

LONDON, ONT., AND WINNIPEG, MAN., JUNE 15, 1899.

EDITORIAL.

Director vs. **Professor**.

The Standing Committee on Agriculture of the Canadian House of Commons during each session of Parliament hear and discuss the testimony of leading officials connected with the Department of Agriculture regarding their work and plans. Among the first to appear before it this session was Prof. Jas. W. Robertson, Dairy and Agricultural Commissioner, a report of whose evidence was given in the FARMER'S ADVOCATE for May 15th. Referring to the growing of cereals on the Dominion Experimental Farms, he expressed his conviction that the comparison of varieties without continued selection of the best seed was of no service to farmers, but rather apt to mislead by expecting service from certain varieties as such instead of obtaining seed by continued selection on their own or similar farms. In an official statement of his testimony furnished us appears the following :

"There did not appear to be any inherent, continued superiority of productiveness in any one variety under the different conditions of soil and climate in Canada. In fact, the sowing of the same varieties at the five different Experimental Farms in one season brought about such a variation in the relative productiveness of them that there was no evidence of constant superiority in regard to pro-ductiveness. A change of soil and locality brings about a variation which may be towards greater or less productiveness. When a variety is sown in a locality new to it, it is simply a hazard whether it will succeed as well as those which have been sown there before, or whether it will succeed as well in the new locality as in the place where it has been grown before. **Continued** selections of seed on the farm on which it is grown will give on the average much better results than the introduction of new varieties."

The inference would naturally be drawn from the foregoing (as was pointed out by Mr. C. A. Zavitz, the distinguished Experimentalist at the Ontario Agricultural College farm, in our June 1st issue) that Prof. Robertson attaches but little importance to "variety" in farm crops. Now, as our readers are aware, testing varieties and originating new ones by cross fertilization is a most conspicuous line of work pursued at the Central and four branch Experimental Farms. Hence, when Dr. Saunders, the Director of these farms, appeared before the Committee, he joined issue with Prof. Robertson, combating his view, which he held implied that much of the work on the farms was of no value. He called attention to the general and long-continued productiveness of Red Fyfe wheat, which, in Manitoba and the Northwest, has held its own against all comers. Banner oats were also mentioned. The latter, if we remember aright, were first introduced a good many years ago in one section of Western Ontario by a little packet of grain from an American seedsman. This oat has demonstrated its general excellence in nearly all parts of Canada ever since. Dr. Saunders also called attention to other varieties which had sustained their productiveness wherever sown for many years. Throughout the Province of Ontario, during five or six years past, the Dawson Golden Chaff winter wheat has held a unique position, both with experimenters and general farmers.

copies of his testimony be printed for distribution. To some this all may seem to have an incongruous aspect, but the thoughtful farmer will be able to draw correct conclusions. His safest course will be in choosing varieties that prove suited to his local conditions, and by thorough methods of tillage, rotation and manuring, and yearly making a careful selection or purchase for seed of well-matured, welldeveloped grain, improve the crop which he grows. With good cultivation and seed selection, it has been contended that grain might be grown on the same land for years without running out; and we are certainly inclined to think that the advantages sometimes ascribed to a mere "change of seed" (though not of variety) may arise from the fact that when the farmer buys seed grain he gets it from a seedsman or farmer who makes a specialty of selling only a superior and thoroughly cleaned sample. Others hold that there is a tendency to degeneracy in the improved varieties of farm crops through soil defects, climatic peculiarities, etc., the yield decreasing and the grain becoming inferior in quality or diseased. In such cases, and when a better-yielding variety than that habitually grown can be secured, a change of seed is advised. The subject provoked a lively discussion in the Committee, several M. P.s differing from Prof. Robertson's view that productiveness was not inherent, but dependent on locality or conditions; but the published reports do not make it clear whether they were referring to a change of varieties or of seed alone, or both.

Elsewhere we give a report of Dr. Saunders' evidence, which speaks for itself.

Our Export Fruit Trade.

The newspaper reports regarding the inferior character of the apples rescued from the cargo of the steamer Castilian, wrecked some time ago as she was leaving Canada for Britain, and the references to improper packing discovered at that time, and also in the case of shipments arriving in the Old Country, referred to by Prof. Robertson before the Agricultural Committee of the House of Commons, at Ottawa, furnished the editors of several sensational daily newspapers an opportunity to slander the farmers of Canada by charging them with dishonesty in packing. So sweeping and reckless did their statements become that Mr. John McMillan, M. P., that sturdy champion of the farmer, very properly rose in his place in the House of Commons to protest against these untruthful and damaging statements as far as the farmer is concerned. Cases of deception are, we believe, exceptional. Referring to the great apple districts of Western Ontario, he pointed out, as is well known, that very few individual farmers ship apples. That is done by dealers—usually parties residing in cities and towns. The custom is for these buyers to go from orchard to orchard buying the apples while yet on the trees, at so much per The farmer then does the picking off the barrel. trees, and subsequently the dealer sends around a gang of men to do the sorting and packing, with which the farmer has actually nothing to do. Hence it was these men and not the farmer who, through dishonesty or carelessness, were giving Canadian apples a bad name through dumping trash into the barrels; in some cases going so far as to line the ends with large, fine samples. Dr. Sproule, M. P., corroborated the statement of Mr. McMillan, stating that the apple-growers in his district sold their apples to dealers, or exporters, who did their own packing. However, as the Hon. Mr. Fisher pointed out, a grievous wrong is done the trade by the parties who have engaged in such practice, and that some steps should be taken by the Government to prevent their recurrence goes without saying. In view of the fact that the bulk of the apple crop is rushed forward in such a short period, a general system of inspection by Government officers at ports of export like Montreal is difficult, but it seems to us about as practicable as inspection at various British ports, which Mr. Pettit suggests in his letter elsewhere. The suggestion has been thrown out that a system of inspection might be provided with an official brand, which shippers would find it advantageous to use. The improvement of shipping and storage facilities will no doubt in time tend to extend the length of the shipping period and facilitate some plan of

