FURTHER NOTES AND AMMENDMENTS TO SUPPORTING EVIDENCE TO SPEAK ON SUBMISSION 155.

#### **COASTHAVEN FARMS LTD**

### PATERSON GAVARA TRUST

Speakers: Barbara Kay Paterson

**Gavin Ronald Paterson** 

Christopher Gavin Paterson

In preparing for our hearing on the 16<sup>th</sup> of August, we have come across a couple of errors and a couple of points we would like to add to our evidence.

### **Barbara Kay Paterson**

- 13a. Our stock on hand as at 30<sup>th</sup> June 2017 was 650 ewe lambs, 2100 sheep, 150 store lambs, 46 R1 beef cattle, 33 R2 beef cattle and grazing 76 R1 dairy heifers.
- 15. ... costs. We have also fenced off a large flax swamp of approx. 4ha and a peat/wetlands area of 2.5ha-19.99ha.
- 15a. We also have 4.89ha of pine trees spread over three blocks (2.07ha, 1.74 ha and 1.08ha). In addition to this we have a 4.59 ha tree block that is made up of both trees and native bush.

# **Christopher Gavin Paterson**

#### **NUTRIENT BUDGET ANALYSIS**

- 41a. The major difference between the two nutrient budgets is P Loss. This is due to the decrease in the area of organic soil (mainly Colac) and the increase in brown soil (mainly Te Waewae). These differences have be summarised in Appendix 14.
- 41b. Total P lost for the Topoclimate nutrient budget was 409 kg P/year which reduced significantly to 252 kg P/year for the remapped nutrient budget.
- 41c. Looking at individual blocks (Pasture and Young Grass) the P lost per hectare is much lower on Te Waewae than Colac soils. Pasture Block 0.5 vs. 1.3 kg P/ha and Young Grass Block 0.5 vs. 1.1 kg P/ha.
- 41d. The Block Phosphorus report for both nutrient budgets has been included in Appendix 12 and 13. However, the main points were summarised in Appendix 14.

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Coasthaven Farms Ltd
Coasthaven Farms
Client reference: Topoclimate Soils
Farm name: Coasthaven Farms Ltd NB 2015-16 (Topoclimate Soils) (2015-16)

Chris Paterson Nutrient Specialist: Southern Southland West Ballance Agri-Nutrients Ltd

# **Block Phosphorus**

Block name	Total P lost	P lost	P loss categories		
	(kg P/yr)	(kg P/ha/yr)	Soil	Fertiliser	Effluent
Pasture (Colac)	135	1.3	Medium	Medium	n/a
Pasture (Otanomomo)	5	1.3	Medium	Medium	n/a
Pasture (Te Waewae)	14	0.5	Low	Low	n/a
Pasture (Waihoaka)	40	1	Medium	Low	n/a
Hay & Baleage (Colac)	22	1.3	Medium	Medium	n/a
Hay & Baleage (Te Waewae)	12	0.5	Low	Low	n/a
Young Grass (Colac)	26	1.1	Medium	Medium	n/a
Young Grass (Te Waewae)	2	0.5	Low	Low	n/a
Young Grass (Waihoaka)	7	0.9	Medium	Low	n/a
New Grass (Colac)	20	2	n/a	n/a	n/a
New Grass (Waihoaka)	4	1.4	n/a	n/a	n/a
Kale (Colac) Jul 15	1	2.1	n/a	n/a	n/a
Kale (Waihoaka) Jul 15	1	1.5	n/a	n/a	n/a
Kale (Colac) May/Jun 16	11	2.3	n/a	n/a	n/a
Swedes (Colac) Jul 15	11	2.3	n/a	n/a	n/a
Swedes (Colac) Jun 16	8	2.5	n/a	n/a	n/a
Swedes (Waihoaka) Jun 16	3	1.8	n/a	n/a	n/a
FB (Colac) Jul/Aug 15	4	2.5	n/a	n/a	n/a
FB (Waihoaka) Jul/Aug 2016	2	1.8	n/a	n/a	n/a
FB (Colac) May/Jun 16	16	1.9	n/a	n/a	n/a
Swedes (Colac) Lane 1	1	2.1	n/a	n/a	n/a
Swedes (Waihoaka) Lane 1	4	1.5	n/a	n/a	n/a
Kale (Colac) Gully	4	2.3	n/a	n/a	n/a
Kale (Waihoaka) Gully	2	1.6	n/a	n/a	n/a
Rough Grazing	7	0.8	Medium	n/a	n/a
Pine Trees	1	0.1	n/a	n/a	n/a
Stock Excluded	2	0.1	n/a	n/a	n/a
Other farm sources	42				
Whole farm	409	1.1			

