

will be the application of the judgment, skill and method.

We have said that every farmer should know something of the principles on which the best practice is founded. It is surely want of knowledge of these principles which causes so many to neglect and ignore the practice of rotation of crops. The benefits of rotation were understood two thousand years ago by the Roman farmers, who had also discovered the value that a leguminous crop possesses in restoring the fertility of the soil. This knowledge they had gained by experience and observation. Modern science now gives the reasons why rotation and clover crops act as they do. It confirms the best practice, and condemns the bad. It is in physics and chemistry that these principles are explained, and it is upon chemistry and physics that the greater part of agricultural science is founded. In the matter of direct scientific knowledge, practical instruction in chemistry and physics is indispensable for a sound system of agricultural education.

As for the indirect benefits of science teaching—the inculcation of the spirit of scientific method—it is only necessary to consider the large amount of apathy which has been manifested towards the cow testing movement in many parts of the country—an apathy unquestionably due to lack of education. The writer has had the opportunity several times of observing the admirably clear manner in which the method and advantages of cow testing are presented by the officers of the Dominion Department of Agriculture. The underlying principle is a simple illustration of the truth