



New Zealand Deer Farmers' Association



**DEER INDUSTRY
NEW ZEALAND**



DEERresearch



SOUTH CANTERBURY FOCUS FARM
LOCAL FIELD DAY 19TH NOVEMBER 12.30PM
4 Wheel Drives Please

“MORE CALVES, HEAVIER AND EARLIER”

Programme 12.30pm: Assemble and bring some lunch, - tea & coffee provided

1.00pm -4.30pm

Welcome & Introductions

Nicky Hyslop Ross & Sally Stevens

Management Season Update

Property Tour

Deer Block

- Weaner Kill Profile & Growth Rates (Including Multi-Mineral Trial)
- Management Looking Forward
 - Maximising lactation and weaner weights
 - Influence on reproductive performance
- Spring ag program and feedback from last field day.

Woolshed Discussion:

Johnes Workshop

**Importance of Management
Testing & Decision Making
Progress on our Farm**

**Noel Beatson, Vet & Farmer, Rural Vet Services
Prof Frank Griffin, Otago University
Mandy Bell, Farmer & Vet, Central Otago**

FINISH 5.00pm

**REFRESHMENTS KINDLY PROVIDED BY
SOUTH CANTERBURY TOYOTA**

In the spirit of the OCCUPATION, HEALTH AND SAFETY ACT the Owners have taken all reasonable care in making your visit to the property as safe as possible, they clearly point out, you enter the property at your own risk.

The Owners will accept no responsibility for any incident or injury to any person or property that takes place while you are visiting the property.

*Ross & Sally Stevens
Nicky Hyslop*



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Deer Farm:		Other:	
24 paddocks	185 ha	10 paddocks	66 ha
4 down blocks	71 ha	3 downs blocks	50 ha
7 hill blocks	<u>584</u> ha	9 hill blocks	<u>386</u> ha
	840 ha		502 ha
TOTAL	1342 ha		
Access:	Laneway through deer farm. Grass/dirt tracks		

1.2. Fertiliser History:

1.5 T/ha of Lime applied pre-development

All brassica crops sown with 250kg/ha of DAP + Bo (not applied with seed)

All new grass paddocks sown down with 200kg/ha of Crop 20

Recent Annual fertiliser policy includes use of Ammonium Sulphate

1.3. Soil Tests:

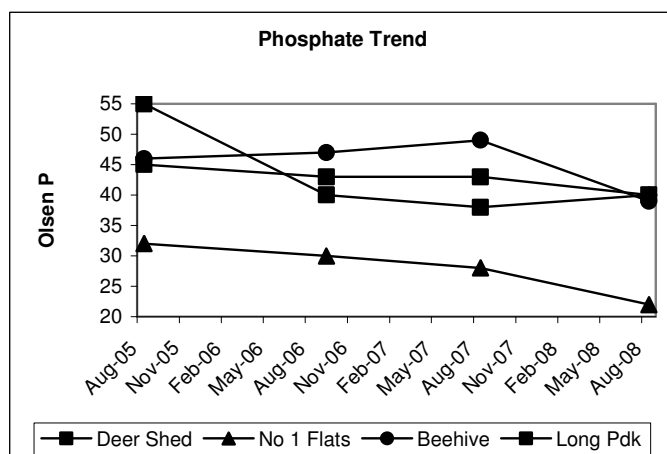
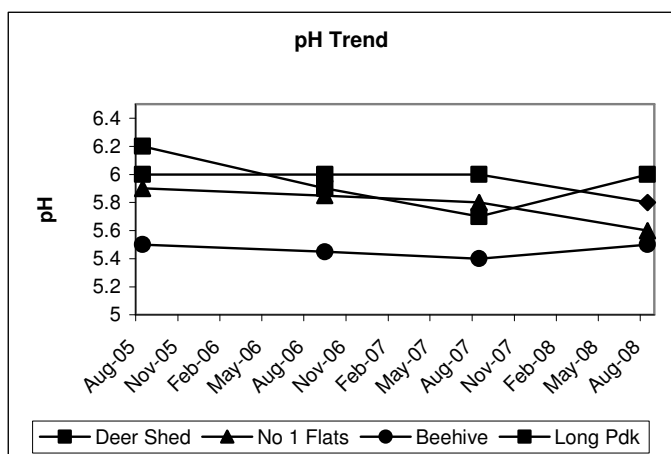
Soil Test August 2008

