



DEER INDUSTRY NEW ZEALAND



SOUTH CANTERBURY FOCUS FARM LOCAL FIELD DAY 27TH FEBRUARY 1PM

4 Wheel Drives Please

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

Hill Country Tour

- Hill country development – N Trial.
- Deer fence expansion: why & impact on coming season
- Management of hinds

Woolshed Discussion:

White Rock Station

Nicky Hyslop Ross & Sally Stevens

Winter Feed Budget

Business plan & production targets

Breeding program

Nitrogen on Hill Country

David Stevens, AgResearch

Results in previous trials

Trial on White Rock

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*

Deer Farm:		Other:	
24 paddocks	185 ha	10 paddocks	66 ha
3 down blocks	51 ha	4 downs blocks	70 ha
4 hill blocks	<u>320 ha</u>	9 hill blocks	<u>650 ha</u>
	556 ha		786 ha

TOTAL 1342 ha

Access: Laneway through deer farm. Grass/dirt tracks

1.0. PROPERTY DETAILS

1.1. Area: White Rock: 1340ha Total 1300ha Effective

1.2. Labour: Ross & Sally Stevens + Casual

1.3. Rainfall: 726 mm 29 inches

1.4. History: Land owned by Bob & Mary Sierra (Americans) since Nov 2002.
Ross & Sally partners in the Farming Business.
Farming Partnership leases land from Whiterock Land Ltd.
We managed the property for 3 years previously under different ownership.

1.5. Water:

Hill Private Scheme
Paddocks Water sourced from Mt Peel via community Scheme

1.7. Fertiliser:

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

1.8. Soil Tests:

Whiterock Farming Partnership

<u>Name</u>	<u>Test Date</u>	<u>pH</u>	<u>OlsenP</u>	<u>QT K</u>	<u>S Sulph</u>	<u>QT Mg</u>	<u>QT Ca</u>	<u>QT Na</u>
Deer Shed	23/08/2007	5.7	43	19	14	24	7	5
No 1 Flats	23/08/2007	5.8	28	6	3	13	7	5
Beehive	23/08/2007	5.5	46	9	5	22	6	5
Long Pdk	23/08/2007	6	38	7	6	18	11	7
Triangle	23/08/2007	5.9	25	13	16	55	12	8
Rock	23/08/2007	5.9	38	13	9	26	8	5
Hut	23/08/2007	5.9	20	12	7	25	7	5
House	23/08/2007	6	18	17	9	22	8	5
TV Block	5/09/2006	5.5	17	7	8	25	4	4
Top Paddock	5/09/2006	5.7	32	9	14	21	7	3
Table Top	5/09/2006	6	46	15	10	20	9	3
Small Tussock	5/09/2006	6	25	11	11	29	7	3
Sallys	5/09/2006	6	48	7	14	14	6	4
Peel Tussock	5/09/2006	5.8	27	7	13	23	7	4
Middle Pdk	5/09/2006	6.1	29	12	17	31	8	4
Matts	5/09/2006	5.6	36	11	22	20	5	5
Calf	5/09/2006	5.8	83	20	18	26	8	3
Bottom Terrace	5/09/2006	5.9	16	5	9	17	5	5
Andys	5/09/2006	5.9	26	10	6	35	7	3
Round hill	23/08/2005	6	34	8	10	25	8	6
Fawn Pdk	23/08/2005	6	43	8	9	12	7	6
Coal Hill	23/08/2005	5.7	43	11	13	18	7	5

2.0. HISTORIC & TARGET STOCK NUMBERS & STOCK UNITS

	2004/05	2005/06	2006/07	Target
Hinds	734	761	778	1400
R2 Hinds	110	152	265	
R1 Hinds	188	360	342	400
Velveting Stags				
R2 Stags	23	3	39	20
R1 Stags	196	360	341	400
Herd Sires	24	27	33	50
DEER STOCK UNITS	2367	2972	3269	4154
	33%	42%	44%	56%
Ewes	2285	2032	2061	1300
Ewe Hoggets	584	728	598	
Ram/Wether Hoggets				
Rams	42	38	33	
SHEEP STOCK UNITS	2319	2062	2087	1300
	32%	29%	28%	18%
Breeding Cows	226	207	206	200
R2 Heifers	49	50	49	50
R1 Heifers	70	70	63	50
R2 Steers	5			
R1 Steers	119	34	50	50
Sire Bulls	9	10	6	6
CATTLE STOCK UNITS	2560	2045	2050	1961
	35%	29%	28%	26%
TOTAL STOCK UNITS	7246	7079	7406	7415
Stock Units Per Ha	5.6	5.4	5.7	5.7

