

"The advantages of such a course to the young mind are many and great. It leads to the consideration of all these processes by which the great Husbandman above produces out of the earth food for every living thing, as well as to those humble imitations of them by which man seeks to effect similar results on a smaller scale. In this point of view, as a means of enlarging the mind, and enabling it to reason on natural causes, the subject well deserves the study even of those who have no direct connection with practical farming. It is, in short, an important branch of learning in natural science.

"Such a course will, further, enable the young farmer to read with advantage the best works on his art, and to judge for himself as to the application of their statements to any particular case. Book farming is little respected by many good farmers, and, to some extent, deservedly so. Few agricultural books, and still fewer articles in agricultural periodicals, are really reliable. They too often state facts or experiments without appreciation of the conditions on which success or failure depended. They thus give, as truths generally applicable, special facts which are of limited value or perhaps apply to exceptional cases only. They in this way mislead the simple practical man who trusts to them. Even good agricultural works require a certain amount of knowledge in those who read them. The plainest statements may be misapprehended by a reader not acquainted with the precise meaning of the terms in which they are expressed. The most carefully guarded explanations may be misunderstood and misapplied by similarly unlearned readers. It thus happens that for want of scientific precision in those who write or those who read, the book farmer often incurs the loss and disgrace of costly failures, which most unjustly bring scientific farming into disrepute, being caused, not by the errors of science, but simply by the want of it. The intelligent young farmer should have enough of scientific culture to enable him on the one hand to distinguish the half truths so often presented from a complete statement of the facts and principles bearing on any particular case, and on the other to appreciate and understand the best scientific works on his profession.

"The knowledge even of the elements of agricultural education will also be sufficient to enable the farmer to decide as to the application of artificial manures, and to avoid the losses caused by error and fraud in the use or manufacture of such materials. It will enable him to know the composition and properties of the soils with which he has to do, and to avail himself of the services of the practical chemist in their preservation and improvement. It will teach him to appreciate the requirements of the different crops and domesticated animals, the special uses of their varieties, and the diseases to which they are liable. It will give him enlarged views on agriculture as practised in various countries and under different circumstances, as susceptible of a vast variety of methods more or less valuable, and as intimately connected with natural laws. It will thus not only add to the productive value of his labor, but will make him love his art, and realize its true position as no mere mechanical drudgery, but a scientific and even learned profession."