# Feeding and breeding for velvet

by Phil Stewart, Deer Industry News Editor

Ken and Steph Norman admit they knew nothing about deer when they bought the 196 effective hectare Rexdale farm near Pahiatua from Bruce Timmins seven years ago. But the young couple quickly became enthusiastic converts and are already looking for opportunities to expand their interests in the industry. A big plus has been Bruce's willingness to continue sharing his knowledge with the Normans as they've settled into the business.

THE NORMANS ARE part of the Central Regions Advance Party<sup>1</sup> and were winners of the 2015 Outgro Tararua Farmer of the Year Competition.2 They hosted a workshop on their property on 24 March, led by Pania Flint, Farm Health Veterinary Services. The workshop wasn't an Advance Party meeting but nonetheless provided an excellent opportunity to share what has been learned from two Advance Party feeding trials. The workshop drew in about 25 Central Regions deer farmers from both sides of the

After a farm tour there was a fruitful discussion on genetics

main divide.

and feeding for improved velvet production. DEERSelect Manager Sharon McIntyre joined the workshop and was able to answer a number of questions about the heritability of certain attributes including elusive traits like temperament.

The results of the two Advance Party feeding trials, one on Rexdale and the other on Craig Hocken's Rosemere Estate, were also presented. Each provided excellent fodder for discussion.

### Rexdale farm profile

The property is a mix of flats and hill, rising from 120 to 220 metres above sea level. They enjoy 1700mm of rainfall – generous by Wairarapa standards.

The ryegrass/clover pastures have been renewed in recent years



<sup>2</sup> A field day on the property is planned for 29 April.



Steph and Ken Norman: Enthusiastic converts to deer and keen to improve performance.

and are supplemented in some paddocks with plantain. Chicory has been tried but had poor persistence. The late summer/ autumn period is usually good; the pinch period is in late winter/early spring, a period when nutrition of the velvetters is especially important.

The deer operation is focused on velvet and makes up about one-third of the enterprise. The Normans, who provide all the labour themselves, have 177 breeding hinds and 243 mixedage velvetting stags. In addition they run 800 sheep including two-tooths, finish 300 head of bull beef and they rear 550 calves

(half sold at 100kg - not wintered).

They cut just over 1.35 tonnes of velvet in 2014/15. The stag numbers have been steadily built up over the past seven years. Interestingly, the cohort born in 2008 has consistently outperformed its predecessors and successors as it moves through the age classes.

Reproductive efficiency has been strong, with weaning percentages in the high 90s for mixed-age hinds. Hinds are fawned in paddocks with plenty of cover and contours and well away from any disturbance.

The stags are rotated in their mobs during the roar, with one paddock as a buffer between each mob – a process that Ken Norman admitted could be tricky. Stags are put into velvetting mobs of 25-30 from button drop.

During autumn, the hinds are flushed on the flats. Ken Norman commented that good subdivision is almost as important as fertiliser when it comes to improving productivity.

The Normans are keen to use technology to help achieve their objectives and were highly enthusiastic about the way RFID tags enables recording of individual velvet weights (including regrowth) using the Gallagher TSi weighing and EID system. Ken said the data generated plenty of useful information and could be



### Lynda Gray

Almost doubling the number of hinds fed on a silage pad has halved the wastage and saved Richard Greer \$10,500.

Silage has been fed to hinds from pads over winter since the Greer family moved to Sunnyside Station near Te Anau in 2010. But wastage was a big problem that Greer thought was because of the type of silage. He tried whole crop and grass as well as layering them in a number of ways.

"We tried putting grass on top but that didn't make any difference. Another year we put the whole crop on the bottom and the grass on the top but all they did was eat the bottom out."

In hindsight the silage wasn't the problem, it was the time it took the hinds to eat their way along the exposed face.

Number crunching by the Southland Advance Party that Greer belongs to estimated that almost 70,000kg of drymatter (DM) was being trampled and cast aside by the 500 hinds fed on the 33 metre-face pit. Collective thinking and advice from the group was to add another 400 hinds to stop the picky and wasteful feeding behaviour.

"It sounded a lot and I thought there might have been a few hierarchy problems but we've actually taken out fewer light ones than when we only had 500 on it."

As well as topping up hind numbers, gates had been added at each side of the feeding face to reduce the exposed length if necessary. Also, the space between the bottom of the feeding barrier and ground had been filled with plywood to prevent hinds from standing on the silage.

"They won't eat it if it's been stood on."

This year the 900 hinds grazed the pit with access to 3.5ha of fodder beet and 8ha of free-draining grass run-off on June 22. The waste that did accumulate was put on the silage wagon and fed out to cattle.

Although the hinds had fared well on the silage and fodder beet Greer said he will put them on an all-fodder beet diet next year following the good results achieved with another mob of hinds.

His planned move is based on a gross margin analysis of pit silage versus fodder beet by Southland Advance Party facilitator Deane Carson. He calculated a fodder beet growing cost of 14c/kg DM based on a 20,000 tonne crop with a metabolisable energy (ME) of 13; establishment, weed and pest and 50% regrassing costs of \$2264.63/ha, and crop utilisation of 80%. Pit silage with an ME of 10.5 worked out at 20c/kg DM based on a 3500kg/ha yield and establishment and harvesting costs of \$603.62/ha.

"For Richard his fodder beet is a cheaper growing system than whole crop or pit silage. Also the growth rates of deer on fodder beet are better than on silage so it's a double whammy," Carson said.

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A do-it-yourself post-mortem is a quick way to confirm or rule out Johne's disease. At the Southland Focus Farm field day Solis Norton, general manager of JML, showed farmers how to autopsy a deer and look for the tell-tale signs of Johne's.

"I'm not saying short-circuit the vet. If you find two or three animals and can't explain what's going on call in a vet, especially if you have a number of animals that aren't performing."

Norton believed that nationally Johne's in deer was largely under control and had followed a cycle similar to what was experienced in the dairy industry.

"It kicked the guts out of deer in the 90s but now there's a low prevalence on most farms and only a very few with a serious issue."

Trading deer and stress, brought about by weaning, extreme weather and underfeeding were the main ways of bringing on a challenge.

"Compounding stresses are a reoccurring theme with Johne's."

For that reason Norton recommended letting fawns settle in a familiar paddock after weaning before trucking them off to a new home.

While JML was there to offer practical help in dealing with the disease it also had available, free of charge to all deer farmers, production figures such as the average kill date, average slaughter weights, average carcaseweights, and lesion rates. These figures could be benchmarked against regional and national figures.

"We have a huge resource sitting there to be mined by farmers – our aim is to give you the stuff that will be most useful."



Solis Norton – a DIY post-mortem is an easy way to rule out or confirm Johne's disease.



he Hawke's Bay Advance Party suggested some trial work on the question of weaning time at the Gaddums' Kereru farm, Rangimoe Station, in the hills west of Hastings.

Gaddum has been farming at Kereru since 2008. He manages Rangimoe for the larger family company where 70% of stock units are deer in a breeding, finishing and velveting operation. The business runs 1750ha altogether, including 258 Angus cows and 1000 breeding ewes.

The initial Hawke's Bay Advance Party – there are two more in the wings – started at the beginning of 2013 with Gaddum as chairman and vet and deer farmer Richard Hilson as facilitator.

It's made up of nine like-minded deer farmers from the same area that meet every six weeks to visit each other's properties and pick out farm issues. They work together to find solutions.

'The best part about it is the longer the group operates the more open everyone becomes. We are there to pinpoint issues on the farm and the farmer is obliged to resolve them.'

"It may be anything from where a new laneway should go to our issue of how to incorporate a velvet herd into a venison operation. All these different ideas of deer farming come out on the table," Gaddum says.

"The best part about it is the longer the group operates the more open everyone becomes. We are there to pinpoint issues on the farm and the farmer is obliged to resolve them."

Hilson says the group dynamics are strong and this "compulsion" has initiated significant change on most farms.

"Some of the farmers involved have also taken the opportunity to get wider opinion from other members on plans for new deer yards, deer sheds and even riparian fencing projects."

As well as gathering information to help other deer farmers around the country the Advance Party also aims to create more productivity in the sector. The weaning trial is a perfect example of how the Advance Party works.

By chance the Gaddums had two mobs of hinds that were on the same feed and



for this interchange of ideas and it will achieve the aim of better feeding and more money-making options," Hilson says.

"Discussion groups often offer new ideas but there may be little compulsion for change. The Advance Party offers the new ideas and fresh perspectives but also creates some compulsion for members."

Hilson says the Hawke's Bay group – which altogether farms about 25,000 deer stock units – has become very cohesive. He has also spoken at three conferences about the advantages of the Advance Party system.

"Fathers and sons, husbands and wives, owners and staff have all contributed strongly and on an equal footing. There isn't much to dislike about them."







Winter fodder crops grown by Hawke's Bay Advance Party farmers had the once over this autumn.

Advance Party facilitator Richard Hilson cut and measured all winter crops the nine farmers had grown. These included Kestrel, Regal and Sovereign kales, swedes, Goliath and Spitfire rapes and oats.

For example, Rupert Gaddum's Sovereign kale crops weighed in at about 17-18 tonnes drymatter a hectare.

"These are massive yields by any measure," Hilson says.

He found a wide range of yields and feeding plans and then calculated feed budgets for several of the farmers. Working examples used at the July meeting at Maranoa – the farm of John, Daniel and Marie Spiers – proved quite accurate, Hilson says.

"They allowed the Spiers' to buy in extra cattle to make use of the extra feed generated through the high yields they achieved with their two brassica paddocks."



All the crops were photographed and discussed in depth.

"Group members wanted to understand more about the residual crop left by deer so further samples were taken to quantify how and what the animals grazed."

This work also gave an opportunity to look more at winter crop use by comparing velvet antler weights from crop-fed animals with those on grass-only diets.

"It was a really good example of how the Advance Party works and why it seems to work better than a discussion group," he says.

"Many farmers can operate in something of a vacuum, doing their own thing and having little opportunity for such an interactive exchange."

In the case of winter crops and feeding systems there is always room for changes such as improved accuracy in feed budgeting or ideas to improve strip grazing.

"The Advance Party is a perfect forum

animal health programmes but were weaned at different times of year.

They were finding a variation in the reproductive performances of the two mobs and wanted to know if weaning time was affecting this.

In the past it has been their usual practice to wean fawns after the stag goes

"It is good for the fawn because it allows the fawn to have more growing time on its mother. But there is no down time for the hind to pick-up condition in March so she can get in fawn again as early as possible, especially if the summer and autumn are dry," Gaddum says.

One mob of 65 hinds was pre-rut weaned, the other mob of 69 hinds postrut weaned. At scanning on June 18 last year Hilson body condition scored (BCS) both mobs of hinds.

Both mobs had been fed at the same levels, Gaddum says, but they found the pre-rut weaned hinds had an average BCS of 4.1 while the post-rut weaned hinds had a BCS averaging 3.8. The in-fawn rates were similar although the late-weaned hinds did have slightly more empties at 4.5% versus 1.5%.

The most dramatic effect was on the date at which the hinds were mated. By mid-April, 91% of the early-weaned hinds were mated compared with only 68% of the late-weaned hinds.

Hilson says this is an important management issue in the Hawke's Bay climate.

"Hinds are best to fawn as early as possible while grass quantity and quality are more likely to be reliable, so that means fawning in November rather than December.



reproductive performance from the 1780 breeding hinds.

They produce 830 stags a year and from the 830 hinds, 300 go back into the herd as replacements. The rest are kept for venison production.

Another feature of the Gaddums farm is the increasing amount of land with forage

"We want our deer operation to be more flexible so we are dropping hind numbers to focus more on velvet genetics," Rupert Gaddum says.

To that end they have bought in 260 hinds with strong velvet genetics and velvet stag numbers are increasing from the present 130 to 400 head.

"Dropping overall hind numbers will give us an opportunity to put more emphasis on prerut weaning everything and allow us to have more space to put in crops for fawns."

They have 18ha of plantain clover mixes and are increasing this to 25ha so they can have a good rotation for the fawns. They have several winter crops of Sovereign kale, which is strip grazed from mid-May until early September.

a third of the fawns born to the lateweaned hinds will be born in December, which is too late for top production the following year."

"In this case the results indicate that

This work has shown it is much better to wean hinds earlier if it is possible. Hilson says it also confirms earlier work done in the deer industry on the benefits and pitfalls of pre-rut weaning.

"In this case our work was somewhat unique in that we could compare mobs on the same farm under the same management regimes – earlier work compared early and late weaning on different farms."

The results can work as a tool to improve both hind condition at conception as well as at fawning, Hilson says.

This makes wintering the hinds easier, and allocating feed better as fawns can be the first option for crops or better pasture without competition from their mothers.

"And while this would not be news to most deer farmers it was an opportunity the group saw to create data in a unique situation that graphically showed the Gaddums the effect of delayed weaning and aimed to deliver a permanent positive change," Hilson says.

Rangimoe's pre-rut, weaned fawns.

>> Change for the good p32



# Quick genetic gains add financial rewards to deer velvet's romance

Passion for the deer industry is evident from the moment you turn into the driveway of a Hawke's Bay deer farmer who is fighting hard for his industry. Kate Taylor reports.

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Kate Taylor

Grant and Sally Charteris with son Harry, 23 months, and newborn daughter Lottie with the statue of stag Raven that has pride of place in their driveway. It was created as a memorial to Grants late father Bruce as it was a sire stag they owned together.

There's a certain infectious romance to farming deer for velvet for Hawke's Bay farmer Grant Charteris.

"There's nothing more enjoyable in my job than when the grass is growing and feeding grain to the velvet and trophy stags and monitoring their progress on a daily basis. That's what gets me out of bed in the morning," he says with pride.

Grant grew up on the deer farm he now owns with wife Sally, a primary school teacher. They have two children – almost-two-year-old son Harry and newborn daughter Lottie.

When Grant came home to the farm it had a small velvet herd. His father Bruce had retired into town and given Grant "enough rope" to do what he wanted as well as acting as his sounding board.

"My passion reignited his passion," Grant says. Bruce died while helping on the farm in 2013 and a stag statue now stands in the driveway in his honour. "I know how proud he would be of what we're doing."

Grant says the nature of velvet makes it easy to track improvement... and improvement comes quickly.

"Because it's so visual and you get such a quick return on your investment with velvet, it became infectious. To put it into perspective, inheritability rate with growth rate traits is around the 30 per cent mark, where velvet and antler are more like 80 per cent.

"So what you're seeing from your sire stags correlates directly to your progeny. When you start single-sire mating you really start focusing on where you want to be going."

The 327ha Forest Road Farm is all deer-fenced. Stock numbers usually sit at 85 per cent deer, 12 per cent beef bulls for finishing and 3 per cent sheep (traded for ragwort control).

Between 50 and 200 beef bulls are bought and sold depending on the season and the available feed, giving Grant more management options when it's dry. The bulls are carried over the winter and run with set-stocked deer.



"Once the hinds start fawning you have to leave them to their own devices and stay out of the paddocks otherwise the disturbance will interfere with production too much," he says.

"So, as a way of offsetting that, I let the covers grow up so I've got a bit of cover there for fawn survival. But then depending on the paddock size, I put in between five and 10 forward-coming bulls, bigger bulls I know I can kill from that paddock.

"Therefore, if we get a pinch in feed, if it stays dry, when those bulls are by a corner one day I'll hook them out. That's our lever and eases the pressure on those hinds and fawns."

Some of Grant's red deer have an eastern background from John Spier's Maranoa stud at Takapau. But over the past 10 years he has focused on Warnham and Woburn English red bloodlines with a swing to an increased velvet and trophy focus.

"I select stags first and foremost on their velvet, style and weight, and then if they have good tops, good royal tines for trophy potential, that's a bonus.