Sample Name	pH	Olsen-soluble P ug/mL	Calcium Quick Test Units	Magnesium Quick Test Units	Potassium Quick Test Units	Sodium Quick Test Units	Sulphate-S ug/g	Exch. Al mg/kg
Andys	5.5	30	6	25	8	2	10	2.6
Little Tussock	5.9	21	8	28	9	2	7	1.2
No 1 Flats*	5.6	22	7	10	4	2	4	4.8
Middle	5.6	18	7	29	8	4	10	--
Long	5.8	40	10	18	6	4	5	--
Top Terrace	5.8	21	8	28	10	2	5	--
Deer Shed	6.0	40	8	23	15	2	10	--
Beehive	5.5	39	6	22	9	4	7	--
Recommended:	5.8+	15+	8+	15+	6+	4+	8+	<2.0

Sample Name	CEC me/100 g	Base Saturation %				
		Ca	Mg	K	Na	Total
Andys	17	41.5	9.1	3.2	0.3	54.2
Little Tussock	19	54.0	10.4	3.7	0.4	68.4
No 1 Flats*	12	46.0	3.8	1.5	0.3	51.7
Middle	18	42.9	9.7	2.8	0.5	55.9
Long	18	55.9	5.6	2.1	0.5	64.1
Top Terrace	18	50.0	9.2	3.7	0.3	63.2
Deer Shed	19	47.0	7.3	5.4	0.3	59.9
Beehive	17	37.1	7.1	3.4	0.6	48.2
Recommended	12-25	60-70	5-10	3-5	0.2-0.5	>80.0

- Focus continues to be Nitrogen, Calcium and Sulphate, as identified to be most limiting nutrients.
- Note soil test taken from No1 Flats was 6 inch. Exchangeable Aluminium was relatively high at this depth.

1.4. Soil Test Trends of pH and Phosphate:



2.0. DEER POLICY:

“MORE CALVES, HEAVIER AND EARLIER”

- ½ the hinds go to a terminal sire (Wapiti)
- ½ the hinds to a Red Stag
- An AI program last year using Eastern semen from Deer Improvement resulted in 40 weaners with 50% Eastern genetics. The 20 spiker stags will be put over R2 Red hinds this year to produce 25% Eastern progeny which will be monitored for performance.
- The initial comparison of growth rates of the Eastern weaner stags vs Red or Wapiti Stags looks positive. We need to be confident that the Eastern cross Hinds still maintain a moderate mature hind weight and type (body fat) suitable for hard hill country.
- Aim to maximise number of hinds to terminal sire.
- Increase fawning %
- Increase weaner weight at weaning
- Increase weaner autumn, winter, spring liveweight gains.

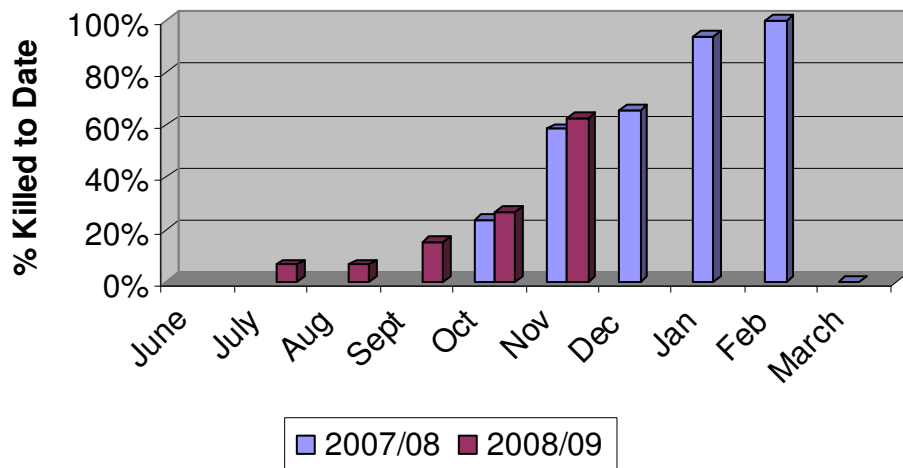
2.1. Deer Performance & Targets:

