

A SEED-TESTING KEY.

PROGRESSIVE AVERAGE GERMINATION.

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RAPID determination of germinating-capacity is a matter of great importance in the buying of agricultural seeds, and anything in the shape of a "ready reckoner" should be of much assistance to those concerned. In order that the interim reports on seed-samples submitted to the Department for analysis may be the more valuable in determining with a great degree of accuracy the worth as regards germination of a line of seed under test, the writer has had drawn up the set of tables on pages 122 and 123. These tables are compiled from analyses of some ten thousand samples that have been tested in the Biological Laboratory during the past four years, and give the progressive average germination of the main varieties of seed sent in for test.

Each species of seed is divided into four grades: Grade 1 represents first-class commercial lines; Grade 2, lines of good average quality; Grade 3, lines below average quality; and Grade 4, lines of very little worth.

The last column of figures for each grade in the tables is the final average germination capacity of all lines germinating within the range of that grade.

As indicated, the tables are intended to be used in conjunction with my (the Biologist's) interim reports, and an illustration will make their application clear. Supposing, for instance, that the interim report on four perennial rye-grass samples reads as follows:—

Sample No. 1.—86 per cent. average germination in four days.

Sample No. 2.—68 per cent. average germination in four days.

Sample No. 3.—49 per cent. average germination in four days.

Sample No. 4.—26 per cent. average germination in four days.

Then, by reference to the tables it can be safely inferred that the lines Nos. 1, 2, 3, and 4 will give a final germination somewhere near 92 per cent., 77 per cent., 60 per cent., and 34 per cent. respectively. The information thus afforded (together with the purity report) will enable the worth of a line of seed under offer to be rapidly decided.