

"Making the DIFFerence"

DEER INDUSTRY FOCUS FARMS PROJECT

Northern Regions – DAVID AND KAY DEWAR: NGAKURU

Chairman's Note:

It seems such a short time ago that we embarked upon the Northern Region Focus Farm project. But now three years have passed and we go into a new phase with a new central farm.

The industry owes a great deal to those farmers prepared to stand up and offer their operations as Focus Farms. In our case Dave Dewar and partner Kaye Garland have been superb hosts and advocates for the smaller deer farmer to participate in the program. Our programme has taken the lead in developing satellite farms. This takes some pressure off our central farm and provides stimulating discussion (who will forget the mating mobs of 3,000 hinds at Rangatiki). Our co-facilitators Robyn Hopkirk and Mark Macintosh have led our project and provided challenges and updates in equal measure.

Which leads us to reflect on what we have learnt? The fundamentals of the Dewar business is all about sourcing weaners and finishing them to achieve acceptable returns. This Dave does to great effect achieving excellent financial returns. His smaller breeding programme has been the focus of analysis for the performance of wapiti and superior eastern red genes. Pasture management has featured trials of spray topping with good effect. Dave has made advances with soil and land management practices, including planting off of gullies. Dave has also taken on the lead role in utilising RFID technology for his weight systems. These systems were also featured at a field day held at Landcorp's operation.



The upcoming final field day at Dave Dewar's will provide a wrap-up of the project. September 16th will give us a stepping stone, to say our thanks and launch the next phase. Come join with us to celebrate this milestone.

- Andy Mitchell, Focus Farm Chairman

Report from David Dewar:

Luckily the winter has been kind to us, as the autumn was a shocker. There is a fresh bite for the weaners most days and they are doing 150 grams a day.

The electronic tags are very good for weighing but getting the tag numbers into the head set and then into some form of common sense is a challenge for a shy country boy.

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Upcoming events

**Next field day to be held
on
Wednesday, 16 Sept 2010
at David & Kay Dewar's
farm, Ngakuru**

While every effort has been made to ensure the accuracy of its content, this newsletter alone is not to be substituted for direct advice on any matter addressed.



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The hinds looked good at scanning with the mixed age hinds scanning at 97%. But the first calvers at 58% was a shock. I bought these hinds as weaners at the Taihape sale in 2009 for \$5.97 per kilo, \$320 per head. I put them to the stag as the money was not good when they were ready to kill. After scanning I killed the empties getting \$333 per head (kept them 12 months for \$13, who said there wasn't any money in deer farming!).

The winter brassicas crop this year is very light (5 ton per hectare) so kept the hinds off it until early July as grass growth has been good, am also feeding them silage and PKE and they are looking fine.

I am feeding Broll pellets out to the weaners and they Hoover them up right behind Kay with the feed out trailer. Also feeding them some silage and they are looking good but next weighing will tell

I must have had some influence on the farmers that come to the Focus Farm field days as none of them seem to waste any silage when they feed it to their weaners, or lose any weaners over the winter, and they seem to get a high percentage of yearlings away for the chilled market. They are obviously looking at what I do and doing the opposite.

The Focus Farm experience has been interesting; I have got a lot of good information out of it, have met some good people, have heard some outrageous whoppers, but over all have enjoyed it.

Andy our Chairman: Andy, Rachael and Katy of Rodway Park Deer Stud are moving to bigger and better things (hills, scrub, hunting and pigs on the road and mud up to the horse's belly) in the centre of the North Island. Andy has been invaluable to me with the focus farm business. He is full of information about guns, bikes and many things that are both useful and not so useful and I would like to thank him for all his help over the last three years.

- Dave Dewar, Focus Farmer

DEER INDUSTRY
NEW ZEALAND

Report from Mark Macintosh:

What are the best feed supplements to use?

At our last farmer meeting on the 9th July there appeared to be a lot of interest in deer nutrition, judging by the high turnout and discussion that took place. Around this topic I have always had a number of deer farmers ask me "what are the best supplementary feeds to use?". This is not a simple question to answer and is based on a number of factors, however, in this article I will attempt to go some way to answering the question.

Generally the aim for most farms is to provide the most cost effective feed supplement which suits the farm system.



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The best way to evaluate the feed is on an energy basis, i.e. cost per unit of energy (ME).

The lower the value the better the response.

