NZX Agri – Mt Peel Field Trip (2)

Tuesday 22nd March 2011

Field Trip Leaders: Neil Gow, John Tavendale

Focus for the Day: Consider the key issues associated with farming and living in the hill and high country. Including the history, tenure, farming systems and development.

Programme

8.30am	Depart Methven to Mt Peel – 72km
9.30am	Arrive Mt Peel church, graveyard and trees – John Acland
10.15am	Tea on Homestead lawn – introduce Johnny Acland
10.45am	Leave for the saddle
11.00am	Arrive saddle - Tenure review, access protocols and hill country development – Johnny and John
12.00pm	Leave for Rafting HQ – lunch
1.00pm	Tussock and tourism
1.30pm	Leave for woolshed – Johnny on management and marketing
3.00pm	Tea and windup session
4.00pm	Drive through dairy farm on way back to Methven
5.30pm	Arrive Methven Resort

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 and IFMA Congress organizing committee will accept no responsibility for any incident or injury to any person or property that takes place while you are visiting the property.

Mt Peel Station Introduction

History

Mt Peel is one of the oldest high country stations in Canterbury, and one of the few still owned by the same family. The area now farmed by the Aclands 5208ha (3,047acs) is much reduced from the original 46,135ha (114,000acs) taken up by J.B.A.Acland and C.G. Tripp in 1856.

Acland and Tripp formed an early partnership in the 'new colony'. Arriving from England in 1855, the pair were the first European settlers to explore the Rangitata Gorge and the first to settle at Mt Peel. Although the Rangitata had been explored by Maori several hundred years earlier, possibly as a consequence of moa hunting expedition and travel to the West Coast, as far as is known, they did not settle at Mt Peel.

The partnership of Acland and Tripp was dissolved in 1862, largely because both men had married, and the property was becoming increasingly difficult to manage from the Mt Peel homestead. Acland and Tripp both married sister, daughters of Bishop Harper of Christchurch. The original property was divided; Acland retained Mt Peel while Tripp took Orari Gorge and Mt Somers

Of the original 46,000 ha of land comprising the Mt Peel run, approximately 20,000ha were repossessed by the Government and divided for closer settlement in 1912. The balance of the land proved difficult to manage as a single unit, so another 16,000ha were dispensed with. This land now forms part of Lochaber and Clayton Stations.

The historic Mt Peel homestead was built in 1865 to the design of an English country house. Built by local craftsmen from pit swan timber from Peel Forest and bricks made on the property it and 9.85ha of grounds was transferred to a charitable trust in 1978. The trust exists to preserve and maintain this historic homestead and garden, and to assist in the recording and publication of the history of Mt Peel. Fortunately substantial strengthening and earthquake proofing was carried out before the September 2011 shake.

The Church of the Holy Innocents located near the homestead, was commissioned by J.B.A.Acland and, like the house, was built from local materials. The Church, so named because four young children are buried there, was consecrated by Bishop Harper of Christchurch in 1869. Many members of the Acland family and others associated with Mt Peel are buried in the churchyard. Also buried there is famous New Zealand author Dame Ngaio Marsh.

The homestead and church are surrounded by gardens planted by Acland and Tripp. Some of the original trees were imported from England, but many were grown from seed. Among the notable trees found in the garden is a fine specimen of *Pinus radiata*, believed to be the largest in NZ. The Giant Himalayan Lilly *Cardiocrinum giganteum* provides a dramatic understorey to the woodland plantings surrounding the homestead.

Mt Peel Station

Property of: John & Rosemary Acland

1.1 Area

Flat	1600ha
Improved Hill	2300ha
Steep Hill	1380ha
Total	5280ha

1.2 Tenure

The total property being freehold post the Tenure Review process.
Pre-Tenure Review the property was 8678ha and of that 4748ha was leased from the crown. The Tenure Review process replaced the 4748ha leasehold with 1350ha Freehold, leaving a total of 5280ha freehold as Mt Peel Station.

1.3 Location

Mt Peel is located nine kilometres north of Peel Forest on the Rangitata Gorge Road.

