



New Zealand Deer Farmers' Association

"Making the DIFFerence"
DEER INDUSTRY FOCUS FARMS PROJECT
SOUTH CANTERBURY/NORTH OTAGO



TUESDAY 6TH DECEMBER 2011
FOCUS FARM FIELD DAY from 12.30pm

DOWNLANDS 2000 PARTNERSHIP – ORANGE FAMILY

4 Wheel Drives Please BYO Lunch (tea & coffee provided)

"MORE CALVES, HEAVIER, EARLIER & BETTER" = MORE PRODUCT = MORE PROFIT

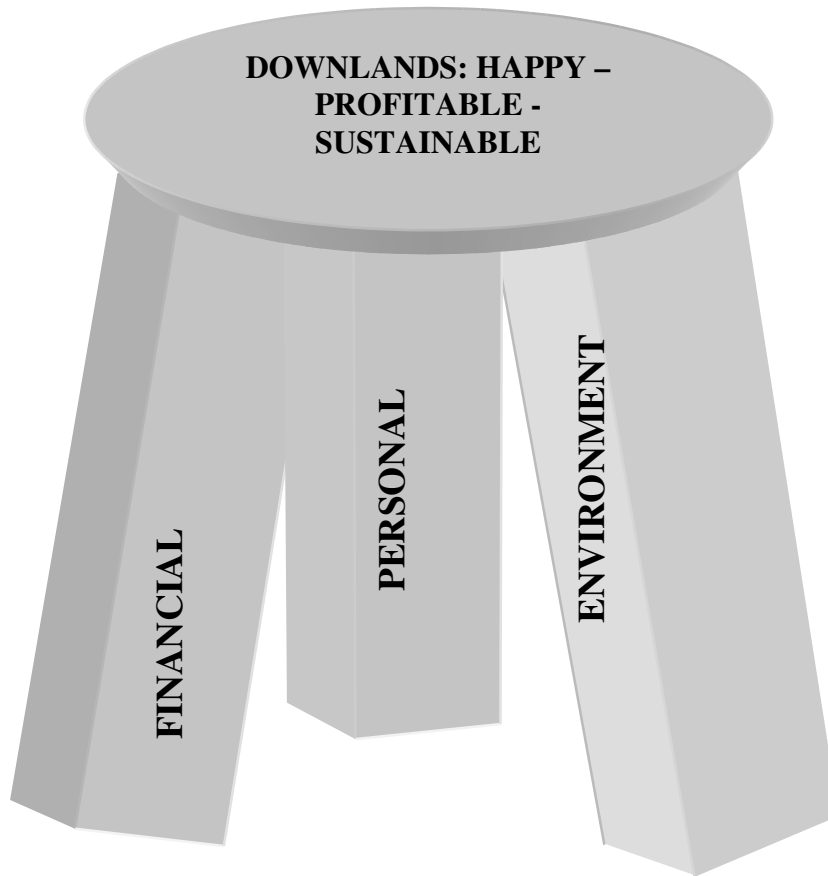
- | | | |
|----------------|--|--|
| 12.30pm | Welcome & Introductions | Nicky Hyslop, Kris & Keith Orange |
| 12.40pm | Downlands Deer Key Objectives | Kris & Keith Orange |
| 1.00pm | Property Tour
Weaner Deer Performance & EID Opportunities
Brassica/Forage Management
Animal Health Looking Forward | Kris Orange
Glen Judson, Agricom
Noel Beatson |
| 2.45pm | Afternoon Tea | |
| 3.00pm | Afternoon Presentations
Downlands Deer S.W.O.T.
Management Ideas to Achieve Objectives
SWOT Summary
In-line farming with "Breeder", "Finisher" & Venison Processor
Breeder – Outline
Finisher – Farmer Study "Kellogg" Paper
Venison Processor
Market Outlook | Group Breakout
Richard Preston,

