REPORT OF THE NATURAL SCIENCE DEPARTMENT. FIRST TERM, 1891—*continued.*

No.	Name.	Source.	Germinating Power per Cent.	Impurities per Cent., and Remarks.	Total Impurities per Cent.
204	Sedge	Timaru ..	..	Is nigger-head (*Carex virgata*).	
205	Grass	" ..	..	Is *Poa breviglumis*.	
206	"	" ..	..	Is smooth-stalked meadow-grass (*Poa pratensis*).	
207	"	" ..	..	Is *Poa breviglumis* var.	
208	"	" ..	..	Is *Poa colensoi*.	
209	"	" ..	..	Flowering head of one grass—*Poa intermedia*—and leafy shoots of another, Danthornia sp.	
210	Plant	" ..	..	Is *Anthericum hookeri*.	
211	Grass	Christchurch	..	*Poa colensoi* var.	
212	"	"	..	Is *Echinopogon ovatus*.	
213	Trefoil and white-clover	Rangitata ..	..	Consists of *Trefolium minus*, 89; white-clover, 7; rye-grass, 4; with odd hair-grass and mouse-ear chick-weed.	4
214	Grass	Christchurch	..	Is brown bent grass (*Agrostis canina*).	
214A	Plant	Chertsey ..	..	Is *Cerastium arvense*, a perennial chickweed.	
215	English red-clover ..	Oamaru ..	93	Odd seeds of timothy, English millet (*Milium effu-sum*), &c.	
216	English cow-grass ..	" ..	92	Plantain (*Plantago lanceolata*)	1
217	English white-clover	" ..	77	Occasional sorrel, and various.	
218	English alsike ..	" ..	50	Occasional timothy, and odd chamomile, &c.	
219	English trefoil ..	" ..	88	Occasional cleavers (*Galium aparine*).	
220	English timothy ..	" ..	96	Pure.	
221	Rye-grass	" ..	35	Occasional sorrel and cat's-ear.	
222	"	" ..	46	Pure.	
223	Cocksfoot	" ..	61	Odd seeds of fog, goose-grass, and cat's-ear.	
224	Radish	Waipawa ..	70		
225	Cow-grass	Rakaia ..	..	Occasional timothy and English millet, with odd Scotch thistle, sorrel, dock, alsike, and undetermined.	
226	Alsike	" ..	..	Timothy, 4; and occasional red-clover, with odd seeds of small poas, Plantago sp., dock, rib-grass, ox-eye daisy, and Californian thistle	4
227	Timothy	Gore ..	..	Frequent white-clover and alsike, occasional cat's-ear, chickweed (*Cerastium arvense*), and fog, with odd rib-grass and sow-thistle.	
228	Grass	Methven ..	..	Is annual meadow-grass.	
229	Plant	Christchurch	..	Is bladder catchfly (*Silene inflata*).	
230	"	"	..	Is penny cress (*Thlaspi arvense*).	
231	"	College farm..	..	Is narrow-leaved cress (*Lepidium rudervale*).	
232	Grass	Rakaia ..	..	Is knee-joint foxtail.	
233	Plant	" ..	..	Is field-spurrey (*Spergula arvensis*).	
234	"	" ..	..	Is a species of Galium.	
235	"	College farm..	..	Is thorn apple (*Datura stramonium*).	

No. 94.—A sample of this plant, called wauraki by the Maoris, was sent from the North Island. The plant was supposed to have been the cause of the death of certain cattle which had been feeding on recently-burnt fern-lands, where the ranunculus was growing. The symptoms were inflammation of the membrane of the stomach, with appearance of intense pain. The plants of this genus are all acrid in different degrees, and another species common about here (*R. scebratus*, the most acrid of any) has been stated to have caused the death of a number of sheep in this district some years since.

No. 134.—This plant was thought by the sender to be the Californian thistle. The star thistle is only an annual (closely allied to the English cornflower), and may be easily distinguished by the stiff spines—from ½in. to 1in. long—projecting from underneath the flower-heads. These spiny heads are very injurious in sheep's wool.

Nos. 145 and 146.—In connection with these two samples an experiment was made to test the statement that camphor assisted germination. The experiments showed an appreciable difference between the seeds moistened with solution of camphor and those with plain water.

Nos. 154 and 226.—The samples are noticeable, owing to the presence of seeds of the Californian thistle. The samples seem to be quite distinct from one another, and show how easily this and other weeds may be introduced and spread through the country. Farmers cannot be too careful as to purity of their seeds.

Nos. 169 and 214A.—This weed mats the ground completely together by means of its very fine underground stems, and it promises to give much trouble in eradicating it. It is one of the English perennial chickweeds, and differs from the common, hairy, annual chickweed (*Cerastium vulgatum*) in having its petals about twice as long as the sepals.

No. 176.—This grass was stated to come from very dry soil, and to have kept green all through the dry weather. It is an annual grass, which Parnell says is "of no agricultural value."

Nos. 178 and 179.—These samples show the value of a special fog-cleaning apparatus. No. 178 is before cleaning, and No. 179 after.

In connection with the seed-examination department a McLaren's Patent Seed-germinator has lately been obtained from Edinburgh. It has not yet been fully tested, but the patentee claims that it prevents the growth of fungus, and gives rapid results. The principle seems good, there being adequate provision for heating and ventilation.