low prices, could be considered as a protein so they could be sold at a higher margin. Offal items, currently achieving \$1 to \$2 per kg, could be directed into nutraceuticals where they could achieve \$10-20/kg. These opportunities are driven by sustainability, he noted, warning however that the resource size needs to be matched to the market, that existing opportunities are not destroyed and that competitive push-back is managed well.

President of the World Renderers Organisation, Australian Tim Juzefowicz, outlined his organisation's activities. Its current global campaign is targeting elimination of physical hazards (plastic eartags, glass, wire and other items) from the raw material flowing from meat processing works to renderers. This will improve its value and usefulness for end users such as nutraceuticals and pharmaceutical companies, it was noted.

"Can we do more with what we know about meat?" asked AgResearch senior scientist Scott Knowles.

Seeking out health benefits will make familiar foods more valuable and is also aimed at discovering new properties for novel applications. Knowles said there are at least three paths to added value:

- meat cuts differentiated on their functionality how they will be cooked and used
- · new health benefits from meaty foods and meals
- · using the protein as a versatile ingredient, perhaps by using

meat/protein powders in bread, ice-cream, spaghetti or crisps. Keeping up with the latest consumer expectations is also important. AgResearch science team leader Jim Webster noted that consumer expectations for animal welfare are changing.

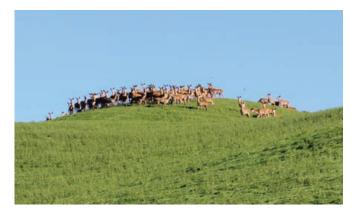
"They have moved past the old Five Freedoms concept to the affective states of sentient animals and how to positively influence those states," he said.

According to his predictions, deer farmers can expect increasing requirements for animal welfare, inclusion of positive dimensions of welfare, tensions over painful procedures, transport and slaughter, and more scrutiny from retailers and consumers.

Harnessing the data meat processors gather every day using decision support tools could maximise the value of the data, according to Mark Loeffen of Delytics Ltd. He cited the citrus industry, which predicted consumer liking and purchase intent for the fruit, and harvest prediction and scheduling in the kiwifruit industry. Applying similar principles to meat processing plants could maximise quality, minimise losses and monitor services, he suggested.

Other speakers covered microbiological matters, adding value to beef products, the effect of cooking on meat protein, non-invasive methods of checking for quality and provenance, optimum fat levels and processing, through to Scion work on improving export meat cartons.

Forest Road Farm: continued



An excellent crop of new grass – Grant said frost will soon knock over the fathen in the paddock.

Stock policy

The velvet herd is now based on Warnham and Woburn bloodlines and the breeding policy at Forest Road Farm maintains a balance between body conformation and size, velvet style (girth of beam is an important measure) and weight. While velvet production is the heart of their business, they know that the fortunes of the industry can change, so venison attributes are not forgotten.

Currently there are about 400 mixed-age stags and 220 R1 stags. About 200-225 stag fawns are produced each year from the approximately 430 mixed age and 200 R2 hinds. Some surplus hinds are sold unmated and others sold later in fawn. Hinds that fail to rear a fawn a second time are culled.

The threshold for keeping two-year-old velvet stags is a velvet weight of 3kg. Those cutting between 2.3–3kg are sold and any failing to cut more than 2.3kg go to the works.

Grant and Sally have recently started selling a selection of three-year-old stags to commercial farmers as sire stags, a result of the rapid genetic gains they've been making. This is something they'd like to do more of in future.

About 10–12 older stags are grown out each year and sold into the trophy market and the net profit from this (taking into account the opportunity cost of the velvet and carcass value) is ploughed back into buying new velvet genetics. Grant said the trophy market is small and fickle, so they have to choose candidates carefully and not over-supply.

Bulls are also run on the property and they usually trade about 200 each year. this year they have bought 90 R2 bulls to help deal with a feed surplus and clean up some poorer quality feed, before being sold in spring. The entire property is now deer fenced, which gives more flexibility for what stock are run where.



Grant and Sally take care to get hinds into great condition leading up to mating.



Grant and Sally Charteris – popular winners of the 2016 Silver Fern Farms Hawke's Bay Farmer of the Year title.

Grant said the bulls are run with the deer in small mobs. He uses them as a lever to alter stocking rates. "It's easier to do this with cattle than trying to whip out a few deer." Sheep have been run at times as ragwort munchers and to tidy the lanes, but only a handful are carried at present.

Feeding

The contour of Forest Road farm and lack of flats limit what cropping can be done, but they nonetheless do remarkably well with fodder crops and an active regrassing programme. The field day farm tour made one stop in a very lush new paddock of Ceres ONE50 ryegrass and Savvy Cocksfoot. Grant said it was important not to let deer onto the new pasture too soon, as they can damage the lighter areas, so new pasture is not opened up until later in May.

Nutrition of velvet stags during winter is a priority and a mix of Kestrel kale and Dominion swedes has been performing well, last year yielding about 9.5 tonnes/ha (kale) and 3.5 tonnes/ha (swede). Grant said the Kestrel is smaller than other varieties but leafier and more palatable to the deer. They eat it "right to the deck" and it lets in good light for the swedes underneath.

It is followed by a summer crop of Pasja. This is used for the R2 hinds to get them cracking through summer in the lead-up to their first mating. Grant said the most recent summer was tough and he needed to supplement the young hinds with grain. He said that when it's a choice between keeping them well fed or avoiding disturbing them, nutrition wins hands down. From the end of January they are run with the pick of the R2 stags to get them socialised. "If you feed your young hinds well, that's money in the bank," Grant said.

Spitfire rape is also planted and this is used initially by hinds and fawns and then the yearlings, which graze it down to the stalk. After these are taken out, the crop gets a boost of nitrogen and comes away again.

Stags are put into velvetting mobs of 30–40 and run on grass and plantain as their velvet develops. "I've learnt that it's important to replace the body fat that stags lose during the roar so they have a head start when their velvet starts to grow," Grant said.

The cattle are fairly robust and Grant usually buys Friesian yearling bulls at 300kg with a view to killing them by May or June at 560+kg to avoid wintering them. They can be carried through, though, and handle the winters there well. They get a bit of haylage or baleage when necessary. The \$600-\$700 margin realised on



What it's all about.

the bulls is satisfactory, Grant said.

He said the deer industry as a whole tends to under-feed its animals, especially in the fringe seasons. He's prepared to buy in up to 300 bales of baleage and 20–30 tonnes of grain to keep things on track. While he has grown his own baleage he wasn't completely satisfied with the quality, so prefers to buy in good quality feed and grow what his farm grows best.

He keeps an open mind on crops and would consider others such as red clover, but has found the kale/swede combination used for the past six or so years very successful.