"When particular stags get to eight years old I grow them right out past the velveting stage, right into hard antler, and they get measured in inches of antler (including total of the length of every tine and three circumference measurements at certain points) and you're paid in brackets according to the score you're given.

"So over 360 inches puts you into gold medal class and the good money increases in increments from there upwards.

"I grow out 10 or a dozen each year and it allows me to get a good residual value for those stags getting towards the end of their productive life as

a velveter. I reinvest that money in the best genetics that I see driving my business forward without robbing Peter to pay Paul, if you like," he says.

"When I buy a sire stag, I will work out what the trophies are worth. So if I have 10 trophies averaging \$3500 each I have potentially got \$35,000 worth of trophies.

"But I haven't got \$35,000 to reinvest in a stag because I need to consider the \$800 worth of velvet and \$600 meat value for each stag and take that \$14,000 off the total. So I would have \$21,000 to reinvest."

He paid \$26,000 for last year's sire stag and \$20,000 the previous year.

"I'm at the stage where I'm not going to go out and buy second-best or my genetic gain isn't going to be where I want it to be.

"All of my sales are live sales now so if people are going to be willing to buy my stock for their breeding it has to be considered to be up there with the studs or better."

About 230 female deer progeny are taken through to 15 months and mated in two lines – a keeper line and a sale line – to his best two-year-old velvet stags. They are all pregnancy-scanned in June and after he's selected his keepers, the rest are sold to other farmers for their velvet genetics.

"That allows other farmers to come in at the same level of genetics that I'm purchasing myself."

Most of his deer stay in Hawke's Bay but he has also sold a line of in-fawn hinds in the South Island this year as well.

Males are velveted as spikers with the top half retained in Grant's velvet herd and the other half sold as velvet stags to other farmers. The retained spikers strike another cull as two-year-olds when those reaching 2.8kg of velvet are kept and those between 2.2-2.8kg are sold as well.

"We're always skimming the top off," Grant says.

"Trophies aren't even considered at this stage. They have to perform on their velvet merit and the trophy is a bonus at the end of it. I'm not farming for trophies, I'm farming for velvet."

Due to that selection pressure, last year's two-year-old keepers averaged 3.1kg in the first cut, three-year-olds averaged 4.3kg, four-year-olds 5.2kg and the mixed-age stags 6kg.

"Those mixed-aged stags, with that 6kg and say a kilo of regrowth, seven x \$125 per kilogram is \$875 a head. If you're running 3.5 to the hectare, you're in excess of \$3000 a hectare for mixed-aged stags."

Grant also sells three-year-old stags by private treaty in December.

He keeps the top one or two for his own herd then catalogues about 20 others that have recorded more than 5kg of quality velvet as a three-year-old.

Forest Road Farm won a national Rising Stars competition in 2014 with a 50-point spiker called Jagerbomb that measured 335 inches. (All antler measurements around the world are recorded in inches. It equals 851cm).

"Another good homebred stag called Bonsai was a 38-point spiker who recorded 457 inches as a three-year-old."

Grant says venison is important to the industry as well as velvet so he will never use a small sire stag.

"He has to be big in the body as well. When you're selling live sales and you've selected your choice out of your hinds, the first question a potential buyer will ask how big they are or how much do they weigh.

"They want a visually sturdy animal. It's important and I'm not naive to the fact that if something happened to the velvet industry, I've still got big animals.

"I would keep on farming deer and as Dad always said, "that extra 10kg carcass on the hook does add up". It bodes well too to getting good conception rates and having early maturing animal that's a good size when it's getting mated at 15 months."

This year Grant had one dry out of 150 yearling hinds. National conception rates are well below that. He says his good results come down to feeding and sociability.

"It's introducing the stags that are mating with them at an early stage in January so they can socialise with them. They're a similar age to them so they don't get the intimidation factor and they're fed well.

"We had that drought a couple of years ago and I fed them lucerne balage and maize every single day and was worried about the disturbance I would get from interrupting them during their mating period. But I got 99 per cent that year, too, so it showed nutrition outweighed leaving them to their own devices.

"There used to be a common misconception that deer live on the smell of an oily rag and they're low maintenance, that you can stick them out on that southerly face for the winter and they'll look after themselves. But if you want good production and good results and to farm them in a profitable manner, you can't treat them like a second-rate citizen."

Grant says he is constantly improving the infrastructure of the farm, particularly with laneways and a new set of yards - "Anything that makes life more efficient and minimises damage and looks after the welfare of the deer."

Grant is in his fourth year and second term on the executive committee of the New Zealand Deer Farmers Association. He was shoulder tapped to go on the committee, but says it was a natural progression from what he'd done with the Young Farmer Contest (grand final 2008) and the Food and Agribusiness Market Experience (FAME) programme in 2009.

"When you're passionate about the industry you're in, it's easy to sit back and complain about what you're not happy with. But if you're there having a say, you can help steer the industry.

"One of my main drivers for being on the New Zealand executive committee is to help get that message out there, hopefully inspire people to stay with the industry and find ways of making it more profitable."

Forest Road Farm hosted a Next Generation field day in September. It is a group of 45 people, either young people or new to the industry, who are willing to take on new challenges and adopt new technology and new practices.

The first day of the Next Generation programme is a classroom day with a set topic. This year it had a velvet focus, looking at issues such as mating behaviour and conception rates, optimum feeding levels at different times of the year for optimal velvet growth and financial analysis. The second day was a farm tour.

Grant says as well as the evening dinner providing valuable networking, a Next Generation Facebook page has been set up.

"There are people firing questions on there all the time. It's a forum that allows questions to be asked and you're likely to get immediate replies. There have been a few about the climatic conditions this year. Many people haven't been through that and the answers are invaluable."

Grant is also a member of the Hawke's Bay Advance Party, a group of nine members operating under the umbrella of the deer industry's Passion2Profit primary growth programme delivering feed, genetics and animal health solutions to farmers.

"It takes a whole bunch of self-motivated farmers and puts them together in a group where you identify the issues you would like to focus on within your own business and then work as a group to fix those issues and make your farm more profitable."

Despite having a velvet focus, the Advance Party has encouraged Grant to move into weighing his deer and utilising the EID tagging and technology that comes with his new TSI Gallagher weighing system.

He says the first year was the slowest – putting in each stag's breed, sire, age and tag colour – as well as setting up a list of push-button traits such as beam trait, tine trait, overall comment, grade and temperament.

"Then we come to harvest and weigh the velvet and then that all gets recorded to that animal as well. The beauty of it is, any time that animal is scanned from here on in, all that information comes up on the screen so it makes culling decisions really easy. The real benefit of the TSI is going back to the office screen to filter by any trait."

The system automatically graphs velvet weights once they are two years of data.

"It's a pretty amazing tool to have in the shed."

Grant says to fully engage in what the Advance Party is doing, members have to first see the benefits in their own businesses.

"Then, once you are fixing your own issues and can show some examples of what you've done to progress your own business, the next part is to showcase it and spread that news to the wider industry. That's the most important part of it because if that last part doesn't happen, it's a farm discussion group.

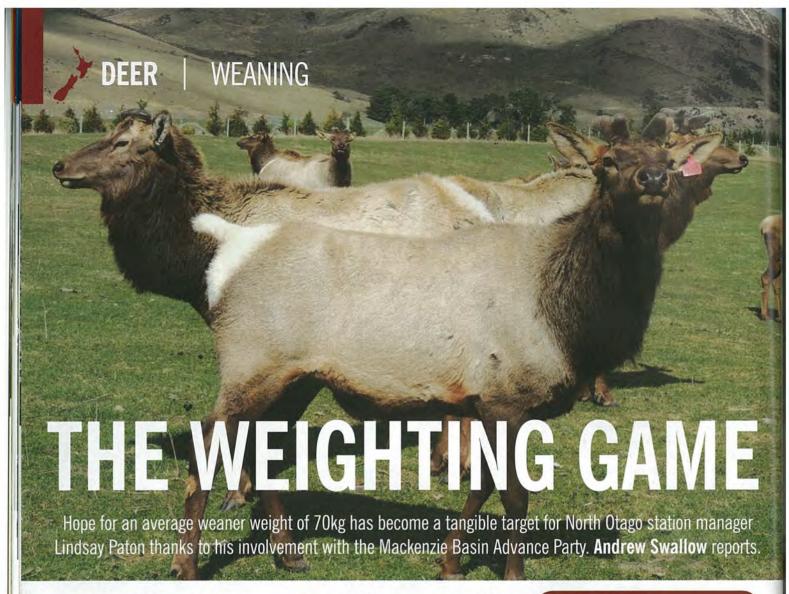
"And it's more than that. You have to be fully engaged with your own issues and be prepared to monitor and share data and results and maybe financials and then take it the next step and share it for the good of the industry not just the good of your own farm."

He says a large part of the success of the Hawke's Bay group is the work of facilitator Richard Hilson.

"He can extract information without demanding certain answers. He understands the process... that what we pick up on the way might be just as important as the end outcome."

- Stuff

### more from stuff



nly once in the past six years have the 600 or so Wapiti-cross weaners sold by Awakino Station in late March averaged 70kg liveweight. But station manager Lindsay Paton believes that's set to change, helping secure deer's future on the farm.

"It's now a target, not just a hope and we have plans to get us there," he says.

Those plans are thanks to his involvement in the Mackenzie Basin Advance Party, which has inspired him to increase focus on hind condition and feeding.

"With the Advance Party the full focus is on deer farming – that's what I enjoy about it. We put the rest of our businesses aside and concentrate on the deer and because of that we really make some progress."

As a small group – there are eight in the Mackenzie Basin Advance Party – they can drill down to the detail needed to be confident when making management changes, Paton says.

"It's not like most field days where all you get is the big picture. They're often little more than a day out.

"We've got to know each other well and each other's farms and we all report on our operations at each meeting. That's what gives the group teeth. You have to do what you say you're going to do and trust each other's judgment."

A facilitator at the meetings also keeps them on topic without leading the discussion one way or the other.

Achieving 70kg weaners was a target identified with the group to help the station retain and make the most of a reliable and strongly-priced weaner market for all but 250 of the 850 fawns produced each year. They're sold on truck-weight direct to Mountain River's Northbank Station, an integrated finishing-processing-marketing operation in mid Canterbury, Paton says.

"If we let our weaner weights slip we might find we're in the saleyards and at the mercy of the market on the day."

One step towards securing that 70kg target has been introducing Advantage Feeders.

"They were intended to be used as a trial to help get weaners through the weaning period but it got so dry last autumn we ended up feeding the whole lot."

Initially flaps on the feeders were left open so hinds had access to the feed, showing the fawns the way. After three weeks restrictors were put in so only

# Farm facts

## Awakino Station, near Kurow in North Otago

- 7200ha, mostly steep hill country rising to 1400m
- 650ha of hill and 95ha of finishing country deer fenced
- 210ha irrigated but frequently restricted plus 34ha of more reliable irrigation
- 180ha in lucerne with another 80ha planned
- Rainfall 400-500mm a year

### **Breeding stock**

- 900 Mt Hutt Reds
- 4100 Romney ewes
- 450 Hereford cows

fawns could access the grain. The benefit was seen in weaners, which despite a desperately dry season and severe feed shortage, were only back 0.9kg on the previous year. However, hinds were back 9kg.

The lesson learnt in the dry of last autumn was the cost of leaving the weaners out on the hill because of lack of feed on the flats for finishing. With the feeders out weaner weights weren't compromised but, as the hind weight loss figures suggest, condition of the breeding herd suffered substantially. Despite a subsequent increase in feeding there was a knock-on impact on scanning.

"We normally scan in the mid-90s but this year it's back 8% at 88% due to the dry."

The dry also stymied an Advance Party-inspired plan to carry dry hinds through from scanning to spring when the schedule lifts.

"Instead of selling at \$6/kg, with a minimal amount of feed we could take them through to October and get \$7-plus. But we couldn't do it this year because there just wasn't the feed available. We've not been as dry as North Canterbury but it's been very dry all the same."

As of late September just 240mm of rain had fallen at the homestead so there's a long way to go if the annual total is to get into the recent range of 460-560mm a year, Paton says.

"But longer term, the average for here is in the lower 400s [mm] so maybe this is going to be one of those years that drags that average down."

>> Taking stock of conditions p34



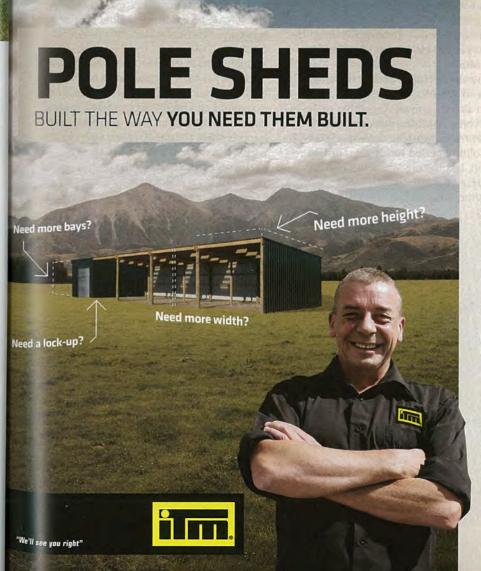
# Hand to eye co-ordination

Awakino Station manager Lindsay Paton is now body condition scoring (BCS) hinds by hand on their twice-yearly visits to the yards, another Mackenzie Basin Advance Party-inspired management change.

"It's just the same as condition scoring sheep and it's giving us a much better assessment of how the herd's faring than we got just by eye and weight. By eye you only pick up the really obvious stuff and you can make mistakes.

"There might be a light animal with a rough-looking coat but when you put a hand on them you can find that they're fine – they're just a naturally smaller animal. Similarly, you can miss a big animal that's an average weight but is actually in light condition. It's much more accurate and nothing slips through."

The recorded figures will in time provide a reference database as well as inform and finetune future management decisions. For example, the difference between an average hind condition of BCS 3 at weaning – they normally wean mixed-age hinds pre-rut – and BCS 3.4 or 3.5 might mean putting the grain trailer out or not.



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Awakino Station manager Lindsay Paton has plans in place to progressively offload stock if a second dry summer in succession eventuates, thanks to a likely El Nino event.

"There are 400 early-lambed ewes we'll sell with lambs at foot all-counted, then the finishing cattle and then hoggets. You just have to keep chipping away at things before you're forced to," he says.

Deer don't feature in those early action plans, probably because they top the leader board for profitability on the station.

"We're about 50% sheep, 35% cattle and 15% deer. In terms of profitability the deer lead the sheep and the sheep are well ahead of the cattle, though the cattle are not too bad this year either."

The Turanganui Romney flock has lambed at more than 150% for the past six years, which is calculated as lambs sold or kept from all ewes mated. Also, supplying service bulls to the dairy industry bolsters beef returns from the 450-cow Hereford herd.

"It brings the value of the beef operation up quite markedly," Paton says.

On the hill, 650ha in four main blocks and two smaller blocks is deer-fenced and there's 95ha with high-wire on the flatter, lower country.

The area's still a movement control area for TB so weaners and hinds are TB tested at pre-rut weaning. Normally, weaners intended for sale go out on the

flats and-or lower country to put on as much weight as possible before sale. In theory, 210ha of the flats are irrigated but in practice low-flow restrictions mean the water's rarely available in late summer and autumn.

"Any arable land that we can't irrigate we try to get into lucerne. We've got 180ha already and another 80ha to do. It's become crucial to our operation."

