

one for potatoes. They love the sun, and, to get the full benefit of them, they must be cooked in their jackets. Cooking them without the skins is a hazardous undertaking, on account of their mealy condition. Referring to potatoes naturally suggests the retiral of James Hope, Eastbarns, Dunbar, without doubt the most extensive potato-grower in Scotland. Mr. Hope has been farming on his own account for over sixty years, and he and his goodwife are still hale and hearty. They have two sons, members of Parliament, one representing his native county of East Lothian, the other representing the western county of Bute. The latter, Harry Hope, is himself a tenant-farmer, and has taken over his father's large holding in addition to his own, so that he is now one of the most extensive occupiers of arable land in Great Britain. He takes an active part in the work of Parliament, in so far as it affects agriculture, and his sound, first-hand, practical knowledge is useful when rural subjects are in hand. His brother is in business, and the two sit on opposite sides of the House. John D. Hope has more than once done an excellent piece of work for farmers in the House. He is by no means so keen a Parliamentarian as his brother. He has been longer in Parliament, and understands the game better. He does not take it so seriously. However, both brothers are doing useful service, and, so far as agriculture is concerned, the fact that they are on opposite sides is rather an advantage than otherwise.

The closing year sees many places vacant in the counsels of those entrusted with the public management of agricultural affairs. The Premier Board is that of the Highland & Agricultural Society, and at its monthly meetings one misses the genial presence of the Rev. Dr. Gillespie, the sound judgment of James Macdonald, its secretary, and the quiet strength of William Taylor, Park Mains, Renfrew. These gentlemen have all been laid aside by serious illness, and there is not much likelihood of them resuming work. All three gentlemen were zealous and faithful in the discharge of public duty, and their views and opinions on any subject were always welcome. That each of them may have recovery to a measure of health and strength, is the earnest desire of all who knew them. Another well-known figure, also absent from agricultural meeting-places for the past six months is that of David Young, editor of the North British Agriculturist. He was struck down in July, and still lingers unconscious, or nearly so. The passing of such men from active service is fitted to have a solemnizing effect on those of us who are still active in the fight.

"SCOTLAND YET."

Hardy Strains of Alfalfa for Ontario.

An address by C. A. Zavitz, Professor of Field Husbandry, O. A. C., Guelph, at the Ontario Winter Fair, 1911.

From correspondence which I have had recently with seedsmen in Ontario, it is learned that the demand for alfalfa seed has doubled in the last two or three years. In regard to this great increase in demand, there appears to be a great danger of securing tender strains of alfalfa which will not prove very successful in Ontario. I therefore consider it my duty to bring before you the best results which I can in regard to the different strains of alfalfa, and to draw particular attention to those which have been found to be the most hardy in this climate.

My address three years ago dealt with alfalfa from the standpoint of its large yields of nutritious feed for farm stock, its perennial character of growth, its beneficial influence on the soil, and its method of cultivation. In that address, the results of experiments conducted at the Ontario Agricultural College were presented and discussed.

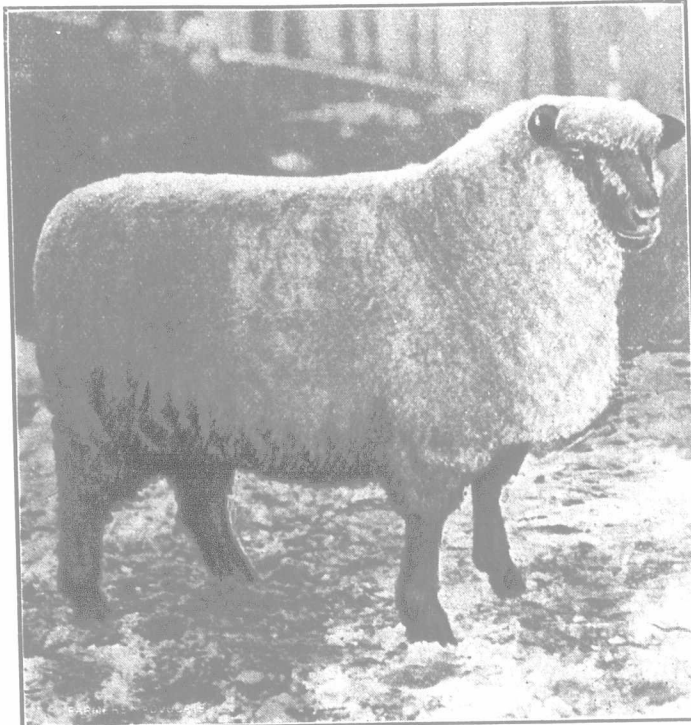
In the address presented last year, the production of alfalfa seed in Ontario was given attention. It was stated that alfalfa seed production in this Province was becoming more and more an important industry, especially in a few districts which seemed to be admirably suited to seed production. In nearly all instances the farmers converted the first crop of the season into hay, and obtained seed from the second growth. The average yield of seed per acre was slightly over two bushels, and the average price realized by the farmers, over a series of years, was about \$9.00 per bushel, or \$18.00 per acre.

