

# FOR PORK PRODUCERS.

## Experiments at the Central Farm.

### SOME USEFUL HINTS CONCERNING THE FEEDING OF PIGS—ABOUT SOFT BACON.

We take the following extracts from the exhaustive bulletin entitled, "Experiments in Pork Production," issued from the Central Experimental Farm at Ottawa, of which Prof. Wm. Saunders is the able and thoroughly posted director—

#### FEEDING SKIM MILK.

The value of skim-milk as a feed for pork production has always been well known and the following experiments were devised for

the purpose of giving some exact data which might be used as a guide to the feeder rather than the purpose of settling some disputed question or establishing some doubtful fact on better grounds.

Some of the experiments summarized in the following table were conducted with the sole purpose of determining the value of this by-product, while others have been introduced as illustrative of a greater or less extent the value of this feed. The very great value of this substance must not be measured by its chemical composition solely; but its peculiar, apparently stimulating action upon the growth of the animal must be considered.

From tests to gain information as to the value of skim milk it appears that:—

When swine were fed with meal, barley, rye and wheat, alone 4.27 lbs. were required to give 1 lb. gain, but when swine were fed upon similar meal, half the quantity being given, and all the milk they could consume only 1.26 lbs. of meal were required for 1 lb. gain and 25.58 lbs. skim-milk. One pound meal would thus be worth 5.43 lbs. milk.

A mixture of peas, wheat and rye gave 1 lb. pork for each 3.43 lbs. fed. For comparison a similar number of swine were given three-quarters the quantity of the same meal and all the skim-milk they would drink. It was then found that 2.17 lbs. meal and 11.10 lbs. skim-milk gave 1 lb. increase in weight. According to these

the same effect when fed with 2.52 lbs. of milk. Here also the feeding value of skim milk seems very much greater than most work along this would indicate.

In Experiments 12 and 13 the use of milk with a mixture of peas, barley and rye fed whole as compared with the same mixture fed alone, is illustrated. The mixture seems to bear the relation of 1 to 6.99 of milk.

In Experiments 14 and 15 a meal composed of equal parts of ground peas, barley and rye was fed in the one case without milk when 4.36 lbs. were required to produce 1 lb. of pork and in the other case with all the skim milk the pigs would consume in addition to the grain ration when 3.46 lbs. meal and 4.81 lbs. skim milk produced 1 lb. pork. Skim milk according to this experiment would be worth about one-fifth as much as an equal weight of the meal.

In addition to the above work a summary of some other work is submitted below.

From tests made in 1892, 1893 and 1894 with 48 swine it appears that when a small quantity (about 3 pounds per head per day) of skim milk was fed, a less quantity of it was equal to 1 pound of the grain in the feed consumed per pound of increase in live weight, than when a large quantity (about 15 pounds per head

per day) was fed.

#### General Conclusions.

From these tests and from our experience in feeding young pigs, it appears that:—

Skim milk may form the largest part of the feed of young and growing pigs with advantage and economy.

For the fattening of swine weighing on the average over 100 pounds each, live weight, it is economical to give an allowance of skim milk not exceeding 5 pounds per head per day.

In every case the swine fed with part of their ration of skim milk were lusher, more vigorous and of a more healthy appearance than swine fed wholly on a ration of grain.

Skim milk gives the best returns for the amount fed when it constitutes a comparatively small part of the total food fed.

Skim milk may, generally speaking, be considered to be worth from one-sixth to one-fifth as much as mixed grain.

In the case of whole oats where 14 lbs. of feed was fed, 2 lbs. 6 oz. of undigested grain, or 21.6 per cent. of the whole amount was found in the excrement. One-tenth of this germinated.

In the case of whole barley, where 17 lbs. was fed, 2 lbs. 2 oz. or 12.12 per cent. of the whole amount was found in the excrement. None of this would germinate.

In the case of whole peas where 17 lbs. was fed, 2 oz. only, or about 3.4 of 1 per cent of the whole amount, was found in the excrement. None of this would germinate.

In the case of whole corn where 11 lbs. was fed, 8 oz. or nearly 5 per cent of the whole amount was found in the excrement. About one-twelfth of this germinated.

In the case of unground mixed grain (oats, peas and barley) where 11 lbs. of grain was fed, 10 oz. or 5.7 per cent of the whole amount was found in the excrement. About one-fifth (oats) of this germinated.

**SOAKED FEED.**

Experiments to determine the value of soaked feed as contrasted with similar feeds fed dry.

Experiments with cooked feed (grains) would indicate that the increased returns from cooked feed were not sufficient to pay for the extra work and expenditure. The nearest approach to cooking at practically no expense is soaking the food and the experiments were carried along on this line.

While grain was fed and a considerable saving was apparently wrought in feeding by soaking the grain. This amounted to about 6 per cent of the feed fed.

Ground grain was fed dry and compared with ground grain fed soaked. The data here would seem to point to a loss from soaking meal. While this may not be the actual case yet it is probable that the result from soaking meal may not be so marked as from soaking whole grain. A study of some other experimental work also indicates this.

**STEAMED OR COOKED.**

Experiments to determine the value of steamed or cooked feed, fed warm, as contrasted with raw feed, fed cold, including an experiment with pea ensilage.

The following report is taken, with slight changes, from the report for 1891.

