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Profitable Farm Development in a challenging environment

A focus on: High Country Pasture Development and Breeding Cow Performance

> "The Jordan" Hugo & Kelly Pitts Awatere Valley

Tuesday 28th March 2017

Our sincere thanks go to Hugo and Kelly Pitts for sharing their information and farm

Funding for this programme has been made available by Beef+Lamb New Zealand through your levies

Introduction

The objectives of this Field Day are to:

- Gain an understanding of the current farm resource and the vision for development the owners have
- Outline best management practice with respect to developing high country pasture
- Assessing breeding cow efficiency and determining acceptable performance targets for a high country operation

Facilitator

Greg Sheppard Farm Management Consultant Sheppard Agriculture Ltd, Nelson Email: <u>greg@sheppardagriculture.co.nz</u> Phone: (03) 544 8505 Mobile: 0274 349 340

Committee Members

- Richard Gorman, Chairman
- Simon Todhunter
- Richard Laugesen
- Will Grigg
- Fraser Avery
- Andrew Nation
- Simon Harvey
- Jo Grigg

Beef+Lamb New Zealand Extension Manager

• Sarah O'Connell

Beef+Lamb New Zealand Farmers Council Representative

• Fraser Avery and Richard Gorman

HEALTH & SAFETY at WORK ACT, (2015)

The Pitt's wish to point out to all visitors to this property to take extreme care when travelling over the property in vehicles, moving around yards and facilities and in handling stock.

BLNZ have a policy of one person per ATV and helmets must be worn. When travelling in 4x4 Utes all passengers must be seated inside the cab.

All practicable steps have been taken to ensure your visit to the property is a safe and enjoyable one.

Background Information

Property Description:

The property is best described as an extensive summer dry high country station totalling 2716 ha. Of this 1600 ha is deemed the effective grazing area. The Jordan encompasses 1800 ha of Crown lease running from the Awatere river to the tops and around behind the freehold area. As such it has a reasonable area of productive ground along with all the class 7 and 8 land in it.

The annual rainfall is 750 mm with the climate being one of extremes being very winter cold and often very hot in the summer. Altitude ranges from 300 to 1400 m above sea level.

Topography ranges from flat to steep high country.

Primarily the property is considered a breeding unit with some finishing occurring when the season allows.

Goals

- To realise 110 % lambing consistently
- To achieve a GFI of greater than \$140/su
 - \$140/su in 2015 and \$143/su in 2016
- To renew 10% of the low land pasture annually
- Secure winter feed for hogget's
- Identify opportunities for higher sale prices for products to increase income
- To reduce the mortgage
- To expand and complete the irrigation project
- To manage "The Jordan" effectively alongside "Camden" whilst achieving a balanced lifestyle
- Improve pastures and production though a simple management system
- To plan for children's education and future farm succession

Livestock Policies

Sheep Enterprise

Breeding a productive dual purpose Merino without losing the wool clip and style. Finishing all lambs as season and vineyards permit.

Mating Dates and Policy

- Ram out to a Terminal Sire mob of approximately 750 on 1 May
- Ram out to MA ewes on 1 May for 6 weeks or longer depending on how long the holiday is for!!
- Ewe Hogget's are not mated

• Lambing commences 1 October

Scanning performance

• MA ewes are no longer scanned (past 3 years). Historically very consistent at 140% in MA and 2T ranged from 100 to 116%

Tailing performance

• All ewes average (last 5 years) at 108%, (111% achieved in 2016)

Weaning

- Flexible but usually Mid Feb
- Number killed off mum
 - BF lambs usually 30%, but in 2016 58% @17.3kgCwt
 - Aim to keep all hoggets and finish end of winter for Merino and as ready for BF or store BF in May after second draft if not enough vineyards.
- Aim for 17kgCwt BF lambs off Mum then winter as heavy as they can usually sold at 20kgCwt
- Merino hogget's in Oct average 20kgCwt overall

Cut off dates for selling

• Kill Merino hogget's by 2nd week November before they cut their teeth

Shearing Policy

- Ewes shorn 25th Aug
- 2-tooths Same time as ewes
- Hogget's shorn late September
- Lambs BF at second draft in April

Wool Production

2016	30,700 kg
2015	27,300 kg
2014	26,000 kg

Ewe Wool	6.53 kg/ewe at 20.7 micron – 73 % yield
Hogget wool	5.5 kg/hggt at 18.56 micron – 69 % yield

Animal Health

Ewes are vaccinated for

- Campylobacter
- Toxoplasmosis
- Footrot (Footvax) prior to lambing
- Johnes disease at replacement selection in October

Ewe Drenching

- Prior to mating
- Capsule to ewes pre lamb
- Tailing

Lamb Drenching

• Tailing

- Weaning
- Prior to vines at crutching
- Return from vines (with Triple combination)
- Often before mating as two tooth

Approximately 6 – 8 T/year of salt is provided to grazing stock.