Hamish Orbell
Kris Orange
Malcolm Gourlie, Silver Fern Farms
Carl Buchanan, Silver Fern Farms |
| 4.45pm | Focus Farm Program 2011/12 | Nicky Hyslop |
| 5.00pm | Informal BBQ & Refreshments
Kindly supplied by Silver Fern Farms, Peter Walsh & Associates & ASB | |

**PLEASE REPLACE ME WITH THE ONE PAGE FAX
OF PROPERTY MAP**

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OF PROPERTY MAP**

1.0. KEY OBJECTIVES



Financial – Returning \$80 - \$100,000/annum after Wages of Management

Personal – To be in the top 10% producers

Environment –To leave the place better than when we took over. Soil in better health with use of different fertiliser. More shelter for stock. Continue to plant out fenced off wetland area.

2.0. PROPERTY HISTORY – Downlands Farm

1960: RA & EC Orange purchase Downlands 166 Ha

1970: RA & EC Orange purchase Buicks Block 56 Ha

1975: KA & NR Orange form partnership with RA & EC Orange

1976: Leased Toomeys Block 40ha

1978: Sold Buicks block and purchased Robertsons block 72Ha

1983: Purchased first deer from Haldon

1985: Started Downlands Deer Transport

1988: Sold Sheep to Parish Bros and they leased 100 Ha

1994: Purchased the land leased from John Toomey 40 Ha

1995: Sold Par Mac 75 Ha

2000: KW & CJ Orange formed a farming partnership with KA & NR Orange

2004: Purchased Wai-Me 62 Ha

2005: Purchased Dunrobin Station at Dunback 810 Ha

3.0. PROPERTY DETAILS

3.1. Area: Downlands Farm: 260ha Total 250ha Effective
Dunrobin Station: 812ha Total 750ha Effective

3.2. Labour: Manager Dave France
Keith Orange plus one labour unit
Casual Labour compliments Downlands Deer Transport

3.3. Rainfall: 1000mm

3.4. Soils Wakanui Silt Loam 40% of total Very heavy
Claremont Hill & Silt Loam 40% of total Heavy
Paparua Stony Sandy Loam 20% of total Very Light

3.5. Land Use, Subdivision & Access:

Downlands Farm:	Dunrobin Stn:
Deer Fence 225ha	Deer Fence 600ha
Conventional Fence <u>25ha</u>	Convention Fence <u>150ha</u>
250ha	750ha

Access: Laneway through Downlands Farm. Grass/shingle tracks

2.7. Water: Te Moana scheme **plus own private back up scheme**
Limitations to intensive cattle

2.8. Fertiliser:

Pastures	Date	pH	Olse n P	K	Ca	Mag	Na	SO4	Org %	Mn	Zn	Cu	Co
Poplars	Aug-11	5.50	47	1.02	9.1	1.24	0.45		14.3	95	3.4	4	0.6
Dentons Crn	Aug-11	5.60	24	0.33	8.4	1.32	0.26		8.6	126	1.3	2.9	0.6
Swamp	Aug-11	6.50	36	3.21	18	2.093	0.85		14.2	80	2.5	1.9	0.3
Clover Flat	Aug-11	6.50	23	0.4	16	1.21	0.27		10.3	88	1.6	3.5	0.3
Hughs Pdk	Aug-11	6.10	18	0.3	11	0.87	0.27		7.4	66	1.4	2.4	0.3
Jacks Pdk	Aug-11	5.60	27	0.38	7.2	1.17	0.21		7.5	143	2.2	2.5	0.6
Forage	Date	pH	Olse n P	K	Ca	Mag	Na	SO4	Org %	Mn	Zn	Cu	Co
Pig Trap	Sep-11	5.60	24	0.85	8.8	0.153	0.32	11	10.7	140	1.7	1.8	0.6
Terrace 2	Sep-11	5.60	44	1.12	9.1	2.14	0.18	5	10	170	2.7	2.8	0.8
Stock Yards	Sep-11	5.60	51	1.39	12	1.32	0.15	21	13.6	73	2.3	2.2	0.3
Grader	Sep-11	5.80	42	1.37	12	1.25	0.19	26	11.5	68	1.6	1.7	0.3
Stock Yards	Sep-11	5.60	51	1.39	12	1.32	0.15	21	13.6	73	2.3	2.2	0.3
Optimum		5.8-6.2	24+	0.3-0.5	8+	1.0-5.0	0.2+	10+	7.-17	50-400	2.-10	1.-5	2.-4

