FOCUS ON DEER
AN UPDATE FROM THE OTAGO AND SOUTHLAND FOCUS FARMS

FOCUS ON DEER—NO 2—DECEMBER 2005

WELCOME TO THE SECOND FOCUS ON DEER NEWSLETTER

McLeans and Cochranes have come through the winter well with weaners going off at reasonable weights and hinds in good order. Both farms are presently setting stocking hinds for calving and are thinking ahead about next winters supplements and summer feed should this dry spell continue.

We hope you have enjoyed the field days and found the discussions both interesting and useful. Winter feeding has emerged as a topic that many farmers are concerned about and Richard has written a short article on the subject which summarises the details discussed at the last open days. The water quality monitoring programme is now well underway and the results are being collected and analysed.

Genetics and selection will be the topic for the mini open day to be held at Grant Cochranes on December 14th. Look forward to seeing you there.

Any comments, articles you would like to see, further information please contact: Marion Johnson (03) 489 9224 or Karren O’Neill (03) 489 9049. (marion.johnson@agresearch.co.nz)

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SUMMARY OF THE TWO FOCUS FARMS

McLeans at Lumsden—farm 417ha of which 392 ha is deer fenced. The red hinds are a mixture of Eastern and English bloodlines, with the top hinds being bred to red stags for replacements and the balance going to wapiti stags. They aim to have a 120kg hind rearing a good hybrid fawn and getting back in calf early. McLeans other goal is to finish the majority of weaners before Christmas at carcass weights of 55kg. The McLean’s would prefer to run mainly deer on the property with some trading cattle which are used for cash flow and pasture control. The current target stock mix is 1000 hinds, 900 weaners and 30 stags wintered, with the balancing 800su made up of trading cattle. This gives an 80:20 split between deer and cattle stock units. Based on the annual pasture production curve, it is believed a stocking rate of 12su/ha can be carried.

Cochranes at Glenomaru—farm 595ha of hill and flat to rolling land, 205ha of which are deer fenced. The deer are Eastern European reds and are run as two mobs, venison and velvet. The aim is to kill all male venison offspring as soon as possible and spikers from the velvet mob are culled at 2yrs. With an ongoing development programme Grant hopes to achieve a ratio of 35% deer, 50% sheep and 15% cattle.

Grants target stocking rate for the deer is 13.7su/ha, made up of 600 hinds, 500 weaners (farm bred), 120 ma stags and 80 R2 stags. Given the amount of winter supplement that can be made, and the flat to rolling contour of the land, it is believed there should be no problems getting deer to perform at this stocking rate.
Monitoring calving time

Calving date is an important production criterion on deer farms. Much has been said about getting an earlier date to increase weaning weight and better use spring pasture growth.

The Invermay AgResearch team has linked up with Telford to do some monitoring of four herds of mixed age hinds at Glenomaru. Two of the herds have Eastern genetics and two are of English or NZ origin. The hinds will be observed three days a week and their fence pacing and/or isolation behaviour noted. From this information it should be possible to predict the pattern of calving in each herd, i.e. when it starts, when it peaks and the duration. The numbers of calves are also being counted as they start to move around.

Grant scanned early and culled all the late calvers so we are expecting all calves to be born by December 1.

Aiming to improve calf growth during lactation

The period from birth to weaning has been identified as being critical to the performance of venison production farms. Both the Otago and the Southland Focus Farms have initiated pasture improvement programmes with the aim of increasing calf growth from birth to weaning.

Special forages have been chosen and planted at both farms to investigate their role in helping improve the growth of calves during this time.

At the Lumsden farm, the McLeans are trying a mix of a forage rape with *Bolta balansa* an annual clover. Both species are very high quality and it is hoped that the mixture of the two will help alleviate some of the problems that are sometimes seen with rape alone.

The annual clover, if grazed well, will continue to grow during the autumn, providing some feed after weaning as well. It will be interesting to see if the clover will continue through autumn, or whether our winters will be too much for it. If it does survive the winter then spring production will be monitored closely.

In Owaka, the Cochrane family are investigating the use of a specially chosen mixture of *Bolta balansa* clover, red clover, white clover, chicory and plantain. This mixture has been sown in several paddocks that are adjacent to calving paddocks and will be opened up to hind and calf grazing as soon as it is ready. We are hoping that it will be ready to graze in mid-December.

The mixture here has been chosen to provide very high quality feed, both for hinds and calves, and for lamb finishing. As the full production eases over the next year or two then grass can be direct drilled into the mix to return it to the farms standard practice. An added bonus may be some high quality spring silage for beef or weaner finishing during the winter.