2.2. SUMMARY OF KEY PRODUCTIVITY INDICES *

Total Estimated kgDM Consumed on White Rock	=	3015 kgDM / ha
Total Estimated kg produced on White Rock	=	79kg product / ha
Total kgDM Eaten per KG produced on White Rock	=	38kgDM / kg product
Sheep kgDM Eaten / kg	=	28kgDM / kg
Cattle kgDM Eaten / kg	=	53kgDM / kg
Deer kgDM Eaten / kg	=	43kgDM / kg
Total Income per KG produced	=	\$3.90 / kg product
Sheep Income / kg produced	=	\$3.05 / kg
Cattle Income / kg produced	=	\$3.04 / kg
Deer Income / kg produced	=	\$5.44 / kg
Farm Working Expenses per KG produced	=	\$2.13 / kg product

* Assessed using FarMAX

3.0. Deer Policy & Performance:

3.1. Deer Policy

a) Breeding Objectives & Performance

- 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.

Focus Farm Objectives:

	Current	Progress 07/08	Target
Fawning %	85%		90%
Survival to Sale			85%
Weaner kgLW 10 th March	56 kgLW		70 kgLW
Hind Efficiency *			58.5%
Weaner LWG: Autumn Winter Spring		386gms/day MA - Red Stags 389gms/day MA - W X Stags 381gms/day MA - AI Stags Av 208gms/day R2 - Stags 276gms/day MA – AI Hinds 185gms/day MA – Red Hinds	300 gms/day 100 gms/day 400 gms/day
Av Venison Carcass Weight	54kgCW	54.2kgCW	+10%

* Hind Liveweight at Weaning / Weaner Liveweight at Weaning

b) Venison Selling Policy

- All Venison sold through Alliance.
- Prime Venison finished at 54kgCW from Oct to January
- Aim to maximise value to venison sold (maximise weaner LWG's)

3.2. 2007/08 Yearling Deer Performance

Weaner LWG's	Nos	Dates							1st LWG gms/day	2nd LWG gms/day	Comments
		2-Oct	20-Oct	27-Oct	7-Nov	12-Nov	17-Nov	28-Jan			
Red Yearling Hinds	120	65									
1st Fawner Hinds	41	60									
Av English Red Hinds	161	63.7			71.5			84	217	152	
AI Red Hinds	19	71.5				88		99.5	402	149	Were grazed separately until 1st Jan
Red Yearling Stags	108	75									
1st Fawners Stags	47	70									
Wt Average		73.5			81				208	0	
AI Red Stags	21	82.8				103.8		123	512	249	Were grazed separately until 1st Jan
Red R1 Stags (Top Third Removed)				77			85.1		386	0	
WAP X Mixed Sex			86		93				389	0	

3.3. Venison Kill Statistics 2007/08

Breakdown of Venison Sales							
	Number	% of total kill to date	CW	Price	Growth Rates \$/kg	Total	Comments
Oct	98	24%	55.50	\$	363	276 \$ 6.53	Actual
Nov	141	58%	53.26	\$	347	238 \$ 6.51	Actual
Dec	30	66%	52.90	\$	333	224 \$ 6.30	Actual
Jan	114	94%	54.50	\$	338	214 \$ 6.19	Actual
Sub-Total	383		54.2		\$347	240 \$ 6.41	
Feb	26						<i>Forecast</i>
Total	409						

4.0. Cattle Policy and Performance:

4.1. Cattle Policy & Breeding Objectives

- Angus herd
- Progeny kept for Five Star Beef finishing.
- Grazed on hill and deer farm paddocks.
- Maximise calving %
- Maximise weaning LW

	Calving %	Weaning LW
Historic	90%	220kgLW
Target	95%	240kgLW

4.2. Cattle Performance and Update

- Cows have been grazing hill country over from calving to mid-summer.

5.0. Sheep Policy and Performance:

5.1. Sheep Policy & Breeding Objectives

- Romney/Texel Crossbred flock
- Typically lambs sold store
- Ewe hoggets grazed off farm on sharefarm agreement.
- Aim to maximise lambing %
- Aim to maximise lamb weaning LW
- Graze on dry steep exposed hill country (outside deer farm).

