

of well-prepared land in good condition for a clover crop, sown weeds—to say nothing of those previously in the soil from seeding on the land as the result of dirty farming—have been the cause of failure. Our limited space hinders any enlargement on this subject; but we commend the above table to the attention of our readers, as describing the most important fact in agriculture to which this little book this year refers.

The following is Mr. Raynbird's advice to buyers of seeds, in order to the detection and punishment of roguery:—

1st. To select a responsible and respectable seedsman, and not to seek goods at the lowest price and of the lowest value; if he does this, a seedsman can no doubt supply a cheap article, but can he recommend it? 2nd. To purchase seed with a warranty that a certain per centage of the seed will vegetate; the warranty to cover the value of the seed, or more, if necessary. 3rd. To try a certain number of seeds, both in a hot-bed and in the open ground, and see what proportion vegetates: the first plan speedily showing the actual number of living seeds—the second what number would probably grow under open air culture. 4th. To examine seeds him with a microscope, that he may detect the per centage of weed adulterations; the microscope, carefully used, would probably detect not only this but the new or old, doctored or mixed nature of seeds—a single glass is sometimes used now, but a microscope of tolerably high power would be far more efficacious. 5th. To note that the adulteration of rye-grass by admixture, however carefully done, may be detected easily when one seed is lighter than the other; the winnowing machine will separate each according to their respective gravities. 6th. To get good genuine samples of similar seed, with a view to a comparison with that purchased both by the eye and by floating the two in water as a test of comparative gravity. 7th. Since, however simple these modes are, many persons will be too much engaged to try them, and will buy seed just before sowing and put it in the ground with merely a cursory examination; why should we not adopt the practice of taking a sample for examination by a scientific botanical examiner, that he may determine the per centage of weeds and of live seeds, just as we have chemical analysis to examine artificial manures? A few shillings thus laid out might save pounds.

To conclude, the adulteration of seeds is a practice of trade, or rather a system of fraud similar to that of falsely labelling goods for sale: as when a hundred yards of cotton thread are labelled as 200; or a tin of coffee stated to weigh 2 oz. or 3 oz. more than its true weight. But there is this difference in these latter instances, that the buyer of the cotton or the coffee suffers an immediate and direct loss, the amount of which can be at once estimated; but the loss to the buyer of doctored seeds is far greater, affecting all the expected increase of

the fruits of the earth, if not permanently tainting the soil on which they grow. In honorable trade things should be called by their proper names, and if it is necessary to have mixed and doctored seeds they should be sold as such.

Adulteration plainly owes its origin to the desire to amass wealth and, so long as the demand for cheap goods continues, I fear it will be pondered to by the unscrupulous trader. Dr. Buckman's words in the "Journal," vol xvii., p. 376, may prove a fitting conclusion: "Pure or clean seed is ever worth paying a greater price for, as the reverse may entail trouble and expense for years. Any mechanical processes, therefore, which can be made available for cleaning seed are well worthy of patronage. A seedsman who will be careful in the preparation and collection of seed deserves the best support. In order also to assist in this matter, farmers should be particular not to allow a dirty patch to stand for seed, although it may be 'the most profitable thing they can do with it.'"

Mean Temperature of the Year 1861.

We have been obligingly furnished with the following table, showing the mean temperature of each month of the past year, with the difference from the average, by Mr. Sergeant Walker, of the Toronto Meteorological Observatory:

MONTH.	MEAN TEMPERATURE.	DIFFERENCE FROM THE AVERAGE.	REMARKS.
January.....	19.66	-3.67	} Alternately Warm & Cold.
February.....	26.06	×3.08	
March.....	26.92	-3.21	
April.....	42.92	×1.04	
May.....	47.50	-3.59	} Cold.
June.....	61.29	-0.07	
July.....	65.37	-1.46	
August.....	65.43	-0.54	
September.....	59.07	×1.16	} Warm.
October.....	48.74	×3.22	
November.....	37.14	×0.45	
December.....	31.13	×5.02	
Mean....	44.21	×0.09	Mild.

Leached Ashes as Manure.

EDITORS "AGRICULTURIST,"—Would you be good enough in your next issue to give a little information as to the value of *Leached Ashes* as a manure for general purposes. Their value *unleached* is well known, but after coming from the soapers their value must be greatly diminished. Alone, would they be sufficient for turnips, or wheat, or corn—say 20 tons per acre? or must they be combined with other composts?

Last year I applied *coal* ashes, with the cinders, over land on which a week after I planted corn, and sowed a patch of turnips. Both corn and turnips were greatly injured. The corn on which stable manure was used was green, and gave good ear, while that on the ashes was yellow.