	2007/08	2007/08	2008/09	Target
Scanning %		98%	96% MA 90% R2	
Fawning %	85%	91% MA 73% R2		90%
Weaner kgLW 10 th March	56 kgLW	56 kgLW		70 kgLW
Hind Efficiency *				58.5%

* Hind Liveweight at Weaning / Weaner Liveweight at Weaning

2.3. Venison Kill Profile 2008

Venison Kill Profile



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2.2. Weaner Growth Rates

2.2.1. Weaner Liveweight Gain Multi-Mineral Trial

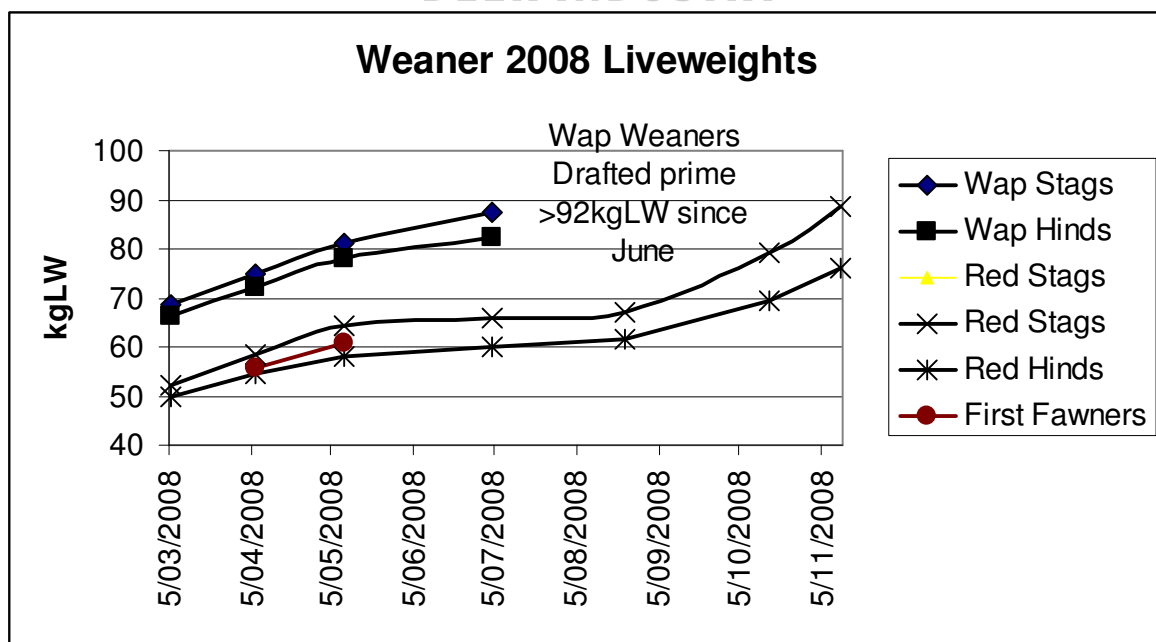
- Optigrows taken from Wap x prime yearlings showed low copper levels in 4 out of 5 animals tested, despite receiving a 4gm copper bullet in March. Ross decided to do a “demonstration multi-mineral trial” on the Wap X weaner hinds:

“I decided to give one half of the WapX weaner hinds a Multi-mineral injection and leave the other half untreated. Both lots were weighed (78kg average for both lots) and run together on Revolution ryegrass. It really is “ice-cream tucker”. Residual DM at start would have been 1300 kg and at the end approx 1400kg. So feed quantity and quality was not limiting. The “trial” was only over 20 days but I think that it does show a clear difference between treated and untreated mobs.”

	7 th October	27 th October	Growth Rates
Wap X Hinds Treated: Multi-Mineral Injection	78kgLW	89kgLW	550gms/day
Wap X Hinds UnTreated	78kgLW	85.3kgLW	367gms/day
Difference		3.7kgLW	183gms/day
		50 day Gain?	
If trial was over 50 days		9.12kgLW	183gms/day
@ 56% carcass weight		5.1kgCW	
@ \$9/kgCW spring schedule		\$46/hd	

- The benefits from this trial could either be that weaners at higher growth rates are drafted earlier attracting higher early season premiums OR they are heavier at a set date draft = target of:
“.....HEAVIER AND EARLIER”