5.2. Sheep Performance

	Lambing %	Weaning LW
Historic	120%	26kgLW
200708 Progress	115%	25kgLW
Target	125%	28kgLW

- Ewes/lambs were weaned in early Feb and all but 350 small lambs sold. 245 lambs killed prime at 15.6kgCW @ \$49/hd gross, balance sold store due to excessively dry conditions Dec/Jan 07/08.
- Ross and Sally have decided to drop ewe numbers by 300head to endeavor to lift ewe performance, lamb weaning weights and focus on a store lamb market long term. The drop in ewe numbers short term may also assist in holding some small store lambs that are currently being heavily penalised on price, through to early winter or spring.
- Further decisions are being made to drop ewe numbers an additional 400head (to 1300) and replacing with 400head of hinds. The objective is to achieve a stock policy with better "fit" to White Rock's hard hill country, late spring and dry summer.

6.0 Manual Feed Budgets

6.1. Summer/Autumn

FEED SUPPLY						
Supplements	Units	kgDM/unit	OR m3	kgWet	% DM	Total
Goliath Rape	8	3000				24000
Warrior/Hunter	14	1500				21000
Total Supplements						45000 kgDM
FEED DEMAND						
Stock Class	Period	Numbers	Days	kgDM/hd/day		Total
Wapiti Weaners	Autumn	285	42	2		23940 Goliath Rape
R2 Hinds	Autumn	180	42	2.5		18900 Warrior/Hunter
TOTAL DEMAND						42840 kgDM
FEED BALANCE						
Total Feed Supply						45000
Total Feed Demand						42840
Surplus/Deficit						2160

6.2. Winter

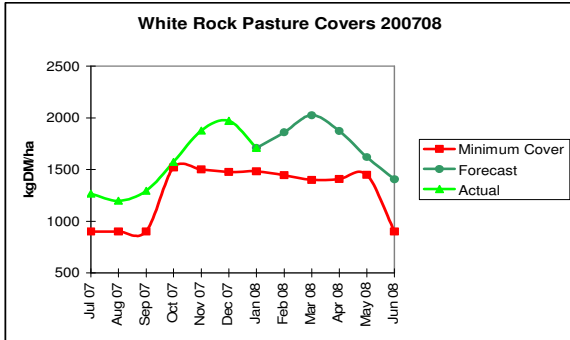
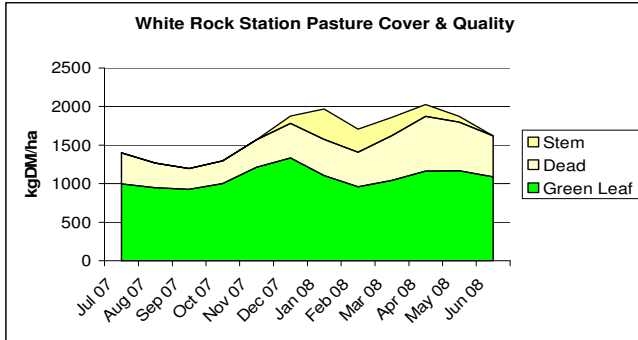
WINTER SUPPLEMENTS						
Supplements	Units	kgDM/unit	OR m3	kgWet	% DM	Total
Kale	32	6000				192000
Turnips/Rape	11	6000				66000
Swedes	4	8000				32000
Tama	24	500				12000
Silage	On Hand					
Total Supplements						302000 kgDM
FEED DEMAND						
Stock Class	Period	Numbers	Days	kgDM/hd/day		Total
Twin Ewes	Post-Scan	750	50	1.5		56250 7ha Kale/ 24ha Tama
MA Hinds	Late Winter	600	60	2		72000 12ha Kale
Weaner Deer	June/July/Au	700	100	1.5		105000 13ha Kale & 4ha Swedes
Weaner Cattle	June/July/Au	100	130	5		65000 11ha of Turnips/Rape
TOTAL DEMAND						298250 kgDM
FEED BALANCE						
Total Feed Supply						302000
Total Feed Demand						298250
Surplus/Deficit						3750

6. FEED BUDGET PROFILE FOR WHITE ROCK STATION - Using FARMAX

	MONTH:	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APRIL	MAY	JUN
	DAYS:	31	31	30	31	30	31	31	28	31	30	31	30
EFFECTIVE AREA (ha):		1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300
Turnips Area (Ha)					25	25	25	25	25	25	25	25	25
Kale Area (Ha)		37	37	37	37	37	37	37	37	37	37	37	37
New Grass (Ha) Not Available						15	15	15	15	15	15	15	15
Rape/Pasja Area (Ha)						9	9	9	9	9	9	9	9
Silage Area Out (Ha)					30	30	30						
GRAZABLE AREA HA:		1,263	1,263	1,263	1,208	1,184	1,184	1,214	1,214	1,214	1,214	1,214	1,214
INITIAL COVER (kgDM/ha):		1,547											