- Typical Annual Applications: 100 litres of Pasture plus BIOHelp
- Brassica Paddocks 200-250 kg DAP with boron

3.0. STOCK NUMBERS, STOCK UNITS (Wintered) & PRODUCTIVITY & FINANCIAL SUMMARY

Opening Numbers for Yr Ending:	2008/09	2009/10	2010/11	2011/12	Target -2014
Elite Hinds	50	50	50	58	60
Cull Hinds	95	30		85	30
Elite R2 Hinds	50	50	65	50	40
Mixed Sex R1 Deer	1510	1298	1130	1600	1300
Mixed Sex R2 Deer	37	15	180		
R2 Stags			36	63	60
R3 Stags	74	22	6	25	25
Herd Sires	6	6	6	6	6
DEER STOCK UNITS	2641	2209	2401	2993	2308
% of Total SU	70%	66%	68%	86%	66%
Productivity kg product	37057	30390	31919	42130	37310
Productivity kg product / kg LW Opening	49%	54%	56%	56%	62%
R1 Heifers - Dairy Grazers	250	250	250	123	300
CATTLE STOCK UNITS	1125	1125	1125	492	1200
% of Total SU	30%	34%	32%	14%	34%
Productivity kg product	27500	25000	32000	15744	38400
Productivity kg product / kg LW Opening	58%	53%	67%	67%	67%
TOTAL STOCK UNITS	3766	3334	3526	3485	3508
HA Effective	250	250	250	250	250
Stock Units Per Ha	15.1	13.3	14.1	13.9	14.0
Total Productivity	64557	55390	63919	57874	75710
Total Product Per Ha	258	222	256	231	303
Total kg Product / kg LW Opening	53%	54%	61%	59%	64%

FARM FINANCIAL INDICES	2008/09	2009/10	2010/11	2011/12	Target -2014
Total Stock Units	3766	3334	3526	3485	3508
Total Product kg produced	64557	55390	63919	57874	75710
Gross Farm Income	\$0	\$332,551	\$309,562	\$295,900	\$442,210
Farm Working Expenses	\$0	\$233,739	\$245,283	\$245,283	\$245,283
Actual E.B.I.T.	\$0	\$98,811	\$64,279	\$50,617	\$196,926
Income \$/kg produced		\$6.0	\$4.8	\$5.1	\$5.8
Farm Working Expenses \$/kg		\$4.2	\$3.8	\$4.2	\$3.2
Actual E.B.I.T. \$/kg produced		\$1.8	\$1.0	\$0.9	\$2.6

4.0. DEER POLICY & PERFORMANCE:

4.1. Deer Policy & Key Performance Indices

- 100% of Hinds to Maternal Sire (English/Eastern Red X).
- AI program with Deer Improvement last 3 years.
 - Increase weaner weight at weaning
 - Increase weaner autumn, winter, spring liveweight gains.
- **More, Heavier, Earlier will be the result of the above.**