- Fertiliser Works (Seadown) 50km
- Lime (Mt Somers) 35km
- Primary School (Carew/Peel Forest) 20km
- Secondary School (Geraldine) 30km
- Service Centre (Geraldine) 30km
- Airport (Christchurch) 150km
- Export Wool Store (Christchurch) 150km
- Export Sheep Works (Fairton PPCS) 60km
- Export Beef Works (Seafield CMP) 60km

1.4 Climate

Station records show an average rainfall of 1100mm/yr. The range over the property 650 – 1300mm/yr; with the north-west boundary receiving the least. High summer evapotranspiration generally does not affect growth due to reliable rainfall during November/December. A Significant slowing in pasture growth once frosts set in, mid-May. Spring growth starts mid-September and peaks at the end of October. Snow falls 2-3 times per year, but clears within a few days; a heavy snow can be expected 1 in10 years.

1.5 Topography

Highest point on the property is Mt Peel 1743m.a.s.l which is situated on the eastern boundary. Lowest point is 250m.a.s.l on the southern boundary or entrance to the property.

The flats range from 300-500m.a.s.l; The 2300ha of oversown country 500-900m.a.s.l.

A large proportion of the property is warm north – north east facing country with a good balance of cooler south facing country.

1.6 Soils

Flats

Mayfield / Eyres – Mainly deep soils with good moisture retention suitable for cereal cropping and intensive mixed farming.

Terraces

Kakahu - Mainly deep soils with good moisture retention suitable for cereal cropping and intensive mixed farming. Regarded as the best soils on the property.

Foot Hills

Hurunui - Tussock and introduced weed grasses provide adequate cover, burning leads to a predominance of browntop; some areas invaded by gorse and manuka. Should respond to topdressing, oversowing and more intensive management.

Steep Hill

Kaikoura – Steep land, poor unstable soils. Stabled by snow grass.

1.7 Topdressing

Flats – Truck Application

250kg	Sulphur Super 15 S	00-09-00-15	740ha
350kg	Super Boost	18-24-00-49	440ha

Hill – Aeroplane Application

500kg	Lime } Mixed		600ha
100kg	Sulphur }		

New Grass – Drill Application

150kg	Cropmaster DAP	18-20-00-01	120ha

Brassica

Pre-sow			
300kg	Super Phosphate	00-09-00-12	120ha
10kg	Borate		
Sowing			
150kg	Cropmaster DAP	18-20-00-01	120ha
Follow up			
100kg	Urea	46-00-00-00	120ha

1.8 Irrigation
No irrigation on the property – Red Zone

1.9 Land Use / Cover

Type	Area (Ha)	Yeild (KgDM/ha
Swedes	50	8000
Kale	50	10000
Fodder Beet	25	20000
Moata Annual Ryegrass	120	
Barley or Cereal Silage	17	7t/ha
New Grass	120	
Permanent Pasture (Flats)	1398	
Improved Hill	2300	
Unimproved Hill	1000	
Forestry	200	
Total Area	5280	

Of the 2300ha of Improved Hill, 50ha is in Rape and Grass and another 600ha is sown into Permanent Pasture.
180ha is non-effective.

1.10 Weed / Pest / Disease
Gorse is the largest weed expense on the property.
TB is of concern, while achieving a C10 rating the neighbours have had TB, the station views this as a major risk.

1.11 Water Supply
The total property has either natural water or reticulation to all paddocks. The natural water sources are reliable in summer.

1.12 Stock/Policy

Deer

As at 31st August 2010

Type	Number	Stock Units
Hinds Mated - Wapiti	1428	2570
Hinds Mated - Red	1100	1980
Stags	1014	2230
Weaners Mixed Sex	2334	3034
Total	5876	9814

Mating 1100 hinds to the Red for replacements of which 400 weaner hinds and 270 weaner stags are kept. The balance of the hinds 1428 are mated to a terminal. 90% of all sale weaners are sold prime before Christmas at an average of 55kgCW. The fawning 88% is measured from mated hinds on hand at balance date.
1000 Velveting stags cut 3.5kg/hd average or a total herd value of 3.5t.