Infrastructure

Part of the Charteris strategy is to reinvest in their business, and there was plenty of evidence they'd been doing just that.

New cattle and deer yards put in last year were a major investment, but are built to last. "We wanted to do it once and do it right," Grant said.

He's also recently invested \$10,000 in rubber matting inside the deer shed and is very pleased with the result. "It's quieter for the stock, easier on their feet and on the people working in there, and it's also easier to clean out."

A new laneway came about as a result of being in the Passion2Profit Advance Party programme. Showing the value of a fresh set of eyes, one of the group members spotted the potential to change the layout. "It was a small cost but it's made a big difference to our stock handling," Grant said.

Other recent investments include a walk-in freezer and also a Gallagher TSi unit. "It was a big job to input the data initially, but now it's really easy," Grant said. Scanned information is sent to their computer via Bluetooth and there is potential to capture a lot of data for each animal – done during velvetting while they wait for the local anaesthetic to kick in.

"With two years of data we can start generating some graphs and we can filter the information, for example by temperament or velvet grade. It's starting to make life a lot easier now."

Animal health

There are no major animal health issues at Forest Road farm. The Charterises maintain a yersinia vaccination programme for their fawns each year and also a drenching programme.

Grant said they realised about 10 years ago that using moxidectin as a pour-on was ineffective and they now use oral drenches exclusively.

Grazing and drenching are managed to take advantage or refugia – maintaining a population of drench-sensitive parasite larvae on pasture.

Fawns receive their first Yersiniavax shot and an oral drench at weaning, followed by a second drench and yersinia vaccination. Drenching is then done monthly through to September. Hinds are only ever drenched if they look as though they need it.

Prize package

Being named **Silver Fern Farms** Hawke's Bay Farmer of the year is a great honour and it also comes with a generous prize package of products, cash and vehicles worth more than \$35,000. Included was six months' use of a new Mitsubishi Triton ute, a new Suzuki Kingquad 500, and Merial Ancare oral drenches.

Foundation sponsors for the award included Ravensdown, Merial Ancare, ANZ, Peter Goldfinch Suzuki, BWR Chartered Accountants, FMG, Farmlands, Agriseeds and Wayne Kirk Motor Group. Also as associate or advising sponsors were Beef+Lamb NZ, Federated Farmers, Morice Ltd and FTI Consulting.



R2 Hinds For Sale

Top Velvet Genetics (VIC)

Hinds on offer by Stags:

Bonsai - T-Rex-Ruger: Perfect velvet, 500 IOA @ 4 yrs

Munta - Charlie Mac-Pelorus Nic-Andrew II: 10kg SA@5yr, (1st NIVC@4yr, 3rd National VC)

Wotdonis - Watson-Adonis-Buccaneer: 11.7kg SA@6yr, bombproof temperament!

TRev- Awesome-Full brother to Sir Gallahad-James: 9.0kg SA@6yr (1st HBVC Open Red), Sire of Bonsai!

Jeffrey - Homebred Aros son: 7.8kg SAP@5yr

Dirty Harry - Homebred Quinlan son: 6.4kgSA@4yr, Huge,quiet stag!

Yenith - Odysseus-Adonis Son-Kane: Beautiful stag 7.6kg-SAP@5yr, big structured attractive trophy!

Bruce Amighty - Odysseus-Broadband-Kane: 476 IOA@4yr, 7.6kg SA@5yr, amazing progeny coming through!

All Hinds are vetted in calf to my very best 2yr old velvet stags! These stags are all Big bodied, quiet temperament and cut from 3.8-5.2kg of tidy/clean velvet @ 2yr old!

Hinds are priced at \$600/hd and to be sold in run out lines! Approx 60 for sale!

> For further info please contact: Grant Charteris: 06 8565747 or 027 230 8531 Email: grantcharteris@gmail.com

January to May 2016 activity update



The launch of Cervena® in Belgium, agreement among marketing companies of the Cervena guidelines for non-seasonal markets, a workshop on China consumer attitudes to premium venison from New Zealand and the launch of growth planning tools for deer farmers were among the highlights of a busy first five months of 2016 for the Passion2Profit programme. The following is a summary of the work that's been done in the first part of the year and what's coming up.

Marketing premium venison

- The Style Guide for the deployment of the Cervena appellation was finalised and agreed by the marketing companies for utilisation in the 2016 collaborative promotion in the Netherlands and Belgium.
- Agreements with three importing and distributing companies were reached to stock and promote Cervena venison over the summer in the Netherlands and Belgium in 2016.
- · Cervena venison launched in Belgium.
- Exporters and NZ Trade and Enterprise staff met and discussed the initial results of the China consumer focus group research.
- Recommendations received for follow-up work within specific sectors of the Chinese food service sector.
- Agreement among venison marketing and processing companies on revised Cervena standards for supply and processing of premium venison.

Market-led production

- · Deer Health Project Manager commenced work.
- The deer growth curve a planning tool, completed and distributed to all known deer farmers and to rural professionals.
- Beta version of on-line growth planner developed and being tested.
- Continued discussions with New Zealand Veterinary
 Association on collaboration to improve delivery of proactive deer health management.
- · Development of a forage planning tool for deer.
- Modelling of the positive impacts of using breeding values completed and shared with rural professionals.
- Work started on a farm systems description to assist planning for deer farmers.
- Completion of a survey of farmers' awareness of key production-limiting diseases.
- Completion of a review of professional services desired by deer farmers, with recommendations to improve delivery, and demand, for services.

Collaboration with other PGP programmes

• Incorporation of deer into the Red Meat Profit Partnership

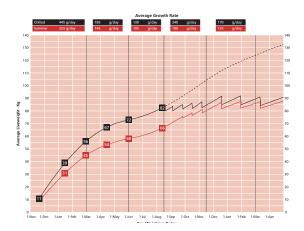
- (RMPP) Farm Assurance Programme (FAP), and alignment of the RMPP FAP with the Deer Industry QA farm standard.
- Meeting with extension managers for RMPP, FarmIQ, Firstlight and Ravensdown to discuss collaboration.

Collaboration with other government agencies

 Co-funding for Advance Parties from the Ministry for Primary Industries' Sustainable Farming Fund now involves 15 Advance Parties, capturing more than 140 deer farms in regular farm improvement workshops.

Coming up

- Ongoing promotion of Cervena in the Benelux markets over the northern summer, with monitoring and reporting on its impact on the targeted chef audience.
- The next stage of China market development research, and determining the next steps for the new market collaborative market entry strategy.
- More farm management tools like guides to farm data management systems and forage planning.
- Refinement of on-line versions of deer growth curves to aid deer farm planning.
- · New web display for deer breeding values.
- More Deer Facts on deer management topics.



The deer growth curves chart was sent out to all known deer farmers in February. Have you been using yours?

