

should be general and not local, contributions are invited *from all parts of Canada*. We hope to see ultimately not only every county, but township also, represented in this Provincial collection, so that any intelligent stranger,—and we trust there will be many such,—who may pay it a visit, will be able to form a satisfactory idea, with the aid of written or oral descriptions, of the productions and capability of the various sections of the Province. The numerous strangers that visit Toronto may thus acquire correct information of a practical character, at the least expenditure of time and trouble. Specimens of remarkable soils with the underlying rocks, and of the various kinds of manures now more or less used in agriculture, and in gardening, would be acceptable contributions. These, with other productions, would afford ample material for private study and popular instruction in the most useful and interesting of human pursuits.

SCIENTIFIC FARMING.

Written for the Agriculturist.

The great mass of agriculturists in this country, as also in the world, may be divided into two classes. The first great class, containing all but about one in a thousand, are content to go on in the ways of their grandfathers. They *understand* farming fully; they are *practical* farmers. These men add nothing to the knowledge, and but little to the wealth, of themselves or the world at large. They can be disposed of in very few words. The other class are enthusiasts; and under the heading which we have laid down for this article would branch gloriously into a dissertation on salts and sub-salts, soils and sub-soils, acids, gases and improved machinery. The road is equally simple to them, but is a very different one from that of the class referred to. Class No. 2. holds that all farmers cultivate too much ground; that none plough deep enough; that none manure strong enough, that none bestow sufficient attention on fences; that none plant trees and vines enough, that none have sufficient regard to sustain the power of the soil; and in short, that none are sufficiently mathematical, chemical, and generally speaking, abstrusely scientific in their operations. They would induce farmers to subscribe for every agricultural periodical—which every farmer should do, if he desires success,—read every

book, attend every Fair or Agricultural Lecture, and become perfect walking dictionaries in their familiarity with the names and opinions of all chemists and alchemists, from the discoverer of Glauber salts down to the manufacturer of Paine's gas.

In practice it happens almost invariably that these scientific farmers lose, rather than gain, by their own farming operations, and this fact cannot be considered too significant. There is an extreme in this business as in every other, and whether the matter be viewed in an abstruse scientific light, and mathematical formulas and equation be developed to show the state of affairs, or whether we take, in ordinary language, the simple term "judgment" as expressive of the element desired, the fact is indisputable that the truth lies between the extremes, and is a very difficult matter fully and properly to be arrived at.

Rotation in crops is desirable; but how often the crops should be changed with every variety of soils, and with every conceivable ratio of the cost of labour, as compared with the value of the products, is a matter extremely difficult to determine. Rotation involves extra labour. To change pasture to tillage, and this again to meadow, is far more expensive than a continuation of either condition; and the truly wise farmer ascertains or judges as accurately as possible, the point where the conflicting considerations actually meet. Planting trees is most assuredly a good investment in general; but a farm all orchards would necessitate a great expense for fertilizer and a long and patient waiting for a return. Guanos and artificial manures are, in many cases, highly profitable; but unfortunately the knowledge of soils and the capacity to describe them so that every farmer for himself may determine precisely what is wanted, and how much, on a given piece of land, and the actual pecuniary result, is yet far from being effected. Improved machinery is highly advantageous, but it is easy to be led into the expenditure of too much, and to be egregiously imposed on in such devices.

While we are thus free to admit the possibility, in fact, the strong temptation, in those progressive minds to invest largely in science at the expense of practical results, the great difference in the two classes referred to, must be borne in mind, and each reader may ask himself which of the two classes he most probably represents. A perfectly reliable and infallible judge.