Cattle

As at 31st August 2010

Type	Number	Stock Units
M.A Cows - Mated	713	4278
R2yr Cows - Mated	182	1092
Weaner Heifers	200	800
Weaners Mixed Sex	616	2464
Bulls	45	225
Total	1756	8859

Angus , Hereford and Angus x Hereford make up the breeding of the cows. All calves are retained and sold prime excluding 200 replacement heifers. Angus cattle are mated to an Angus bull and the progeny are sold to 5-Star at 450kgLW. White faced cows are mated to a Charolias, Heifers are sold to local trade at 240kgCW, and the Steers sold for export at 290kgCW. All cattle are sold prior their second winter.
Cow mating date is 1st December.

Sheep

As at 31st August 2010

Type	Number	Stock Units
M.A Ewes - Mated	7651	7651
2 Tooth Ewes - Mated	2517	2517
Ewe Hoggets - Mated	2500	2500
Cull Lambs	495	396
Rams	70	70
Total	13233	13134

The flock base is Coopworth x Romney ewes. Ewes are mated to Romney and terminal rams, 2500 are kept as replacements and 2000 have historically been sold to breeders but this market is uncertain. 80% of the remaining are sold prime with the balance sold store.
Ewes are consistently scanning around 175 % and lambing 140% and the hoggets are scanning 105-125% and lambing 80%.

1.13 Labour

1 Owner/Manager
1 Manager
1 Stock Manager
3 Shepherd's
1 Tractor Driver
1 Fencer

Total of 8 labour units

Pasture Improvement on Hill Country

Year 1

First spray (December) –	4L of Glysophate 510	$33.20	
	800ml Lorsban	$16.00	
	Application	$30.00	
			$79.20
Second Spray (End January)	3L of Glysophate 510	$24.90	
	Application	$30.00	
			$54.90
Lime (February)	1 tonne	$20.00	
	100kg Sulphur	$25.00	
	Cartage	$15.00	
	Application	$55.00	
			$115.00
Seeding (1st February)	2kg Rape @ $18/kg	$36.00	
	15kg Moata @ $2.25/kg	$33.75	
	Seeding	$38.00	
			$107.75
Year 1 Total			**$356.85**

Year 2

First spray (December) –	4L of Glysophate 510	$33.20	
	800ml Lorsban	$16.00	
	Application	$30.00	
			$79.20
Second Spray (End January)	3L of Glysophate 510	$24.90	
	Application	$30.00	
			$54.90
Seeding (1st February)	5kg Clover @ $6.30/kg	$31.50	
	20kg Rye-grass @ $1.45/kg	$29.00	
	Seeding	$38.00	
			$98.50
Year 1 Total			**$232.60**

Total Cost **$589.45/ha**

Hill Country Development – Mt Peel Example

Pre-development – 50ha block running 3.6su/ha in spring. (120 ewes and 10 cows)
Natural water supply on the block

Development Year 1		
Pasture renovation and fertiliser		$17,843
1300m of fencing @ $8.00/m (3 Blocks)		$10,400
Stocking rate increases to 350 ewes and 15 cows or 8.8su/ha		
5 MA Cows @ $700		$3,500
230 MA Ewes @ $60		$13,800
Water – Natural		
Total Year 1		**$45,543**
Development Year 2		
Pasture renovation		$11,630
Total Year 2		**$11,630**
Total Capital Cost for 2 years of Development		**$57,173**

Revenue (Balance August)

Year 1 – 15th April – 31st August (138 days) average intake ~ 390kgDM/day more
138 days @ 390kgDM = 53,820kg extra dry matter consumed.

Value……Autumn / Winter
$0.15 x 53,820 = **$8,073** – is this true value??? suggests not???

Year 2 – 3.6su/ha to 8.8su/ha increase of 5.2su/ha

Revenue				
230 MA Ewes	@	$91.00/su - $9.50 direct exp	$81.50/su	$18,745
5 MA Cows	@	$66.00/su - $3.30 direct exp	$62.70/su	$1,881
Nett Revenue / Marginal Benefit				**$20,626**

Capital cost per Hectare	$1,143 over 2 years
Marginal Benefit per Hectare	$405/yr

On going cost to consider Fertiliser……..