The information which is furnished in the address this year has been obtained from experiments which have been conducted at the Ontario Agricultural College and elsewhere, and also by recent visits and correspondence with a large number of practical alfalfa-growers in the Province of Ontario.

CLASSIFICATION OF ALFALFA.

The whole number of species of alfalfa is quite limited, and for our present consideration only two need to be mentioned, viz., the common alfalfa (*medicago sativa*), and the yellow-flowered

alfalfa (*medicago falcata*). The common alfalfa has been grown extensively in many of the countries of the world in which the climate is not too severe. It possesses plants of an upright growth, flowers which are violet in color, and seed-pods which are in the form of coils or spirals. The yellow-flowered alfalfa grows wild in a number of the countries of Europe and Asia. Its use as a cultivated crop has been limited. The plants have a spreading habit of growth, and are considered to be quite hardy. The flowers are yellow in color, and the pods are in the form of a crescent or a sickle.



Yearling Oxford Wether.

Champion of the breed at the Ontario Provincial Winter Fair, 1911. Bred and exhibited by Peter Arkell & Sons, Teeswater, Ont.

VARIEGATED ALFALFA.

Alfalfa plants are naturally cross-fertilized; hence, if plants of the yellow-flowered alfalfa are grown in the midst of or in near proximity to the common variety, there is a natural crossing or mixing of the two kinds of alfalfa. The apparent ease with which natural cross-fertilization takes place explains the reason for the existence of different kinds of alfalfa plants, which vary more or less in their characteristics, particularly in their color of flowers and in their evident hardiness. Some of these hybrids which have received distinct names have been grouped into a general class, which is now known as variegated alfalfa. The United States Department of Agriculture has imported several lots of variegated alfalfa from Europe and from Asia for experimental purposes. Besides these, we have in America the sand lucerne of commerce, the Grimm alfalfa of Minnesota, and the Canadian variegated alfalfa of Ontario, each of which has made high records in experiments conducted in Canada and in the United States. It is probably safe to say that the Grimm alfalfa of Minnesota and the Canadian

cerne of commerce, however, of which fully a dozen different lots imported from Europe, and obtained mostly from Brand and Westgate of the Department of Agriculture at Washington, are under experiment at the Ontario Agricultural College at the present time, possesses much less variation in plant characters than is found in the pure sand lucerne. The plants from the commercial seed more closely approximate the common alfalfa. This has likely been brought about by the sand lucerne and the common alfalfa being grown in near proximity to each other, and thus permitting additional cross-fertilizations to take place. It is a question if, in some instances, the samples which are now offered through the American seed trade as sand lucerne are not identical with the common alfalfa. The sand lucerne is advertised by only a few of the seedsmen on the American continent, and its sale appears to be quite small.

The Grimm alfalfa was brought from Baden, Germany, to Minnesota, in 1857, where it has been grown since that time. It shows variegated characters, and has proven very hardy and well suited to northern conditions. The hardiness is probably due, in part, to the natural crossing of the yellow-flowered alfalfa with the common variety, and partly to the natural selection which has been brought about by the continuous growing of this alfalfa in the cold climate of Minnesota.

