On the other hand a sufficiently large number of violet species crosses give fertile offspring to have yielded results of great interest, both to systematist and geneticist. A great many violets are naturally cleistogamous and this leads to automatic elimination of heterozygotes. It has been an immense amount of work, therefore, to have found between 60 and 100 natural hybrids that show segregation and recombination of one or more allelomorphic pairs, and from the facts thus obtained to establish parentage as well as to contribute to our knowledge of inheritance. Besides these numerous combinations that have proved heterozygous in at least one factor, something over 100 anomalous forms constant in their characters have been found. Argueing from his knowledge of the characters of the species with which they have been found and the behavior of the latter in crosses, the author has been able to point out the exact character recombinations possessed by the aberrant forms, and to show that they are homozygous types resulting from the remote or recent hybridization of older species. Thus he has been able to show a true evolution of new forms of *Viola* in the wild by hybridization.

The allelomorphic pairs whose behavior he has been able to establish more or less definitely are as follows. Black seeds and brown seeds are dominant to yellow seeds and black is apparently epistatic to brown. Purple capsules are almost completely dominant to green capsules. Pubescence, undissected leaves, and broad cordate leaf shape are imperfectly dominant to glabrousness, dissected leaves and lanceolate leaf shape.

Besides the clean segregation of these characters, there was evident segregation from complex relationships of leaf size, erectness of plant, color of flower, size of capsule and size of seed.

E. M. East.

Hagedoorn, A. L. Oordeelkundige Zaadteelt en fokkerij. Flakkeesche Boeken Handelsdrukkerij, Middelharnis, 1912, 95 pp.

Dieses Buch wurde im Auftrage der „Hollandsche Maatschappij van Landboun“ geschrieben. Es beabsichtigt eine gemeinverständliche Darstellung von unsrer heutigen Kenntnis der Erblichkeitserscheinungen für die Tier- und Pflanzenzüchter zu geben. Dieselben können aus der klar geschriebenen Arbeit lernen, in welcher Weise rationell gezüchtet werden muß und was dabei zu erhalten ist. Eine große Anzahl Beispiele aus der Praxis erläutert die theoretischen Auseinandersetzungen.

Tine Tammes, Groningen.