After the mandatory three-day, post-TB test holding period hinds are returned to the hill, less the obviously old that are earmarked for culling. Roughly 10% of the lightest are drafted and put into the

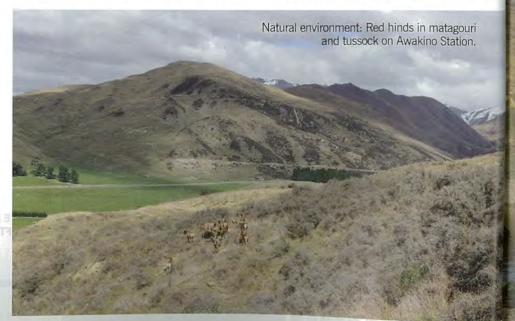
two smaller hill blocks where they can be managed accordingly.

"Now we've got those smaller blocks we can preferentially feed the tail-end a bit. Within two weeks they're a different animal."

Except for such tweaks, hinds are effectively set stocked on the tussock and matagouri all year. "That country's their natural environment. Deer are much happier there than they are in a paddock with no tussock or scrub."

The only mob not weaned pre-rut are the R2 hinds and their fawns.

"They were mated to a straight Red and



# Party tool.

# **Stag selection**

Awakino Station's wapiti-elk stags come from Clachanburn in Otago and are selected on growth rate with a focus on constitution while replacement hinds are bought in as in-fawn R2 Reds from Mt Hutt Station in Canterbury.

"Everything that's born here is killed. We have so little low country we can't really carry young stock through and guarantee their growth," station manger Lindsay Paton says.

With the input of the Mackenzie Basin Advance Party, Paton's confident of deer's future on the station in the short term and hopefully much longer too.

"If we could fatten all our weaners then the returns would be well ahead of the sheep."



### Weaner weight history

Year	Average liveweight
2010	68.2kg
2011	71.1kg
2012	64.1kg
2013	66.3kg
2014	67.1kg
2015	66.2kg

the weaners are smaller so there's not much point weaning them at the same time and it takes the pressure off the paddocks for the Wapiti-cross weaners," Paton says.

This year the R2 hinds averaged

a mob of mixed-age hinds brought in on April 30 were 100.4kg and BCS 3.3. That compared to 109.6kg at weaning on February 27 although with the same condition score.

"That told me what we're doing isn't quite accurate enough. We need to make sure we're weighing and scoring the same animals each time but we're not set-up for EID drafting yet."

Equipment to do that has gone on the "must have" list and will be built into the budget in the next year or two. Thanks to NAIT, all hinds up to six years old are now tagged and Paton says he's keen to keep the whole herd at less than 10 years old.

"They should all have good mouths up to that age and will produce better





# No sitting on the fence

Lynda Gray

Glen and Renee Harrex plan to fence their way to improved fawn survival.

On their partly irrigated 800ha farm near Becks in Central Otago, fawn survival to sale has hovered at about 86-88%, a figure Glen believes they can bump up to 92% by changing the fawning platform.

Until now the 730 mixed-age hinds have fawned on the better quality pastures of the irrigated blocks. But it's been less than ideal for hinds because of "in-your-face" spray treatment from solid-set irrigation, the regular shifting of K-lines and movement of various stock groups through their paddocks.

The net result has been mis-mothering, and a number of fawn deaths usually within the first few days after birth. Although unhappy with the losses Glen believed the trade-off was better milking hinds and therefore faster growing weaners for the pre-Christmas chilled market.

However, joining the Deer Industry of New Zealand (DINZ) Otago Advance Party changed his thinking. He found that other farmers were achieving similar weaner growth rates – without the fawn losses – on more extensive dryland hill country.

After further discussions Glen and Renee have decided to deer fence 80ha of dryland pastures for use as a fawning block.

After further discussions Glen and Renee have decided to deer fence 80ha of dryland pastures for use as a fawning block. Although the details are not finalised the area will most likely be subdivided into 10-16ha blocks, and grow lucerne-based pastures.

"We want it so it can be cropped

and break fed and rotationally grazed. Overall it should mean better pasture management," Glen said.

The deer fencing will start in autumn and be finished in time for this year's fawning. The plan is to fawn 580 mixedage and all R2 hinds on the new dryland block, bringing them and progeny back on to the irrigated pastures in late December until pre-rut weaning at the start of March, 2016.

There won't be enough space to fawn all the hinds on the new block so some will be left on the irrigated blocks. It's not ideal but will serve as a useful benchmark comparison between the dryland and irrigated fawning systems.

"It will be interesting to see what happens – hopefully it will do the trick. It will boil down to having the right stock, at the right places, at the right time of the year."

To fill the gap on the irrigated blocks created by fewer fawning hinds, cattle will be brought in to control the spring irrigated pastures. The grazing of cattle



integrates well with deer breeding and finishing. The Harrexes winter up to 500 dairy cows for 12 weeks, graze dairy heifers from December until calving and buy about 200 Friesian bulls, selling them on for finishing at 17-months old. Also, Renee raises Hereford-Friesian calves for slaughter at two-years old.

### 'It will boil down to having the right stock, at the right places, at the right time of the year.'

The third arm of the Harrex family farming enterprise is Lauder Store, a bed and breakfast business alongside the Otago Central Rail Trail. Glen's parents Pam and Earl started the "semiretirement" project seven years ago.

The couple, farm-stay hosts for several years, seized the opportunity when the store came up for sale in 2007. Pam said she was "keen for a challenge" and saw the opportunity for accommodation to serve the growing stream of bike riders pedalling the 150km trail from Clyde to Middlemarch.

It took most of 2008 to transform the former shop, built in the early 1900s, and involved stripping some of the interior back to the original sun-dried mud brick.

They also converted a house backing on to the shop, developing three separate accommodation options catering for up to 14 people. The main season runs from October until May during which up to 900 guests, a mix of "rail trailers" and non-cycling guests, check in. Many are return guests who appreciate the special



# **Group projects**

The DINZ Otago Advance Party has eight farmer members. Facilitator Simon Glennie said other confirmed projects included:

- Improving weaner growth rates through monitoring and management to meet the pre-Christmas chilled market
- Identifying ways to improve the conception rate of first fawning hinds in uncultivated hill country
- Targeted and improved feeding of hinds, and

# Improving survival from scanning to weaning

by Pania Flint, veterinarian and Advance Party Coordinator

Each farm in an Advance Party aims to have a project to work on: identifying an opportunity to improve profitability, making a change and recording the outcome. Several farmers have identified losses between scanning and weaning as an area for improvement.

**DIFFERENT ADVANCE PARTY GROUPS** have come up with the following factors that may contribute to fawn losses. Each farmer who has decided to follow this opportunity through as a project has agreed to change some aspect of their fawning management to best match this list while taking into account what is practical on their property.

### **Agreed concepts**

Hinds cannot be closely observed during fawning and the exact time and cause of fawn loss is therefore not known.

Most losses probably occur at or shortly after birth On a few farms there may be losses during pregnancy but several farmers who have double-scanned hinds in early and late pregnancy have found very few losses during pregnancy, indicating that abortion is uncommon.

### Possible causes of peri-natal losses

- disturbance of the hind at the time of fawning, causing her to leave her newborn fawn
- · movement of fawns out of the paddock to seek hiding places
- misadventure, particularly caught in fences
- rogue hinds beating fawns and chasing away hinds from their new fawns
- · disease, particularly copper deficiency
- dystocia on some properties, uncommon on other properties.

### Steps to help ensure fawning success

• Identify paddocks that have repeatedly high fawn losses and avoid using these as fawning paddocks.

- · Keep social groups constant at set stocking.
- Fawn any new bought-in hinds separately.
- Fawn first-fawning hinds separately this is a must.
- Identify particularly aggressive hinds and remove from the herd
- Select paddocks with as much scope, variation in contour and natural cover for fawning as possible.
- If ideal fawning paddocks are not available, provide hiding places by using branches, long patches of grass, upturned hay racks or anything else imaginative.
- Pay attention to fences. Identify areas where fawns are likely to get through and get caught outside the fence. Either reinforce with fawn-proof netting or provide gaps for fawns to get back through the fences.
- Know the copper status of the hinds and supplement in early pregnancy to ensure fawns have enough at birth. Consider iodine and selenium supplementation if appropriate to the property.
- Good nutrition of the hinds will prevent most other diseases through high-quality colostrum.
- Cull hinds that are showing clinical signs of Johne's disease as these present a high risk for fawn infection.
- By 1 October, tag any hind that is wet-dry\* and consider culling, or at least cull any that are wet-dry more than once.
- · Avoid over-fat and unfit hinds at fawning.
- Record as much detail as possible about fawning management to identify trends for future reference.

\*Pregnant at scanning but did not have an udder at weaning.

## Crossbreds lagging?

### **Dear Editor**

I AM WRITING in response to the article Better liveweight gains targeted in Deer Industry News August/September 2015, page 18. The article makes references to wapiti not doing much for the venison production on this and one other property associated within the Canterbury Advance Party.

I suggest that these Advance Party members seriously reconsider where or how they purchase their wapiti genetics.

Just because an animal may have a white rump, or there was a wapiti parent somewhere in its lineage, does not mean the animal

is a wapiti. These should not be used as basic identifiers or reasons to purchase an animal.

Claims that wapiti are inferior for meat production get made, but these are not accompanied by the genome percentage of the wapiti being referred to.

I recommend that all references to wapiti, crossbreds or composite animals disclose at least the genome percentages of the animals they are referring to, so that articles like these allow for fair comparison.

Grant Hasse

intestine associated with the deer-specific Oesophagostomum sikae and O. venulosum. The voluntary feed intakes of the groups with medium to high infection rates were markedly lower than for the control group, and by the fifth week of the trial, even the "low dose" group was lagging behind the control group. The same pattern occurred with growth rates, which were markedly affected by the parasites.

In the second phase of the trial, a group of weaners was infected with the same mix of internal parasites at a much lower dose rate than any of the groups in phase 1. Although faecal egg counts showed that parasites had established in the infected group, their feed intake and growth rates weren't significantly affected.

Tapia-Escárate concluded that even modest worm numbers in young deer could precipitate a rapid reduction in feed intakes and weight gains and that this was most likely due to the pathogenicity of Oesophagostomum spp. in deer.

She also detailed work to help identify the prevalence of different GI nematodes in deer in a farmed situation, and using PCR analysis identified a broad mix of parasites that mirrored what they had found in the Massey trial.

A further study looked at how infective sheep and cattle parasites were in deer. The results from this work showed that, of these, Trichostrongylus axei and Haemonchus contortus (especially in the North Island) seem to establish reasonably well in deer. Almost no Teladorsagia/Ostertagia spp. of common sheep or cattle species, or small intestinal sheep/cattle species established in deer, however.

In conclusion, Tapia-Escárate summarised a cross grazing trial involving deer, sheep and cattle, to look at ways to help control parasitism in deer. The two-year study, which was carried out at Massey and Invermay, showed that cross-grazing with sheep or cattle offered some parasite control advantages over grazing deer alone, but the results were variable. She concluded that cross-grazing does give partial control, leads to less anthelmintic being used and gives better growth rates than deer grazed by themselves. It was also effective in controlling lungworm infection. Nonetheless, cross grazing by itself is not a complete solution to GI

The research was supported by DEEResearch and AgResearch.

### Do added minerals affect drench efficacy?

When Colin Mackintosh and colleagues were looking into the problem of drench resistance in deer gastrointestinal parasites, they came across a puzzling result. Two oral drenches - each from the macrocyclic lactone family - gave very different efficacy results. Neither gave a very satisfactory kill of Ostertagia-type nematodes, but the results from this 2012 trial2 were poles apart, nonetheless.

Genesis Hi Mineral for sheep (abamectin) gave 70 percent efficacy, while Cydectin oral (moxidectin) killed only 26 percent of the parasites. This raised an interesting question: Did the presence of mineral additives in the abamectin drench influence its effectiveness?

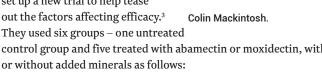
It wasn't a new question. Research from 20 years earlier had shown that copper and cobalt administered orally to young sheep and cattle can trigger the "oesophageal groove" reflex, which diverts milk directly to the abomasum. When this happens, absorption of the active ingredient is faster and the maximum

plasma concentration of some anthelmintics is higher.

The way the two drenches were formulated may also have had an effect on the action of the abamectin or moxidectin, or some other unidentified factor associated with oral administration might have been

Mackintosh and his colleagues

set up a new trial to help tease out the factors affecting efficacy.3 Colin Mackintosh. They used six groups - one untreated control group and five treated with abamectin or moxidectin, with



- Moxidectin plain (as used in the 2012 study)
- Moxidectin with Formula Five minerals
- Abamectin plain
- Abamectin with Formula Five minerals
- Abamectin Hi Min (as used in the 2012 study)

Whatever had caused the disparity between performance of the mineralised and non-mineralised ML drenches used in the 2012 study, it turns out that it wasn't the presence of added minerals. Mackintosh reported to deer veterinarians at their conference that all five treatment groups of newly weaned red deer recorded similar reductions in the number of adult Ostertagia-type nematodes, in the 84-90 percent range.

This result echoed the blood tests that were taken during the trial, which showed that peak plasma levels of each active ingredient in the treated deer were very similar - minerals or no minerals. Mackintosh noted that overall plasma levels of abamectin were significantly higher than for moxidectin, although this didn't affect efficacy.

On the positive side, the drenches were 100 percent effective against the relatively minor parasite (numerically), Teladorsagia circumcincta. In addition, both drenches were 99.9-100 percent effective against lungworm.

Interestingly, the results of the faecal egg count reduction tests (FECRT) done during the trial provided a poor estimate of the actual reduction in the number of Ostertagia-type nematodes in the abomasum at slaughter. This supports earlier observations that the accuracy of the FECRT is poor in deer.

In a nutshell, the latest trial showed that:

- Added minerals in drench won't make them any more effective.
- Faecal egg counts don't always provide an accurate picture of actual worm burdens in deer.

And what about that anomaly between the results for the mineralised and non-mineralised drenches in the earlier trial? That, Mackintosh said, remains a mystery.

The project was funded by DEEResearch and Landcorp with support from Virbac NZ, Zoetis NZ, Merial NZ and Phoenix Pharm Distributors.

### Local leptospirosis survey

VetEnt veterinarian, Becks Smith, reported on a local survey4 she carried out in the Maniototo region of Central Otago to measure the prevalence of leptospirosis among deer herds. She found that

continued on page 22

Deer vets: continued

although the rate of infection was lower than the national average, the cost benefits of preventive vaccination might still stack up on the affected farms.

Smith, who is a member of the Otago Advance Party group, said a 2010 national survey<sup>5</sup> had shown that 81 percent of deer herds included infected animals. Although it was extensive, this survey had not included any Central Otago herds, and Smith was curious to see what the situation was locally. She surveyed 12 herds, taking blood samples from 20 animals in each.

Four of the 12 herds surveyed (33 percent) included seropositive animals for leptospirosis (Hardjo-bovis strain). All but one of the seropositive animals tested were infected with the Hardjo-bovis strain, which usually has subclinical signs; only one animal was found with the Pomona strain. Among the four herds showing infection, the mean seroprevalence rate was 26.3 percent.

Smith said it was important for veterinarians to find out what was happening at a local level with leptospirosis prevalence among deer, as there appeared to a wide regional variation.

Although the levels of infection found in her survey were below the national average, the disease was still significant for those farms that were infected. (Smith noted that one of the infected properties had tested negative before her survey, indicating a new infection.)

One issue in leptospirosis-infected deer herds is the impact it can have on production through lower growth rates in weaner deer. A study by Peter Wilson at Massey<sup>6</sup> had shown that there could be a cost benefit in preventative vaccination in herds where the seroprevalence is 19 percent or more. Applying the figures from Subharat et al's work<sup>7</sup> to the four infected herds, Smith found that, in theory at least, in a herd with a seroprevalence of 35 percent, vaccination could yield a return on investment of up to 226 percent, or \$728 in a herd of 100, from a growth rate response of 22g/day. She said two of the four farms in the survey that were found to have infected deer are actively considering vaccination.