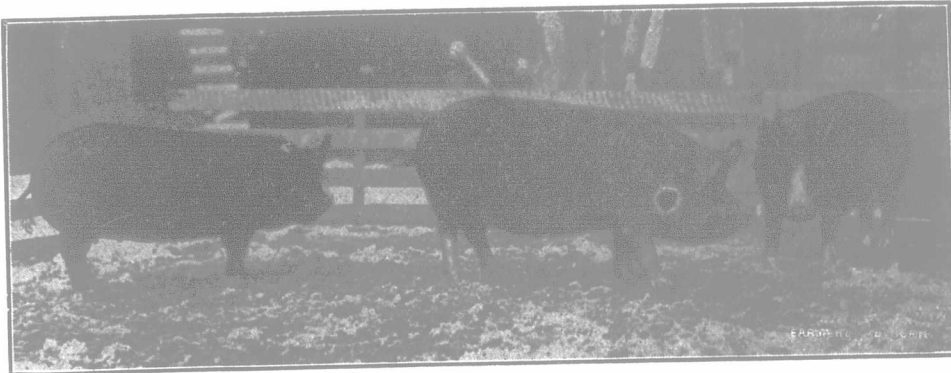
It is known that the Canadian variegated alfalfa is grown by farmers in certain parts of the Counties of Lincoln, Welland and Haldimand, and it is probably grown to a limited extent in some of the other counties of Ontario. In many sections of the Province, however, the common and more tender variety from the Western States has been introduced in recent years. The common alfalfa of the South-western and Central Western States traces its history largely to South America, from which country it was brought to California about fifty years ago. The early history of alfalfa-growing in Ontario is both interesting and important, as it has a direct bearing on the future production of alfalfa in this Province.

In 1871, the late Nehemiah Bethel, who was a noted farmer and stockman living near Thorold, Ont., secured two pounds of alfalfa seed from Lorraine, France. This he sowed with great care on his farm in Welland County. From seed which he grew, he increased his acreage from year to year, and it is stated that in 1877 he had 70 bushels of seed from a little less than ten acres of land. In that year he forwarded a sample of his alfalfa seed to the exhibition in Paris, France, for which a diploma was granted. This strain of alfalfa is still being successfully grown in Welland County, where a number of old fields are to be found.

In 1875, Dr. J. W. Colver, Wellandport, Lincoln County, imported from Baden, Germany, 50 pounds of alfalfa seed. Of this amount he sowed 20 pounds on his own farm, and gave the rest to farmers in at least four different counties. Some of the farmers near Wellandport are now growing alfalfa of the strain introduced by Dr. Colver.

It is interesting to note that the seed imported by Dr. Colver came from the same part of Germany as that brought out by Mr. Grimm, and which was sown by him in Minnesota.

Although a few of the Ontario seedsmen began to introduce alfalfa seed in a limited way from the years 1875 to 1885, no information has been secured showing any connection between the crops which are being grown at the present time and the



First prize pen of three Berkshire pigs, of one litter, bred by exhibitor, Ontario Winter Fair, Guelph, bred and owned by E. Brien & Son, Ridgeway, Ont.

variegated alfalfa of Ontario are the two hardest and most important varieties of alfalfa, the seed of which can be bought in Canada and in the United States.

Sand lucerne has been recognized in Europe as a distinct variety for more than half a century. It received its name from the supposition that it was particularly suited to the sandy lands of Germany. According to the early descriptions of sand lucerne, and the examinations which have been made more recently of what is supposed to be the original type, there are marked variations in the character of growth and in the color of flowers of the individual plants. The sand lu-

seed which they introduced.

It seems evident that the introductions of both Mr. Bethel and Dr. Colver were those of variegated alfalfa, and that these two introductions have had a marked influence in the successful growth of this important crop in the Niagara Peninsula, where there are now numerous fields which have produced crops of alfalfa continuously for from ten to twenty or more years, without re-seeding.

A few years ago, J. W. Colver, of the Department of Agriculture, at Washington, obtained some samples of Canadian alfalfa which gave high results in experiments which were conducted under