In the table below lists a number of supplement options which have been evaluated in terms of cents/unit of ME. The main factors to consider are the ME, protein, and dry matter % of the supplement x price.

There are a number of other factors (fat content; fibre content; and utilisation with storage and feeding) which may influence what type of stock class you supplement and when; however, the over-riding most important factor is ME.

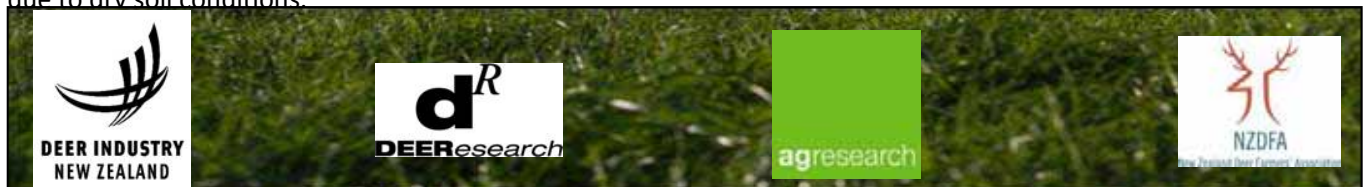
FEED ANALYSIS:									
	<u>DM</u>	<u>ME</u>	<u>Protein</u>	<u>Fat</u>	<u>Fibre</u>	<u>Price</u>	<u>Utilisation</u>	<u>c/kgDM</u>	<u>c/ME</u>
Pasture (spring)	15%	11.5	24%	5.0%	20%				
summer/autumn)	20%	10.0	18%	4.0%	47%	<u>per t</u>			
Urea 10:1 response	15%	12.0	24%	5.0%	20%	\$740	95%	17	1.4
<u>Concentrates</u>						<u>per t</u>			
Top Cow Maxum	90%	14.0	10%	5.0%	19%	\$605	90%	75	5.3
PK Blend Pellet	90%	12.5	14%	5.8%	36%	\$550	90%	68	5.4
16% Wheat Dairy nut	90%	12.5	16%	5.6%	4%	\$550	90%	68	5.4
Palm Kernel	90%	11.0	14%	8.0%	70%	\$250	90%	31	2.8
Maize grain	88%	13.5	8%	4.3%	9%	\$400	90%	51	3.7
<u>Silages/Hays</u>						<u>per t</u>			
Maize silage purchased	35%	10.5	8%	3.0%	45%	\$105	75%	40	3.8
Baleage harvested	40%	10.0	15%	3.0%	55%	\$70	80%	22	2.2
Baleage purchased	35%	10.0	15%	3.0%	55%	\$125	80%	45	4.5
Hay harvested	85%	9.0	17%	2.6%	65%	\$200	75%	31	3.5
Hay purchased	85%	9.0	17%	2.6%	65%	\$400	75%	63	7.0
<u>Forage Crops</u>						<u>per ha</u>			
Summer crop (turnips)	10%	12.0	15%	2.0%	27%	\$1,000	80%	45	3.8
Winter crop (swedes)	11%	12.0	16%	2.0%	23%	\$1,200	85%	28	2.3

* What supplements do you use and what is the cost per unit of ME?

The most cost effective supplement is shown to be nitrogen at 1.4c/ME. Nitrogen produces a high quality, well balanced feed with little waste. A drawback is that it is required to be applied 6-8 weeks prior to a predicted feed pinch and may not be effective due to dry soil conditions.

Winter Swedes or similar are cost effective at 2.3c/ME (assuming a 10tDM/ha yield). This is a good way of dealing with surplus pasture and providing an insurance feed for the winter. A drawback can be the lack of suitable land to crop and crop failure in dry summers.

Summer turnips or similar are not as cost effective at 3.8c/ME (assumes a 7tDM/ha yield). Turnips replace surplus low quality summer pasture with a high quality forage. This can be used effectively to finish tail-end yearlings prior autumn, or grow out weaners quicker pre-winter. A drawback can be a lack of suitable land to crop, or crop failures due to dry soil conditions.



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Harvesting surplus pasture as baleage appears to be cost effective at 2.2c/ME. Pit silage would be even more cost effective. This assumes a zero cost for the pasture (surplus), a baling cost of \$30/bale, and utilisation of 80%. The drawback with this option can be the poor quality of silage harvested (if harvested after mid October) and the lack of utilisation by stock. Deer can be very fussy and prefer finely chopped early season silage.