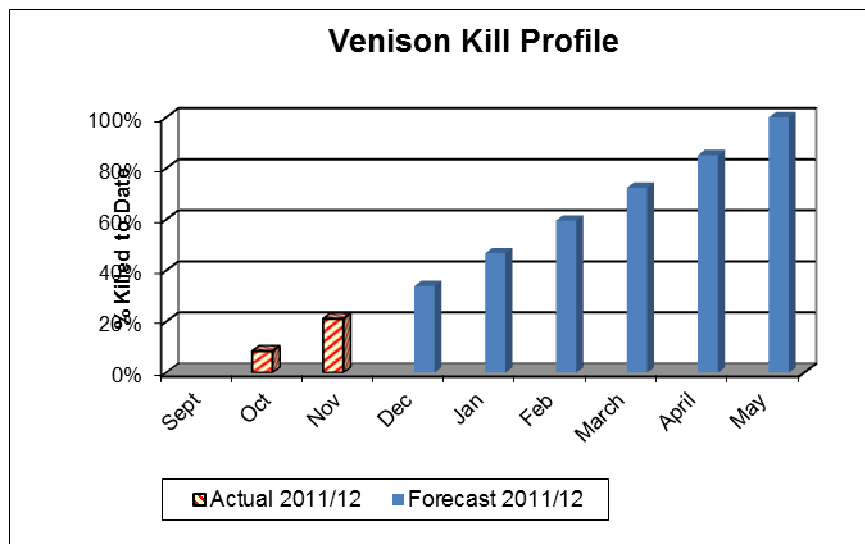
PERFORMANCE INDICES	2008/09	2009/10	2010/11	2011/12	Target -2014
Scanning % to Hinds Mated			93.0	95.0%	95.0%
Fawning % to Hinds Set Stocked			90.0	95.0%	95.0%
Fawning % to Hinds Mated	80.9%	86.0%	87.4%		90.0%
Weaning Date	1 March	1 March	1 March	1 March	1 March
Weaning Weight kgLW 115 day weight					60.0
Av Purchase Date of Weaners	15-Mar	15-Mar	15-Mar	15-Mar	15-Mar
Av kgLW Weaners Purchased	48	48.0	54.0	54.0	56.0
Autumn Growth Rate gms/day				150.0	250.0
Autumn Days				45.0	45
Winter Growth rate gms/day				50.0	80.0
Winter Days				120.0	120
Spring Growth Rate gms/day				250.0	350.0
Spring Days				90.0	90
Summer Growth Rate gms/day				120.0	200.0
Summer Days				90.0	90.0
Av kgCW/hd R1/R2 Venison Sold	Est 50	Est 52	Est 53	54.0	60.0
Av Kill date R1/R2 Venison Sold				23 January	21 November
Av Post Weaning Growth Rate gms/day				135	203

4.0. DEER POLICY & PERFORMANCE:

4.2. Deer Animal Health Program

- Weaner deer drenched 2 weeks post arrival Oxfen C
2nd Yersinosis
- 2nd Drench Early April Oxfen C
- 3rd Drench May Cydectin Pour On
- No copper/selenium supplementation.
- Johnes? Less than 2 % shown up from DSP

4.3. Venison Kill Profile – Downland Trends



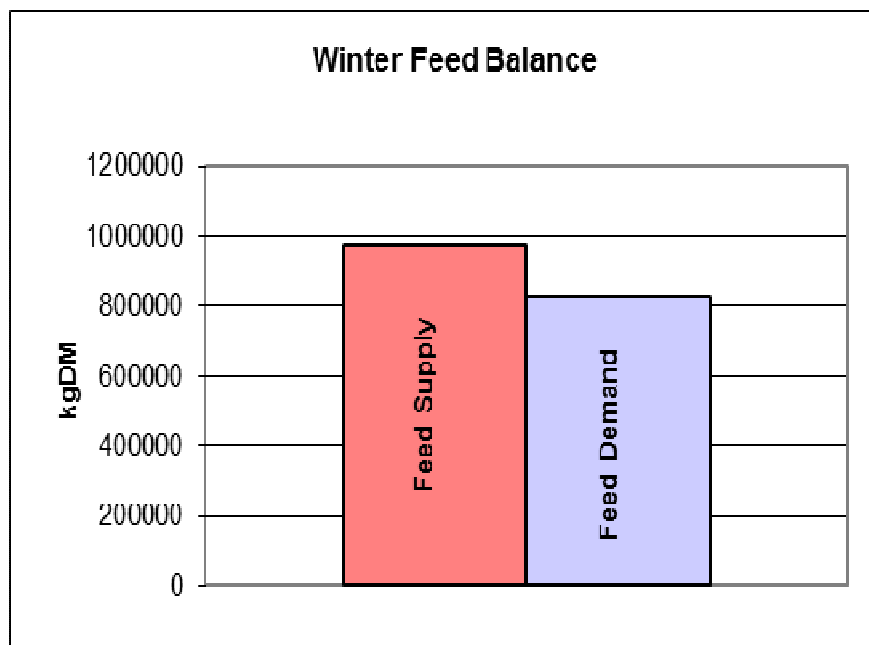
	2011/12	2013/14 Target
Total hd	1559	1344
Av kgCW	53.1	60.0
Av \$/hd	\$437	\$495
Av \$/kg	\$8.2	\$8.3
Post Wean/Purchase gms/day	160	205

