

type of forest country to bring in, and far inferior to mixed tawa (*Beilschmiedia*) and rimu (*Dacrydium cupressinum*) forest. The results of the two first seasons' experiments are mitigated by the fact that the summers were exceptionally dry, and in one season (1916-17) the pasture caught fire and burnt in two of the paddocks (Nos. 3 and 4), necessitating the suspension of the experiments. In the season 1915-16 dogs worried some of the sheep and were shot in the act. It is advisable that the results obtained should be recorded, as, however small, they point the way for further efforts in the right direction.

In the first season seven numbered sheep (two-toothed ewes and hoggets of mixed crossbred Romney-Lincoln type) were placed on each 5-acre paddock on 13th December, 1915, and the same animals were carried right through the season until 7th March, 1916.

In the second season a different set of eight animals (two-toothed wethers and hoggets, four of each on each plot) instead of seven were grazed from 10th December, 1916, to 12th March, 1917.

In the third season, a very wet one, from 30th May, 1918, to 11th December, 1918, the effect of the dressings of limestone and phosphates on paddocks Nos. 3 and 4, compared with the control paddocks, Nos. 1 and 2, was very marked. Eight sheep (four wethers and four hoggets) were placed on each of the paddocks Nos. 2, 3, and 4 on 30th May. Additional temporary sheep were put on to keep the grass down, twelve extra sheep being put on all the paddocks on 1st November, but on the 22nd it was necessary to take off No. 2 the twelve extra sheep and place four of them on No. 3. (On 27th December four more sheep were placed on No. 3. At the time of final writing (13/1/19) No. 2 is carrying only eight sheep; No. 3 is carrying twenty-eight; No. 4 is carrying twenty; and the experiment is being pushed well on into the summer.)

The animals were weighed every month, and the following table shows the differences in the average live-weights in pounds per sheep, due to feeding on the pastures. Multiplying this by the number of permanent sheep on each 5-acre paddock the total live-weight increases are obtained.

Poor Danthonia pilosa Pasture following Beech or "Birch" Forest on Gravel.

	Paddock No. 1 (Control). 3/4 ton Fine Carbonate of Lime.	Paddock No. 2. No Dressing.	Paddock No. 3. 3 tons Rough Limestone; 5 cwt. Phosphate Rock.
First season (12 weeks)	16.3 (× 7 = 114.1) lb.	20 (× 7 = 140) lb.	21.1 (× 7 = 147.7) lb.
Second season (13 weeks)	11.0 (× 8 = 88) lb. ..	12 (× 8 = 96) lb.	15 (× 8 = 120) lb.
Third season (28 weeks)	..	41.7 (× 8 = 333.6) lb.	46.5 (× 8 = 372) lb.
		Paddock No. 4. 3 tons Rough Limestone.	Paddock No. 5. 5 cwt. Ephos Phosphate.
First season (12 weeks)	17.6 (× 7 = 123.2) lb.	17.8 (× 7 = 124.6) lb.
Second season (13 weeks)	12.25 (× 8 = 98) lb.	12.7 (× 8 = 101.6) lb.
Third season (28 weeks)	50 (× 8 = 400) lb.	..