Wapiti sires – handling advice available

In the following article supplied by the Elk and Wapiti Society, a list of elk/wapiti ambassadors is provided for people wanting to learn more about handling their wapiti sires and getting the best out of them.

A WORKSHOP FOCUSING on handling elk and wapiti bulls and optimising their reproductive performance was held at Clachanburn Station in early April by the Elk and Wapiti Society of New Zealand (EWSNZ). The discussion was recorded and additional comments from members unable to attend have been added.

The idea of creating a network of ambassadors throughout the country that could be called on to help elk/wapiti users was mooted. This may be simply to chat on the phone to answer questions or to provide on-farm guidance when handling wapiti bulls.

We are delighted to announce society members who are armed and conversant with the outcomes. These members are more than happy to be contacted by deer farmers considering the use of wapiti terminal sires.

Elk/wapiti ambassadors					
John Batley	Taihape 06 388 0664, wapiti@xtra.co.nz				
Ian Scott	Tirau 027 473 2657, oraka@xtra.co.nz				
Dean Wilkinson	Masterton 06 378 2895, totarapark@orcon.net.nz				
Tracey McLean	Canterbury 027 438 4848, tracey@elk.co.nz				
Donald Whyte	Canterbury 027 450 8525, dwhyte@farmside.co.nz				
John Bartholomew	Canterbury 03 303 6022, jbart@farmside.co.nz				
David Morgan	South Canterbury 027 230 3357, david.raincliff@farmside.co.nz				
Tony Pullar	Otago 027 662 7356, tpullar@es.co.nz				

continued on page 38

66 Elk/Wapiti sires over our red hinds produce fawns that suit our hill and high country. They have a good temperament and fatten faster to heavier weights so we get paid more.

> Hamish Orbell Clayton Station South Canterbury



www.elkwapitisociety.co.nz

Venison update

Production and exports

THE NATIONAL KILL for the 12 months ending March 2016 was 356,791, down 13.25% (Table 1).

Production for the 12 months ending March 2016 was 19,617 tonnes (carcass weight equivalent), down 12.7% year on year (Table 2). The kill in March was down 17% versus the same period in 2015.

For the past three months, venison production levels have

decreased by about 20%, which will affect export volumes. The 17% fall in deer slaughter numbers was similar across both Islands in March.

The total number of hinds killed in the 12 months to March 2016 was 193,592 equating to 55% of the total kill and down 16% for the year to date (Table 3). The greater reductions seen in the number of hinds processed points to retention and herd rebuilding.

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	35,202	-18.8%
February	38,958	50,860	41,258	42,767	41,517	30,951	-25.4%
March	49,730	41,711	46,683	47,515	44,509	36,889	-17.1%
April	31,019	24,066	33,830	33,246	27,255		-18.0%
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	391,273		-6.9%
12 months to March	400,129	421,763	408,132	424,053	411,307	356,791	-13.25%
March	49,730	41,711	46,683	47,515	44,509	36,889	-17.12%

Wapiti sires: continued

John Falconer	Otago Central 027 434 4593, clachanburnelk@scorch.co.nz
Paul Waller	Southland 027 292 4424, wallerp.s@xtra.co.nz
Geoff Pullar	Southland 027 617 9971, clubwinton@gmail.com
Dave Lawrence	Southland 027 236 4117, info@tikana.co.nz
Tom May	Southland 027 433 3171, tom@mayfieldelk.com
Murray Hagen	Te Anau 021 220 7889, hagen01@vodafone.co.nz
Jim Cameron	Te Anau 021 220 7871, cameronclan03@gmail.com

Workshop discussion about handling started with moving bulls from the paddock to the yards and then covered a full spectrum of shed design tips. Shed design is important if you want to work with elk or wapiti confidently. There are a few easy and relatively inexpensive ways you can modify a basic deer shed to create a better environment and easier handling, making it safer for all involved. Examples of simple shed modifications and a video on

handling in the shed can be seen at: www.elkwapitisociety.co.nz

Reproductive success using wapiti terminal sires is not only about the roar but includes year-round care of your sire. How your new wapiti bull is introduced to your farm is important as is awareness of key times for nutrition and parasite control. Obviously managing your bull at mating is vital and there are too many aspects to discuss here, but suffice to say, observation is crucial. Be aware of normal mating behaviour and don't assume

anything – observe to make sure this behaviour is occurring.

In recent times, the industry has been seeking "more, heavier, earlier and better". Using wapiti sires for venison production ticks all the boxes. Please take advantage of this offer from experienced wapiti farmers and turn up the profit in your venison enterprise.

· Article supplied



Photo: Lynda Gray

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	-3.7%
December	2,634	2,274	2,128	2,124	2,117	2,112	-0.2%
January	2,341	2,616	2,639	2,639	2,479	2,057	-17.0%
February	2,223	2,943	2,364	2,449	2,346	1,820	-22.4%
March	2,729	2,297	2,547	2,574	2,382	2,015	-15.4%
April	1,632	1,290	1,770	1,780	1,415		-20.5%
May	1,334	1,256	1,412	1,244	975		-21.6%
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	21,374		-8.1%
12 months to Dec	22,167	23,519	22,829	23,366	22,465	19,617	-12.7%
December	2,729	2,297	2,547	2,574	2,382	2,015	-15.4%

Table 3: Slaughter split by hinds and stags - 12 months to March

	% split of herd YTD	No. slaughtered YTD	% change March 2015/16	% change YTD 2015/16
Hind	55%	193,592	-20.06%	-16.20%
Stag	46%	163,199	-10.66%	-9.48%

Exports - 12 months ending April 2016

Total venison exports for the 12 months ending April 2016 were 15,147 tonnes, down 1.9% year on year (Table 4).

The value of these exports was \$188 million, up 9.7% versus 2015.

The average FOB sales price per kg over the past 12 months increased by 13.6%.

Exports into the United States are up 9.8% by volume and 21.2% by value, while Germany has dropped 6.9% on volume but on value is up 5.4%, reflecting favourable currency conditions.

The total volume of chilled exports increased by 5% and value grew by 17%.

Chilled exports made up 17% by volume and 30% by value of total venison exports in the 12 months ending April 2016 (Table 5).

The United States continues to lead export sales in chilled venison, up 16% on volume and 27% by value. Exports by volume and value continue to increase this year into Germany: up 24% by volume and 28% by value.