2.2.2 Weaner Growth Rates 2008



2.2.2. Weaner Growth Rates: Detail

Weight Gain Summary for 2008 Fawns

Wap Stags	5/03/2008	6/04/2008	9/05/2008	4/07/2008	Oct on Kill Data		
Av gain/day (gms/day)	Pour on Cyd 4g copper bul B12 with Sel 1week grass Then onto goliath rape	191 Pour on Cyd 1st Yersinia Back to goliath rape	190 Pour on Cyd 2nd Yersinia On to Moata then Kale	109 Pour on Cyd Back to kale plus pea vine	350		
Ave KgLW	69	75	81	87	Killing at 92kgLW+		
Wap Hinds	5/03/2008	6/04/2008	9/05/2008	4/07/2008	Oct on Kill Data		
Av gain/day (gms/day)	Pour on Cyd 4g copper bul B12 with Sel 1week grass then onto goliath rape	180 Pour on Cyd 1st Yersinia Goliath rape grain & vine	186 Pour on Cyd 2nd Yersinia On to Moata then Kale	83 Pour on Cyd Back to Kale plus pea vine	350		
Ave KgLW	66	72	78	82	Killing at 92kgLW+		
Red Stags	10/03/2008	6/04/2008	10/05/2008		23/08/2008	16/10/2008	12/11/2008
Av gain/day (gms/day)	Oral Oxfen 4g copper bul B12 with Sel Grass with grain & vine	230 Pour on Cyd 1st Yersinia Thar paddock grain & vine	169 Pour on Cyd 2nd Yersinia To Long pad grain & vine		28 Pour on Cyd Back to Kale Coal Hill paddock	220	353
Ave KgLW	52	58	64		67	79	89
Red Hinds	10/03/2008	7/04/2008	10/05/2008		24/08/2008	16/10/2008	13/11/2008
Av gain/day (gms/day)	Oral Oxfen 4g copper bul B12 with Sel Grass with grain & vine	175 Pour on Cyd 1st Yersinia Rt Round hill with grain,vine	104 Pour on Cyd 2nd Yersinia Left round hill,grain,vine		35 Pour on Cyd Back to swedes	143	222
Ave KgLW	50	55	58		62	69	76
First Fawners		6/04/2008	11/05/2008				
Av gain/day (gms/day)			152 Young grass with grain				
Ave KgLW		56	61				

2.4. HIND LACTATION AND WEANER WEIGHTS – IT STARTS NOW!

The Deer Master Industry Manual is a fantastic source of management and technical information. A must have for all deer farmers. The following information is based on summaries and data from the manual. Available from SC NO NZDFA (see Noel Beatson) & DINZ - \$20.

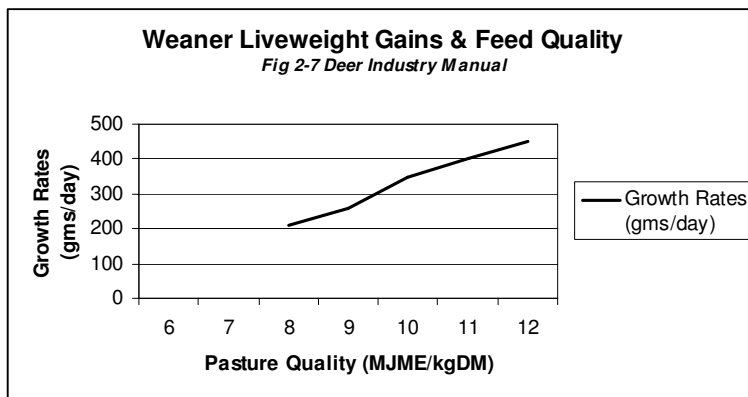
- Weaner liveweight gains vary throughout lactation:
 - 1st Dec – 1st Jan av 713gm/day
 - 1st Jan – Early Mar av 310gm/day weaner stags
av 258gm/day weaner hinds
- The Deer Master project demonstrated that fawn liveweight gain increased 50gm/day for every 1.0MJME/kgDM increase in feed quality.
- If you compare high quality late summer feed to low quality late summer feed the difference in weaner liveweight could be:

	MJME/kgDM	50 day Late Summer LWG	50 day difference	\$4/kgLW
High Quality Feed	11.0 MJME/kgDM	400gms/day	+7.5kgLW	\$30/hd
Low Quality Feed	8.0 MJME/kgDM	250gms/day		