Smith reminded vets that there is also a human health benefit from vaccinating livestock against leptospirosis, something that's hard to measure in financial terms but is important nonetheless. "Given that some deer hunters like to use doe urine to help attract their quarry, it makes sense to remove the disease risk to humans from contact with infected animals."

She said vets should ensure farmer decisions about managing the risk from leptospirosis are based on good information about the situation on individual properties.

### References

- Tapia-Escárate, D, W Pomroy, I Scott et al (2015)
   Gastrointestinal nematodes in deer summary of a PhD
   programme. Proceedings of the Society of Sheep and Beef
   Veterinarians of the NZVA and Cervetec. New Zealand
   Veterinary Association, Publication No. 309. Wellington.
- Mackintosh, CG, C Cowie, K Fraser et al (2014) Reduced efficacy of moxidectin and abamectin in young red deer (*Cervus elaphus*) after 20 years of moxidectin pour-on use on a New Zealand deer farm. *Veterinary Parasitology*. 199, 81–92.
- Mackintosh, CG, C Cowie, K Fraser et al (2015) Effects of mineral additives on the efficacy of oral ML anthelmintics in deer. Proceedings of the Society of Sheep and Beef Veterinarians of the NZVA and Cervetec. New Zealand Veterinary Association,

- Publication No. 309. Wellington.
- 4. Smith, R (2015)
  Leptospirosis in
  deer a local survey.
  Proceedings of the
  Society of Sheep and
  Beef Veterinarians of
  the NZVA and Cervetec.
  New Zealand Veterinary
  Association, Publication
  No. 309. Wellington.



Becks Smith.

- 5. Ayanegui-Alcerreca, MA (2010) Regional
  - seroprevalence of leptospirosis on deer farms in New Zealand. *New Zealand Veterinary Journal* 58(4): 184–189.
- 6. Wilson, PR et al (2011) Leptospirosis on deer farms: To vaccinate or not? Proceedings of the Epidemiology and Animal Health Management Branch of the New Zealand Veterinary Association. VetLearn, Wellington.
- 7. Subharat, S, PR Wilson, MA Ayanegui-Alcerreca et al (2009)
  Leptospirosis in deer: The facts. *Proceedings of the Deer Branch of the New Zealand Veterinary Association*, Proceedings of a Deer Course for Veterinarians. pp 85–88. ■



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# Better liveweight gains targeted



by Phil Stewart, Deer Industry News Editor

A caved-in hayshed roof at Mike and Nicky Salvesen's Mount Somers farm, "Wakare", was a spectacular reminder of just why the Canterbury Advance Party's scheduled meeting had to be postponed until the end of July – the heavy June snowfall had done the damage.

THE GROUP OF about eight, led by facilitator, Wayne Allan, met for a constructive few hours to talk over issues raised at Wakare and reflect on what sort of winter they and the rest of the group had been having. While overall conditions had been challenging, about half of the group members had excellent scanning results, achieving 100 percent for first fawners in one case and several others just under this figure. One of the biggest talking points of the day was the role of wapiti genetics in venison production.



Mike Salvesen (red shirt, facing camera) shows the Canterbury Advance Party group the higher parts of the farm.

The wapiti genetics were not doing much for venison production on this property and Mike also noted that the reds seemed to be hardier. For example he lost three or four hybrid weaners during two yardings, but no reds. Advance Party member Stu Stokes had had similar issues on his property, noting also that hybrids gave large variations in weaning weights and low in-calf rates. That said, Mike accepted that it would be premature to do away with using wapiti genetics for venison production just yet, and is committed to exploring other

### **Cross breds lagging**

Mike Salvesen presented some interesting figures showing the weight distribution among his two mobs of weaners – 222 reds and 304 hybrids. By early June, the red group was about 4kg above the wapitis, and a breakdown by weight group showed a big "tail" among the wapitis. Fifteen percent of the red weaners had passed 65kg by early June, but only 6 percent of the wapitis.

A sample weighing in July showed the pattern continuing – hybrid stags were averaging 62kg and the females 57kg, while the red mob averaged 68kg and 57kg respectively. Mike said that from early August until October they would need a 166g/day weight gain to catch the chilled market for some of the red stags, to be done initially using a combination of grass and barley.

### Wakare at a glance

Total area:	1,460ha
Deer fenced:	900ha
Cultivable area:	450ha
Rainfall:	1000mm
Deer stock units:	4,000
Cattle stock units:	7,500
Hinds:	950
R1 hinds:	410
R1 stags:	410
R2 stags:	40
R2 hinds:	100
MA red sire stags:	30
Fawning:	86%
Weaning weight (4 March):	56kg

management inputs.

Dan Harper noted that at Quartz Hill, the slightly lower fawning rates among hybrids were more than compensated for by good growth rates. "With hybrids last year we got 93 percent fawning and 80 percent of them were away before Christmas with a 58kg carcass. We didn't start killing the reds until the New Year. There's a three percent difference in fawning rate between the reds and hybrids but in our system the [hybrid] growth rates more than make up for it."

Wayne Allan suggested that where the reproductive rates (to the stag) were high, then a farm could mate up to 40 percent of the herd to a terminal sire, but if reproduction was an issue, this should be cut back, perhaps to 20 percent, to get a better balance between growth rates and fawning, while being able to breed enough good replacements. "You can get caught out with a high portion of old hinds in the herd, particularly in a drought if you haven't been breeding enough replacements."

Using a hybrid stag also increased the hind's feed requirements over lactation, perhaps by up to one-third.

At Landcorp's Raft Creek farm, by contrast, exclusively red terminal sires are used and all slaughter animals are off the property before Christmas.

### Scanning down this year

Poor scanning results (about 75 percent) were also a feature at Wakare this year, although Mike agreed some management factors may have also played a role in this. The stag came out quite early, on 20 April, the rationale being that it was better to cull the dry hinds than having a lot of late calvers trickling through.

He said the hinds are on the hill block most of the year and

he'd like to look after them better through the summer and leading into mating, which may mean bringing them down onto the apron of lower country, where he's considering putting in more deer fencing.

### Flushing effect

There was some agreement that achieving this in a burst, for example using barley, can give a more pronounced flushing effect and better conception rates than when the females have plateaued earlier

- something that also works with sheep. However, letting hind condition drop too far before flushing was not a clever move, as this would also drag down weaning weights.

### Role of minerals

While copper deficiency isn't so much a factor in conception, it can play a role in early embryonic loss, it was noted. Wayne Allan said that in high-production systems generally, use of minerals may be a good insurance policy against production falling off, particularly where levels of specific minerals are known to be marginal or deficient.

### Fodder beet

The group took a farm tour, which included a fodder beet crop the weaners had been on. Mike had planted the harvestable "SF Lifta" variety and although the weaners had made a decent fist of chewing down into the bulbs, he's planning to change to "SF Brigadier" next year, which leaves a higher proportion of the bulb above ground level, allowing higher crop utilisation.

### Mob management

In discussing plans for drafting off replacement females later in the season, it was suggested that changes like this are done sooner rather than later, to minimise any weight-gain effects from disrupting the mob's social structure. When drafting mobs for slaughter, for example, it's better to leave this until the day before they go.

It was noted that remixing mobs can cause more trouble than when they were originally split up.

Duncan Humm commented that splitting male and female weaners too early could make life overly complicated, especially on a small property. "We keep them as one big mob and treat them all well, including the replacement hinds."

### Doing well on the Coast

The Canterbury Advance Party includes two Landcorp deer units from the West Coast, with their experience providing a strong contrast to conditions in Canterbury. The group had visited the West Coast farms in May. Those east of the main divide are envious not only of the prodigious rainfall enjoyed on the Coast, but also the excellent reproductive performance.



Hybrid weaners finishing off the fodder beet crop.

Kevin Clunes, manager of the Landcorp Weka farm reported scanning results varying from 96.5 percent for first fawners, up to 99 percent for third fawners. Interestingly the third fawners had been light earlier in the season when the stags went out, but moving quickly to good country had done enough in time to get the excellent in-fawn return.

This was well ahead of the previous year and Kevin said the aim at Weka now was to achieve yearon-year consistency. Weaner growth

was also well up on last year, with average weights of 75kg in July in stags. "We'll get a lot of these into the chilled market this year - we didn't get any away last year."

In order to improve pasture quality in late lactation Kevin grazed yearling dairy heifers behind the hinds and fawns. This had left the heifers a bit undercooked and short of feed but was worth doing again as long as enough feed was left for them during late

He reported the farm had enjoyed good autumn clover and tall fescue growth on the hump and hollow land, although insect pests had been an issue.

Steve Wright, manager of Landcorp's Raft Creek block, said the property had experienced 1377mm of rain since early May - a figure that stunned the Cantabrians in the group. He was also looking to maximise spring kill rates with a focus on dollars per hectare returns rather than dollars per head.

Considering the very heavy winter rainfall, the weaners were growing well and the farm was likely to meet its spring chilled market target especially among the stags. The commercial yearling hinds averaged 69kg and put on 37g/day since late May, with the stags averaging 76.1kg with a daily weight gain over winter of 74g/ day.

Overall the hinds this year scanned 91 percent, with the performance of the yearlings dragging the figure down somewhat. Empty rates in the mixed-age hinds ranged from 2.5-7.0 percent and between 23 and 27 percent in the yearlings. Conception rates to AI were excellent with 82 percent among mixed-aged hinds and 66 percent in R2 hinds.

### **Consistent result**

Stu Stokes reported a solid scanning result from his Sheffieldbased operation, which started with early weaning - all done by

### Wakare targets

- Improved reproductive performance (scanning up to 90%)
- Move away from hybrids with more straight reds as replacements
- Greater choice for replacement hinds
- Better post-weaning feed management
- Finishing liveweights for chilled market: 88–90kg
- Percentage to chilled market: 40% (currently 20-30%)
- Retain slaughter stags until later if velvet prices are good

continued on page 20

## Deer veterinarians' conference

Members of the New Zealand Veterinary Association's Deer Branch joined forces with their sheep and beef vet counterparts for a combined conference in Queenstown in early June. The Red Meat Partnership for Profit conference attracted 121 vets, many of whom work with all three species. *Deer Industry News Editor*, **Phil Stewart**, attended the conference and a summary of the highlights follows.

## Gastrointestinal nematode studies

INTERNAL PARASITES HAVE become one of the most significant production constraints in deer and Massey PhD candidate Daniela Tapia-Escárate brought vets up to date with her study into the relative importance of the many species of gastrointestinal nematodes that infect deer.<sup>1</sup>

While the significance of lungworm (Dictyolcaulus eckerti) in farmed deer has been understood for a long time – and treatments are fortunately still effective – the role of gastrointestinal (GI) parasites has become clear much more recently.

Tapia-Escárate explained that deer are infected with a range of deer-specific parasites (eg, *Ostertagia*-type nematodes and *Trichostrongylus* spp.) as well as several that are specific to sheep



Daniela Tapia-Escárate.

and cattle (eg, Oesophagostomum venulosum, Haemonchus contortus and Cooperia spp.). In general, these target the abomasum more than other parts of the GI tract.

She set up a two phase trial to look more closely at the pathogenicity (ability to cause disease) of the various GI parasites. In phase 1, young weaners in controlled conditions were infected with a mix of species at low, medium and high dose levels (there was also a control group). Liveweight gains, voluntary feed intakes and faecal egg counts were monitored and blood samples taken. The infected groups didn't take long to develop clinical signs and in fact they were killed for analysis earlier than planned because the onset was relatively swift.

Tapia-Escárate said the clinical signs in the weaners were caused by inflammation and oedema in the small and large

 $Can terbury\ Advance\ Party:\ continued$ 

25 February. The stags went in during January and although there wasn't a lot of feed around, "dribbling" barley out had kept hind condition up for mating.

### Quartz Hill getting through hard winter

Dan Harper reported his hinds were in pleasing condition, considering what a tough winter they were having compared with the previous year. Plans for carrying a good cover of fescue were working out, and he was happy with the 1500-1600kg/ha they had by late July. Taking some ewes in to nip it off had helped promote quality, preparing the pasture well for the deer. Going into winter he'd had some good weights among the weaner stags; he was pleased with his venison contract for the coming season, and with how the velvet market was shaping up. "I'm quietly confident," he said.

### Top scanning result

Duncan and Lorna Humm, who run 150 hinds on 30 hectares of flatter country east of Mt Somers, were delighted to achieve a 100 percent scanning result with their first calvers again this year, the fourth year in a row they've done this. Over the whole herd they achieved 98.7% scanning. Although the stag didn't come out until 10 May, there were only two late fawners.

Duncan put this year's good results down to excellent flushing.

It had been a dry summer and body condition scores in the hinds were below optimum levels by February/March. However, they weaned early and a burst of rain gave good grass growth, so they had the feed quality to flush the hinds well – echoing earlier discussion about the effect of a rapid flushing. He said it was not worth persevering with lighter yearling hinds.

The dry summer had also knocked back weaner weights and in February they were 5kg behind the previous season. However the good rain and grass growth had helped turn things around and by the time of the June snowfall they had been "smoking along".



Breeding stags at Wakare.

# Hawke's Bay winter cropping programme



by Kate Taylor

Eight of the nine members of the Hawke's Bay Advance Party planted winter crops and various varieties of brassicas, oats and swedes.

**THE PROJECT AIMED** to help with a regional issue of being able to feed stags efficiently after the roar and through winter to button drop and velvet harvest, as well as to better plan feeding of winter crops to young stock or hinds.

"People on different classes of land experimented with different species of kale and all learned from the experience," says John Spiers, who farms Maranoa near Takapau with his son Daniel. Maranoa's contour meant it was perfectly placed to run an electric fence break-feeding trial with the kale.

"You can feed more intensively when you break feed, especially if you know from the start what you have and what its feed value is. The main goal was to find good nutrition for the stags after the roar and over the winter. The spin off might be increased velvet weights but we didn't do it for that reason."

John and Daniel planted two paddocks of kale: 5.1ha of Sovereign kale measured at 13.6t of dry matter (DM)/ha and 6.8ha of Regal kale yielding 12.0t DM/ha. Measurements were carried out by local veterinarian and Advance Party facilitator, Richard Hilson.

The yield information gave them a start point for their winter feed budget.

Stags lose weight over the roar and spend winter putting it back on and increasing it for antler production in the spring.

"The next curly question was how many kilograms of dry

matter deer need, first for maintenance and, second, to increase body weights and possible velvet yield," John says.

"Having enough grass available to achieve this is the challenge, hence the kale crops.

"As a rule of thumb for kale, 1kg/DM equals 12 megajoules of metabolisable energy (MJME). Grain, for instance, has a similar MJME but is 85% dry matter as opposed to 18% or 13% with kale.

"Experts tell us a 200kg stag needs 4.2kg of dry matter per day to maintain their body weight and 4.7kg dry matter per day to increase their weight by about 100g a day. We used that to work out how much feed that would be with 85 percent utilisation of the kale."

(See the DINZ website, a great starting point for planning: http://deernz.co.nz/deerhub/feeding.)

"We aim to maximise the stags' body weight increase in readiness for button drop by early August and harvest by early October. Once stags drop their buttons, they're drafted every week and they'll be set stocked on grass and not put back on the kale," John says.

For now, it's a matter of seeing how well the stags can be fed while still being given a reasonable diet, as well as how to best utilise the kale crop.

"Once we know the needs of the animals and ME content of the feed, we can work out how much feed is needed to meet their



requirements. That could relate to grass, maize, silage or grain. In our case it is kale because it fits into our rotation and it can be break fed.