Table 4: Top 10 New Zealand venison export markets by volume and value - 12 months to April 2016

Market		Volume (mt))	Value	(NZ\$FOB, mi	llions)		Ave \$/kg	
Market	2015	2016 (p)	change	2015	2016 (p)	change	2015	2016 (p)	change
Germany	4,690	4,368	-6.9%	\$51.26	\$54.05	5.4%	\$10.93	\$12.37	13.2%
United States	2,207	2,423	9.8%	\$22.64	\$27.43	21.2%	\$10.26	\$11.32	10.4%
Belgium	1,487	1,147	-22.9%	\$21.22	\$18.66	-12.1%	\$14.27	\$16.27	14.0%
UK	1,402	1,284	-8.4%	\$12.30	\$13.08	6.3%	\$8.77	\$10.19	16.1%
Finland	1,313	1,032	-21.4%	\$7.94	\$8.19	3.1%	\$6.05	\$7.94	31.2%
Netherlands	1,164	973	-16.4%	\$19.30	\$19.70	2.1%	\$16.58	\$20.25	22.1%
Switzerland	938	928	-1.1%	\$14.83	\$16.48	11.1%	\$15.81	\$17.76	12.3%
Sweden	417	538	29.0%	\$3.62	\$5.35	47.8%	\$8.68	\$9.94	14.6%
Canada	327	405	23.9%	\$3.14	\$4.04	28.7%	\$9.60	\$9.98	3.9%
Other	1,499	2,049	36.7%	\$15.67	\$21.55	37.5%	\$10.45	\$10.52	0.6%
Total	15,444	15,147	-1.9%	\$171.92	\$188.53	9.7%	\$111.41	\$126.53	13.6%

Venison report: continued

Table 5: Top 10 New Zealand chilled venison export markets by volume and value - 12 months to April 2016

Madas	\	/olume (ton	nes)	Value (NZ\$FOB, millions)		Ave \$/kg			
Market	2015	2016 (p)	% change	2015	2016 (p)	% change	2015	2016 (p)	% change
United States	545	632	16%	\$11	\$14	27%	\$20.17	\$22.04	9.3%
Germany	461	571	24%	\$9	\$12	28%	\$20.24	\$20.91	3.3%
Belgium	460	431	-6%	\$10	\$10	0%	\$20.87	\$22.53	8.0%
Netherlands	395	444	12%	\$9	\$11	32%	\$21.54	\$25.38	17.8%
UK	233	136	-42%	\$3	\$2	-25%	\$11.97	\$15.44	29.0%
Switzerland	170	161	-5%	\$4	\$5	4%	\$26.41	\$28.94	9.6%
France	105	132	26%	\$2	\$3	47%	\$16.38	\$19.17	17.0%
Canada	60	57	-5%	\$1	\$1	-13%	\$22.50	\$20.70	-8.0%
Australia	15	16	7%	\$0	\$0	0%	\$27.33	\$28.13	2.9%
Other	26	21	-19%	\$1	\$1	0%	\$28.08	\$30.48	8.5%
Total	2,470	2,601	5%	\$50	\$58	17%	\$20.21	\$22.46	11.1%

Schedule

For the week commencing 23 May, the national published schedule was 7.38/kg, compared with 6.30/kg at the same time last year – an increase of 17% (Figure 1). The schedule has been steady since early March.

The supply reductions, along with beneficial currency

movements and firm markets, have seen prices increase in the first five months of the year – traditionally the low point of the season.

The significant drop in the overall kill seen in the first few months of 2016 is putting pressure on supply. Understandably the tightening supply situation is causing concerns around the ability to consistently fulfil existing orders and take on new orders.

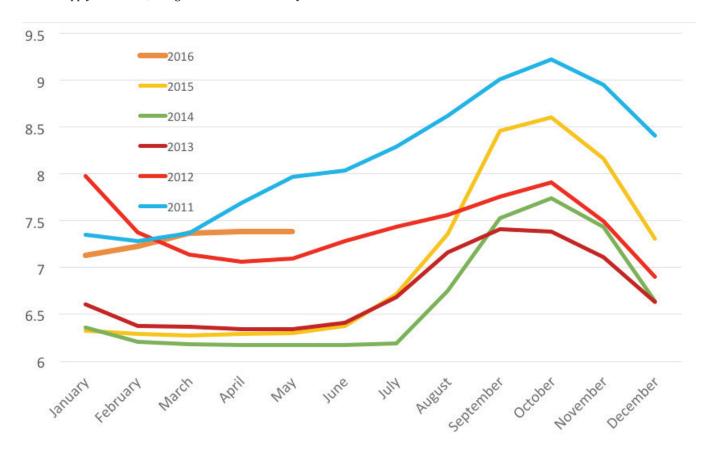


Figure 1: National published schedule: 55-60kg AP stag

DEER esearch



Collier Isaacs, Chairman

FROM THE CHAIRMAN

Three years ago the DEEResearch Board adopted as its snappy mission, "to co-ordinate and invest in research and innovation to enable a more profitable and sustainable New Zealand deer industry." That mission statement hasn't been explicitly referred to much since, but on re-reading, I think it remains apt and really is subconsciously at the root of all major decisions we make as a board.

Just before the start of the 2015 financial year, Dr Gavin Sheath, who had reviewed DEEResearch's Venison Supply Systems Programme, recommended that to achieve that mission DEEResearch had to work more closely with Deer Industry New Zealand when setting research programmes.

One of the things DEEResearch did this year to act on that recommendation was to invite DINZ-recommended experts to programme-setting workshops run by AgResearch and another was to seek Passion2Profit ('P2P') leadership group and NZDFA Executive Committee opinions on a draft programme arising from those workshops.

That engagement was not, however, particularly focussed on research needs to support the deer industry's longer term strategies. DEEResearch already had a fair few documents specifying the types of work it may commission but nothing touches on what its priorities should be. What we've worked on this year with DINZ is production of a "5 Year Science Strategy". This really does set out the types of work - and the balance between them - on which funding will be spent over the next 5 years, so it should be adhered to and well-thumbed. We're confident we've got the direction right as we've drawn heavily on the areas in which P2P objectives can be supported by science and the new DINZ strategy. As usual we've tried to pick opportunities for deer-specific research that leverage off scientific and technological advances done for other species.

As a board we're thrilled that this year a group of experts interested in getting to grips with deer parasites - including scientists, vets and reps from rival commercial outfits agreed on a parasite research programme that will enable farmers to really make a difference on farm. This programme covers work on how much, when and how often to dose using current tools, understanding drench resistance, potential new drug development work and expanding our knowledge on the parasite species we really need to target. Most components can kick off within the Hitting Targets project run by AgResearch but DEEResearch will work with commercial players should it look like new drug development is required; after all, getting product to farmers will make access to manufacturing, sales and distribution infrastructure vital.

DEEResearch is always keen to hear of potential research avenues that appeal to producers. I'd encourage each NZDFA branch to discuss research needs and provide feedback to the Executive Committee. If what's proposed fits into the 5 Year Science Strategy and hasn't been done before, DEEResearch will have a serious look.