- Over 500 hinds @ 90% fawning @ +\$30/hd = \$13,500
- The percentage of clover in the sward has one of the biggest impacts on pasture quality in late summer on extensive hill country blocks. If ryegrass/browntop quality has deteriorated in late summer, then the % of clover is critical.
- The integration of cattle to control feed prior to set stocking hinds is one management tool to control quality.
- Moving hinds & fawns onto specialist crops such as rape/grass, lucerne or chicory in late summer are other systems that targets high quality feed in late summer.
- To target late summer liveweight gains in excess of 400gms/day, feed quality needs to be in excess of 11.0MJME/kgDM.

	1 st Dec-1 st Jan Growth Rates	1 st Jan-Early Mar Growth Rates	Weaning Wt
High Quality	800gms/day	400gms/day	62.8kgLW
Medium Quality	700gms/day	300gms/day	52.7kgLW
Low Quality	600gms/day	250gms/day	46.0kgLW

- As our stocking rate on hill country increases, then selection of high quality clover/green leaf becomes more limited and the quality of intakes will decrease.
- On Whiterock the use of rape/grass for a proportion of hinds/fawns to move onto in late summer is aiming to address this problem as is the ongoing hill country development. The rape/grass must not only increase weaner growth rates in those hinds/fawns on that area but also the balance assuming they have more scope (increases selection of green leaf).
- Deer Master identified that there is more benefit to fawn liveweight gain in feeding high quality feed to lactating hinds than to weaners post-weaning.



3.0. SPRING LAND USE CHALLENGE:

Farm Area	230 ha		164ha within deer farm		Comments
	October	November	December	January	
Growth Rates (kgDM/hd/day)	35	30	25	15	
Ha Required for:					
Weaners (800hd)	57	46.666667	32	40	Eating 2.5kgDM/hd/day, 60% sold by December
MA Stags (50hd)	6	7	8	13	
Calves (120hd)	34	40	48	80	
First Calvers (50hd)	17				On Hill from November
Kale/Swedens	41	41	41	41	24ha every year going in and 24ha out
Goliath Rape		15.5	15.5	15.5	
New Grass	24	24	24		New Grass grazed in January
Whole Grain Silage	12	12	12	12	Could be sown in Autumn and Grazed over Winter
Riverflats silage	24	24	24	24	
Total Area Committed	215	210	205	202	
Available for Grass Silage	15	20	26		
Estimated Silage:					
Whole Crop Silage	12 ha				
	10000 kgDM/ha Yield				
Riverflats Silage:	24 ha				
	4000 kgDM/ha Yield				
Grass Silage	15 ha				<i>Only to be made if genuine surplus</i>
	60 days locked up				
	40 av growth rates				
	2400 kgDM Yield				
	252000 kgDM of total Silage				

4.0. WINTER FEED OPTIONS:

Winter Feed Comparison	Silage Made On Farm		Winter Feed
	Whole Crop Barley	Grass Silage	Kale OR Swedes
Direct Costs \$ / Ha	\$1,591	\$645	\$1,141
Yield kgDM / Ha	10000	3500	10000
Direct Costs c/kgDM	15.9c	16.1	11.4
Direct Costs c/MJME *	1.4c	1.5c	1.0c
Total Feed Required (kgDM): 500 Hinds x 60 days x 2kgDM/hd/day	60000	60000	60000
Ha Required	6.0	17.1	6.0
Typical Feed Quality:			
% DM	38%	35%	15%
MJME / kgDM *	11.2	10.5	11.7
Protein	12.4	14.6	14
Other Factors:	Out for ~120 days High yield means small area taken out relative to grass silage Can take as green chop OR whole crop Keep straw length short Can store for long periods	Out for 6-8 weeks Large area taken out in spring Protein levels higher than whole crop cereal Can store for long periods	Out for 12 months Includes 15% Hay fed with Kale crop High quality crop grown on small area Only available over winter
Indirect Costs:			
Feeding Out	6.0c	6.0c	1.5c
Opportunity	4.8c	4.8c	6c
	Option to self feed	Option to self feed	
Sensitivity:	+/- 1000kgDM/ha	+/- 0.8c/kgDM	+/- 2.1c/kgDM
			+/- 1.0c/kgDM

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