5.0. Downlands Ag Program:

5.1. Spring Ag Program

Kale	22ha	7,500 – 8,000kgDM/ha
Fodder Beet	18ha	~20,000kgDM/ha
Swedes	7ha	8,000-10,000kgDM/ha
Rape/Grass	5ha	7,000 – 8,000kgDM/ha

5.2. Winter Feed Balance 2012



5.3. Winter Feed Budget 2012

WINTER FEED BUDGET		Start	Finish	Total Days			
		1/05/2012	1/10/2012	153			
		Effective Area		250	ha		
		Total Winter Feed Area		52			
		Other Area Not Available					
Grass Growth							
Month	Days	Grass Ha	Growth (kgDM/ha/day)		Total	Comments	
May	30	198	8		47520		
June	30	198	0		0		
July	30	198	0		0		
August	31	198	8		49104		
Sept	30	198	25		148500		
Total Grass Growth					245124	kgDM	
WINTER SUPPLEMENTS							
Supplements	Units	kgDM/unit	OR m3	kgWet	% DM	Total	Comments
Kale	22	8000				176000	
Fodder Beet	18	20000				360000	
Swedes	7	10000				70000	
Rape/Grass	5	7000				35000	
Balage	320	200				64000	
Hay	120	220				26400	
Palm Kernal						0	
						0	
						0	
Total Supplements					731400	kgDM	
Change in Cover							
Start Cover	Finish Cover	Available	Ha Grass		Total		
1600	1600	0	198			0 kgDM	
TOTAL FEED SUPPLY					976524	kgDM	
FEED DEMAND							
Stock Class	Period	Numbers	Days	kgDM/hd/day		Total	Comments
Elite Hinds	Winter	58	153	2.5		22185	
Cull Hinds	Late June Or	35	100	2.5		8750	
R2 Hinds	All winter	50	153	2.5		19125	
R2+ Stags	All winter	94	153	4		57528	
Weaner Deer	All winter	1300	153	2		397800	
Dairy Heifers	All winter	320	153	6.5		318240	
TOTAL DEMAND					823628	kgDM	
FEED BALANCE							
Total Feed Supply					976524		
Total Feed Demand					823628		
Surplus/Deficit					152896		
Over Grass Ha					198		
OR							
Change in Cover					772	kgDM/ha	
Forecast Cover					1/10/2012	2372	
						kgDM/ha	

