

a diminution of this nature is never to be found. These odd pairs which appear in new country, and which to the casual observer may not be a matter of any great concern, do and always will constitute a very real and serious danger to the district in which they are allowed to exist. The slow progress made by the pest in the earlier stages of colonization gives a certain degree of confidence to the inexperienced settler, and misleads him into the belief that the country cannot be suitable. There may not be any appreciable increase for several years, but at any moment the pest may overcome certain forces which have been operating against it, and from then on will increase at an alarming rate. Such is the early history of the rabbit in almost every district in New Zealand where it has ultimately become established.

This process or period of colonization is necessarily governed to a very large extent by the opposition offered. In the early period of the rabbit in New Zealand there was little or no opposition offered to its increase. The natural enemies were few in number—stoats, weasels, and ferrets had not then been introduced—consequently the colonizing process was more rapid. Now, and for many years past, there have been and are thousands of these animals in every district in which the rabbits have sought to extend operations. The pioneers are therefore met with a much greater degree of resistance, and it may take several years before they have reached that point when they are able to satisfy all the demands of their natural enemies and sportsmen and yet have a surplus to carry on freely the process of reproducing their kind. This point may be reached as the result of several causes or by a combination of causes. Principal among the forces acting against the rabbit in the earlier stages is the natural enemy—stoats, weasels, and ferrets—all animals which are particularly susceptible to distemper, a disease which to them almost invariably proves fatal. Cats are also susceptible to this disease. It is quite possible, therefore, that as a result of an epidemic among the natural enemy, combined perhaps with a particularly favourable season, the rabbits are able to reach that point just mentioned when they have gained the balance of power—a point which will mark the beginning of the rabbit nuisance in the district concerned unless the settlers very quickly take a hand in the game.

POTENTIAL INCREASE OF RABBITS.

In order to fully appreciate the danger of the pest it is necessary to realize the extent to which rabbits are capable of increasing in a given time, and I have worked out a propagation chart showing in detail what may be considered a reasonably conservative estimate of the increase from one pair in one, two, and three years. Many authorities may be quoted in support of the figures on which I base my calculations: among others, the "Encyclopædia Britannica"; "Treasury of Nature" (Samuel Mander); "Veterinary Posology" (Banham), p. 251; "Veterinary Obstetrics" (William), pp. 41, 43, and 47; Fleming's "Veterinary Obstetrics"; and Harmsworth's "Encyclopædia" (this latter authority stating that one pair of rabbits left undisturbed for three years would breed to over thirteen millions). All these authorities agree on the main issue—*i.e.*, the period of gestation, average litter, &c.