To evaluate the specialist pastures on both farms we will use an on-off grazing system and record all grazing days. As a measure of success we will be comparing the weaning weights of calves and hinds on the specialist systems with those on the normal all grass systems.

Genetic progress a significant topic on both farms

The genetic gains of deer have been highlighted in the recent past with the launching of the sire referencing programme at Invermay and the publishing of breeding values for stags from around the country.

Both Grant and John want to maximise their use of genetics now that these tools are readily available.

Jason Archer of AgResearch has been talking to both farmers about their options, and how to capture the genetic benefits in the most cost-effective ways. Jason will be talking at the open day and writing an article for the next newsletter.
To gain an understanding of water quality through the catchment, monitoring was undertaken on 11 October. Monitoring sites started upstream of Grant Cochrane’s property, on the neighbour’s sheep, beef and deer property. Samples were taken just as the stream left bush at the top of the catchment, downstream through the sheep property, and then at various paddock boundaries through Grant’s deer farm, in both fenced and unfenced streams. We want to know how much nitrogen, phosphorus, and faecal coliforms are present in the water on this particular day. Will the results show a deterioration in water quality down the catchment or not? Does riparian fencing make any difference? While only a snap-shot, these results will provide a window into understanding the water quality in this catchment. Results will be discussed at field days and in newsletters in early 2006.

Any questions, please ring Nicola McGrouther at the Otago Regional Council on 03 474 0827.

Collecting water samples in the stream through Grant Cochrane’s property

Water quality monitoring is ongoing on the farm

Eight Poplars have been planted in wire mesh cages. The trees have been placed at the head of a gully and on a ridge. It is hoped that they will provide shade and also attract the animals away from unfenced watercourses.
Otago
Grant and Andrea Cochrane, Glenomaru, Balclutha.

Warm conditions saw pasture growth well ahead of normal through September and October. By the end of the first week in October covers averaged 2000 kgDM/ha, which was great from a weaner finishing point of view, but of concern for hinds about to be set stocked. If nothing was done it was likely pasture quality would be lost much earlier than normal in fawning blocks.

To eat as much of the pasture as possible in the two weeks prior to set stocking 350 hinds were mob stocked through the fawning paddocks. Hoggets and cattle were also used to cleanup the fawning paddocks at this time.

The stocking rate for hinds calving has increased to between 6.9 and 11.5 hinds per hectare, allowing a number of paddocks to be dropped out now for silage. The average hind set stocking rate is 9.4 hinds / ha (629 hinds over 67.1 ha).

At 9.4 hinds/ha total pasture consumption is expected to be about 38 kgDM/ha/day once the majority of hinds have calved. Pasture growth rates, particularly on young paddocks, are likely to exceed 60 kgDM/ha/day in late October / November. Therefore even at this stocking rate, which most would consider to be high, pasture covers will continue to build quite quickly. However, increasing the stocking rate further would likely reduce fawn survival.

The calving period should be quite compact as the stag was removed early and late calvers were culled after scanning. Once calving is finished cows and calves will be used to tidy up any paddocks that have got away. Earliest fawning hinds are being run on the younger paddocks so that these can be bought back under control first after calving.

No cattle are grazing with hinds during calving this year due to concerns about the risk of fawn disruption and losses. Instead the view has been taken that we will get calving out of the way as quickly as possible then tidy up the hind blocks.

All calving paddocks have either a paddock of specialist crop or silage right next door. As soon as calving is well through the gates into these paddocks will be opened to provide hinds and fawns quality feed. Ex swede ground has been sown in a high powered clover crop (it can be topped up with ryegrass later by direct drill) that will hopefully be grazed from mid December onwards. Growth rates of weaners from hinds on this mix will be compared to a control mob on good quality pasture to see if this option is cost effective.

Weaners have kicked on well into the spring with the good conditions. Virtually all the venison bred weaner stags from mixed age hinds now exceed cut off slaughter liveweight, and are waiting for killing space. To date 50 weaners have been killed (2nd week October) at an average of 52.7kg carcass weight, leaving 265 left to kill. Weaner hinds are also tracking along on target to reach mating weights, so feed priority is currently going to R2 velvet stags.

A second self feed silage pad for hinds has been created in one of the hill blocks. It is hoped to fill this pit with 400 tonne of grass silage by the end of November, which should allow enough recovery on the paddocks to start moving hinds and fawns around by mid December. This pit should winter all of the mixed age hinds. By moving the silage making pre Christmas there will be no need to grow barley silage this year. 10 hectares of brassicas will still be grown for winter.