Generally the concentrates are relatively expensive at 3.7-5.4c/ME with the exception of palm kernel at 2.8c/ME. The concentrates are high energy with good protein and fat levels. They have variable fibre which would affect the speed of digestion (lower fibre = faster digestion). Palm kernel has relatively higher fat and fibre. The higher fat is due to the oil content of the feed and can be very useful in putting weight on the hinds. Maize grain can also be used effectively for this purpose, however, it is not suited to putting weight on young animals due to the low protein content.

In summary this article highlights the need to evaluate supplements using ME or energy as the main factor to consider. Protein is also important especially for young growing animals. The actual cost will vary from farm to farm depending on how and when the supplement is used and to what stock type.

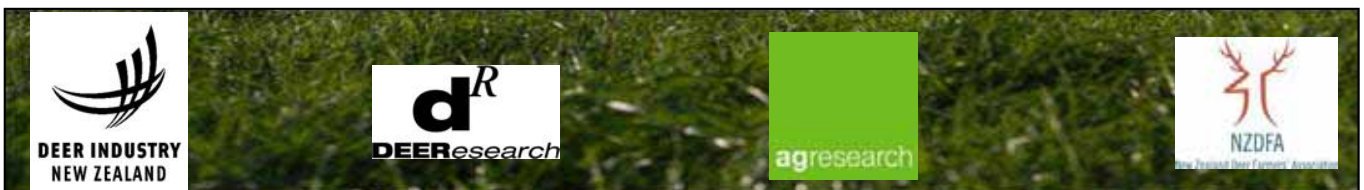
- Mark Macintosh, Focus Farm Facilitator

Environmental Plan for Northern Region Deer Focus Farm – a summary

By: Bala TikkiSETTY, Environment Waikato

An Environmental Farm Plan has been prepared for Dave Dewar's property. It identified a few important land and environmental issues present and farm-specific opportunities that lead to sustainable farm management. Management options including an implementation programme with cost estimates and available grant assistance from Environment Waikato and others such as the QEII Trust were provided.

Many farm practices that are good for the environment are also good practices for positive business, resulting in a sense of pride and satisfaction. These practices include soil management, nutrient management and riparian management.



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Soil Management:

Knowing your soil type is an important first step to understanding how your soil works. The soil physical properties are vital to the environmental and economic sustainability of farming. They control the movement of water and air through the soil, and the ease with which roots penetrate the soil. Damage to the soil can change these properties, reducing plant growth, regardless of nutrient status. Any physical damage to soil and pasture is likely to last for a very long time, due to the physical environment and extreme climatic conditions of hill country.

Dave's Farm is located in moderately dissected hill country intersected with U-shaped valleys. Soils on Dave's property are derived from Taupo Pumice on weathered rhyolitic tephra. The site sampled for soil quality monitoring was the pumice Taupo Hill soil.

The soils on the farm are characterised by very weak to weak soil strength, with low bulk density, which make excellent properties for plant growth. The low bulk density results in little resistance to root growth and the potential rooting depth is deep. Exposed topsoil may be subject to wind erosion as it is so light.



The water erosion potential is high under pasture and much higher on slopes, at exposed sights and under cultivation. A dense cover of vegetation is required to protect these soils from the erosive power of running water, therefore, grazing needs to be managed appropriately to maintain cover and avoid compaction.

Pumice soils are a fragile resource, being rapidly destroyed if treated incorrectly. Dave is aware of this and has also been advised about stock tracking, which should be avoided as much as possible. Great care should be taken in placement and construction of races, sensitive sites fenced off and stream beds never cleared of vegetation. Dave is taking care in diverting runoff from tracks away from streams. Shelterbelts have been shown to be very effective at reducing fence line pacing and improving biodiversity and stock health and welfare.

A soil health assessment was undertaken using Visual Soil Assessment technique in all the land management units on the property. Many physical, biological and, to a lesser degree, chemical soil properties show up as visual characteristics. Changes in land use or land management can markedly alter these. On Dave's the soil and plant VSA scores differed moderately indicating we need to consider how best soil health could be improved.

Fertiliser and Nutrient Management:

Correct use of fertiliser does not pollute the environment. However when used inappropriately, it can contribute to environmental problems such as water quality deterioration.