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Coasthaven Farms Ltd Coasthaven Farms

Client reference: Remapped Soils

Farm name: Coasthaven Farms Ltd NB 2015-16 (Remapped Soils) - copy 1 (2015-16)

Chris Paterson

Nutrient Specialist: Southern Southland West Ballance Agri-Nutrients Ltd

# **Block Phosphorus**

Block name	Total Plost (ktg.P/yr)	Plost		P loss categories	
	(kg P/yr)	(kg P/ha/yr)	Soil	Fertiliser	Effluent
1:Pasture (Colac)	0	1.3	Medium	Medium	n/a
1:Pasture (Dacre)	28	0.8	Medium	Low	n/a
1:Pasture (Te Waewae)	56	0.5	Low	Low	n/a
1:Pasture (Waihoaka)	28	1	Medium	Low	n/a
2:Hay & Baleage (Dacre)	4	0.8	Medium	Low	n/a
2:Hay & Baleage (Te Waewae)	18	0.5	Low	Low	n/a
3:Young Grass (Colac)	3	1.1	Medium	Medium	n/a
3:Young Grass (Te Waewae)	9	0.5	Low	Low	n/a
3:Young Grass (Waihoaka)	6	0.9	Medium	Low	n/a
4:New Grass (Dacre)	4	1	n/a	n/a	n/a
4:New Grass (Waihoaka)	4	1.4	n/a	n/a	n/a
5:Kale (Waihoaka) Jul 15	2	1.5	n/a	n/a	n/a
6:Kale (Dacre) May/Jun 16	1	1.2	n/a	n/a	n/a
6:Kale (Te Waewae) May/Jun 16	2	0.5	n/a	n/a	n/a
7:Swedes (Dacre) Jul 15	3	1.2	n/a	n/a	n/a
8:Swedes (Dacre) Jun 16	4	1.3	n/a	n/a	n/a
8:Swedes (Waihoaka) Jun 16	4	1.8	n/a	n/a	n/a
9:FB (Dacre) Jul/Aug 15	3	1.3	n/a	n/a	n/a
9:FB (Waihoaka) Jul/Aug 2016	3	1.8	n/a	n/a	n/a
10:FB (Dacre) May/Jun 16	4	1	n/a	n/a	n/a
11:Swedes (Waihoaka) Lane 1	5	1.5	n/a	n/a	n/a
12:Kale (Dacre) Gully	1	1.2	n/a	n/a	n/a
12:Kale (Te Waewae) Gully	0	0.5	n/a	n/a	n/a
12:Kale (Waihoaka) Gully	2	1.6	n/a	n/a	n/a
Rough Grazing	5	0.5	Low	n/a	n/a
Pine Trees	1	0.1	n/a	n/a	n/a
Stock Excluded	2	0.1	n/a	n/a	n/a
3:Young Grass (Dacre)	4	0.7	Low	Low	n/a
7:Swedes (Te Waewae) Jul 15	1	0.5	n/a	n/a	n/a
10:FB (Te Waewae) May/Jun 16	1	0.4	n/a	n/a	n/a
4: New Grass (Te Waewae)	1	0.3	n/a	n/a	n/a
Other farm sources	42				
Whole farm	252	0.7			

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	Total P Lost	P Lost	P Loss on Pasture Block (kg P/ha)		Young Grass Block (kg P/ha)	
	(kg P/year)	(kg P/ha)	Colac	Te Waewae	Colac	Te Waewae
Topoclimate	409	1.1	1.3	0.5	1.1	0.5
Remapped	252	0.7	1.3	0.5	1.1	0.5

Appendix 14: Summary of the key difference in P Loss between Colac and Te Waewae soils for both Overseer Nutrient Budgets.