<table>
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<tr>
<th>Bushy Park Deer Unit</th>
<th>Opening Numbers 1/9/05</th>
<th>Purchased / Transferred in</th>
<th>Sold / Transferred out</th>
<th>Approx Closing No’s 1/12/05</th>
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<tbody>
<tr>
<td>R1 Hinds (weaners)</td>
<td>257</td>
<td></td>
<td></td>
<td>257</td>
</tr>
<tr>
<td>R2 Hinds</td>
<td>122</td>
<td></td>
<td></td>
<td>122</td>
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<tr>
<td>MA Hinds</td>
<td>481</td>
<td>26</td>
<td></td>
<td>507</td>
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<tr>
<td>Cull Hinds</td>
<td>25</td>
<td>2</td>
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<td>23</td>
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<td>R1 Stags - Venison</td>
<td>144</td>
<td>93</td>
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<td>51</td>
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<td>R1 Stags - Velvet</td>
<td>109</td>
<td></td>
<td></td>
<td>109</td>
</tr>
<tr>
<td>R2 Stags</td>
<td>61</td>
<td></td>
<td></td>
<td>61</td>
</tr>
<tr>
<td>MA Stags</td>
<td>33</td>
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WHAT IS HAPPENING ON THE FARMS TO DATE (CONTINUED)

Southland
John and Jacky McLean, Macale Road Lumsden

The hinds were set stocked at the end of September after TB testing. While this was a bit earlier than necessary, the chance was taken while the deer were in the yards. As a result pasture covers climbed a bit higher than is desirable, therefore dairy heifers were grazed on 4 of the 8 the fawning blocks at 1.4 - 1.8/ha (mobs of 35 per paddock) to help pull covers back. Hind stocking rates vary between 2.2/ha (most extensive blocks) and 10.6/ha (young grass paddocks). In total there are 933 hinds to calve (includes 212 R2's) on 172 ha.

Rainfall has been below normal over winter and spring, with the outlook for this to continue. Given the current weather conditions the option was taken to make the silage for the hinds self feed pad early. To allow for this the 150 R2 Friesian bulls were sold store. A cut of silage was made in mid November off the bull’s paddocks, and off ground that was due to be worked up for Swedes. In hindsight if the hinds had been set stocked two weeks later more ground would have been available for silage.

As a back up, in case dry conditions in January do eventuate, 16ha of ground coming out of Swedes has been established in rape and clover for hinds and fawns. While this is a cost, it is also valuable insurance, and worst-case scenario if its not needed, it can be used to put extra condition on the hinds and bring forward calving next year or fed to trading stock.

R1 deer are making target slaughter weights quite comfortably at present. R1 stags between late August and the first draft grew at 300g/day. In October, 130 mainly Hybrid R1’s were killed and averaged between 54kg and 57kg carcase weight.

Due to the share farm arrangement there is a disproportionate number of R1 hinds on the property to kill (R1 stags from share farm hinds go to the stock owner), which may become a problem from Christmas onwards depending on space allocations. As of the first week of November 210 of the Red R1 hinds exceeded 70 kg (average 80kg) and were tagged, with 100 R1’s yet to make this weight. The aim is to keep 150 scanned pregnant first calving hinds.

At a recent committee meeting there was quite a bit of discussion around whether or not the remaining R1 deer required a second spring drench. There was no coughing evident, and they had all previously been drenched in August. To find out what worm burden was present samples were taken from some animals from the next draft of R1s to the works

- Lung examination & larval culture (to ID lungworm)
- Abomasum counts (Trich. spp, Ostertagia spp)
- Copper, Selenium, Cobalt levels.

Results showed that there were no lungworm present, and only trace levels of Ostertagia, not sufficient to justify drenching. However, there were signs of minor parasite damage present in the abomasum, indicating that the first spring drench in August had been necessary. To monitor this situation another line of deer will be sampled as above later in November.

Liver analysis showed B12 (Cobalt) and selenium levels were adequate, but that 2 out of the 4 animals had below adequate copper levels (52 & 56 nmol/kg respectively – adequate is 110 nmol/kg). The other two animals had copper levels of 170 & 560 nmol/kg. Copper is being supplied through the trough water system and in fertiliser but this may need to be reviewed.

