

Health and velvet growth in focus at Gisborne workshop

by Phil Stewart, *Deer Industry News* Editor

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

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

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

Animal health theme

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

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

In summary, a deer health review involved:

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

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

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

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

Discussion picked up the following animal health-related points:

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

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onset of lambing are thought to be factors.

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

Velvet stags: Nature and nurture at work

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

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

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

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

Pearse said both energy and protein are important in the

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

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

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

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

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