

country. There is no danger of too much agricultural education. The speaker, in closing, drew attention to the need of higher training, on the part of farmers, quoting the following from Charles Dickens: "The field which it will best pay the farmer to cultivate is that within the ring-fence of his own skull."

Several five-minute speeches, all expressive of appreciation of the college were made, by Hon C. Drury, Mr. J. T. Hobson, Mr. James McIntosh, Prof. Creelman, Mr. R. L. Beckett, Prof. G. E. Day, and Mr. E. C. Drury.

Music was provided by Miss Trenglass Stevenson, and was highly appreciated by all present. The meeting closed with the singing of "God Save the Queen."

From 8.15 o'clock a.m. on Dec. 7th till 10.30 o'clock, at which time the first session of the Experimental Union for this year opened, was devoted, by the members and others, to a systematic visit to the poultry, dairy, and farm departments of the O.A.C., under the supervision of the heads of those departments, Mr. R. W. Graham, B.S.A., Prof. H. H. Dean, and Prof. G. E. Day.

At 10.30 o'clock the Experimental Union meeting opened in Convocation Hall, H. L. Bickett, B.S.A., the able president of the Union, presiding. In his opening

enough to be decent; now the experiments worked out were so many that it was impossible to do justice to the subject in the time allowed at the Union meetings. He recommended that the results of experiments be published in the local papers throughout the country, as he believed this would increase the popular interest in the work. Continuing, he traced the growth of the work of the Union in this direction since 1886, when the number of experiments worked was very small. Since then there had been a very great increase, not only in the number of experiments worked out, but also in the percentage of good reports sent in. Even the unsuccessful experiments, however, do the farmers good, in teaching them accuracy and training their powers of observation. He gave great credit to the experimenters for the good work they had done in the past year. All experiments where the plots were not of exact size, or where the exact amount of material used and the yield obtained were not given, were thrown out as inaccurate, so that the results obtained were absolutely accurate.

The first experiment reported was one on the effects of different fertilizers on oats, mangels and corn. The fertilizers used were (1) nitrate of soda, at the rate of 160

THREE PROMINENT SPEAKERS AT PROVINCIAL WINTER SHOW.



Prof. Robertson.



Prof. J. A. Craig.



A. G. Gilbert,
Manager Poultry Dept., Central Experimental Farm, Ottawa.

address the president expressed the most hearty welcome to all those, students or ex-students, who were in attendance at the present meeting. The past year, in being one of extreme drought, had been a hard one on the farming class, but he hoped that it was not an unmixed evil, in that it had directed people's attention to the fact that they could not depend on pastures for the summer feeding of animals, but must grow some sort of soiling crop. The Union, he believed, was doing a valuable work in Ontario in introducing better varieties of agricultural plants in the province, and also in training its members in accuracy and observation. Very good work was being done now, and large numbers of experiments were being carried on, but he hoped for still better things in the future. He expressed the hope that in the near future a better hall might be provided for the meeting of the Union. In closing he exhorted the members to do their best to make this meeting the best in the history of the Union.

MR. ZAVITZ' REPORT.

In opening his report Mr. Zavitz drew attention to the remarkable growth of the experimental work of the Union. In the past it had often been hard to make a report long

lbs. to the acre; (2) muriate of potash, 160 lbs. to the acre; (3) superphosphate, 320 lbs. to the acre; (4) mixed fertilizer, consisting of 1 part each of nitrate of soda and muriate of potash, and 2 parts of superphosphate, applied at the rate of $213\frac{1}{3}$ lbs. to the acre. The results showed:

1. That the unfertilized land gave smaller yields, on the average, than the fertilized.
2. On some soils fertilizers had little influence, on others they nearly doubled the yield.
3. Oats gave the largest increase with the mixed fertilizer showing an increase over unmanured land of 9.8 bu. per acre, at a cost of 36.4 cents per bushel.
4. Mangels gave largest increase, 2.37 tons per acre, with nitrate of soda, at a cost of \$1.21 per ton in 1899, or, in an average of three years 4.78 tons per acre increase, at a cost of 73.3 cents per ton.
5. Corn gave best results with the mixed fertilizer, showing an increase of 1.1 tons of total crop and 1,120 lbs. ears.

The second experiment reported was one with hairy vetch, common vetch and grass peas, grown for green fodder. The yields per acre secured were: hairy vetch, 9.0