PASTURE MOVEMENTS (kgDM/ha/d)	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APRIL	MAY	JUN
Potential FARMAX Growth Rates:		1.7	9	21.9	25	15	5	15	15	8	4.6	
Net FARMAX Growth Rates:		-2.6	0	7.7	18.4	19.9	13.2	1.5	12.8	12.8	2.5	-0.6
Net FARMAX Growth Rates:		-3	0	8	18	20	13	2	13	13	3	-1
Intake/Day:	8	8	8	10	10	10	10	8	7	7	7	7
Difference/Day:	-10	-8	-1	8	10	3	-8	5	6	-5	-8	-13

Summary Graph (FARMAX):



FINAL COVER (month end):	1,266	1,198	1,294	1,572	1,875	1,970	1,708	1,859	2,024	1,872	1,619	1,406
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SHEEP INTAKE (kgDM/ha/day)												
No. ewes:	2,000	2,000	2,000	1,800	1,800	1,800	1,800	1,700	1,700	1,700	1,300	1,300
Intake/Head/Day:	1.2	1.4	1.7	2.4	2.5	2.6	1.4	1.1	1.1	1.1	1.1	1.2
No. Lambs:							290	290	290	290		
Intake/Head/Day:							0.9	1.0	1.1	1.2	0.9	

SHEEP DEMAND (kgDM/ha/day):	2	2	3	4	4	4	2	2	2	2	1	1
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CATTLE INTAKE (kgDM/ha/day)												
Heifer Calves:								93	93	61	61	1
Intake/Head/Day:								3.0	3.0	3.0	3.4	3.9
No. R1yr Hfirs:	60	60	60	60	60	60	40	40	40	40	40	60
Intake/Head/Day:	4.6	4.9	5.2	5.4	5.7	5.8	6.0	6.2	6.3	6.5	6.6	6.7
No. R2yr Hfirs:	40.0	40.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	40.0
Intake/Head/Day:	8.0	8.5	9.1	9.7	10.0	10.8	11.5	11.5	7.7	7.7	7.9	8.0
No. Cows:	200	200	198	198	198	198	198	196	196	196	162	200
Intake/Head/Day:	8.3	8.7	9.3	9.9	10.2	11.0	11.7	11.7	7.7	7.8	7.9	8.3
Steer Calves:								93	93	60	60	60
Intake/Head/Day:								3.4	3.4	3.4	3.9	4.4
No. R1yr Steers:	60											
Intake/Head/Day:	5.6	5.7										

BEEF DEMAND (kgDM/ha/day):	2	2	2	2	2	2	2	3	2	2	2	2
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DEER INTAKE (kgDM/ha/day)												
No of MA Hinds:	717	715	714	713	712	710	709	708	707	705	704	908
Intake/Head/Day:	3	3	3	3	3	3	4	4	3	2	2	2
No of R2 Hinds:	138	137	137	137	137	136	136	136	136	135	135	180
Intake/Head/Day:	3	3	3	3	3	3	4	4	3	2	2	2
No of R1 Hinds Replacements:	180	180	180	180	180	180	180	180	180	180	180	200
Intake/Head/Day:	2.1	2	1.8	2.8	2.9	2.9	2.9	3	3	2.7	3	3
No of R1 Hinds Prime:	196	196	195	195	135	96	60	30	21	13		125
Intake/Head/Day:	2.6	2.8	2.7	3.1	3.2	3.2	3.3	2.8	2.7	2.7	2.6	1.6
Hind Fawns:									325	325	325	
Intake/Head/Day:									1	2	2	1
Stag Fawns:									326	326	326	
Intake/Head/Day:									1	2	2	2
No R1 Stags:	345	345	344	203	75	1						326
Intake/Head/Day:	2.1	2.3	2.5	3.0	3.1	3.2	2.5					1.9
No R2 Stags:	10	10	10	8	8	7	7	7	7	7	7	
Intake/Head/Day:	3.4	4.3	4.2	4.2	4.1	4.1	4.1	4.1	3.4	3.5	4.2	4.3
MA Stags:	30	30	30	30	30	30	21	21	21	21	21	28
Intake/Head/Day:	4.8	4.7	4.6	4.6	4.5	4.5	4.5	4.5	2.2	2.2	4.6	4.7

DEER DEMAND (kgDM/ha/day):	3.1	3.2	3.4	3.6	3.2	3.2	3.4	3.4	3.0	3.1	3.3	3.4
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TOTAL DEMAND (kgDM/ha/day):	7	7	8	9	9	10	8	8	7	7	6	7
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7.0 BUSINESS PLAN

Vision:

To operate a sustainable, economical farm business, with “best fit” policies relative to climate, market and workload.