A major milestone was achieved in that the main field and plant data collection phase of the Deer Progeny Test project was completed. You've heard or read about some initial findings – such as how eye muscle area (which is reasonably heritable) correlates strongly with venison quality – and work turns now to assessing the data for the heritability of many other traits of interest to farmers from animal management or profitability perspectives. Many industry parties have put a lot of effort into this project, such as partner herds and Alliance Group, for which the Board is hugely appreciative, but the hard graft will continue a while longer for our dedicated AgResearch scientists. You'll be hearing more about what we've learnt from the project over the course of the current year.

Lastly, as you've probably read in StagLine and Deer Industry News, the Board farewelled Noel Beatson after many years' dedicated service and welcomed Ian Walker, another science-leaning deer-savvy vet, in his stead. I won't repeat my comments made in those two publications other than to say that deer farmers have been and will be well served by their formidable skillsets.

Collier Isaacs

ACCOUNTS

An extract from the financial statements of DEEResearch Limited for the year ending 30 June 2015 is set out in Table 1 for general information purposes only. A full set of audited financial statements and the accompanying audit report are available on the DEEResearch Limited website (www.deeresearch.org.nz).

The complete set of Financial Statements were approved and signed on behalf of the Board of Directors by:

C Isaacs Chairman **D** Coup Director

2 December 2015

RESEARCH PROGRAMME **HIGHLIGHTS**

Hitting Targets for Deer Industry Profitability

2014/15 was the second year of "Hitting Targets", the largest of the DEEResearch projects. Hitting Targets is undertaken by AgResearch and its contractors, such as Massey University. This year, the DEEResearch themes covered by the project (in addition to completing some sub-projects from the 2014 year) were efficient land use (2 sub-projects), feeding (1 sub-projects), animal health (4 sub-projects), genetics (6 sub-projects) and environment (water) (1 subproject).

Other projects

Besides Hitting Targets, DEEResearch continued its membership of the Crown-industry research partnerships into Johne's disease, pasture improvement through biotechnology and methane mitigation, although the first of those did not require further capital contributions.

DEEResearch, through the New Zealand Deer Farmers' Association, also made the second and final year's investment in a Johne's disease-focussed project undertaken by Otago University led by Professor Frank Griffin. This project aimed to develop a test for commercial use to identify where on the JD resistant-susceptible spectrum an individual deer lies.

A full list of DEEResearch projects in the 2014/15 year and their funding is provided in Table 2 and reports on project progress are provided in Table 3.

DIRECTORS

As at 30 June 2015 the Board of DEEResearch Ltd. comprised:

Collier Isaacs (independent Chairperson appointed by the other directors)

Tim Carpenter (Tertiary Education Institutions)

Dan Coup (Deer Industry New Zealand)

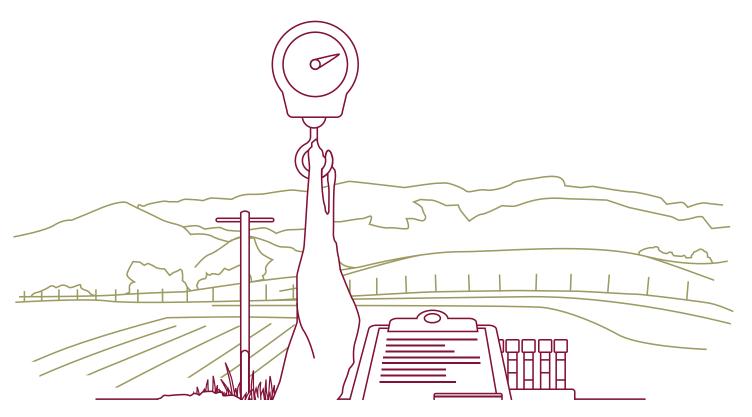
Glyn Francis (AgResearch)

Danny Hailes (Venison Processors, Exporters and Marketers)

Tom Richardson (AgResearch)

Ian Walker (Deer Industry New Zealand), previously

Noel Beatson



FINANCIAL STATEMENTS

TABLE 1

DEEResearch Limited

SUMMARY STATEMENT OF COMPREHENSIVE REVENUE AND EXPENSE

For the year ending 30 June 2015

	2015 \$	2014 \$
Total Revenue	2,069,421	2,286,302
Less Expenditure		
Research Expenditure	2,075,416	2,274,654
Administration Expenditure	53,082	66,648
Total Expenditure	2,128,498	2,341,302
Total Comprehensive Revenue and Expenses Before Taxation and Interests in Joint Ventures	(59,077)	(55,000)
Change in Proportionate Share in Consortium Net Assets Impairment of Proportionate Share in Pastoral Genomics on Cessation of Funding	29,077 (17,530)	2,347
Total Comprehensive Revenue and Expenses Before Taxation	(47,530)	(52,653)
Taxation	-	-
Total Comprehensive Revenue and Expenses After Taxation	(47,530)	(52,653)

SUMMARY ST ATEMENT OF CHANGES IN EQUITY

For the year ending 30 June 2015

	2015 \$	2014 \$
Opening Equity	169,140	221,793
Net Result After Taxation	(47,530)	(53,653)
Closing Equity	121,610	169,140

SUMMARY STATEMENT OF FIN ANCIAL POSITION

For the year ending 30 June 2015

	2015 \$	2014 \$
Share Capital Retained Earnings	120 121,490	120 169,020
Accumulated Funds	121,610	169,140
Represented by:		
Current Assets		
Current Assets Non Current Assets Current Liabilities	414,749 - 293,139	440,263 4,000 275,123
Net Assets	121,610	169,140

SUMMARY ST ATEMENT OF CASH FLOWS

For the year ending 30 June 2015

	2015 \$	2014 \$
Net Cash Inflow from Operating Activities	651	(15,043
Cashflows from Investing Activities	-	-
Cashflows from Financing Activities	-	-
Net increase in cash and cash equivalents	651	(15,043)

NOTES TO SUMMARY FINANCIAL STATEMENTS

The specific disclosures included in this summary financial report have been extracted from the full financial report which was authorised for issue on 27 November 2015.

The full financial statements have been prepared in accordance with Public Benefit Entity Accountancy Standards. The full financial statements have been audited and an unmodified audit opinion has been issued. These summary financial statements comply with PBE FRS 43. Figures are in New Zealand dollars. All summary financial information has been rounded to the nearest dollar.

The summary financial report cannot be expected to provide as complete an understanding as provided by the full financial report of the Company.

If you require a full set of accounts, please contact Emil Murphy at Deer Industry New Zealand (info@deeresearch.org.nz) and we will forward a copy to you.











