

SWINE DEPARTMENT

Our readers are invited to ask questions in regard to swine. These will be answered in this Department. You are also invited to offer helpful suggestions or relate interesting stories through this column.

Notes on Swine Experiments

The following notes are gleaned from the results of swine experiments at the O. A. College, Guelph, as set forth by Prof. Geo. E. Day in the annual report of his Department.

The average cost of one pig, 11 weeks old, omitting risk, interest, labor and manure is \$2.46. This average is struck from nine sows that raised 72 pigs.

In 1906 with 12 sows Professor Day found that on an average a pig six weeks old cost the Department \$1.27. Last year higher prices were charged for food than in 1906, so that a cost of \$2.45 for a pig 11 weeks is a better record than in 1906. The improvement is due mainly to the fact that the sows raised larger litters in 1910.

FOOD RESULTS FROM PASTURE

Feeding on pasture proved the least economical of the methods used in the experiments of 1910. While this will be a surprise to many it is in harmony with previous results from pasturing hogs at the Guelph Institution.

Feeding green alfalfa with meal to hogs in pens gave the best results. Skim milk and meal gave large returns, but the combination of skim milk, alfalfa and meal gave the largest returns.

One pound of meal was shown to be equal to 4.2 lbs. green alfalfa, whereas one pound of meal was demonstrated to be equal to 6.79 lbs. skim milk. This is a remarkable showing for alfalfa, and indicates great possibilities for this crop as a means of reducing the cost of producing pork when fed with a meal ration.

Green alfalfa cannot be used in as large quantities in the ration as skim milk, but it can be grown so cheaply that it can be used to much better advantage than the skim milk for pigs over three months old, even if skim milk can be bought at 10 cents a cwt.

The alfalfa used in the tests at Guelph was second and third growth of good quality, which is more suitable for pigs than the first cutting.

RETURNS FOR FEED

In the College report for 1907 there is a table showing the prices yielded for food consumed by 297 hogs at various selling prices per lb. live weight for the hog. The table shows that if the hogs were sold at:

- (a) 5c a lb., they would give \$23.87 a ton for meal, 20c a cwt. for milk, and 10c a bushel for roots.
- (b) 6c a lb. \$30.71 for meal, 20c for milk, and 10c for roots.
- (c) 7c a lb. \$37.55 for meal, 20c for milk, and 10c for roots.

Regarding the hogs used in the 1910 test taking things into consideration as set forth in the report the following shows the prices which would be realized for foods consumed by these hogs had they been sold at 5c a lb., 6c a lb., 7c a lb., and 8c a lb. live weight:

- (a) 5c a lb., \$20.45 a ton for meal, 20c a cwt. for milk, and \$3 a ton for green alfalfa.
- (b) 6c a lb., \$31.30 for meal.
- (c) 7c a lb., \$42.16 for meal.
- (d) 8c a lb., \$53.00 for meal and 20c for skim milk and \$3 for green alfalfa, in each case.

It is of interest to note that the results agree fairly well with those reported in 1907. These results also show that the hog is able to give a good account of the food he consumes when it is sold at 6c or more a lb.

Alfalfa For Swine

Alfalfa will give better results for hog raising purposes than any other forage known. It is a nutritious forage, rich in protein and calcium, and therefore furnishes the necessary protein and mineral matter for the highest development of bone and muscle. It is a very excellent early forage, since it begins growth early in spring. When supplemented with corn to the extent of one-half of a full ration or to the extent of two per cent. of the weight of the hogs, the best results are obtained. When alfalfa is fed alone it is about equal to a maintenance ration; so when corn is fed with it every pound fed will be used for the production of one pound of pork.

Under ordinary conditions alfalfa will forage from 10 to 20 shoats an acre. A new seeding should be pastured very lightly the first season. No larger number than 10 shoats per acre or one sow and her litter should be used. After the first season as high as 20 head an acre or two sows and their litters may be pastured on it throughout the season. In any event, it should not be pastured so closely that no woody growth will take place. A very good rule to go by is not to pasture it so closely but that one cutting of hay may be taken off in the fore part of the season.