Objectives:

Broad targets to achieve the vision

Financial	Environmental	Social
By June 2011: - Achieve EBIT of = \$ 233,000 or = \$32/su - Gross Farm Income = \$467,000 = \$64/su - Maintain costs of production at 50%	By June 2011: <ul style="list-style-type: none"> Hill country: Retain Tussock while maximising quality of feed grown. Minimise overgrazing of “fragile” hill country. Maintain water quality. 	By June 2011: <ul style="list-style-type: none"> More quality time personally.

Strategies:

Financial	Environmental	Social
<ul style="list-style-type: none"> Maintain stocking rate of 7300su. 7000kgDM/ha on paddocks/downs <u>4000kgDM/ha</u> on hill country 5000kgDM/ha av pasture grown 2600kgDM/ha utilised or 52% 56:18:26 Deer:Sheep:Cattle 1400 Breeding hinds, finishing 65% of progeny. 250 Breeding Cows, finishing 43%. 1300 MA Ewes, buy in 2th replacements. 	<ul style="list-style-type: none"> Investigate sustainable ways of improving pasture production on hill country <ul style="list-style-type: none"> Extensive deer blocks. Nitrogen on hill country Reduce sheep numbers to reduce grazing pressure on hard hill. Complete nutrient budget. 	<ul style="list-style-type: none"> Ross: Train 1 horse/year Sally: More golf <ul style="list-style-type: none"> Golf Lessons. Handicap down to 10 or 12. Ross & Sally: <ul style="list-style-type: none"> Annual holiday of 2 weeks away 3 weekends away.

Action Plans

Action plans are the detailed steps that you will take to ensure that the strategies are successfully implemented.

Financial	Environmental	Social
<p>Pasture Production Targets:</p> <ul style="list-style-type: none"> • Monitor pasture growth rates on hill, downs, paddocks. • Break one deer block in the autumn to ensure recovery prior to winter. • Provide summer crop for % of breeding hinds in late summer • Have one season of silage on hand for adverse climate. <p>All Stock:</p> <ul style="list-style-type: none"> • Regular weights • Comprehensive animal health plan <p>Deer Performance:</p> <ul style="list-style-type: none"> • 90% fawning, 70kgLW weaners, • Weaner Growth Rates: Autumn 300 gms/day Winter 100 gms/day Spring 400 gms/day • Av venison carcass = 60kgCW • Review breeding program <p>Sheep & Cattle Performance:</p> <ul style="list-style-type: none"> • 125% lambing, 28kgLW weaning • 95% calving, 240kgLW weaners. <p>Financial/Costs:</p> <ul style="list-style-type: none"> • Review costs & budget biannually 	<p>Sustainability Measures:</p> <ul style="list-style-type: none"> • SFF Nitrogen on Hill Country Trial to begin 2008 • Ewe numbers reduced from 2000 to 1700hd. Plan to reduce further to 1300hd. • Complete nutrient budget with Ravensdown. 	<p>Ross:</p> <ul style="list-style-type: none"> • 1 hour/day x 5 days/week <p>Sally:</p> <ul style="list-style-type: none"> • 2 sessions of golf/week during winter. <p>Labour:</p> <ul style="list-style-type: none"> • Secure regular casual farm labour.

Key Performance Indicators (KPI's)

These are measures which will tell us whether we are implementing our strategies and action plans successfully.

Pasture Production

- Monthly pasture covers
- MJME and quality assessments
- Soil test results

Stock Production Records

- Liveweights & Liveweight gains
- Condition Score
- Reproductive
- Wastage
- Kill profiles

Animal Health:

- Trace Element tests
- Worm challenges. FEC's
- Johnes. Elisa Test.

- % of Tussock on hill
- MJME pasture readings on hill
- Soil nutrient balance
- Water quality test
- Soil quality test
- Farm photograph

- Horses Trained
- Golf handicap by 2011
- Days holiday per year.
- Check business plan and budgets.