"Others in the group are on hill country so break feeding isn't an easy option. But we have different varieties on different country and we want to make the most of the crop. Some varieties are leafier and some have more stem. It's a fact-finding mission. Southland is doing similar winter crop feeding but theirs is probably with swedes."

Richard Hilson took the original yield samples and has now taken samples of the residue at Maranoa to measure the tonnage and the MJME value of the stalk that is left. This information will also be presented back to the group, as was all the original work, complete with photos and an explanation of the entire process. The group meets on each farm once a year so there is plenty of opportunity for further discussion. Planning for 2016 crops is already underway.

Hilson says most winter crops (in Hawke's Bay at least) are not cut and dried for accurate yield estimation. The aim with the Hawke's Bay Advance Party winter crop programme was to share information and better predict how long a crop would last, given the aim of the feeding regime and the number and class of stock fed on it.

"In this case all crops were measured and members of the Advance Party will record the numbers of animals fed and the time they were on the crops so that the whole group may also see how the various systems coped. While everyone has been enthusiastic about the work, no one would be so bold as to assume there is no room for change or improvement."

On Maranoa, the trial started in the third week of May. "Having the deer behind a hotwire has been a learning experience," John says.

They developed a standard four-wire fence with fibreglass rods with clips on them (see photo), then figured out the right gaps between the wires before training the deer about the hot wires.

"We cut a grass paddock in half. It took them about five days to get used to it. We had one break out, but it only happened the once. After that the odd one got through but they learnt quickly to respect the electric fence."

One trick has been replacing the second poly wire with tape to create more of a visual barrier for the deer. They've also set up a short non-electrified bungy cord at the end of each fence to provide elasticity when the deer lean on the wires. Stags can sometimes get their antler buttons caught on the wire or may on occasion be pushed into the wires while play-fighting. Either way, the bungy cord takes a bit of pressure and avoids repeated wire

"When we started, the stags were still feeling the effects of the roar so there was a bit of antisocial activity and the occasional broken wire. They're not used to being fenced in a small area at the start of the crop, so we gave one mob a run-off pasture paddock as well because we couldn't give them enough room on the crop."

John says the trial has been so successful in terms of yield. The crop won't be finished at button drop, so hinds will be used to finish it.

"It has provided a lot more opportunity for grass production for other stock options - for us, that has been bulls. We have been able to concentrate our velvet stags and breeding hinds onto a very small area."

He says that in hindsight they probably pushed the stags too hard at the beginning and micromanaged the crop, shifting the break weekly, but the experience has been very positive. "It's cheap tucker! The cost was probably only about 5-10 cents per kilogram of dry matter whereas something like bought in maize baleage is up to 50 cents/kg."

Daniel says the Advance Party involvement was to experiment and gather scientific data. Next year they will be able to make decisions earlier based on the crop yields and with a better idea of what is achievable with the stag mobs. The group suggestion at a recent on-farm meeting was that there was going to be far too much crop and that it would be best to re-cover the silage pit (which the hinds were feeding from) to preserve that supplement in anticipation of the forecast El Nino event.

"The crop was planted in November so we could probably graze it early with younger stock, taking about 50 percent out of production, and still shut it up for winter and utilise it the way we did this year."

Acknowledgement: Richard Hilson for photographs and assistance with this article.

### **Crop tips**

The winter cropping experience of the Hawke's Bay Advance Party (HBAP) led to a useful discussion at the conclusion of the Next Generation meeting at the Onga-Tiko Rugby Club rooms on 21 August. These were some of the points to emerge.

- · There can be quite wide variation in crop yields depending on variety and location. Dry matter percentage yields for the HBAP members ranged from 10.2-22.9 percent.
- Sample crop yields by taking two or three 1m<sup>2</sup> samples in the paddock and weighing each with scales. Then take smaller samples for weighing and drying to work out dry matter content (about 24 hours at 85-90° in an old fan oven).
- Kale can give excellent regrowth, which is worth bearing in mind when planning crop grazing and preparing for a dry
- Budgeting for crop utilisation should work backwards, from the point when you're expecting to take stock out. Therefore work out when you need to start, based on when you want to finish.
- As spring arrives and grass growth comes on, deer seem to "smell" the new growth and can start to lose interest in the
- If your aim is winter maintenance only, you won't need much more than the crop, but for weight gain on stags you might also need grass or baleage. (One Canterbury farmer noted that supplementing a winter fodder beet crop with palm kernel and grass boosted daily weight gains from 30g to 180g.)
- Check nitrate levels in your crop before you open it up for grazing.
- If you ate Weetbix for a week and then switched to curry, it would cause you a few gastric problems. It's no different for deer suddenly going on to a crop. Allow them a transition period of a week or so with continued access to grass or an alternative crop.
- Fodder beet is proving valuable with deer, but young stock can tire of it, so monitor them carefully to make sure they're not going backwards.

stag is starting to get a bit high and 1:100 is asking for trouble. High rates may work well, but when they don't work are you prepared to take the hit? Back them up and/or reduce the numbers

- avoid running separate mating mobs in adjacent paddocks, or the stags will expend a lot of energy fighting through the fence (this depends a bit on farm layout - some stags are good at holding hinds well back from a fence)
- stags that get on well for the other 9 months of the year can become the best of enemies during the rut.

### Using Al

Hilson said nine years of Hawke's Bay AI data (2007-2015) showed an average conception rate of 64.5 percent, but the range was 29-89 percent, so plenty can go wrong. One-third of those doing AI got less than a 50 percent conception rate.

While the backup stag can help make up the difference, that doesn't always work out. You can end up with a disappointing result using AI, he said. "You can spend \$20,000 to AI 50 hinds and getting 40 fawns - or you can spend \$20,000 on a great stag and get 40 fawns year after year". He added that AI definitely has a place, but said it would be wise to be conservative in your expectations of conception rate.

Also worth bearing in mind is the cost of lates or empties, and labour and time. Hilson recommended weaning good and early, and feeding hinds well if they are to be in an AI programme.

### Looking after R2 hinds

It was important to get these up to a decent weight if they are to be candidates for mating. Their readiness is more a function of overall body mass than body condition score, per se. Often R2 hinds can look better than they are, so weighing is advised. A common comment when scanning of R2 hinds is not going well is that they "are big enough" when in actual fact they are too small and have never been weighed, yet are in reasonable condition.

Many deer operations could sometimes be guilty of paying more attention to other stock (stags, finishing stock) at the expense of first fawners. These need consistent priority for good performance and stags should be in with them early so they are well socialised by the time the rut starts.

John Spiers commented that he likes these young hinds to be 85 percent of their mature body weight if they are to be mated. This isn't a fail-safe formula, however, as mature body weight can vary



They might be good mates the rest of the year, but during the rut .... not so much. Photo: Richard Hilson.

quite a bit between different genetic lines. In herds with MA hinds that average 125kg, for example, it would mean getting R2 hinds to at least 100kg by late summer.

Hilson said R2 hinds could easily be turned off cycling and mating if they are disrupted by other deer. "Don't mix them up or run them next to other mobs, and don't introduce a backup stag that can turn them off too."

Grant Charteris noted that during the recent drought he had to choose between leaving hinds undisturbed and keeping them well fed with baleage to get their weights up. He opted for the latter and got an excellent result, showing that this wasn't actually a significant disturbance as it was a regular and short daily visit rather than a disruptive all-week visit from a rut-maddened old stag or a large group of older hinds looking for feed.

### Two-year-old stags the optimum age

Hilson said that on balance, two-year-old stags are the most fit for purpose when it comes to reproductive success. Opting for younger stags means you are staying ahead of the curve when it comes to selection for the right traits, but in addition to that, twoyear-olds are a bit more relaxed about their job than their elders.

"Generally you won't need a backup stag for two-year-olds. They don't get so stressed, they're better behaved than mixedage stags and they're less likely to be put off their game by noisy neighbours."

A bit like people, really. ■



# Strong support at workshop



by Phil Stewart, Deer Industry News Editor

"This is one of the best initiatives by DINZ for a long time." That was one of many positive comments made at an Advance Party national workshop held in Dunedin on 29 April.

### THE WORKSHOP, WHICH

attracted about 50 people, gave Advance Party chairs, facilitators and members, along with DINZ staff, the chance to compare notes and assess how the groups are progressing.

The workshop split up into theme groups (feeding, animal health, genetics and performance measurement) and the discussion yielded some useful feedback, as can be seen under the group headings.



Richard Hilson (standing) leads discussion in one of the theme groups.

- for example on parasite management.
- Animal Health Plans are encouraged but the potential cost (where vets charge for these) is a disincentive to some farmers. It's not just a matter of filing in a template it's the adaptation and discussion relevant to your own farm and programme that's important.
- The plans need to be

flexible enough to accommodate local variations in climate, geography and so on.

- Simple text alerts from the vet could be a good way to jog the memory for doing routine tasks.
- The "Clean Bill of Health" list of the eight most significant diseases and conditions affecting deer is a useful reference and gives farmers a framework for developing an Animal Health Plan.
- Some underlying animal health issues such as subclinical Johne's disease or leptospirosis are "invisible" to farmers but could be affecting production.
- The wider Advance Party "community" could be a useful network for sharing information or alerts about the presence of disease and also learning from each other's experience in other areas.
- Keeping up an Animal Health Plan can be more challenging in an extensive system when deer are seen only a few times each year.
- Deer farmers can be reluctant to radically change their traditional animal health programmes, often seeing such advice as an expense rather than a productivity investment.

### **Feeding**

- Deer farmers have a big toolbox of feed technologies available now, including chicory, plantain, clovers, lucerne, brassicas, fodder beet, palm kernel, grain, Advantage Feeders and so on.
- How you feed your weaners and first calvers is going to have long-lasting effects.
- Late lactation through to weaning is the crucial period the later you leave intervention to get back in line with growth rate targets, the harder it will be to catch up.
- If your weaner weights are lagging behind by 1 June, you won't be able to catch up on growth rates without spending big dollars on supplement.
- There can be a tension between encouraging feed quality and the need to provide good cover during fawning.
- A good compromise can be to top (mechanical or chemical)
   a paddock in strips. Chemical topping can have the same the
   same effect as a mob of cattle when promoting feed quality it
   can clean out browntop and give clover the space to grow.
- Strategic supplementation with grain and/or palm kernel can give good results, although animals need a careful introduction and lead-in time time to get used to it.
- With feeding velvet stags, it is not clear what benefits there are from supplementary feeding during velvet growth, although there is certainly advantage in increasing levels of nutrition (energy and protein) earlier (3–4 weeks before button drop).

### **Animal health**

- It's important to find a vet who has a good understanding of deer – the Johne's Consultancy Network is a great place to start.
- It's also important that deer vets are consistent in their advice,

### **Genetics**

- Deer farmers need to improve their understanding of breeding values and how to use the information effectively.
- Greater emphasis needs to be given to maternal breeding values
- When buying stags, have clear breeding objectives: are you interested in venison production, velvet or trophy? You probably won't get all three in on stag.

- Your stag buying decisions could have repercussions for up to 10 years in a breeding or velvetting herd.
- When investing in superior genetics for, say, growth rates, adapt your farm system to support the types of animals you're breeding. This could involve subdivision, irrigation or new crops/pastures for example.
- The genetic potential for good growth rates might not always be visible at weaning.
- There needs to be a good understanding between breeders and finishers about the genetics being used. In some situations there might be a case for the finisher having some direct input into terminal sire genetics.



AgResearch scientist Geoff Asher (right) facilitates discussion about reproduction.

### Performance measurement

- Before you change anything, get some good baseline measurements so you can monitor progress and develop objectives.
- Make sure you have the means to capture and record data (scales, scanners, software and so on).
- Scanning twice can help pin down where reproductive losses are occurring (failure to conceive versus mid-gestation losses).
- Through fetal ageing you can make earlier decisions about culling on conception date.
- Weight is crucial to the reproductive performance of R2 hinds, so monitoring and early intervention are important.
- Don't try to change too many things at once, or you won't know what is working and what isn't.
- Record failures as well as successes you can learn plenty from these too.
- A simple spreadsheet is all that's needed to plot key dates for activities like drenching, withholding periods and so on.

### Feedback on the Advance Party programme

The workshop also discussed the way the Advance Party programme is working and the consensus was very positive. There was some useful clarification about the roles of the group chair and facilitator, respectively.

The chair is appointed from among the group members and acts as their advocate. They have budgetary discretion and can seek outside expertise if needed. It's important for the chair to be respected within the group and to be neutral.

The facilitator is a paid position and is there to guide discussion but not direct or advise the group specifically. Group solutions and Advance Party members' input into the project areas of choice are the critical success factors.

Advance Party members were universally enthusiastic about the benefits from being in the groups. Even farms such as Haldon Station or Fairlight Station that were already performing at a high level were seeing their operations through fresh eyes and had their enthusiasm for improvement refreshed.

Farmers liked the collegial, trusting relationships being formed within the groups, where diversity of farm types and experience was proving to be a strength. Having large operations like Landcorp on board was seen as a real plus.

Groups spread over a wide geographic area faced more practical challenges in terms of travel time and how often they could meet, but on the other side of the same coin, those who were relatively isolated from other deer farmers really valued the chance to create links with like-minded people.

There were intangible benefits too, such as improved mental health from the increased social contact with other farmers.

Some groups were concerned that they might run out of steam once each farm had been visited by the group, but all were keen to keep the groups going and pace themselves, meeting perhaps four times a year as a minimum.

Because the groups will meet over time, there is a great opportunity for members to revisit plans and see the practical outcomes of different strategies. This takes time and patience and people shouldn't be distracted from their objectives, or any lessons will be harder to discern.

They all enjoyed having their operations scrutinised and finances picked apart and discussed by a group of peers they respected and trusted in a safe environment.

People felt that eight was probably a realistic minimum size for an Advance Party, but they should not get much bigger. Because of their success there could be pressure from others to join, but existing groups were keen to maintain their integrity and shape. There is budget available for additional groups to be formed.

In conclusion, Advance Party members complimented DINZ for the excellent support and organisation. Thanks were also expressed to the Ministry for Primary Industries Sustainable Farming Fund for its co-funding of the programme. ■



Veterinarian Pania Flint (second from left) led discussion on animal health issues with a theme group.

# Advance Parties: Enthusiasm fizzing



by Phil Stewart, Deer Industry News Editor

If conference goers hadn't been sure about the benefits of belonging to an Advance Party<sup>1</sup>, they were left in no doubt after a panel of six participants shared what they were getting out of the programme. In a word: plenty.

**SO FAR, NINE** Advance Parties have been formed, covering a wide range of farm types, experience and terrain. The best way to convey the enthusiasm is to put it in the words of the panel members.

### John Falconer, Otago

These are a big step up from a discussion group – there's nowhere to hide! I thought we were good deer farmers, but once the group finds small areas to focus on, there's plenty of room to improve.

Having a paid facilitator for the group is a big help. There is plenty of good information available on genetics, animal health and nutrition, but farmers need help to apply it on their own properties – that's the challenge.

With post-rut weaning we were losing too much condition off our hinds in autumn. I bought in 70 tonnes of barley this year and the hinds are in the best condition I've seen – hopefully we'll see the results of this at scanning.

I've also bought 10 Advantage feeders, one per 200 hinds. The weaners are 3kg ahead of last year's and the hinds are better too – and that's despite the season being much tougher this year. I'm not sure of the economics yet, but it certainly makes you feel good!

### Stu Stokes, Canterbury

Being in the group gives you more confidence to try things and apply the science on your own place. It's been interesting to travel

We're in business: continued

### The five-year strategy

Coup said the period for the separate venison and velvet industry strategic intents ran out last year and the DINZ Board was currently considering an update for these under a unified strategy that covers all deer products.