Cattle Enterprise

Breed Angus and White Face (Hereford bull over Angus cows). Taimati Angus and Okawa Hereford have been purchased for the past few years. The herd consistently calves 89 – 90%.

To use the cows to condition pastures over summer period and clear taggy rank (brown top) through winter

Cows are mated from December 5th with yearlings mated for 2 cycles. Calving commences early to mid-September.

Weaning generally coincides with the 1st calf sale in March. Feel this is too early for the calves (always want to be later) however for management reasons this time works best. Average 216kgLwt in 2016 and 185kgLwt in 2015.

- If steers have been retained they are finished in the spring as 3 yr olds at 330-380 kgCwt.
- Cull cows are sold after weaning or kept into next financial year
- Only sell Steers if dry, then heifers then cows in that order

This year no trading cattle will be wintered as sold all dry stock (apart from 9 heifers) back in spring 2015. Aim to get back to finishing approximately 20 steers as 3yr olds (so not pushing them along). This year all steer calves have been sold to capture the very strong market prices on offer.

Animal Health

- Heifers receive a BVD sensitizer and booster vaccination prior to mating
- MA cows and bulls receive a BVD booster at mating
- A biannual Selenium injection (one always prior to mating)
- Calves are drenched at weaning and possibly again at the end of winter

Livestock Reconciliation 2016

Stock Class	June 2015	June 2016	Comments
MA Ewes	1825	1834	
2 tooth Ewes	622	660	
Ewe Hoggets	1035	897	
Wether Hogget's	898	898	
MA Wether's	201	180	
Rams	40	38	
Sheep Stock Units	4084	4015	
MA Cows	120	120	150 historically
R2yr Heifers	20	10	Dry in 2016
R1yr Heifers	22	24	
R2yr Steers	30	1	(includes 9 R3yr Steers in 2015)
R1yr Steers	22	0	
Breeding Bulls	5	5	
Cattle Stock Units	1207	901	
Total Stock Units	5291	4916	
Sheep:Cattle	77:23	82:18	
Stocking Rate	3.3	3.1	

Note: Vineyard grazing is required and utilised to winter hogget's off farm

Grazing systems and Forage Cropping

New pasture and cropping rotation

Resident pasture/scrub \rightarrow Turnip & Italian \rightarrow Rape and Italian \rightarrow back into permanent pasture (all summer sown)

2017 Programme

- 65ha spray and prey winter feed
- 18ha winter feed drilled
- 4ha new perm
- 2ha Raphino brassica trial
- 12ha Lucerne

Grazing Crops

- Winter feed is grazed by ewes late winter to allow spring to hit lambing blocks.
- New permanent pasture is first grazed by hogget after shearing in Oct then shut up for seeding

• Lucerne 2 cuts hay/bailage then grazed by BF lambs after weaning

Livestock grazing policy

Ewes

- Set stocked after shearing (late Aug) to tailing late Nov and then rotated around blocks mobbed up to make tailing mobs (300-350 ewes) till weaning (some years 3 rotations, this year 1)
- Then on high hill till just prior to mating and rotated (approx. weekly) over mating and mid-winter. Back up hill and or onto winter feed late July.

Hogget's

- Slow rotation on lower "saved" blocks till vineyards in May
- Return home mid-September and onto winter feed regrowth and new grass till sold prime replacement sent up into the hills

Cows

- Set stocked on rough blocks over early and mid-winter
- Up the hill to finish winter until 15th August at which time they are set stocked prior to getting busy shearing
- Calving mid-September
- Calf marking early December with the bull out at the same time then rotated behind the ewe mobs to clean up. There 5 mobs of cows and 8 mobs of ewes so not exactly all covered.

Growing cattle

- Not Vaccinated but drenched at weaning
- Just fed pasture

Soil Test Results

Sample	рН	Olsen Phosphate	Potassium K	Total Sulphur	Aluminium
Keiths	5.6	6	6	7	0.9
Quail	5.4	9	8	11	2.3
Airstrip – Levels	6	13	13 11	10	0.4
Up from	5.1				2.2
Rf2	5.5	11	6	11	2.2

Fertiliser History/Programme

Product	Tonnes	Date applied	Rate/ha
Lime + 30kg Elemental S	530	March	530kg/ha
Every 3 rd yr 30 % Sulphur Super	150	March	150kg/ha

SWOT Analysis

Please outline (in bullet points) what you consider to be the Strengths, Weaknesses, Opportunities and Threats for your business.

