

Botanical Survey, Wallaceville, 12th November, 1918.

The figures show the relative frequency of occurrence of each constituent per cent. analysis.

Constituents of Pastures.	Paddock No. 2 (Control).	Paddock No. 3 (Phosphate and Rough Limestone).	Paddock No. 4 (Rough Limestone).
Danthonia pilosa (native)	97.5	87.5	80
Sweet vernal (<i>Anthoxanthum odoratum</i>)	100	97.5	87.5
Suckling-clover (<i>Trifolium minus</i>)	77.5	95	75
White clover (<i>Trifolium repens</i>)	27.5	75	52.5
Crested dogtail (<i>Cynosurus cristatus</i>)	67.5	82.5	92.5
Catsear (<i>Hypochaeris radicata</i>)	67.5	65	77.5
Rib-grass (<i>Plantago lanceolata</i>)	57.5	70	75
Poa pratensis	25	20	32.5
Cocksfoot (<i>Dactylis glomerata</i>)	30	67.5	60
Hair-grass (<i>Festuca bromoides</i>)	7.5	12.5	5
Bracken (<i>Pteridium esculentum</i>)	2.5	7.5	5
Field-daisy (<i>Bellis perennis</i>)	5	12.5	22.5
Moss	25	5	12.5
Thelymitra sp. (wild native orchid)	5	0	2.5
Bare ground	25	2.5	22.5
Selfheal (<i>Prunella vulgaris</i>)	7.5	7.5	10
Lesser mouse-eared chickweed (<i>Cerastium triviale</i>)	2.5	5	2.5
Yorkshire fog (<i>Holcus lanatus</i>)	10	27.5	10
Perennial rye-grass (<i>Lolium perenne</i>)	2.5	5	7.5
Muehlenbeckia (native climbing shrub)	0	2.5	0
Hawkweed (<i>Crepis capillaris</i>)	0	2.5	0
Stones	2.5	2.5	5
Tarweed (<i>Bartsia viscosa</i>)	0	10	2.5
Sheep's burr (<i>Acaena ovina</i>)	0	2.5	0
Dandelion (<i>Taraxacum officinale</i>)	0	2.5	2.5
Piripiri (<i>Acaena sanguisorbae</i>)	5	2.5	2.5
Redtop (<i>Agrostis vulgaris</i>)	2.5	2.5	15
New Zealand rice-grass (native) (<i>Microlaena stipoides</i>)	0	0	2.5

The following plants were also noted throughout each paddock: *Juncus effusus*, gorse (*Ulex europeus*), *Polytrichum* sp., *Juncus* (stoloniferous type), sweet-brier (*Rosa rubiginosa*).

Summing up, it may be said that the indications are that the dressings may be expected to increase the carrying-capacity of the land because they—

- (a.) Diminish the inferior native and introduced grasses;
- (b.) Increase the exotic grasses of approved feeding-value;
- (c.) Increase the leguminous constituents (clovers) of the pasture, and hence the albuminoid content of the food to a great extent (the most valuable effect);
- (d.) Diminish bare space and moss; and hence create a closer and more nutritious sward.

RESULTS OF GRAZING EXPERIMENTS.

These experiments, as indicated, are being conducted on poor danthonia pasture following the clearing of *Fagus* (beech or "birch") forest land, which, although on level land, is far inferior in quality to any of the hillside soils on the west side of Wellington Harbour, "birch" or beech country being generally recognized as the worst