It will be a "tweaking" of the earlier documents, but P2P would be the main game in town for implementing the strategy.

Four priorities for the whole industry across all products:

- premium positioning of New Zealand deer products
- development and diversification of markets
- sustainable growth in efficiency within the industry's constraints
- · working as a cohesive, respected industry.

### Q+A session

One farmer highlighted that the pressure to kill early was undermining potential profits, while another said he preferred to grow young stock through until February. He said 10-month animals were too immature. "They're all skin and bone at that age

and, for the stags, the pizzles are too small to be worth much."

Andy Macfarlane replied that it was also a matter of the production system on the individual farm. "Some are summer dry and need to get their stock away early".

Innes Moffat, DINZ Venison Marketing Services Manager, said the chilled season started as early as July–August for the Switzerland market, running through until Christmas in other parts of Europe.

Former DINZ Board member Graham Carr said DINZ had tried and failed to extend the shoulders of the chilled season during his term. "What will you do that's different?"

Dan Coup acknowledged previous attempts had been disappointing, but what set this strategy apart was the collaborative approach and partnership with motivated operators like Hanos.

Leith Chick said he needed a spring peak schedule of \$9/kg to deliver the \$450 per hind mated to be viable. He said one stag used to return as much as 10 lambs, but this had reduced to four lambs. Andy Macfarlane replied that the gap between deer and sheep on the same class of country was widening in favour of deer.



to other areas like the West Coast to see a Landcorp farm. They had a metre of rain in December. That put my problems in perspective.

Farmers are quick to look over the fence and see what their neighbours are doing that works for them. The Advance Parties are a very positive environment - farming's stressful enough as it is, so having the support of the group is massive. I love the environment.

On the nutrient front it's an open forum. We're a diverse group, so what may work well with nutrient loading in one place might be a nightmare for someone in another catchment.

I think regional council people will realise that it's not a simple challenge if they see these differences.

Dan Spiers, Hawke's Bay

### I came back from the hospitality industry straight into the Next Generation programme and then the Advance Party, so it's been a great fast track for learning. Different people have different approaches to the same problems. There is no such thing as a dumb question so being in the group gives you confidence to ask.

In the first year we've built up the dynamics and trust within the group. We hesitated to let in outside experts at first, but now each farm has its own set of objectives and we'll be able to check progress during the next round of farm visits.

The Advance Parties are a good way to keep people in the industry and get them excited about what they're doing.

### Hamish Mackenzie, Mackenzie Basin

We've got seven members with different compositions of stock classes. Usually deer were at the bottom of the heap, even though some of the herds are quite big - but now they're becoming more exciting to farm and a bit more profitable. A few of us have bought scales and we're starting to look harder at things like nutrition it's becoming more obvious what we should be doing.

One member of our group, near Kurow has beautiful deer country with steep hills and natural tussock. He had red hinds with terminal fawns - they were good animals but below par. He bought four Advantage feeders and he's getting incredible results. The weaners are up four or five kg and the hinds are all fat.

I've spent a lot on development in the past couple of years. I don't really want to look at a calculator right now, but I think the future is looking pretty rosy. It's fun doing the work and I'm



The Advance Party panel, from left: Paddy Boyd, Grant Charteris, John Falconer, Hamish Mackenzie, Daniel Spiers and Stu Stokes.

looking forward to seeing what comes out the other end.

One other thing - it's great to talk about something other than merinos, lucerne and footrot with my neighbours. In this group we can just talk deer.

### Grant Charteris, Hawke's Bay

Deer are definitely first-class citizens on my place! I thought I was already doing okay, but once you get the group dynamic going you can soon find ways to analyse things and improve. I've bought a TSi unit recently and will be using it to measure the velvet as it comes off each stag.

On our farms we're one-man units, but

as part of the Advance Party you're in a seven or eight-man team. The peer pressure pushes you to try new things. P2P is really the bottom line. You need to be able to show your profit has improved using hard data, and you need to link actions to that improvement.

### Paddy Boyd, Mackenzie Basin

At Haldon I thought I knew it all, but when other people from the Mackenzie Basin came along, I trusted them to look at what we were doing. I didn't mind sharing up front with them. They said there were things we were still leaving on the table.

We have constraints on our production there. In early summer there is a window where we could be supplementary feeding instead of shedding weight. We've found the cheapest time to feed is late summer. They go up to the hill on six inches of feed and they're fat. They've gone to the highest point and sat down and they stayed there for two months.

Everyone has different constraints and that's how it was painted for me. We still need to work out how to put a dollar value on that.

### How do we spread the benefits more widely?

There's no doubt Advance Party members are getting plenty of benefit from their groups but the panel weren't too sure how best to share these more widely.

Grant Charteris said bringing in new members to an existing group might disrupt the projects and data gathering. John Falconer said geography could limit the growth of groups in some areas like Otago, although it might be easier to expand groups or add new ones in Canterbury or Southland. Paddy Boyd suggested that others could be brought in to see first hand what a group had achieved, while Stu Stokes suggested an annual field day on a successful property. Dan Spiers said it was still early days and moving things to the next level might be a challenge.

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## Animal health partnership paying off

### ■ by Phil Stewart, *Deer Industry News* Editor

When Dallas and Sarah Newlands and Dallas's parents added Maraeweka, a new 312-hectare farm to their Viewmont enterprise in October 2013, deer were part of the setup. The North Otago family already had a 200-hectare home farm with a 90 hectare block next door.

Dallas's father Alec had been in deer since the early 1990s and they are strongly committed to continuing with the venison business. It fits well with their cropping, cattle grazing, calf raising and dairy bull operations. At present they have 700 hinds including 120 hybrids, using Forresters™ for breeding replacements and B11 terminal sires.

It didn't take them long to notice that things weren't quite right with the bought-in deer on the new property. They were unsettled and the scanning and calving results were very poor. Dallas and Alec decided action was needed to improve performance.

The Newlands family business has a lot on. As well as the cropping and livestock they also run a contracting business (something that helps keeps the costs down for high-value crops like fodder beet). That means having good systems in place to ensure things get done when they're needed and the stock are monitored.

Dallas admits that because deer are relatively easy care and there is plenty of other work on, essential jobs can be overlooked or delayed. This is especially so when the planning is carried around in the head.

"I want to be proactive – to prevent problems instead of having to cure them." He's done a couple of things to help ensure this can happen.

First, he's become part of the South Canterbury/North Otago Advance Party¹, chaired by Martin Rupert. At a recent Advance Party meeting at Viewmont, discussion centred around nutrition as well as hind health, genetics and finishing weaners. Suggestions of strategic use of palm kernel were useful, Dallas says.

It's an hour's drive north to where most of the other Advance Party members are, but it's a journey he's happy to make when visiting other farms. "It's a great way to swap ideas and learn. I'm pretty much surrounded by dairying here in North Otago so it's fantastic to get to know other deer farmers." The Advance Party group has visited each farm and will now be knuckling down with their objectives and measuring the impact of the changes being made.

Second, he's developed excellent working relationships with



Dallas Newlands: Enjoys the opportunity to get to know other deer farmers through the Advance Party.

<sup>&#</sup>x27;Advance Parties are a system developed by DINZ to help farmers increase profitability. The three-year trial is co-funded by the Sustainable Farming Fund. At the end of the first year there were eight Advance Parties underway, involving 89 farms.



Veterinarian Luke Smyth: An excellent working relationship with the Newlands family.

the rural professionals involved with the farm. One has been his Oamaru Rabobank manager, Hamish Low, who has been very supportive of the Newlands' plans to develop the business.

Another is his veterinarian, Luke Smyth of the Oamaru Veterinary Centre, who first came into contact with the Newlands family when he was on the property Tb testing and velvetting. "I got Luke on board during winter 2011. He's a young and very

positive vet who takes a strong interest in our business – and he's passionate about deer."

Luke has worked with Dallas and his father Alec to develop a simple animal health plan to ensure the essential tasks are done with active monitoring to ensure further action can be taken if needed (e.g. supplementary feeding).

The idea of a seasonal checklist isn't particularly new, but what makes this special is that it was put together in partnership with vet and farmer. And although the consultant in this case is the vet, it's about far more than when to administer vaccines and drenches.

### "I want to be proactive – to prevent problems instead of having to cure them."

The starting point was to document goals for the farm and these will be familiar to most: more hinds in calf, calving as early as possible, bigger weaners, maximising kill before 20 November and avoiding taking slaughter stock through a second winter. Broader plans for the farm include pasture renewal and increasing bull numbers with fewer heifers.

Luke says that as a vet it would be easy to see things purely in animal disease terms. "It's a lot more than that. We narrowed it down to four main areas: nutrition, parasites, trace elements and disease."

From there they developed a stock policy covering timing for weaning, management of hind body condition score, timing for mating, scanning and set stocking.

There is a long history of pour-on use at Viewmont, and Luke Smyth is wisely recommending a policy of quarantine drenching for bought-in stock plus a regular drenching programme using a triple combination, especially during the late summer–autumn period. He's also recommending a number of non-chemical parasite control options, including cross grazing with cattle,

continued on page 22





# Deer, sheep and cattle spread the risk in uncertain times

Velvet, venison, lamb and beef are all on the menu for a fifth-generation farmer in Central Hawke's Bay. Kate Taylor got a taste of diversification.

Last updated 06:30, September 28 2015

Kate Taylor

Matt von Dadelszen with Oscar, 4, with hinds and ewes and lambs on Mangapurakau Station, south of Waipukurau.

Diversification is one of the keys to success for Central Hawke's Bay sheep, beef and deer farmer Matt von Dadelszen on Mangapurakau Station.

Combining breeding deer, velvet stags, bull beef, breeding ewes and finishing lambs gives the von Dadelszens a mix of stock classes on the property at any time of the year... and a buffer when prices drop in one sector.

"The way we're set up it's easier to react," he says. "Changes can be made quickly for different markets. Every year is a good solid year thanks to the diversity of the farm. We're not at the mercy of one market."

Matt and Paula von Dadelszen farm in partnership with Matt's parents Ponty and Jane on the 1000-hectare property in the Flemington farming district, south of Waipukurau. They are on the Hawke's Bay Regional Council's southern boundary with Horizons Regional Council with two-thirds of the farm in Hawke's Bay. It is a summer-safe farm with an altitude of 370 metres above sea level up to 620m and an annual rainfall of about 1250mm.

It is about half sheep with a quarter each of deer and beef.

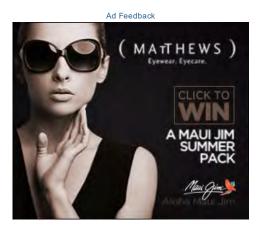
Even with last week's rain, Matt is monitoring the season closely with an El Nino weather pattern forecast for Hawke's Bay this summer. They have had 739mm so far in 2015 compared with 1004mm for the same period last year.

"When stock comes ready to be killed, then it will be killed. We won't muck around this year. We'll dock early and be proactive," he says.

"We've just put a flexi-N sulphur super mix over the twinning ewe country and the deer and bull block. That's about 30 units of nitrogen and 15 units of P to give it a bit of a kick as the pasture covers are lower than they should be."

He says high carcassweights are unlikely to be an issue this year.

"We won't be looking for high carcassweights if the grass isn't there. If the season transpires as the weather forecasters predict we won't be buying replacement yearling bulls until late summer. Normally we would buy in 20 or 30 per month from now on. But we know it's just not worth the risk currently. Normally we'd be looking for an 18kg lamb but if it's ready to go at 17kg then it will go at 17kg."



Mangapurakau Station is 940ha effective – several pine plantations are one aspect of the von Dadelszen succession plan to help Matt buy his sisters' share of the business. The harvesting of one block has already helped with the development of Matt and Paula's home, which is down the road from his parents.

Matt did an agricultural commerce degree at Lincoln University, worked for a year in Taupo and travelled for a year before returning to the farm in 2000 when Ponty was elected a director of Meat New Zealand.

Matt says the father-son partnership works well on the farm with Matt doing most of the daily farming, with Ponty in charge of the velveting stags. Ponty is a director of velvet company ProVelco. Matt would not like the comparison, but he is also willing to step up for roles in the industry – he is chairman of the TB Free Hawke's Bay committee and chairman of the Hawke's Bay Deer Farmers Association.

Ponty and Jane made the move into deer in the early 1990s with a focus initially on selling store venison weaners. The deer farm now focuses on both velvet and venison with half

the hind herd producing replacements for the velvet herd and the remainder producing crossbred weaners for sale in autumn.

The velvet herd consists of 235 MA stags and 65 R2 stags. Due to a lift in the market, this year's velvet averaged \$126 a kg compared with \$109 a kg last year. The top price for spiker grade-one velvet was about \$200. About a third of Mangapurakau's velvet is sold through ProVelco on a fixed-price contract.

Genetics have been introduced over the past 10 years from the Netherdale Stud in Southland. In that time the R2 stags have increased velvet

production by more than 1kg a head and the farm now produces a total of 1700kg of velvet compared with around 1100kg in 2010.

The amount of velvet produced on the station has been growing every year due to a combination of "genetics, better feeding and a handful more stags", says Matt.

"While we've previously fed them on balage over the winter, the past few years we have fed them on a crop of kale and swedes for 80 days. This has helped lift their body condition score in the lead up to button drop."

About 35ha is put into winter crops, either kale or rape, as well as titan in spring for lambs, plus 20ha of plantain.

The use of kale was part of an Advance Party winter cropping trial, which aimed to help with a regional issue of being able to feed stags efficiently over winter using different varieties of brassicas, oats and swedes.

The Hawke's Bay Advance Party, which has nine members, operates under the umbrella of the deer industry's Passion2Profit primary growth programme delivering feed, genetics and animal health solutions to farmers. Nine groups involving more than 80 farms are part of the three-year trial (2014-2016) funded by Deer Industry New Zealand and the Ministry for Primary Industry's Sustainable Farming Fund.

"It's about farmers learning from and helping other farmers. We all had to say what we needed to improve in our own operations and at the same time also help the other farmers improve what they're doing. It keeps people focused on their farms and adds a competitive nature to it at the same time."

Matt says the Advance Party meetings and field days offer a gold mine of small ideas to help increase production in many different ways.

Just over half of the 510 mixed-age red hinds go to wapiti sires bought from the Steinvale Stud in Tauranga with their progeny sold locally as weaners in April.

Matt says changing the feeding management of the R2 stags contracted to Silver Fern Farms resulted in a 4kg lift to a 66kg carcassweight this year.

"With an \$8 schedule this gave us an extra \$32 per head."

The remaining 250 hinds are single-sire mated to stags with velvet genetics with progeny kept as replacements for both the breeding and velvet herds. Rising two-year hinds are mated to red stags with progeny kept as replacements.

On the sheep side, Mangapurakau has 3350 ewes and 1000 hoggets based on Kelso and Wairere composites of romney, texel and finn. Hybrid vigour has been added in the past three years through coopworth rams from nearby breeder Steve Wyn-Harris.

Matt says his target average lambing percentage is 145 per cent and he aims to get as many lambs as possible away straight off mum.

About 850 hoggets are mated this year. The five-year ewes go to poll dorset rams three weeks before the main flock with the aim of having the ewes and lambs killed by early December to create more room for twin ewes.

Breeding cows were dropped from the station six years ago after three consecutive dry summers and autumns and replaced with bulls for more flexibility.

Matt buys 160 friesian calves on contract at 100kg in October/November. They are finished at an average of 290kg carcassweight at 18-20 months. Depending on the season, 200 R2 friesian bulls are bought from October onward as feed allows and killed at about 320kg carcassweight.

