PREVENTION.

Although the seed is fine, almost dust-like, its presence amongst other seeds may be detected by a careful observer, although not apparent to the untrained eye. When any species of *Orobanche* becomes established, I believe it might be easily destroyed by prompt mowing close to the soil, if the operation be performed before the seed-vessels arrive at maturity; a careful watch should be kept, and any new shoots that make their appearance cut down at once.

Probably *Orobanche ramosa*, the broom-rape of the hemp, would withstand this process, but I know of no other species possessing any great power of resistance.

I may close this short paper by advising agriculturists to purchase their seeds from seedsmen who give a guarantee of the purity of their stock, as in the case of some English houses. At present, comparatively few seeds are grown in New Zealand, but I am sure that any qualified persons, taking up the business of seed-growing with proper means and appliances, would obtain a fair annual return without other protection than the cost of packing, freight and insurance, especially if prepared to give a guarantee of the purity and vitality of their seeds.

ART. XXV.—*Description of a new Species of* Uncinia, *Persoon.*

By D. PETRIE, M.A., F.L.S.

[*Read before the Otago Institute, 8th November*, 1887.]

Uncinia clarkii, n. s.

A SPREADING species, forming a close grass-like sward.

Leaves somewhat shorter than the full-grown culms, grassy, smooth or slightly scabrid at the edges, flat with prominent midribs, $\frac{1}{10}-\frac{1}{7}$ inch wide, 6–9 inches long.

Culms, 12 inches high or less, terete, rather stout, smooth, strongly grooved.

Spikelets, $1\frac{1}{2}$–2 inches long; male portion short; bract short and setaceous or none.

Glumes, closely imbricate, as long as the utricles, lanceolate, acute or sub-acute, membranous, pale-brown, attached more than half-round to the rachis, deciduous, leaving when shed a semicircular cup-like projection below the attachment of the utricles, which gives the rachis a curious jointed appearance; male glumes more persistent.

Utricles, small, dark-brown, stipitate below and tapering above, half as long as the recurved bristle, strongly divaricating when mature, faintly nerved on the outer surface.

Hab. Eweburn Creek, Naseby, 2,000 feet; Hector Mountains, 3,000 to 5,000 feet; Mount Tyndall, 3,000 to 4,000 feet.

This species has pretty close affinity to *U. compacta*, Br. It is easily distinguished by its spreading habit, longer spikelets, small dark-brown and strongly divaricating utricles.

The plant ascends the mountains to a height of 5,000 feet or more, becoming smaller and smaller as the height increases. Many specimens in the higher valleys of the Hector Mountains do not exceed 2 inches in length.

I have long been convinced of the independence of this species, but have found it most difficult to satisfy myself on the point. The extant descriptions of the New Zealand forms are very imperfect and sometimes contradictory, and the genus badly needs working out afresh. I have much pleasure in dedicating the species to C. B. Clarke, Esq., F.R.S., F.L.S., who has most kindly compared it with the types in the Kew Herbarium, and supplied me with much valuable information about the New Zealand species.

Art. XXVI.—*Rate of Growth of Transplanted Trees.*

By J. Baber, C.E.

[*Read before the Auckland Institute, 29th August*, 1887.]

No. III.*

Professor Kirk suggested that it would be well to record the growth of the kauri and other native transplanted trees in the Auckland Domain during the lifetime of the planter.

These trees were planted in the year 1865 by Mr. Chalmers, formerly head caretaker of the domain, now resident at Whangarei. The height of three kauris measured are 22ft., 24ft., and 29ft.; circumference of bole 2 feet from the ground, 2ft. 1in., 2ft. 3in., and 2ft. 2in. respectively.

As a period of fifty years is short enough to deduce from observation a reliable datum as to the profitable value of kauri-planting, it is to be hoped that the restless spirits who preside over alteration and improvement will spare these trees till the year 1915.

The sprigs from these kauri trees, plucked in this month of August, the end of our winter, have on them male and female blossoms, immature cones, and leaflets, showing that the trees are in the vigour of growth. The kauri grows in the latter part of the winter, a fact to be regarded in felling, if the non-growing season be the proper time to fall timber.

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* See "Trans. N.Z. Inst.," vol. xviii., p. 311.