INDEPENDENT AUDITOR'S REPORT

TO THE READERS OF DEERESEARCH LIMITED SUMMARY FINANCIAL STATEMENTS For the year ended 30 June 2015

The Auditor-General is the auditor of DEEResearch Limited ("The Company"). The Auditor-General has appointed me, Trevor Deed, using the staff and resources of Deloitte, to carry out the audit of the summary financial statements of the Company, on her behalf. We have audited the summary financial statements as set out on pages 43 to 44, which were derived from the audited financial statements of the Company for the year ended 30 June 2015 on which we expressed an unmodified audit opinion in our report dated 27 November 2015.

The summary financial statements comprise the summarised statement of financial position as at 30 June 2015, and summaries of the statement of comprehensive revenue and expense, statement of changes in equity, and statement of cash flows for the year then ended.

Opinion

In our opinion, the information reported in the summary financial statements complies with FRS-43: Summary Financial Statements, and is consistent in all material respects with the audited financial statements from which they have been derived.

Basis of opinion

The audit was conducted in accordance with the Auditor-General's Auditing Standards, which incorporate the International Standards on Auditing (New Zealand).

The summary financial statements do not contain all the disclosures required for audited financial statements under generally accepted accounting practice in New Zealand. Therefore, reading the summary financial statements is not a substitute for reading the audited financial statements of the Group.

Responsibilities of the Board of Directors and the Auditor

The Board of Directors are responsible for preparing the summary financial statements in accordance with FRS-43: Summary Financial Statements. The Board of Directors is also responsible for the publication of the summary financial statements, whether in printed or electronic form. We are responsible for expressing an opinion on those statements, based on the procedures required by the Auditor-General's Auditing Standards, including International Standard on Auditing (New Zealand) 810: Engagements to Report on Summary Financial Statements.

In addition to the audit, we have carried out assignments in the areas of income tax compliance services, which are compatible with those independence requirements. Other than these assignments, we have no relationship with, or interests in the Company.

Trevor Deed Deloitte On behalf of the Auditor-General Wellington, New Zealand

SUMMARY OF DEERESEARCH PROJECTS IN 2014/15

TABLE 2

	SHORT TITLE				
		Period of Project	Total	DINZ Funding	AgR
Pan-sector consortia	Methane mitigation through Pastoral Greenhouse Gas Research Consortium	2002 - 2019	5,210	35	800
	Pastoral Genomics through Pastoral Genomics Research Consortium	2002-2014	4,236	34	125
	Johne's Disease through Johne's Disease Research Consortium	2008- 2016	_ 1	-	-
Industry-led productivity	Venison Supply Systems Programme (lead contractor being AgResearch)	2007-2013 ²		18.7	
	Hitting Targets for Deer Industry Profitability	2013-2018	1,842 ³	409	1,333
Other	Molecular markers for resistance or susceptibility to Johne's disease	2013-2015		80 p.a. ⁴	
Total				607.4	

The Consortium's work is financed through its owners' and the Crown's capital contributions made prior to the 2014/15 year.

DEERESEARCH PROJECT PROGRESS IN 2014/15

TABLE 3

SHORT TITLE	PURPOSE	PROGRESS BY 30 JUNE 2015
Methane mitigation	 Identify, establish and develop on-farm technologies to improve production efficiency for ruminants. Identify, establish and develop on-farm technologies for sheep, dairy, beef cattle, and deer, which lower methane emissions from New Zealand ruminants and nitrous oxide from grazing animal systems. Exploit commercial opportunities arising from the science and technologies in a global market. 	 Commercialisation plan reviewed and considered fit for-purpose. Animal genetics: Samples from a deer slaughter have been stored and will be analysed to compare with our sheep selection lines to give us information on the application of proxies (rumen microbial communities rumen size, VFAs etc) to identify low methane genotypes. Evidence is confirming that selection hold up on pasture diets, with further intensive analysis planned. Low GHG forage: All of our brassica rape work has shown significant reductions in methane when compared to a pasture diet and we have extended our experimental work to evaluate fodder beet that similarly shows promise. A full review of this research in 2015-16 will inform any further activity. Methane vaccine: The research programme is focused on identifying the most effective antigens for a prototype vaccine. We have engaged several companies under a CDA to explore commercial partnership collaborations. Methanogen inhibitors: We have identified 5 compounds that were successful in reducing methan by 30% in 2-day animal trials. These will be further evaluated in longer trials and then protected and this will allow engagement of commercial parties to commence.

Some unfinished projects continued into 2013/14 and 2014/15

Includes \$100k from Landcorp Farming Ltd

^{\$125}k p.a. funding from the Crown through a Technology Transfer Voucher and \$45k p.a. through the NZDFA/NZDFA branches and associates.

SHORT TITLE	PURPOSE	PROGRESS BY 30 JUNE 2015	
Pastoral Genomics	Provide NZ pastoral farmers with a long-term competitive advantage through the availability of more productive, sustainable forages produced through selection of untapped genetic potential in pastoral plants.	Science: Assembled the white clover genome Produced a comprehensive data set for a ryegrass genomic selection 'training population' Established genotype-by-sequencing methodology for ryegrass Produced novel clover germplasm with traits contributing to drought tolerance by backcrossing with interspecific hybrids Commercial: Established new partnerships with the two major New Zealand seed companies for delivery of genomics technology	
Johne's Disease	Provide tools for the New Zealand farming community and livestock industries to improve control of Johne's Disease ('JD') across the sheep, beef, deer and dairy industries.	 The JDRC On-farm Deer study, managed by Abacus Bio Limited and undertaken in collaboration with Johne's Management Limited has been largely completed. The study involved three parts An investigation of the link between the on-farm impact of JD and the JD-suspect lesion rate as determined at slaughter. The survey confirmed there is a strong link, providing support for the methodologies that JML uses to prioritise resources for controlling JD in NZ deer herds A study to compare the performance of the Paralisa® and Parachek® serum elisa tests against quantitative faecal PCR to detect highly infectious deer. The results confirmed that the ELISA tests were effective for detecting infection in deer that are shedding and therefore most infectious. These results are best used to formulate a set of best practice guidelines for JD diagnostics in deer. Development of a number of case studies to be published in 2016 The Johne's Advisory Group (JAG) (a cross sector, multidisciplinary expert panel providing advice to the JDRC Board regarding research and the uptake and application of science and management techniques for JD in NZ) continued operation, reviewing media and science reports and Jd research priorities for 	
Venison Supply Systems	Improve the biological and economic efficiency of the venison industry, thereby enhancing long-term financial and environmental sustainability.	See following sub-project reports	
Deer Systems Modelling	Understand the profitability relationships between different stock enterprises based on changing stock performance to aid in exploring the impacts of the PIP industry targets on the on-farm requirements.	 Developed a linear programme whole-farm research model that includes deer, sheep and beef enterprises to evaluate the effects of different production targets on profitability. A paper on the development of the model was delayed. Live weight and reproductive data from research, farm benchmarking and allied providers were compared with current practice to help define production targets for the model. The profitability of changing the growth rate of young stock and changing the reproductive rate of deer by comparison to similar changes in the competing sheep enterprise in a farm systems context were reported and a paper to the New Zealand Grassland Association on the practical implications of interactions between competing stock enterprises on changing stock performance was submitted. 	