Matt sometimes has the company of four-year-old Oscar on the farm. But Oscar will soon join his sisters – Hannah, 10, Ella, 9 and Zara, 7 – at nearby Flemington School where Paula teaches two days a week and Matt is on the board of trustees.

Matt works alongside full-time shepherd Brad Stafford and part-time fencer general Wayne Lomas, who also works for the neighbours, as well as Ponty, who works as required.

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## Deer out-earn dairy grazers handsomely

TREVOR WALTON Last updated 06:32 03/10/2014 Fairfax NZ

GROWING: Martin and Kiri Rupert are expanding their deer operation on a second farm near Geraldine.

A love of deer prompted the Rupert family of South Canterbury to retire from dairy farming and invest in deer. Twelve years later, it's a decision that's paying them handsome dividends.

Martin Rupert says he still grazes dairy heifers because they do a good and necessary job of grooming the pastures for deer. But when it comes to profitability the deer win hands down, generating 46 cents of income from every kilogram of dry matter they eat, as against the 18c earned by dairy grazers.

There are some assumptions in this calculation that Rupert says could be argued with, but it's clear that the deer are at least twice as profitable as the dairy grazers.

Also, over time, the income gap between the deer and heifers will grow as the genetics of the his deer improve and market demand for their main crop - velvet antler - strengthens.

Such is their confidence in deer, Rupert and his wife Hendrika two years ago bought a second farm, a few kilometres away from their home property near Geraldine.

Here, with the help of daughter Kiri, they are expanding their deer operation.

"We're pretty flexible about the eventual shape the herd will take, but we don't want to run all stags. At present we run 600 stags on the home farm. This seems to be a manageable number. The hinds and replacements are on the new property." he says.

Although the Ruperts' herd is based on elite animals from Beaufort Lodge in Rotorua, the family is focused on further genetic improvement.

To maintain selection pressure, one-third of the hinds are replaced each year.

All fawns are paired with their hinds, so that females with high genetic merit for velvet can be identified.

"Matching fawns to hinds is only about 80 per cent accurate, because some fawns get mis- mothered at birth or suckle multiple hinds, so from next year we will DNA-test all our 2-year old hinds so we are 100 per cent sure of their parentage," Rupert says.

Earlier this year, the Ruperts joined a novel Deer Industry NZ initiative in which farmers help each other find answers to productivity problems. As chair of the local DINZ "advance party", Rupert says he's finding the experience enjoyable.

"The concept is really good. It helps us to become more efficient. It's also really stimulating having other farmers questioning what we do. Then we get to see what they do and have the opportunity to question them.

"It was also a good opportunity for Kiri to learn more about deer. The deer industry is really good for young people; it's good at welcoming them and has excellent activities for the next generation."

Each advance party member has to identify a productivity barrier on their farm and to agree to make management changes to address it. In the Ruperts' case it was poor fawning percentages in 2-year-old

hinds.

"We've been stuck at 70 per cent for some time. It's been frustrating . . . the hinds are good weights at mating and we have good numbers of fawns born. The problem is we also have a lot of dead ones," Rupert says.

"The other members of the party have suggested that a lack of copper and too low a grass cover at fawning time may be the reasons. So we have bolused the hinds with copper and will have more cover at fawning this year and see what happens."

This summer, the Ruperts will be grazing 500 yearling heifers in tandem with their 1400-strong deer herd. With a total of 300 hectares across their two farms, that's more heifers than they need to control their pastures, but with the purchase of the second farm they are still building up deer numbers.

In each of the last five years the velvet price has increased and prospects for the upcoming season look good. Last year, the Ruperts' stags cut an average of 6kg a head including regrowth and their returns from co-operative marketer Provelco averaged \$111 a kg.

Another useful income stream comes from cull hinds which, because of the intense selection pressure in the herd, are of higher genetic merit than most commercial hinds.

These attract a "reasonable premium" over the slaughter price but if, as expected, more deer farmers grow their velvet herds this premium may increase. Gross farm income last year was \$2500 per effective hectare.

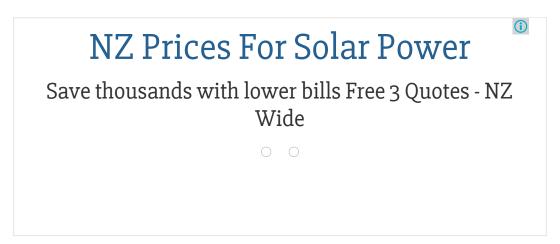
And after retiring from dairy farming and then farming deer for 12 years, what words of advice would Rupert give other deer farmers?

"Don't try and be an average deer farmer. Being at the bottom of the top, or the top of the bottom is not good enough," he says.

"Deer farming can be a highly profitable business, but it depends on how you run your deer. If, for example, you are satisfied with a low fawning rate you'll never get ahead.

"Our objective is to be the best we can be. We're not there yet, but we're trying."

-NZ Farmer





ublic relations people
usually come in shiny suits
and the latest sports car –
but Manawatu deer farmer
Craig Hocken is the kind
that wears Canterbury shorts
and drives a deer cartage truck.

He flies under the radar and isn't a regular PR practitioner, but by sheer force of his personality does a great job of spreading the word about the deer industry.

Despite posing as a farmer and truckie, Craig works hard to disseminate knowledge and connect people throughout the deer industry – he loves deer and velvet, loves to talk and loves to be involved in the industry.

As chairman of the Central Regions Deer Farmers Association, Craig is responsible for the monthly newsletter, and while he says he isn't totally computer literate, his wife Chris is and between them they get the monthly newsletter out to the members – most by email, but with a reasonable number still preferring to get it in the mail.

"Some farmers are older and live up

side roads in isolated spots and are still struggling along with dial-up internet – we need to be mindful of providing it the way it is going to be the most useful."

Education is one thing that Craig is hot on, saying that while great work is done at Deer Industry New Zealand (DINZ), he wonders if it trickles down to the growers fast enough.

Eight years ago Craig went out farming on his own when the family sheep, beef and deer partnership of himself and his brother split and part of the original farm was sold for a dairy unit. Craig retained the deer and runs 175 velveting stags (building to 200 stags) on his 40ha block, along with a small breeding herd of 80 hinds and 80 replacement R2 stags and hinds. Some of the stags are sold as trophy stags at seven to eight years, if they produce good antlers.

Craig says he is under pressure from the dairy guys on the flat, fertile block but when velvet prices are on a roll like at present (up 15-20% on 2013), he can give the dairy boys a run for their money and banish from his mind thoughts of dairy grazers and milking cows.

"At \$125/kg for velvet and three stags per acre we are doing okay – and the summer dry would make it difficult to be in dairy, whereas with a small block of lucerne and some baleage and PKE [palm kernel] the stags do well."

His Rosemere block near Colyton is farmed intensively and runs very smoothly as a one-man operation and he is able to fill in some time and supplement his income by driving for specialist deer cartage operator Geoff Yule from Shannon. While he covers the country delivering trophy stags and breeding stock, many roads tend to lead to processors at Rotorua and Feilding, so it's a handy spot for Craig to live.

"Lots of regular truckies don't like carting deer because they are not confident handling them – and they do take a bit of understanding.

"They are a funny animal, but I love them. You can cut their velvet and three hours later they are back in the paddock as happy as Larry.

"But they do get set in their ways and don't particularly like change," he added. As a certified and accredited deer driver and with many years experience with the animals, Craig understands the care and calmness needed to move deer, not overloading the pens and not mixing stock from different farms or mobs. He can also see the warning signs when things are about to get ugly – dropping their ears, spitting or drooling and blowing up like a porcupine are all signs of stress and that "something's about to blow," he says.

'You can cut their velvet and three hours later they are back in the paddock as happy as Larry — but they do get set in their ways and don't particularly like change.'

"You need to be wary of how they work and be ready to get out of the way."

That doesn't mean standing against the wall, but taking refuge in the middle of the pen as deer are prone to charging around the outer wall.

The exit of farmers from the North Island deer industry in the past 10 years has impacted on truck drivers like Craig.

He says sometimes he has to drive a long way to pick up and deliver which adds up in terms of time in the cab and away from home, but he uses his encounters with farmers up back roads to gauge how the industry is doing.

"I get really good feedback on what is happening – sometimes guys just want to bend my ear on some issue or other, but it's a great opportunity to find out what's happening with the deer and the farmers."

It's in the chats, leaning against the side of the truck or against the yard wall, Craig has picked up on information gaps in farmers' knowledge. He thinks the industry and regional groups need to do a better job of feeding down scientific advances in plain English to farmers.

Craig is working on feeding palm kernel as a supplement through winter and monitoring its effect on deer condition and velvet growth.

"Last year when we fed PKE the deer loved it and were definitely fatter by the end of winter – and interestingly only three out of 40 older stags went back on the previous year's velvet weight."

The result has spurred him into keeping 12 of his 10-year-old stags on, to be wintered in an age group on their own with the palm kernel supplement, to see what he can cut off them in velvet weight.

"They have held their weight and are increasing this year so it's worth a try – especially with the velvet being worth so much," Craig says. Velvet has been

# TECH TRANSFER

The Advanced Party concept has the potential to bring about a lot of change and technology transfer, Craig Hocken believes. The format of farmers helping farmers by getting out on each farm, talking about the issue, nutting out problems, making a plan and revisiting it monthly in a small group could prove a real winner.

"The group is able to drill down and talk about the issues that you often don't get around to talking about at a discussion group with a bigger crowd."

Craig is working on his clover persistence problems and has been given a list of alternative species that have worked for others that he is going to source, along with soil and herbage testing, to try and solve the problem.

"You have heaps of collective experience within a group of farmers that we can draw on and whilst you aren't accountable to them, there is gentle peer pressure to keep trying out the changes."



# Proposed genetics hub to transform Northern Ireland's livestock sectors

AbacusBio has been working with the Agri-Food Strategy Board's Livestock Genetics Sub-group on assessing opportunities to further maximise economic gain through improved genetics – across the livestock sectors in Northern Ireland.

Genetic improvement continues to hold the key for increased productivity and economic gains in beef, sheep, and dairy sectors worldwide.

Last year, the Agri-Food Strategy Board (AFSB)'s Livestock Genetics Sub-group contracted AbacusBio to review genetic evaluation options for the livestock sectors in Northern Ireland. The strategic and economic benefits of genetic improvement were also analysed.

The research has shown that there is much value to gain in existing genetic evaluation activities – in terms of both productivity and profitability.

However, genetic evaluation efforts are fragmented and often under-utilised, AbacusBio consultant Peter Amer says.

"This is due to the lack of access for some farmers to information such as genetics data. The availability of such information is not centralised and collated across the beef, sheep, and dairy sectors."

There is a need to integrate the data across the livestock sectors together in one place, which allows farmers to more easily evaluate performance and ultimately make management decisions more confidently, AbacusBio consultant Jason Archer adds.



▲ Left to right: Trevor Lockhart (AFSB Member), Peter Amer (AbacusBio), Tony O'Neill (AFSB Chair), Jason Archer (AbacusBio), and Ian Marshall (AFSB Member)

A report has recently been prepared in collaboration with the AFSB's Livestock Genetics Sub-group and key stakeholders on recommendations to enhance genetic improvement for farming – one of which includes developing a single Northern Ireland hub.

The industry-wide data hub aims to coordinate data collection across livestock sectors, as well as generate information relating to genetic evaluation performance and management use.

"Farmers would be better able to identify best genetics and make well-informed decisions that give them the best chance of producing an animal with maximised market value," AbacusBio consultant Tim Byrne says. Other recommendations include the provision of external genetic evaluations and developing tools to drive business performance in farms.

"By driving this work forward, we expect to make a huge difference not just for the betterment of the industry, but individual farmers in delivering real economic gain," Tim remarks with a sense of enthusiasm.

Peter and Jason recently presented the report outcomes to the AFSB and industry participants in Northern Ireland, who are now considering how the recommendations in the report will be progressed.

For more information about the AFSB, visit www.agrifoodstrategyboard.org.uk/

# Deer industry pushes for growth

The agricultural consultancy team at AbacusBio is calling for more deer farmers to be part of the increasingly popular advance parties initiative by Deer Industry New Zealand (DINZ).

Advance parties are small groups of farmers working together – sharing their productivity challenges and coming up

with answers – with the ultimate goal of improving business performance.

"The main purpose is to inspire change for increased profitability by sharing knowledge and demonstrating effective deer farming methods or technologies," AbacusBio farm consultant Simon Glennie says.

The advance parties were developed

following a 2012 review, which showed that average fawning rates and carcass weights had been static for more than 20 years.

Simon also acknowledges that "there is a widening gap between average and top performers in the deer industry, which has been attributed to the lack of technology adoption among farmers." "Advance parties are a new way to change this behaviour by encouraging farmers to work together, learn, and share different techniques in a group, and their effect on profitability."

Each advance party focuses on particular areas, ranging from animal health and nutrition, to velvet production and supplementary feeding.

A group of nine participant farms within the Otago region have come together to form a party group, focusing on reproductive efficiency and weaner growth performance.

Even within the broader topic area of reproductive efficiency, the Otago advance parties also explored issues such as genetics, R2 year old hind performance, autumn grain feeding, pre and post rut weaning options in different systems, leptospirosis, Johne's disease, calf wastage, fencing, stocking rates, as well as optimal use of irrigation and wintering systems.

"Advance parties inspire change for increased profitability by sharing knowledge and demonstrating effective deer farming methods or technologies."

Simon Glennie

Participant farmers have benefitted in many ways from both the shared input from experts and direct access to recent and past work.

"Farmers don't just benefit from the insights they get from their peers, being part of a group with fellow farmers has also increased their confidence levels in discussing management implications and exploring new ideas. Consequently, farm system changes are implemented at a much faster rate," AbacusBio consultant Jason Archer says.

By sharing the results with the wider deer farming community, the New Zealand deer industry can stand to reap growth benefits as a whole such as through increasing deer velvet export sales.

The information is available to all, but a lot of the benefits come from being part of the process and discussion, so we urge more farmers to participate in this well-received initiative.

For more information, or to express interest in joining and organising a new advance party group, visit www.ap.org.nz or www.deernz.org

# Demo farm conference offers new insights

The 2015 Beef + Lamb New Zealand demonstration farm conference has seen a great turnout of farmers – with special guests from the Red Meat Profit Partnership and UMR Research.

Held in Christchurch, the two-day July conference had an interesting line-up of demonstration farmers sharing an overview of their projects, Scott Champion from Beef + Lamb New Zealand (B + LNZ) speaking on the levy referendum, as well as Marc Elliot from UMR Research presenting survey results on the key differences between high-performing and low-performing farmers.

This year, the conference also included a field trip to PGG Wrightson's Kimihia research station, where Glen Judson and Allister Moorhead showed attendees around the facility and some trial plots.

"The purpose of this visit was to demonstrate some of the innovative ideas and practices that are being carried out within the pasture and forage seed breeding industries – which aligns very well with the main objectives of the B + LNZ demonstration farm programme," AbacusBio consultant Luke Proctor says.

"The feedback we received from the visit was really positive. Attendees found it very interesting, and engaged deeply with the thought-provoking presentations."

After the Kimihia visit, conference participants visited Lincoln University Dairy Farm, where farm manager Peter Hancox shared an overview of the farm and current production levels. He also discussed the challenges of "continually being in the spotlight" from a farmer's perspective, where production data and details are made publicly available – which resonated well with the demonstration farmers.

AbacusBio farm consultant Simon Glennie explains, "when farmers enter the programme, they are inadvertently thrust into the public eye, which can be quite daunting".

"However, the approach of sharing these data is crucial for the industry to be able to move forward and thrive together."

AbacusBio IT consultant Mark Teviotdale also gave a presentation, describing his work with New Zealand King Salmon to integrate technology and improve efficiency and drive profitability.

