a matter which has been shown to depend very largely on the personal ability of the seed-analyst.   Secondly, it gives no indication of the relative value of samples so far as the presence of foreign seeds and their amount by numbers is concerned.   Theoretically, a sample with a real value of 90 per cent.—*i.e.*, one containing 90 lb. of pure living seed per 100 lb.—is much more valuable than one of 80 per cent. real value—*i.e.*, one containing 80 lb. of pure living seed per 100 lb.   In practice, however, the sample of lower value may be far preferable to sow, as the higher-valued one might contain a far greater number of objectionable foreign seeds, and in such a case the lower-valued one would be immeasurably the better sample for the farmer to employ.   Again, as the foreign seeds are calculated by weight, the percentage by number might easily be much greater if the weed-seeds are individually lighter than the seed that is being sold.

With our method of calculating the foreign seeds by percentage in numbers a comparatively true " real value," based on numbers, can always be obtained with those samples that do not contain an appreciable percentage of inert matter.   Thus, for example, a rye-grass sample might have ten foreign seeds per hundred, and a germination of 90 per cent.   If the purity is multiplied by the germination and divided by 100 the real value by numbers is 81 per cent., which means that in every hundred seeds of the sample there are eighty-one rye-grass seeds capable of germination.   As the weight of a thousand mixed seeds is also always determined, it is easy to calculate the number of seeds per pound, and by using the real value by numbers the farmer can tell accurately the number of living seeds per pound of the variety which he wishes to sow. It is, however, probable that real value calculated on numbers may in certain cases be misleading.   This will occur in those instances where the germination and purity are more or less identical, but the number of seeds per pound varies considerably.   Thus, take the case of two rye-grass samples of equal real value per hundred seeds, but where one sample has, say, 200,000 living seeds per pound and the other 250,000 living seeds per pound—the real value being the same— the difference in the number of living seeds per pound is due to the individual seeds of one sample being heavier than those of the other; and, as heavy seeds invariably produce more vigorous plants than light ones, the heavier-seeded line is the more preferable to sow. In the majority of cases investigated, however, the better samples have generally more seeds per pound capable of growing than have the inferior ones.

Real value calculated on numbers has the great advantage of showing accurately the amount of seed that is necessary to sow to an