6.0. FINANCIAL PERFORMANCE – work in progress

	Actual 2009/10				Actual 2010/11				Budget 2011/12				Target 2013/14			
	Total	\$/su	\$/ha	\$/kg	Total	\$/su	\$/ha	\$/kg	Total	\$/su	\$/ha	\$/kg	Total	\$/su	\$/ha	\$/kg
Gross Farm Income																
Cattle Sales - Purchases	\$94,292				\$105,924				\$54,366				\$148,200			
Cattle Changes in Stock On Hand								\$0.0				\$0.0				\$0.0
Net Cattle Income	\$94,292	\$84		\$3.77	\$105,924	\$94		\$3.3	\$54,366	\$111		\$3.5	\$148,200	\$124		\$3.9
Deer Sales - Purchases	\$179,371				\$91,661			\$2.9	\$358,332			\$8.5	\$280,808			\$7.5
Deer Changes in Stock On Hand	\$29,750				\$98,875			\$3.1	-\$130,000			-\$3.1	\$0			\$0.0
Velvet	\$22,789			\$56.0	\$11,202			\$80.0	\$11,202			\$80.0	\$11,202			\$100.0
Net Deer Income	\$231,910	\$105		\$7.63	\$201,738	\$84		\$6.3	\$239,534	\$80		\$5.7	\$292,010	\$127		\$7.8
Other	\$6,349				\$1,900				\$2,000				\$2,000			
TOTAL	\$332,551	\$100	\$1,330	\$6.00	\$309,562	\$88	\$1,238	\$4.8	\$295,900	\$85	\$1,184	\$5.1	\$442,210	\$126	\$1,769	\$5.8
Farm Working Expenses																
Wages & Keep (excl casual)	\$12,568	\$3.8	\$50	\$0.23	\$5,537	\$1.6		\$0.1	\$6,000	\$1.7		\$0.1	\$6,000	\$1.7		\$0.1
Animal Health	\$14,934	\$4.5	\$60	\$0.3	\$15,319	\$4.3		\$0.2	\$16,000	\$4.6		\$0.3	\$16,000	\$4.6		\$0.2
Fertiliser & Lime	\$43,157	\$12.9	\$173	\$0.8	\$37,314	\$10.6		\$0.6	\$38,000	\$10.9		\$0.7	\$38,000	\$10.8		\$0.5
Shearing				\$0.0		\$0.0		\$0.0		\$0.0		\$0.0		\$0.0		\$0.0
Feed & Grazing	\$20,573	\$6.2	\$82	\$0.4	\$20,591	\$5.8		\$0.3	\$21,000	\$6.0		\$0.4	\$21,000	\$6.0		\$0.3
Farm Working				\$0.0		\$0.0		\$0.0		\$0.0		\$0.0		\$0.0		\$0.0
- Pasture & Greenfield	\$33,802	\$10.1	\$135	\$0.6	\$44,983	\$12.8		\$0.7	\$45,000	\$12.9		\$0.8	\$45,000	\$12.8		\$0.6
- Crop Expenses		\$0.0	\$0	\$0.0		\$0.0		\$0.0		\$0.0		\$0.0		\$0.0		\$0.0
- Weed & Pest	\$1,296	\$0.4	\$5	\$0.0	\$6,541	\$1.9		\$0.1	\$6,500	\$1.9		\$0.1	\$6,500	\$1.9		\$0.1
- Electricity		\$0.0	\$0	\$0.0		\$0.0		\$0.0		\$0.0		\$0.0		\$0.0		\$0.0
- Irrigation		\$0.0	\$0	\$0.0		\$0.0		\$0.0		\$0.0		\$0.0		\$0.0		\$0.0
- Freight	\$14,238	\$4.3	\$57	\$0.3	\$16,658	\$4.7		\$0.3	\$16,500	\$4.7		\$0.3	\$16,500	\$4.7		\$0.2
- General	\$1,212	\$0.4	\$5	\$0.0	\$1,390	\$0.4		\$0.0	\$1,400	\$0.4		\$0.0	\$1,400	\$0.4		\$0.0
Vehicles	\$19,964	\$6.0	\$80	\$0.4	\$20,030	\$5.7		\$0.3	\$20,000	\$5.7		\$0.3	\$20,000	\$5.7		\$0.3
Repairs & Maintenance	\$18,206	\$5.5	\$73	\$0.3	\$16,290	\$4.6		\$0.3	\$16,000	\$4.6		\$0.3	\$16,000	\$4.6		\$0.2
Administration	\$18,188	\$5.5	\$73	\$0.3	\$16,641	\$4.7		\$0.3	\$16,500	\$4.7		\$0.3	\$16,500	\$4.7		\$0.2
Rates & Insurance	\$20,601	\$6.2	\$82	\$0.4	\$19,989	\$5.7		\$0.3	\$20,000	\$5.7		\$0.3	\$20,000	\$5.7		\$0.3
TOTAL	\$218,739	\$65.6	\$875	\$3.9	\$221,283	\$62.8	-\$885	\$3.5	\$222,900	\$64.0	\$891.6	\$3.9	\$222,900	\$63.5	\$892	\$2.9
% of total	66%	\$0.0	\$0	\$0.0	71%	\$0.0	\$0	\$0.0	75%	\$0.0	\$0.0	\$0.0	50%	\$0.0	\$0	\$0.0
E.B.I.T.	\$113,811	\$34.1	\$455	\$2.1	\$88,279	\$25.0	-\$353	\$1.4	\$73,000	\$20.9	\$292.0	\$1.3	\$219,309	\$62.5	\$877	\$2.9
Wages of Management		\$0.0	\$0	\$0.0		\$0.0	\$0	\$0.0		\$0.0	\$0.0	\$0.0		\$0.0	\$0	\$0.0
Economic Farm Surplus	\$113,811	\$34.1	\$455	\$2.1	\$88,279	\$25.0	-\$353	\$1.4	\$73,000	\$20.9	\$292.0	\$1.3	\$219,309	\$62.5	\$877	\$2.9

