

by weight of husk and extraneous seeds are given thus—Empty glumes, &c., 45 per cent. ; kernel, 50 per cent. ; extraneous seed, 5 per cent. ; germination, 85 per cent.

The Continental method offers advantages over the Irish method so far as the actual sale of seeds is concerned, while the Irish method provides the farmer a better and more readily understandable conception of the worth of a line. It is much better for the farmer to know that in a certain line 70 per cent. of the apparent seeds will germinate rather than to know that 30 per cent. of the seeds are immature. When they have the Continental germination test merchants almost invariably quote this test and let the farmer examine the line. He sees that it is well dressed, and concludes that if the germination is 90 per cent., then ninety seeds out of every hundred seeds he sees will germinate. This is not so, as there may be up to 30 per cent. of the seeds counted as immature and which are not included in the germination



PICKING OUT IMPURITIES (MAGNIFIED).

test. Thus our germination tests are often lower than the Continental ones; but the purity is higher, as we count as impurities only extraneous seeds, making a special note when husk, dirt, &c., are excessive, as is the case of Waipu brown-top just cited. What the farmer really wants to know as far as purity is concerned is what foreign seeds are contained in the sample, and when immature seeds of the species sold are included as impurities he receives quite a wrong impression of the line.

Theoretically the Continental method is the more correct, the only trouble being the laborious and exact method of execution of tests—so much so that for all practical purposes this method defeats its own end.

THE NEW ZEALAND SYSTEM IN DETAIL.

The detailed methods of germination and purity tests adopted in this Laboratory will now be described. In passing, it may be mentioned that in consulting reports, &c., of European and other seed-testing stations practically no information can be gleaned as to the exact method of conducting the tests. This is to be regretted, as an exchange of ideas should lead to a more perfect system and hence greater efficiency.