inspection. Meanwhile any one who gives the subject any consideration must know that the exportation of anything but good, uniform and honest products, honestly packed, will prove a most shortsighted and injurious policy. This is true whether the fruit goes to Great Britain or to Manitoba and the Northwest, from whence the FARMER'S ADVOCATE has received complaint regarding the character of apples sent from Ontario in past seasons. We are pleased to note that in all our Eastern cities, towns and villages, the "home consumption" of our fine Canadian-grown fruit is enormously increasing, and if proper attention be paid to the proper development of the export trade West (where, with its rapidly-growing population, there will continue an immense demand for Eastern fruit) as well as East, the outlook for the fruitgrowers will continue bright.

No. 480

Teaching Agricultural Science.

In presenting his annual report to the County Council of Middlesex, Ontario, Mr. J. Dearness, Public School Inspector, made the following remarks respecting agricultural education :

" In the near future another effort is to be made to give agricultural teaching in the rural schools more than a mere name. Those present, and the people of the county generally, will join with me in wishing the effort every success. The teachers will not lack in doing their best to carry out a useful and practicable scheme. The details of the proposed plan are not yet made public. If they should be reducible to a quantity of mere book work with an examination at the H. S. entrance, the highest advantages will not be gained. "At present, not half the elementary science

necessary to intending teachers of agriculture is taken up in their high school course, and the attempts made by teachers, in my experience, would indicate that they had not been trained in the model and normal schools to teach science to public school children by the inductive method. A child, taught the round of the life-history of a single insect, say that of the tent caterpillar, by his own activities, experiments and observations, outside as well as inside of the schoolroom (intelligently directed, of course, by the teacher), would be better educated, and would be, when he becomes a farmer, better prepared to deal intelligently with his insect friends and foes than if sitting at a school desk he had patiently memorized a whole volume about insects. The teacher's duty, in re-

Something resembling this is seen in the animal kingdom, where we find certain varieties or breeds -Shorthorn cattle, for example-combining such fixed excellencies and vigor that they have become cosmopolitan, perpetuating their merits in almost every clime and under all sorts of conditions. In our judgment very great advantages have come to the farmer, both in plants and animals, by the origination and improvement of different varieties, and in the latter process selection plays a most important part.

As reported in the daily papers, the Agricultural Committee ordered the printing of 25,000 copies of Prof. Robertson's evidence at public expense, and Dr. Saunders requested that a similar number of

spect to agriculture, is to train the eyes and sharpen the wits of children to find the subjectmatter of the lessons in the barns, gardens, fields, woods and roadsides, and to utilize the systematized observations of the children for comparison

and judgment in the recitation hour. "The teacher must bring to the successful per-formance of this work considerable knowledge of plants, animals including insects, soils, weather phenomena, chemistry and physics, to be able to seize upon and turn to practical use the opportunities that different localities, different seasons and different subject-matters offer. The teacher must know the lessons that he undertakes to teach, and their relations, and he must acquire the art of lead-ing the children to discover the answers that he or they ask by the use of their own eyes and other senses. It is the training in discovering truth that prepares the boy grown to man's estate to interpret and take advantage of his own experience and hat of his neighbors.

"Mere book-study sometimes makes children dislike a subject. When I ask children in different schools, as I have often done, first, 'How many of you love the study of history?' and second, 'How many of you dislike it?' ten pupils answer in the affirmative to the first question for one who does so to the second. It is better not to have agriculture taught at all than to have it taught as so much history. The subject, if taught by the experimental or inductive method, can be made one f absorbing interest. I have invariably found, when giving a nature lesson by this method, that the class in hand becomes deeply interested, while the larger pupils at seats drop their regular lessons and fix their attention on the work which the reciting class has in hand.

"These remarks on the book-study of agriculture do not apply to large boys who come in for the winter months after a summer's work on the farms. Their vivid experiences prepare them for the useful reception of lectures or readings, which they will shortly have the opportunities to apply. Such pupils have a most valuable aid in the present text-book."