"Seeing data being integrated and used in other industries is an interesting way of evaluating what can be done in the sheep and beef industry," AbacusBio consultant Nadia McLean says.

The conference ended on an inspiring note with a well-received presentation from Jack Cocks of Mount Nicholas

station near Queenstown – on personal and industry challenges related to farming.

"Overall feedback from the programme showed that attendees really enjoy the opportunity to come together and get involved in robust discussions with like-minded people on an annual basis," Nadia says.

The consensus of demonstration farmers was that, "it was a really fun learning experience and a great privilege to hear from speakers on relevant issues – which we can take away as learning to be put into practice".

Nadia, Luke, and Simon, who are contracted to provide project management and science extension support, also found it really satisfying to see participants grow in confidence throughout their time in the programme.

"New Zealand has always been a world leader in farming innovation. This programme brings together farmers and scientists to help set the bar even higher."

For more information about the B + LNZ demonstration farm programme and upcoming conferences, visit www. beeflambnz.com/farm/project-farms/demonstration-farms

linked to performance data on an individual's relatives to reveal the role of genetics. Having individual records of animal health treatments like drenching also helped ensure withholding periods were observed correctly.

Ken and Steph want to increase the profitability of their deer and achieve the right balance between livestock classes. They'd like to grow deer numbers without compromising sheep and profit, increase velvet production, improve feeding and get a fix on the weight of dry matter needed to produce each kg of velvet. The deer nutrition trial carried out over 2013/14 (see sidebar) was one attempt to explore ways of improving velvet productivity.

### Nutrition, genetics and other factors

The workshop session concluded that both main factors have a role: genetics has been the powerhouse behind increases in velvet production, but improvements in feeding help express that genetic potential. The following is a summary of the workshop discussion on the various influences on velvet growth.

### **Nutrition**

Good nutrition management should be practised throughout the year, but some periods may be more significant than others. Nutrition to promote velvet growth should start straight after the rut rather than waiting until button drop. Research on this is limited and trial results have been variable, but one farmer who started feeding up his velvetters in May, straight after the roar, said his average velvet weights climbed by 1.5kg after two years of doing this.

### Autumn

- This is the most critical time to get high-quality feed into velvetting stags.
- Consider body condition scoring your stags during this period.
- Use good-quality grass if available if not available, add in supplements.
- Supplements to consider include maize, PK, barley, brewer's grain, deer nuts and baleage made with lucerne or red clover.
- Early use of concentrates can help preserve pasture covers for the crucial velvet growth period in late winter/spring.
- Use some variety to cater for fussy eaters, e.g., in Southland PK and ad lib baleage is used for deer while they are on fodder beet.
- · Monitor intakes, weights and body condition.

### Winter

- Good nutrition is needed to maintain weights and compensate for heat loss.
- Use saved pasture and good-quality baleage with concentrates if required.
- In southern areas this is done with crops like swedes, kale and fodder beet perhaps with grain and PK (some deer can tire of fodder beet after about 40 days).

# No economic benefit from grain-based supplement



**PANIA FLINT AND** Ken Norman carried out a feeding trial on Rexdale to see whether feeding velvet stags a concentrate during antler growth would give a production and financial benefit.

A group of 50 velvetting stags was divided into two mobs, grazed on the same good-quality ryegrass/clover/plantain pasture. The trial mob was also fed a supplement, Deer Velvet Nuts, at 1.5kg/stag/day for about 50 days from button drop to velvetting. The supplement cost was \$51/head.

Average velvet weights from the trial mob were 0.3kg heavier than those of the control mob. The difference was not statistically significant.

Flint said the value of the additional pasture in the trial mob's paddock was up to \$20 per head, depending how it was used. In this case additional stags grazed it, freeing up other pasture for the bulls in other paddocks.

She concluded that there was no financial benefit from using the supplement for stags on good-quality pasture, although the results may have been different if the pasture quality or quantity had been poorer. There was also a potential animal health risk to the stags from feeding the supplement (one stag in the trial mob died, probably of acidosis).

### Spring

- Velvetters have the earliest requirement for high-quality feed in spring compared with other stock classes.
- Keep using supplements until good quality grass comes on stream – uptake of baleage will indicate when this starts happening.
- Early cultivars like Italian ryegrass or prairie grass should be considered, along with strategic use of urea, but consult your seed and fertiliser reps for advice on what's best for local conditions.

### Summer

- · Again, this depends on the farm situation.
- Good nutrition is still important and the stags should have good fat cover going into the roar.
- Stags should be able to maintain condition on dry pastures.

continued on page 16

### Genetics

### The hind effect

- Velvet characteristics are highly heritable (80 percent) compared with other traits such as growth or reproduction.
- If you keep hind fawns from top hinds and velvet stags, it is highly likely they will produce good progeny too.
- While hinds are important, they can be four years old before
  the merit of their sons is known. Assessing hinds' genetic merit
  can be accelerated by looking at records of their half siblings
  and ancestors.
- Some hind—sire combinations can exhibit complementarity: their genes combine particularly well to produce something special.
- Try and avoid hanging onto poor-quality hinds too long before culling.
- The dominant hind in a mob is aggressive and nearly always produces a male fawn.

### The stag effect

- The consequences of poor buying decisions may not show up for several years.
- The cost of a poor velvet sire decision is higher than for venison sires, due to the much higher cost of velvet stags relative to venison stags. Good velvet/trophy sires may attract even higher prices.
- Spread the risk by using a number of different stags and different lines.
- For velvet producers who are interested, extra accuracy on selecting female replacements can be achieved through the use of DEERSelect, but it takes about five years to build some depth to the pedigree and performance data. Back data can be added to shorten this if the information is available. Recording requires identification of sire and dam, liveweight at 12 months and velvet records (preferrably for all age groups).





Participants brainstorming ideas at the velvet genetics and nutrition workshop.

### Buying with your eyes

Because velvet traits are so heritable, buying on the basis of
what you see at auction is probably valid – but be aware that
feeding and local environment affect how they look on the day,
so consider the catalogue information too.

### Breeding values (BVs) for velvet

- Netherdale and Arawata are listed on DEERSelect with velvet BVs, the only studs to do so thus far.
- Hinds with high BVs for velvet attracted a premium at their sales.

### PK supplement has edge over maize/baleage

**CRAIG HOCKEN REPORTED** on a two-year comparative nutrition trial he carried out with 80 velvetters at his property near Feilding.

In 2013 he fed maize for 88 days at a cost of about \$11/head, and baleage (made on farm) for 118 days at a cost of about \$18/head, a total supplement cost of about \$29/head. He calculates that this additional feed yielded an extra 59.7kg of velvet across the mob.

In 2014 He fed 80 stags palm kernel (PK) supplement for 118 days from June instead of the maize/baleage. The PK at 1.6kg/stag/day cost about \$61/stag and yielded an additional 91kg of velvet across the mob.

Hocken calculates that the PK gave an advantage of about 418g per stag, over and above the natural increase in weights on the previous year.

The per-stag cost of feeding PK was just over twice that of the maize/baleage, but the extra weight of velvet more than made up the difference.

Taking into account the cost of supplement (maize/baleage and PK), he calculated that feeding PK only, rather than maize/baleage, yielded an additional \$16.72 profit per stag, or \$1,337.60 over the mob of 80 velvetters.

An additional benefit from feeding PK was that it allowed him to increase the stocking rate of mixed-age stags from 7.41/ha to 11.85/ha. The additional revenue with the increased stocking rate worked out at nearly \$200/ha.

"Feeding PK only is a good option," Hocken concluded. As a footnote, he added that there is no evidence the using PK will provide the additional copper that deer need, so the usual programme for copper supplementation should be maintained.

- DEERSelect can be used to record herds for velvet traits. It costs about \$2,500 per year for 500 hinds, but ask if you want to know the cost for bigger or smaller herds than this it's not just pro rata.
- Historical, as well as current data, can be entered.
- Some studs advertise their own BVs but because of the complex mathematics that's needed, these may not be as useful or reliable as BVs provided through DEERSelect.

### Size of deer versus size of antler

- Wapiti bulls have bigger antlers than reds but they require lower stocking rates and more feed per animal than reds; measuring velvet produced per hectare would provide the basis for a proper comparison.
- Overall, body size and antler size are correlated, although some lines have larger antlers in relation to body size.
- · There is a limit to how heavy you can get antler on small red deer.

### Balancing velvet, trophy and venison traits

There is some conflict between velvet and trophy traits –
as velvet, trophy heads will be downgraded because of the
atypical style.



Veterinarian Pania Flint leads discussion on the factors affecting velvet growth.

 It is preferable to maintain some body size in velvet stags so that culls can be sold for a reasonable price.

Semen sexing to produce more male fawns

- This is possible and is used, but conception rates are lower than for natural mating.
- A commercial product has been advertised. Its claim to produce 75 percent males and increased conception rates has not been independently tested in New Zealand.

### Stockmanship

- Good farm management and stockmanship (e.g., being able to assess stock condition) are less tangible, but still very important factors.
- Even such things as judging the best time of day to feed and knowing not to feed out on ground that's too wet are considered important.
- Balancing this, some farmers demand good scientific justification for decisions and sound economic data to show the cost benefit of feeding additional supplement.

continued on page 18

# Supplement feeting revolution

Feeding regular and small rations optimises rumen performance, increasing growth rates while reducing feed consumption



### BARLEY SUPP. TRIAL

Weaner deer supplemented through Advantage Feeders reached kill-weights earlier and exhibited significantly higher weight gain when compared to mobs historically trail fed the same amount of barley.

Other benefits include no waste, the feeders only required filling once/fortnight *and* they were easier to manage through a rotationary grazing system.

Contact us or visit the website for the full trial report

### **Temperament**

- Aggression in stags is heritable and generally undesirable, but they do tend to grow bigger antlers than more placid animals.
- Causes of flightiness are harder to assess, but animals that smash their antler don't make good velvetting stags.
- Broken velvet may be an indicator of temperament or flightiness, but stockmanship is also a factor.
- Temperament is difficult to measure consistently. A proof of concept for an objective measure is being developed through the Deer Progeny Test programme.
- Presence of fungal endophytes in ryegrass, or low pasture magnesium (Mg), are both thought to have a negative effect on temperament. Stags are seen to be more settled on cloverdominant pastures, which might reflect the lack of endophytes and high Mg in clover.

### Light and shade

- Effect on velvet growth of the amount of sunlight is unclear, although there could be an indirect effect through its effect on pasture growth by increasing sugar content and palatability.
- Day length is probably more important for velvet growth than direct sunlight.
- Some farmers noted that stags stay in the shade on frosty mornings, rather than in the sun.

### Temperature and shelter

- This is probably more important than sunlight; farmers observe bursts of growth during warmer spells.
- · Keeping stags in warmer, sheltered areas where they are not



expending energy on generating warmth, may help promote growth, although this has not been scientifically tested.

### Water

- Stags usually drink in the evening, not in the heat of the day as one might expect.
- Water should be fresh and clean; dirty or stagnant water will keep them alive but not producing to their full potential.

### **Parasites**

- Farmers will generally use drench on velvetting stags only if they are in poor condition.
- Despite evidence that they are ineffective against *Ostertagia/Teladorsagia* in adult stags, some farmers are still using pouron drenches (see article on page 27 for a reminder of the most effective combination drench for deer). ■

Acknowledgement: Pania Flint for meeting notes used in this article.

### **NZDFA**

# Two North Island DFA branches consolidate

The Rotorua and Coastal Bay of Plenty branches of NZDFA have been holding joint meetings for the past two years and have agreed to merge to become the Bay of Plenty Branch.

**JOHN PATERSON, CHAIR** of the Rotorua branch, says the two branches had been functioning as one for some time and there were be no objections to the idea.

Consultation with local deer farmers on the matter has included a special general meeting and two surveys to gauge members' views. Responses from the survey show deer farmers feel that maintaining effective representation of farmer views to the parent body is important and that the amalgamation is likely to serve local deer farmers better.

At the Rotorua Branch AGM on 16 April, the Rotorua Branch put a motion to change its name to Bay of Plenty Branch and the resolution was passed; further discussions will now be held to formally unify all aspects of branch activity. At the AGM, Sharon Love was elected as chair of the newly merged branch.

Pictured is Kevin Morely, who won the recent combined branch running boar shoot with the best kill shot and highest score.

The paper boar targets speed down a wire stretched down a hillside at Paterson's deer farm



Kevin Morely with the evidence of his marksmanship.

Branch members used a semi-automatic 7.62 x 39 Kalashnikov and were limited to one burst of three shots.

Shooters were tactfully described by the range master Don Love as generally "needing more practice" but everyone had a lot of fun. ■

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### **Contents**

Editorial
Advance Parties  Participation growing
PeopleCrossbreeds lagging?6Remembering pioneers26
On farm  Forest Road Farm field day
DINZ News DINZ structure: who's who 10 Velvet safety, hygiene reminders 12
Research Research gift
Velvet Competitions  Top of the South preview
Animal health  Tb-infected herds at all-time low 16  Parasite control and fawning 20
Business Farm benchmarking and KPIs 17
Industry News  Business as usual at SFF
Markets Venison

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# Exciting, positive time for industry

Spring is starting to get on a real roll in the northern King Country. Docking is all but done and cattle are growing at their max, but most importantly we have sold two unit loads of deer and the first velvet has been cut in the new shed. Prices are stronger than last year.



William Oliver

**IT IS THE** time of the year when the policies, and strategies that we planned, actioned, monitored and reported on produce the rewards of our initial vision.

The DINZ vision is "A confident growing deer industry".

I feel fortunate to come on to the DINZ board at this time – the Primary Growth Partnership signed off, the P2P strategy being put into action and plans now in motion to realise our vision. Our goals, while aspirational, are achievable

When divided into their parts the goals are nothing less than what's wanted by producers, processor/marketers or consumers.

My first impressions as a new DINZ director are of the immense mandate that DINZ covers – from inside the farm gate right into market, with each link in the chain having many aspects. The board and executive have been welcoming and helpful as I begin. There is amazing institutional knowledge – everyone has areas of expertise, history but most of all that passion I sense when with fellow committed deer farmers.

Like all industries, we have our challenges. They have been identified and strategic plans are in place with the P2P initiative to overcome them. The processor/marketers are collaborating to diversify when and where they sell produce, while adding value.

Where I can directly influence my outcome, we have the Advance Party. My experience when meeting with the Mackenzie basin group was of optimism and success, with participants excited about what they are doing. I can't wait until next year for the result. One message I found interesting was for partners to be involved. They tended to be the communicators, and ensured that plans were being actioned.

Our Waikato/Waipa Advance Party is just getting underway. Our first on-farm meeting is later this month, with farmers who have never held an on-farm field day. That is a success story already.

Another plus is the great positive articles being published in farming magazines. I was questioned recently at a local farmer gathering about recent articles and they are interested in the messages. This is where we will build stability and critical mass for the infrastructure we need for increased returns and succession. I commend anyone who agrees to appear in an article. It is not easy, but it is an investment in your asset and livelihood. Already we can see our strategies and plans bearing fruit.

We all need to participate in the consultation about our respective regional councils' water and land use planning. It is ultimately your biggest asset and your livelihood that will be affected by any regulations imposed on your farm. I applaud the DFA Chairs and members who are involved in these processes and encourage all to support them. I saw first hand the result of those farmers who were not able to participate soon enough to understand changes in the Taupo catchment.

It is an exciting and positive time to get involved and engaged in your industry. We have funding from the PGP and your levies being spent to improve farmer and processor/marketer outcomes. To benefit you need to participate. I wish you all the best for the rest of spring and summer.

-William Oliver, DINZ Board