

seeds according to fixed standards of quality with a guarantee from seedsmen or seed dealers as to the purity and vitality of the goods offered.

In Germany there are thirty-nine establishments for the testing of seeds. In Austro-Hungary there are sixteen, the principal one being at Vienna. Seed testing at the Scandinavian stations—which number twenty-two—is all done by uniform methods in accordance with rules drawn up by a committee appointed by the Governments of Denmark, Sweden and Norway. There is one important station at Copenhagen. In France—where seed testing has not made much progress, there is only one station, at Paris.

A special botanist is appointed by the Royal Agricultural Society of Great Britain to test seeds for its members, but most of the British seed houses have private seed control contracts with reputable testing stations on the continent. In Switzerland, there is an important station at Zurich, which is supported by the State.

Seed control work has not as yet been fully established in the United States although many of the agricultural experiment stations have been engaged in seed investigation work for a number of years. Regulations for seed testing were drawn up by a committee of the Associations of American Colleges and Experiment Stations, in January 1897.

The voluntary co-operation of both sellers and buyers in the marketing of seeds, governed by laws of trade, has less objectionable features than an official seed control managed by the enactment of law, and in some European countries it has proved to be quite as effectual. It is painfully evident, however, that there is small possibility of inducing such co-operation in Canada to an extent that will bring about a satisfactory

system of seed control in the course of five years. Enterprising and progressive Canadian seedmen know thoroughly the quality of the seeds they offer for sale and their goods are usually what they are represented to be. But the business of these men is brought into competition with dealers who do not go to the expense or trouble of acquiring a knowledge of the real worth of the seeds they are handling, as well as with those who premeditate methods of deception. There are few agricultural mercantile articles in which the real worth is so difficult to judge from appearance as clover, grass and other small seeds. As long as unscrupulous dealers are permitted to profit by selling seeds that are not what they appear,—impure and dead seeds will be forced on the market.

Fair competition in the seed business is possible only where such seeds are sold according to fixed standards of quality or under a definite guarantee based upon a standard method of analysis. Although but few European countries assume official control of commercial seeds, the legally enforced State control system in Switzerland, has done much to establish the guarantee system in Europe. English, German, and Belgian seedmen were quick to see that purchasers gave preference to the guaranteed article and that their best trade was falling off.

By act of the Swiss Federal Congress, all seed dealers, without exception, offering seeds for sale within the confines of the republic, are obliged to have their seeds tested at the Zurich Station, and to brand or otherwise mark each retail package with the percentage of pure vital seed as reported by the Station.

Unless a farmer knows the percentage of vital seeds he is sowing, his calculations are mere guesswork. Much loss is each year sustained