2013/14 Key Assumptions: 100 Breeding Hinds, 1300 weaner deer, Venison Prices \$8.25/kg prime, Velvet Price \$80/kg, 300 dairy Heifers.

8. Strengths Weaknesses Opportunities Threats

<p>STRENGTHS</p> <ul style="list-style-type: none"> - Team effort - Scale - Off farm income (Downlands Transport) - Range of skills (Keith & Ruth/Kris & Cathie / Manager) - Breeding Herd - Labour - Experience - Cattle policy - Cheap freight - Balance of soils (light/heavy) - Two separate businesses - Good lanes/tracks/infrastructure - Spread of income (cattle/deer) - Ruths garden!!! - Potential equity partnership - Kris leadership in deer industry 	<p>OPPORTUNITIES</p> <ul style="list-style-type: none"> - Increase weaner LWG's - Trough water to all paddocks - Build relationships with processor/breeder - % of terminal sires to max growth rates in weaners - EID opportunities to record growth. - Hybrid vigour - More herd/specialist pastures to lift weaner LWGs - Drainage to lift production on hill - Optimising supply chain - New drill (no mice!!) - More silage made for buffer in good season - Bring forward kill profile - Target autumn crops for weaner LWGs - Purchase trade stock when others in Sth Cant drought. -
<p>WEAKNESSES</p> <ul style="list-style-type: none"> - Vulnerability to Venison Schedule Swings - Waterways - Clay soil - Water supply limiting. - Boom of spring growth - Pastures mixes (more variety) - Lack of velvet (strength also) - Very venison reliant. - Distance between two properties (Downlands/Dunback). - - 	<p>THREATS</p> <ul style="list-style-type: none"> - Wet Winter / Late Spring - Unpredictability of dairy heifer market - TB at Dunback - Summer dry at Dunback - Global recession and pot impact on venison markets - TB issue in surrounding forestry - Johnes threat - Dry summer at Downlands - Expanding dairy industry / relative profitability of other competing livestock policies - ECAN regulations re water - Regulation costs e.g ETS. -

The DINZ Focus Farms are funded by Deer Industry New Zealand, New Zealand Deer Farmers' Association, AgResearch and Deer Research.

The Focus Farm would also like to thank the following contributors to this field day.

Speakers:

- | | |
|-----------------------------------|---------------------------|
| - Glen Judson | Agricom |
| - Noel Beatson | Riverside Vets |
| - Richard Preston | RJ Preston Ltd |
| - Carl Buchanan & Malcolm Gourlie | Silver Fern Farms |
| - Tony Pearse | Deer Industry New Zealand |

Sponsors:

- South Canterbury / North Otago Deer Farmers Association
- Silver Fern Farms
- ASB Bank
- Peter Walsh & Associates