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### EDITORIAL.

#### FARMING AS AN EDUCATION.

An educated farmer is an educated man. That is to say, he who has mastered the problems of the farm has acquired a stock of knowledge and, what is better, a degree of intellectual efficiency that lift him above the level of the common run of people, and mark him as a man with a developed or educated mind. Education does not consist in a knowledge of reading, writing, arithmetic, geography, history, and the like, however useful and advantageous these subjects may be in an elementary course of study. They are all good, membering that there are men who, though possessing little of the knowledge commonly taught in schools, are yet educated men. They have acquired knowledge of another character in the world of agricultural, industrial or commercial activity, and, in acquiring it, have trained their minds to a greater degree of efficiency than that of some fellow citizens who had all the privileges of the school. There are problems on every farm which will tax the ingenuity of the greatest intellects to solve to the best advantage. And yet they can be solved. It is a question of bringing thought and study to bear upon them, of reading, conversing, and listening to lectures on agricultural subjects; above all, of cogitation and earnest thought, followed by definite, purposeful action. The drainage of the fields, the tillage of the land, rotation of crops, the maintenance of fertility of the soil, the harvesting and disposition of the crops, the breeding and feeding of live stock, the general business and the science of farming, afford opportunities for the exercise of the best intelligence. Every farm offers its own Study the problems of your farm.

# ABSORBENT.

Leading American authorities have been strongly recommending the use of raw ground phosphate rock as an absorbent in stables, about a pint to a cow twice a day being the quantity advised. The advantages claimed are twofold: By absorbing the urine, the phosphate insures the retention and application to the soil of some nitrogen would otherwise escape in volatile gaseous form; and in the second place, the phosphate itself contains an important element of soil fertility-to wit, phosphorus.

There is a good deal of phosphorus in most of our soils, but the usual systems of stock husbandry and grain-raising, as practiced on our farms, tend to deplete the supply, so that on many oldcultivated soils the proportion of this element existing in available form is more or less deficient, resulting in considerably reduced yields of grain and clover. It is thought that deficiency of phosphorus in the soil, and consequently in the leed produced on certain farms, is in a measure responsible for the depraved appetite which induces in cattle the habit of chewing bones, pieces of wood, etc. In some cases of which we have personally been told, it is related that applications of phosphates to the soil have been followed by a cessation of such habit in the cattle. However this may be, we do know that many of our soils are benefited by applications of phosphatic fertilizer, and that on farms where plenty of bone meal or other phosphatic fertilizer is used, more particularly when used along with potassic fertilizers and lime, the yields of grain and clover have been increased.

phorus may be applied to the land, but the cheapest is untreated ground rock phosphate. This material has the disadvantage of being quite insoluble, and extended, several special classes for amateur and hence is but slowly rendered available in the exhibitors have been added, a strong staff of soil. If the raw rock is merely spread on the land, little or no result may be seen for some sections give promise of being better than ever time, but it is asserted that when this raw before, and everything points to a very successful ground phosphate rock is mixed with manure, the show. The reduced railway rates arranged for fermentation forms certain acids that set irree or render available the phosphorus in the rock Thus we see that, not only is it good for the manure to have the ground rock used as an absorbent, but it is also good for the phosphate to be applied to the land in this way rather than and have their proper place, but it is worth re- alone. When not used in the gutter, it may be mixed with the manure in the pile, at the rate of 100 pounds to the ton.

The use of raw ground rock phosphate as am absorbent in stables is commended by American experts, and approved by such reliable Camadian agricultural chemists as Prof. Harcourt. It is strongly endorsed by the editor of Hoard's Dairyman, who has used it on his farm, and we feel justified in urging Canadian farmers to give it a trial. We have taken the trouble to inquire what would be the cost in Canada, and the well-known and reputable firm, the W. A. Freeman Co., of Hamilton, Ont., inform us that they carry it im stock, and sell fine-ground rock phosphate, carrying about 68 per cent. of bone phosphate, at \$14 per ton in Hamilton. There is reason to believe that on many farms it would prove an excellent investment at this price, and we trust many of our readers will try it and report results.