Coleraine Farm Stock Reconciliation

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<th>Opening Numbers 1/9/05</th>
<th>Purchased / Transferred in</th>
<th>Sold / Transferred out</th>
<th>Approx Closing No’s 1/12/05</th>
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<tr>
<td>R1 Hinds (weaners)</td>
<td>410</td>
<td></td>
<td></td>
<td>410</td>
</tr>
<tr>
<td>R2 Hinds</td>
<td>212</td>
<td></td>
<td></td>
<td>212</td>
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<td>MA Hinds</td>
<td>721</td>
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<td>Cull Hinds</td>
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<td>0</td>
</tr>
<tr>
<td>R1 Stags</td>
<td>310</td>
<td>179</td>
<td>131</td>
<td></td>
</tr>
<tr>
<td>R2 Stags</td>
<td>0</td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>MA Stags</td>
<td>30</td>
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<td>35</td>
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<td>R1 Heifers</td>
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<td></td>
<td>100</td>
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<td>R1 Steers</td>
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<td>R1 Bulls</td>
<td>150</td>
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<td>150</td>
<td>0</td>
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DISCUSSION

What are your true Wintering Costs?

The cost of wintering was one of the key points raised during the spring open days on the farms. Analysis of both Focus Farms showed there could be large potential savings in this area (up to $25,000 cash).

When it comes to wintering every farmer has a different set of resources to work with, and a different set of goals they are trying to achieve. There is no single answer that applies to all farms, but there is a logical process to work through to decide what will best suit your farm.

1. First take a step back. Are your annual stock numbers and production system best suited to your pasture curve? Make sure that you are eating the pasture when it grows.

2. Then consider your wintering system aims and decide which are the most important for your system – give them an appropriate weighting:

   - Achieve liveweight gain over winter?
   - Minimize pasture damage?
   - Minimize cost or labour requirement?
   - Provide good spring pasture covers?
   - Environmental impact of wintering practices?

   Finally evaluate the cost and practicality of the different winter feeds that fit these aims, remember be specific to your own situation.

   Consider:

   - The true cost of landing/growing the feed.
   - The utilization and wastage of the different feeds available, and their ability to meet your aims.
   - The lost income from having a paddock of baleage or Swedes shut up. What other income could you have made off this land?
   - The machinery you have available to feed out, its cost and the cost of your time.
   - The risk of securing enough of the feed, whether it’s grown or bought in,

Examples from Otago Focus Farm

<table>
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<tr>
<th>Supplement Costs</th>
<th>Baleage</th>
<th>Self feed Grass silage</th>
<th>Self feed Barley silage</th>
<th>Ridged Swedes 15 Tonne</th>
<th>Direct Drill Swedes 12 Tonne</th>
<th>Barley Grain</th>
<th>Nitrogen (urea)</th>
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<tr>
<td>Growing / making / buying in</td>
<td>19.9</td>
<td>6.7</td>
<td>12.6</td>
<td>7.2</td>
<td>8.1</td>
<td>35.9</td>
<td>18.4</td>
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<tr>
<td>Feeding out</td>
<td>12.2</td>
<td>1.5</td>
<td>1.5</td>
<td>0.8</td>
<td>0.8</td>
<td>1.5</td>
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<tr>
<td>Opportunity cost</td>
<td>11.1</td>
<td>11.1</td>
<td>6.2</td>
<td>8.3</td>
<td>11.9</td>
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<tr>
<td>Total cost</td>
<td>43.2</td>
<td>19.3</td>
<td>20.3</td>
<td>16.3</td>
<td>20.8</td>
<td>37.4</td>
<td>18.4</td>
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Note: There are a lot of assumptions that are used to calculate these figures that aren’t presented here, for example, tractor costs, yields and utilisations and Nitrogen responses. Feed costs will be different for the same feeds on your farm.

At the end of the day the ideal system would use the least amount of the least cost supplement, and still maintain the ability to generate income in the spring. I would encourage you to have a good look at your own situation. The analysis we have done suggests up to 25% of farm working costs are spent on wintering deer. This is often not profitable and needs to change.
COMBINED OPEN DAY  
Wednesday, December 14th 2005  
To be held at Grant Cochrane’s farm  
Glenomaru, Owaka at 4pm  
followed by a BBQ courtesy of PPCS  

Discussion topic will be  
“Planning herd genetics and the use of genetic technologies”  
Speaker Dr Jason Archer—AgResearch and Lynn Rhodes AI Services Ltd  

Grant and John will also talk about their policies  

Look forward to seeing you there  

Help us to define the success of the Focus Farms  

Further copies of the Survey forms which were available at the open days are included in this newsletter. These survey forms are vital to help us with this task.  

Part of the focus farm project requires us to look at the current performance of our community group of deer farmers and to compare it with performance at the end of the project. We can then gauge the level of change in implementation and awareness of various practices by the deer farming community. The success of the focus farms will be determined principally by the improved productivity and environmental practices that are adopted in the wider deer farming community.  

Many thanks to the farmers that have already sent the forms back. Their prompt response has been great, but we need more forms to better understand where our deer farms are at now, so that we can accurately identify the success of the project when we are finished.