One year's experiment with alfalfa for hog forage has been completed at the Columbia Missouri Experiment station and very satisfactory results have been obtained. In July of 1909 the ground intended for alfalfa was

plowed and worked until a firm bottom with a fine seed bed on top was obtained. This was then worked once each week thereafter until August 16th, when two bushels of soil, taken from a field growing successfully a crop of alfalfa, and six barrels of lime were sown, and then the plot seeded to alfalfa at the rate of 30 pounds an acre. A very thick, heavy stand was obtained, which was pastured for the first season in 1910. The experiment was begun with the number of hogs at the rate of 12 an acre; but on May 24 it was thought best for the sake of the alfalfa, to reduce the number to 10 an acre, at which rate it was pastured throughout the remainder of the season. The hogs used were purchased of a local farmer and were crossbred Poland Chittauworths. They were farmed in early winter, and were in thin to

medium condition of flesh at the beginning of the experiment. The average initial weight was 53.5 lbs., and the average final weight was 181.0 lbs. The forage was supplemented with corn meal in sufficient quantity to produce the standard gain of three-fourths of a pound per hundred weight a day. The alfalfa was six inches high at the beginning of the experiment.

The average amount of grain required to produce a pound gain was 3.07 pounds. The amount of pork that could be accredited to the alfalfa forage was 596.8 pounds an acre. With pork at six cents the return per acre was \$35.71; with pork at seven cents, \$41.68; and with pork at eight cents, \$47.64.

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AN INTERPROVINCIAL PRIZE DAIRY FARMS COMPETITION

Another dairy farms competition, similar to the one held so far during 1909 and 1910, will be held this year (1911) throughout Ontario and in the Beaufort District, Quebec. The contest will be continued during 1912, and possibly during 1913, to decide the best dairy farms and farmers in the two provinces. The competition will be conducted by FARM AND DAIRY, of Peterboro, Ont., the only farm and dairy paper published in Canada, assisted by a committee of prominent farmers and dairymen.

FIFTY HANDSOME PRIZES

During 1911 Ontario will be divided into four districts, which with the Beaufort District, Que., will make five districts in all. A special competition will be held in each district. Ten handsome prizes will be offered in each of these divisions or 50 in all. Next year (1912) it is proposed to hold a final or semi-final competition between the leading prize winning farms in each of these five districts to decide the best dairy farms in all these districts. A special prize will be held for the best dairy farm in Ontario and another prize for the farm either in Quebec or Ontario that scores the most points in an inter-provincial contest.

In this year's contest (1911) the first five prize winning farms in the provincial contest held in Ontario during 1910, as well as the four farms that won the first prizes in their districts in 1909, will not be allowed to take part.

THE DISTRICTS

The five districts in which contests will be held this year (1911) will be approximately as follows:

DISTRICT NO. 1.—The Beaufort District, Que., comprising the counties of Beaufort, Chateaugay and Huntingdon.

DISTRICT NO. 2.—That portion of Eastern Ontario lying East of a line running North from Kingston.

DISTRICT NO. 3.—The counties in Eastern Ontario between Kingston and Yonge St., Toronto.

DISTRICT NO. 4.—Western Ontario, North of a line running from Hamilton to Goderich.

DISTRICT NO. 5.—Western Ontario, South of a line running from Hamilton to Goderich.

For further particulars, entry forms, etc., write the Secretary of the Committee,
H. B. COWAN, FARM & DAIRY, - - - PETERBORO, ONT.

These districts (except No. 1) are subject to revision after the entries have been received to facilitate the judging of the farms.

JUDGING THE FARMS, THE POINTS OFFERED

The farms will be judged in July, (1911), by two judges. Where competition is close for some of the leading prizes in any or all of the districts, the judges will have the privilege of visiting such farms again next winter, before making their final awards.

All departments of the farm will be included in the competition. A total of 1050 points will be offered, subdivided as follows:

House, 105, viz., plan, finish and approaches, 25, lawn 20, garden and orchard 35, arrangement of house 25, sanitation 15, ice and water supply 15, education, including books and periodicals, 20; total, 155.

Buildings, 175, viz., provision and size 25; location 25, condition 20, neatness 20, convenience 25, light and ventilation 35, water supply 25, yard, 10; total, 175.

Live stock, 210, number 40, quality and condition 40, breeding 40, feeding 20, horses 30, swine 25, poultry 15; total, 210.

Crops, 215, viz., suitability for milk production 50, yields and condition 75, freedom from weeds 75, pastures and shade 15; total, 215.

Management, 140, viz., arrangement of fields 20, rotation 25, fences, gates, ditches and roads, 20, workmanship and neatness 25, preservation of manure 20, bookkeeping and records 20, summer water supply 10; total, 140.

Machinery 75, viz., supply 25, housing 30, condition of repair 20, character 10; total 75.

Permanent improvement 80, viz., public roads 10, freedom from obstacles 25, drainage 25, beautifying 20, total, 80.

Grand total, 1050.

The farms in each district scoring the highest number of points will be awarded the prizes. During 1912 the prize winning farms this year will be allowed to compete in a final or semi-final competition to decide the best ten dairy farms in Ontario and in a special competition to determine the best dairy farm in Ontario and Quebec.