SHORT TITLE	PURPOSE	PROGRESS BY 30 JUNE 2015		
Hitting Targets for Deer Industry Profitability	Assist the deer industry to achieve improved productivity, profitability and sustainability.	See following sub-project reports		
Achieving Productivity Targets	Develop farm systems that will meet the productivity targets of the future industry.	Feed supply scenarios have been tested against P2P productivity targets and a report provided advising on the options for altering feed supply and the impacts on productivity and profitability		
Managing Water Quality in Hill and High-Country Deer Systems	Develop hill-country deer farming systems that optimise profitability while meeting obligations around sustainable land-use.	 Re-survey of vegetation changes occurring under deer grazing at White Rock Station field work completed, but report delayed. Information on high-country deer farming produced for the Deer Hub Water quality research plan: Discussions with stakeholders indicate that self-feeding silage pits is a potential knowledge gap. Stakeholder priorities for environmental research ascertained. Delivery of desktop modelling of nutrient/contaminant flows for a range of commonly used deer self-feeding silage systems was deferred. 		
Adoption and Practice Change: Focus on Farming	Focus Farms and associated adoption/practice change activities are an effective conduit for the NZ deer industry to achieve its targets for improved profitability.	The industry was unable to establish the full complement of four Focus Farms (FF) planned for the year. The Southland FF was set up and the South Canterbury FF continued until its planned termination date within the FY15 year.		
Supporting our Industry	Focus Farms and associated adoption/practice change activities are an effective conduit for the NZ deer industry to achieve its targets for improved profitability.	Science staff attended and presented at various adoption/practice change events during the year (on request); including two Advance Party facilitator workshops, Deer Industry Conference presentations, veterinary presentations and a P2P feeding group meeting.		
Cutting edge Technology	Focus Farms and associated adoption/practice change activities are an effective conduit for the NZ deer industry to achieve its targets for improved profitability.	This sub-project was not undertaken as its intended function was deemed to fall under the auspices of the P2P project (e.g. Advance Parties).		
Physiology of Puberty	The effects of early-life (pre- and post-natal) growth on body tissue composition and entry into puberty are understood.	 Delivery of the final report was delayed to allow the lead researcher opportunities to focus on 5-year project planning at the request of the DEEResearch Board. Final report submitted January 2016. The study demonstrated that with a subsequent high level of nutritional management, hinds that had been nutritionally deprived early in life were still able to attain a high level of puberty success at 16 months of age. However, due to methodological constraint around the measurement of body fatness, the primary hypothesis around body mass thresholds for puberty attainment could not be adequately tested. 		
Managing Deer Parasites	The deer industry is able to effectively and efficiently manage the clinical and subclinical impacts of parasitism to improve weaner survival, optimise growth performance and hence overall health and welfare.	 The Mineral Additive study was completed and final report submitted. The study concluded that there was no evidence to support the hypothesis that a mineral additive to anthelmintic drench formulations improves their anthelmintic efficacy. A veterinary researcher (Dr Pania Flint) was contracted to workshop and provide written documentation of current parasite best-management for deer. This was completed and submitted to the DINZ Science Manager for inclusion in the DINZ webpages 		

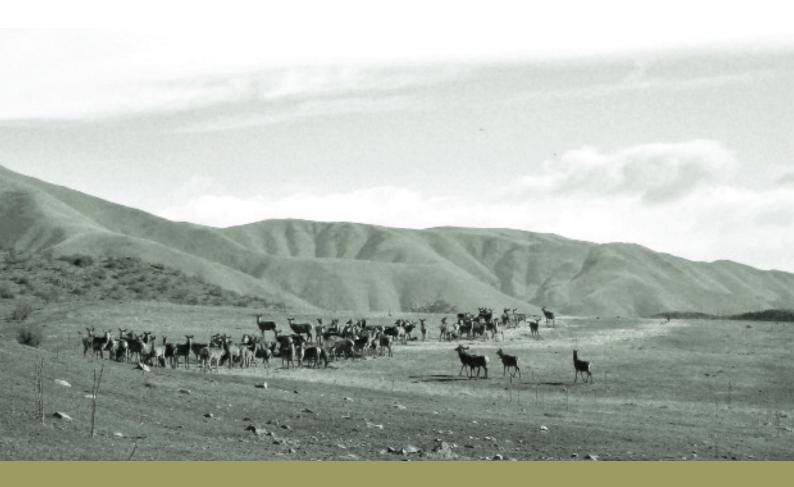
SHORT TITLE	PURPOSE	PROGRESS BY 30 JUNE 2015
Toxoplasma Vaccination	Efficacy of Toxoplasma vaccination in reducing foetal wastage in R2 hinds is determined.	This study was completed and final report submitted. There was no evidence of any effect of Toxoplasma vaccination of R2 hinds on reducing foetal wastage (abortion) or improving overall reproductive performance. However, other observations from the study have identified potential abortion issues around the practice of over-wintering hinds on swede crops. This hypothesis will be tested in FY16/17.
Anthelmintic Resistance in Farmed Deer Hinds	The deer industry is able to effectively and efficiently manage the clinical and subclinical impacts of parasitism to improve weaner survival, optimise growth performance and hence overall health and welfare.	 The study was completed as planned but the cattle assay did not discriminate deer herds for differing levels of anthelmintic resistance (AR), despite prior assertions that at least one of these farms had a high level of AR based on standard evaluation of dosing efficacy. It was concluded that either (1) the cattle assay does not work for deer parasite populations, or (2) the actual level of AR in deer herds is lower than previous conventional testing indicates, and that these earlier evaluations actually measured the acute effects of under-dosing. This latter hypothesis warrants further research into the assay in FY16.
Deer Progeny Test	Improve linkage between breeder herds and the ability to analyse animal performance across herds and breeds. Second-order objective is to provide a post-research (Beta-testing) platform where animals may be assessed for novel industry-relevant phenotypes before module development in DEERSelect.	Three major trait analyses were completed and final reports submitted. Meat and co-product traits Meat sensory traits These analyses have identified very significant opportunities for the NZ deer industry to achieve on-going economic gains through selection for improved meat and co-product yields without denigrating venison quality. The studies have further demonstrated the ultrasound eye-muscle area is a very effective tool for non-destructive assessment of high-yielding primal phenotypes. Temperament traits This analysis has demonstrated the repeatability and utility of temperament scoring systems for herd management and genetic selection for behavioural traits that have the potential to improve on-farm deer performance.
DEERSelect	Operate, maintain and develop the platform by which genetics information is stored, analysed and disseminated to the deer industry.	 A sensitivity analysis of new indexes for multitrait selection, based on the Whole Farm Model, was completed and presented to the DEERSelect Reference Group (DSRG). The DSRG have opted not to implement the new indexes at this stage, largely due to current low levels of adoption of the current indices. A number of milestones around the development and implementation of gBreed within DEERSelect were replaced, by negotiation with the DINZ Science Manager and the DINZ DEERSelect Manager, with new milestones on Genetic Groups and a Review of Reproduction Traits. These new milestones were completed late but have been delivered as of February 2016. The recommendations of the reports have yet to be considered by the DSRG. Routine index/BV runs, DEERSelect maintenance and trouble- shooting have been completed on time as planned or as needed.