Strengths

- Good staff
- Established development plan that seems to work for this property.
- Good genetic base for sheep and cattle
- Taking on a fairly well developed property that is well known

Weaknesses.

- Time poor these days and things don't always get done on time.
- Better management of staff and delegation required especially around planning involvement.

Opportunities

- Irrigation consent full usage, via fixed sprinkler system
- Bees
- Hunting
- Tourism possible

Threats

- Weeds (CNG) and Footrot always not far away
- Interest rates
- Constant "Public Opinion" and pressure over water ways and compliance issues

Farm Development

Over the last 5 years 318ha has been over sown at a Seed cost of just under \$70,000 which came out at \$189/ha excluding GST. The total investment varies depending on the block but ranges from \$1,800 - \$2,500/ha.

This area is now carrying approximately 3 su/ha up from 1 su/ha (representing a lift of about 650 su) after producing very little. In addition, the overall carrying capacity has been maintained at a higher level than normally would have been expected after the recent drought years (better off by an estimated 1000 su).

Success of the system has provided confidence to develop 10% (100 ha) of the better/lower country annually.

The process employed is:

- 1. November 11 l/ha glyphosate, 180 g/ha Met Sulfuron, 300 l/ha water
- 2. Fallow over summer
- 3. January 3 I/ha glyphosate, 200 ml/ha penetrant, 100 I/ha water

- 4. Sow late January/February in Turnip and Italian
- 5. 150 kg/ha Cropmaster Brassica fertiliser and 1T/ha of Ag Lime applied

The process is repeated the following November for a second winter crop prior to being established in permanent pasture in the third January/February.

Pasture Mix's used:

Mullins	kg/ha	Cow Hill	kg/ha
Ella Cocksfoot	2	Uplands Cocksfoot	2
Alabama Tall Fescue	2	NZ Gro Exceltas Coloured Brome	2
Bareno Pasture Brome	2.75	Kahu Timothy MD	2
Kahu Timothy MD	4	Basic Nui Ryegrass	2
Bolta Balansa Clover	3	Rubitas Red Clover	0.88
Denmark Sub Clover	4	Broad Red Clover	1.17
Huia White Clover MD	2	Huia White Clover MD	2
Cefalu Arrowleaf Clover	2	Karridale Sub Clover	3.23
Plantain MD	0.092	Bolta Balansa Clover	0.54
Chicory MD	0.52	Hytas Alsike Clover	2
Broad Red Clover	1.8	Tonic Plantain MD	0.1
Total	24.162	Chicory MD	0.5
		Matua Prairie Grass	2
Ring Creek/River Face	kg/ha	Cefalu Arrowleaf Clover	1.3
Matua Prairie Grass	2	Total	21.72
Megatas Cocksfoot	2		
Kahu Timothy MD	2	Basin Paddock	kg/ha
Bolta Balansa Clover	2	Megatas Cocksfoot	2
Plantain MD	0.1	Barolex Tall Fescue	2
Chicory MD	0.5	Prosper Tall Fescue MD	2.2
Broad Red Clover	2	Bareno Pasture Brome	2.77
Denmark Sub Clover	4	Kahu Timothy MD	4
Huia White Clover MD	2	Bolta Balansa Clover	3
Hytas Alskie	1	Woogenellup Sub Clover	4
Maximus Ryegrass LE	2	Huia White Clover MD	2
Total	19.6	Cefalu Arrowleaf Clover	2
		Strawberry Clover	2
		Tonic Plantain MD	0.1
		Chicory MD	0.5
		Total	26.57

The new pasture and forage system has allowed for a change in livestock management whereby:

• Lambing of the terminal sired ewes now coincides with the main line of Merino ewes

• Lambing is now 3 weeks later at the start of October

Lambs are now able to be kept on farm until after Christmas

Cost Benefit of the development programme – Mullin's Block (65 ha)

Using the average cost of development, transforming the Mullin's block has cost \$162,500 in spraying and over-sowing. In addition a further \$19,500 has been invested in livestock wintered. This gives a total investment of \$182,000.

Prior to development the block wintered 75 weathers producing approximately 5kg/hd of wool (income of \$50/hd and \$57.69/ha) resulting in an estimated operating surplus of \$3/ha (once working expenses taken into account).

The block now:

- Winters 175 ewes (107% lambing)
- Winters 10 cows (90% calving)
- Provides grazing for 300 ewes and their lambs plus 40 cows and calves 2 3 times per year

The estimated income from this block is now approximately \$32,720 annually (less direct operating costs of \$162/ha or \$10,530 annually). The net benefit being approximately \$22,190 representing a 12.2 % Return on Investment (ROI).

Notes