#### THE WINTER FAIRS.

The long list of autumn shows having had their problems; and, in solving these, the way is open day, the coming winter fairs now call for attemto a most practical and self-satisfying education. tion from farmers, feeders and breeders. In many respects these winter shows are the most interesting and important. As conducted im Camada, RAW GROUND PHOSPHATE ROCK AS STABLE they are essentially educative in design and character, the exhibits being mainly commercial stock, designed for the butcher's market, competing for preference on the basis of suitability for that trade and purpose, the animals in many cases being compared both alive and in the dressed-carcass form, while in the lecture-room, in addresses by expert breeders, feeders and purveyors, the most approved methods in all branches of the business are explained and discussed. The creasing interest manifested by the ever-growing crowds attending these events from year to year, is the best indication that they meet the approval of the people and are being conducted on sensible and sound lines. The International Live-stock Show, at Chicago, while partaking more largely of the spectacular, and less of the practical and educational elements, is certainly the greatest of its kind, and is well worth to the visitor what it costs to attend. There not only is seen breeding stock of the best in vast numbers, in the finest show-yard condition, and representing many breeds, but also finished fat stock of manny varieties, in car-load lots, as well as imdividual emtries. The horse-show section of this great event, the dates for which are Nov. 28th to December 10th, also adds greatly to its attractiveness, and American continent.

The Maritime Provinces' Winter Fair, at Amherst, Nova Scotia, the dates for which are Nov. degree of LL. D. from Queen's University in 1896, 30th to Dec. 3rd, and which is conducted on simi- and attended as delegate the annual meetings of lar lines to that at Guelph, has steadily improved the American Association for the Advancement of in character and interest, and the prospect is that Science. He was also the author of many rethis year's event will eclipse all its predecessors. The Ontario Provincial Live-stock, Dairy and in Canada.

Now, there are various forms in which places Poultry Show, at Guelph, is slated for Dec. 7th two lith. The classification of stock in the prizelist for this event has been considerably enlarged Decturers has been engaged, the dairy and poultry those events render the expense of attending moderate, and the favorable season of these shows, together with that for Eastern Ontario, at Ottawa, January 18th to 22nd, will afford a good opportunity for a pleasant and profitable outing for farmers and their families.

### THE LATE DR. FLETCHER.

Canadian agriculture has lost one of its best friends by the death, on Sunday, Nov. 8th, of Dr. James Fletcher, Dominion Entomologist and Botanist, Central Experimental Farm, Ottawa. Dr. Fletcher was justly ranked as one of the leading economic biologists of America, while, as a man, his splendid personal qualities had made him a bost of friends. Enthusiastic, kindly and sympathetic, with an excellent memory for faces, he possessed the priceless faculty of popularizing his subjects, thus imparting to his audiences and readers a large stock of information in terms which even children could not fail to understand. The value of his work to Canadian agriculture, in the fight against plant and insect foes, cannot be estimated. By lectures, conversation, articles and bulletins, he systematized and disseminated a mass of helpful knowledge which has become woven into the best agricultural theory and practice. His timely identification of the brown-tail moth, which was found in Nova Scotia a year ago last summer, was, no doubt, of great value to that Province in enabling it to fight the pest before it had grained greater headway; and this is but one instance out of thousands where his expert skill and knowledge have served us to good purpose. The economic value of his work alone must be reckoned by the millions of dollars. One of his most admirable traits was his dignified simplicity. "Farmers sometimes address me as the Entomologist and Botanist," he used to say. "I had rather they called me the bug-and-weed man." Especially will he be remembered by the thousands of school teachers who, as students of the Ottawa Normal School, found their greatest delight in trooping after him through woods and over fields, receiving imspiration in nature-study, and useful hints as to injurious weeds and insects.

Dr. Fletcher was born at Ashe, near Wrotham, Kent Co., England, on March 28th, 1852. He was educated at King's School, Rochester, Eng., and came to Canada in the service of the Bank of British North America in 1874. In 1876 he became librarian at the Parliament Buildings, Ottawa, and from 1884 until 1887 acted as Honorary Dominion Entomologist to the Department of Agriculture. In the latter year he was transferred to the position at the Experimental Farm which he held until his death. He filled at different times the offices of president of the Ottawa Field Naturalists' Club, president of the Association of Econonomic Entomologists, and of the Ontario Entomological Society, and honorary secmakes it the crowing function of its sort on the retary and honorary treasurer of the Royal Society of Canada. He was elected a Fellow of the Linnsvan Society in 1886, received the honorary ports and papers relating to insect and plant life ,