SHORT TITLE	PURPOSE	PROGRESS BY 30 JUNE 2015	
Genomics	SNPs of greatest utility to the deer industry are identified to enable third parties to improve the efficiency and accuracy of tools for parentage assignment and breed assignment; development of species/sub-species forensic tools to identify in-market substitution and adulteration of venison and velvet labelled as of New Zealand deer farm origin.	 The final report was completed and submitted. SNPs have been identified for improved parentage or improved breed-typing, but these represent different suites of SNPs for each purpose. The adoption of SNP technologies to supersede microsatellite technology now sits with commercial service providers. 	
DEERLink	Ensure that DEERSelect maintains an acceptable standard of sire linkage between large enough numbers of deer to form a database capable of supporting industry-wide genetic improvement. To provide an ongoing platform to assess the heritability of meat traits and maternal traits of commercial importance to the deer industry and, where appropriate, develop means of trait reporting, undertaking genetic analysis, breeding value calculation and inclusion of such breeding values in multi-trait indices.	The final AI run for DEERLink was completed in April 2015 and the progeny will be assessed in FY16. All progeny data for the previous cohort have been uploaded into DEERSelect. As a result of DEERLink there has been an improvement in herd linkage in DEERSelect, especially for the wapiti herds.	
The potential for genomic selection in the NZ deer industry	Identify the opportunities for the NZ deer industry to adopt genomic breeding values to enhance of genetic improvement of farmed deer.	The final report has been submitted. The outcomes and recommendations have yet to be considered by DSRG.	
CT scanning of carcass traits	To determine the phenotypic correlations between CT scan-derived carcass traits and actual carcass traits measured at slaughter.	 High-intensity CT-Scanning of 2014-born DPT progeny was performed within two weeks of slaughter. Initial analysis of correlations between CT traits and actual carcass measurement traits were presented within the final report of the DPT carcass trait analysis. The next steps (FY16) are to determine an optimisation protocol for CT scanning of deer that is most cost-effective for the non-destructive measurement of heritable carcass traits. 	
Low environmental footprint deer self-feeding silage systems	To quantify and evalute nutrient/water contamination from self-feeding silage systems and devise management strategies to minimise adverse water quality impacts.	 The project was finished and best practice management was developed. A draft report was written (this has since been finalised). A model was devloped that quantified the potential nutrient/water-contaminants and identified the pathways requiring careful management. 	
Improving OVERSEER for deer	The deer industry is able to adjudge the fitness-for- purpose of OVERSEER as a nutrient budgeting tool in deer only and integrated farming systems and make technical recommendations for any required improvements.	A sensitivity analysis was completed and final report submitted. The study evaluated to potential impacts and/or benefits of specific amendments of OVERSEER for deer systems based on an earlier report on the appropriateness of specific assumptions/data for deer systems embedded within the current OVERSEER model. The recommendations from this report have yet to be assessed by DINZ for future negotiation with the OVERSEER owners.	
Foetal wastage	Determine the incidence and prevalence of foetal wastage and develop and/or apply serum diagnostic tests for potential pathogenic causes of foetal wastage.	The project was a sub-contract with Massey University to support a PhD student. Reporting has been provided by Massey University. While the field survey has been completed, the data analysis and thesis writing have not yet been completed.	
Molecular markers for resistance or susceptibility to Johne's disease	Identify a panel of biomarkers to be used in a laboratory assay to discriminate between animals that would display a Susceptible, Intermediate or Resilient phenotype following MAP infection.	A set of biomarkers which distinguish Resilient from Susceptible groups of deer, based upon a number of purebred lines of deer at Peel Forest Estate in North Canterbury, have been identified and shown to be differentially expressed in antigen-stimulated PBMC cells recovered from a small volume of peripheral whole blood.	

A SUMMARY OF DEERESEARCH PROJECTS IN 2015/165

TABLE 4

TYPE OF INVESTMENT	SHORT TITLE	PERIOD OF PROJECT	DINZ 2014/15 CONTRIBUTION (\$K)
Pan-sector consortia	Methane mitigation through Pastoral Greenhouse Gas Research Consortium	2002 - 2015	35
	Johne's Disease through Johne's Disease Research Consortium	2008-2016	-
Industry-led productivity	Hitting Targets for Deer Industry Profitability	2013-2018	445.7 ⁶





Further projects may be approved during the year
 Includes \$37.7K accrued from unfinished 2014/15 milestones

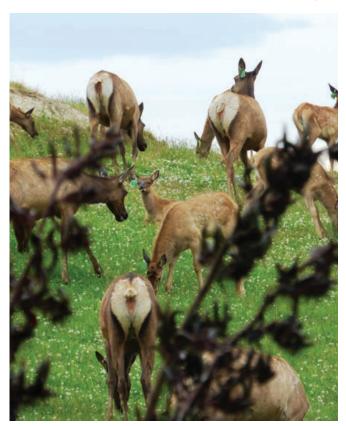
MSD Animal Health Photographic Awards



Although the volume of entries was down a little this year, we still received some excellent images of deer in our farming environment – including two outstanding photos from the youngest-ever entrant to feature among the place getters.



Overall first place and People's Choice award second place: "Morning watch" by Tony Roberts.



Second place: "Land of milk and honey" by Demi Lawrence.

FIFTEEN-YEAR-OLD DEMI LAWRENCE was awarded overall second place for her "Land of milk and honey", and a Highly Commended for "Curiosity".

Our overall winner, Tony Roberts, has featured among the top entries before, but this is his first outright win. Congratulations, Tony for an imaginative and thoughtfully composed shot.



Third place and winner of the People's Choice award: "Domestics over who's leading the sleigh" by Emma Coutts

Thanks again to all our entrants and to our sponsor, MSD Animal Health. And remember, it's not too soon to start compiling your entry portfolio for next year's competition! ■