

Reporting.

In each case after the second count an interim report is furnished to the sender. This gives the average germination after a certain specified number of days, and the percentage of impurities (if a purity test is desired). From the interim report it is expected that a merchant will be able to judge whether or not the line under consideration is fit for his trade. A very fair idea of what the final germination result will be is afforded by the use of our progressive germination tables supplied to each merchant. Thus, for instance, a rye-grass germinating, say, 75 per cent. in six days will finish up with a test of approximately 80 per cent. This final result can be judged from the table.*

The interim report is an extremely valuable report, as it is so expressive of the vitality of the line. The rapidity with which germination takes place is a very important factor in determining the value of that line. Rapid germination means great vitality, and this is shown by the interim report. A good viable swede, for instance, will germinate over 90 per cent. of its maximum capacity in four days, whereas a poor germinating line may germinate less than 50 per cent. of its maximum capacity in the same period. It is highly probable that of those seeds which germinate after the interim report in such a line very few will come up when sown in the field.

Final reports on germination are sent out at the expiration of the testing period, and in the case of purity tests the percentage and a complete list of the impurities.

In order that the sender of the seed may decide the nature of the impurities present a list of extraneous seeds, some 226 in number, has been compiled,† and is supplied to those concerned. The English and the botanical name is given, and a key by which the relative harmfulness or otherwise can be judged.

Each sample is reported on individually, and the certificate is issued immediately the test of this particular sample is complete, irrespective of the number and kinds of other samples that may be included under any one advice of the sender.

In the case of clover-seeds, after the testing-period has expired there frequently remain few or many seeds that have neither rotted nor germinated. Such seeds are termed "hard" seeds. This "hardness" is very common in freshly harvested lines of clover-seed. Heavy machine-dressing should reduce the number of hard seeds for immediate purposes, but in the course of time natural "softening" will take place. Hardness in clovers is due to the impermeability of the seed-coats to water, and unless such coats are scratched by going through the dressing-machine or through special scratching-machines no water can enter, and consequently no growth can take place, the seed remaining hard as when first put to test. In making up our final germination results half of the "hard" seeds are allowed as viable.

Accounts.

At the end of each month the record-cards are forwarded to the Department's Accountant, who renders the accounts and receives the fees.

* A description of this method, together with the full tables, was published under the title of "A Seed-testing Key," in the *Journal* for August, 1916.

† For list see "Seed Impurities," in September, 1916, *Journal*.