Environment Waikato promotes the development and use of voluntary guidelines and codes of practices, particularly Code of Practice for Nutrient Management, which has the potential to improve the quality of our water resources.



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Intensive farming can generate contaminants that can have many negative effects on surface or ground water. Contaminants that are associated with farming include sediment, nutrients (Nitrogen & Phosphorus) from inorganic fertilisers and organic livestock wastes, plant protection chemicals such as herbicides and insecticides, and micro-organisms from livestock wastes.

Nutrient Budgeting:

Nutrient budgeting is likely to become a 'best practice' for fertiliser and soil management on Waikato farms. It is a long-term measure of the sustainability of a farming system and indicates where inputs of nutrients are inadequate / excess relative to outputs. The Focus Farm's nutrient budget was prepared using the *Overseer*TM nutrient budgeting model and presented to the community group during a field day last year.

Riparian Management:

Riparian management refers to how land users look after the margin of a waterway. There are five basic principles involved: fencing the riparian margin with good buffer, establishing appropriate vegetation, maintaining the vegetation, minimising any adverse effect on waterways from land use in or near the margin and installing protective river control works. Environment Waikato prepared a well documented riparian management plan which Dave is in the process of putting into action.

- Bala, Environment Waikato

Report from Robin Hopkirk :

We are almost at the end of a very exciting three years on the Northern Focus Farm. We have worked hard to draw supporters from a wide area and have had some great achievements. The notable ones that you ardent supporters will remember are:

- The interbreed weaner growth rate trial
- Spray topping giving a much better quality feed
- Feeding palm kernel to weaners in the 2008 drought achieving 230gm/day growth in mid winter
- Monitoring worm egg counts and attempting to relate this to the need to drench
- Monitoring liver copper storage
- Visiting the satellite farm at Rangitaiki where we saw a hind breeding mob of 3,000 and 135 elk wapiti bulls
- Visiting the satellite farm at Brian and Jacqui Wellington's where we watched wintering under pines while feeding PKE and silage.

My specific area was that associated with animal health with an active interest in the breeding programme and monitoring the PKE feeding of the weaners.

Worms – I pushed the idea that just having the deer going through the shed was no reason to automatically drench. We used a combined approach of using Simone Hosking's weight gain and weather worm warning indicators in weaners, along with lungworm larval and faecal egg counts in determining the need for drenching.



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Yersinia – David being a 'trader' has quite a flow of weaners coming in from different sources. Stress is recognized as an important trigger in yersinia outbreaks. In the winter of 2008, when the weaners were being fed a lot of PKE, a new group of well grown weaners were introduced. They started dying of yersinia – we realised that despite the fact that this group was better grown than the resident weaners they were nutritionally stressed as they had no experience of palm kernel. As a result David now vaccinates.

Johnes – we surveyed any thin, scouring or dead animal of any age and have only turned up 5 positives in the three years. Having up to 500 weaners coming in each year, often from new suppliers makes Johnes control more luck than good management. Most deer are sold before they are old enough to get an accurate result from paralisa blood tests.

Copper – David's farm has in the past had some very low liver copper levels (less than 30umol/kgm). In the first year we did serial liver biopsies on 6 weaners from March until slaughter. The aim was to follow the seasonal trends and attempt to evaluate the economics of supplementation. With the plan of a project with SFF financial assistance I again monitored the following year while applying for Sustainable Farming Fund (SFF) grants to evaluate affects of PKE on copper levels in various situations.

Tony Pearce was very helpful in this affiliation but unfortunately at the crucial time people started chaining themselves to ships in the Tauranga harbour and PKE became a dirty concept. We failed to get funding. This season we did a study comparing supplementation of copper capsules, EDTA copper injections, multimin injections and non supplement controls, which I will summarise the findings at the next field day.

Breeding Programme – this was chairman Andy's brain child and of course I ended up with the fun of doing a lot of the synchronizing, pregnancy dating and with the rest of the group brain storming the ideas with Andy.

In June this year we ran an afternoon on Nutrition. This was heavily encouraged and pushed by David Dewar and excellently spoken at by Dr David Stevens. The day was so successful; it amazingly flushed some new enthusiasts out. I hope to have a follow on from this with a bigger programme, watch this space!

- Robin Hopkirk, Focus Farm Facilitator



Final Field Day is...

THURSDAY 16TH SEPTEMBER 2010

DAVID DEWAR & KAY GARLAND'S FARM, NGAKURU