The object of this experiment was twofold—(1) to discover the difference, if any, in the quantity of grain required to produce every pound of increase of the live weight of the swine, when fed steamed and warmed in the one case, and when fed raw and cold in the other; (2) to obtain a record of the comparative quantities of grain required to produce every pound of increase in the live weight of the swine, during the different stages of the feeding period.

The mixture of grain was fed wet in both cases. Cold water was given to drink. A mixture of salt and wood ashes was kept in a box on the floor

of each pen, where the pigs had access to it at all times.

The object was to discover the value, if any, of pea ensilage for the feeding and fattening of swine.

Records were also kept to ascertain the comparative quantities of feed required to produce every pound of increase in the live weight of the swine, during the different stages of the feeding period.

The pea ensilage was prepared by harvesting the crop when the earliest pods were filled and before the peas became hard. The vines were green and succulent. The ensilage was well preserved. The pigs in lot 3 were fed an allowance of grain, a mixture of equal parts of ground peas, barley and rye, but not as much as they would have eaten readily. They were fed also a quantity of pea ensilage.

The pigs in lot 4 were fed upon pea ensilage only. In both cases the pigs refused to eat more than a small portion of whatever quantity of pea ensilage was offered to them. The remainder was nosed over, pushed about and trampled on. When what was left uneaten was weighed out of the pens, it was very wet.

Both lots of pigs were allowed cold water to drink, and a mixture of salt and ashes was accessible to the pigs in both cases. The pea ensilage did not seem to have any feeding value to the pigs which received an allowance of grain; and the pigs in lot 4 steadily decreased in weight for nine weeks, during the feeding of ensilage was ended.

**OTHER CONCLUSIONS.**

There is no appreciable difference in the number of pounds of grain required to produce every pound of increase in the live weight of swine, when fed steamed and warm, as against fed raw and cold.

On the average there is a gradual increase in the quantity of feed consumed, for every pound of gain in live weight of swine, after the second month of feeding period, and after the average live weight exceeds 100 lbs.

It is most economical to market swine for slaughtering when they weigh from 180 to 200 lbs. alive.

The largest consumption of feed per day by swine is at or near the period of their feeding when the number of pounds of feed consumed per pound of increase in weight is lowest.

For the increase of weight, by 3-231.2 lbs., in 24 swine, 4.14 lbs. of a mixture of ground peas, barley and rye were required for every pound of increase in live weight.

**SOFT HOGS.**

A series of experiments were begun to discover the effect on the quality of the meat cured bacon from the feeding of wheat and buckwheat to swine.

Complaints were common in this vicinity of swine in Western Ontario that the quality of flesh was soft in a larger per centage of animals than formerly; and an opinion was current to the effect that the "softness" was the result of the feeding of wheat or buckwheat.

From tests it is evident that the feeding of wheat alone and of buckwheat is not always a cause of "soft" hogs and "soft" sides, since some of the swine fed with wheat and buckwheat yielded sides classed as firm.

**GRAND SUMMARY.**

The experiments conducted and reported upon above seem to indicate that:

1. It will not pay to cook feed for where economy of pork production is the sole consideration.

2. There is a gradual increase in the quantity of feed consumed for every pound of gain in live weight after the average live weight exceeds 100 lbs.

3. The most economical time to slaughter swine is when they weigh from 175 to 200 lbs.

4. The greatest and most economical gains are made when the swine are able to eat the most feed in proportion to their weight.

5. Frozen wheat may be used as a profitable feed for swine.

6. Skim milk adds most materially to the value of a grain ration, and 100 lbs. mixed grains equals about 700 lbs. skim milk. The relative value of skim milk is any ration varies with the amount fed, the poorest returns per pound fed being obtained when the proportion of skim milk to the total feed is the greatest.

7. The average dressed weight of swine is about 76.41 per cent. of the fasted weight.

8. Skim milk is a most valuable adjunct to the grain ration when hard flesh is desired.

9. Type of animals fed influences character of meat more than breed, and the fact of an animal being a Yorkshire or Tamworth will not insure a good bacon carcass, but they must also be of a rangy type and fed in a certain way.

10. Feeding mixed meal (barley, peas and oats) with milk, usually insures firm meat.

11. The greatest gains from a given amount of grain appear to be made when it is ground and soaked for 24 hours. Part of grain fed whole is frequently voided before being digested.

12. Mixed grains are more economical than grains fed pure.

13. Pigs whose rations are limited make, on the whole, more economical than pigs that are rushed.

14. Maturity or ripeness of the animal affects the quality of the flesh.

**FISHERMEN CAN FISH.**

Barrister W. A. Thrasher says: I have looked in the Gazette to see if there is any order-in-council in accordance with the letter I have received, but I could find nothing. In my opinion the nets can be used in the river and the lake both. I show letter to all the fishermen who come to me and tell them I think they can fish in the river as well as the lake. The Ontario Government says where and how fish may be caught, and the Dominion Government when they may be caught. That is my view of it.

**AN OPEN SEASON FOR U. S. NURSERY STOCK.**

The local collector of customs has received official notification from the department at Ottawa that the provisions of the San Jose scale act have been waived until May 1, 1900, provided the nursery stock from prohibited districts be thoroughly fumigated with hydrocyanic acid gas by a competent government official. The ports in Ontario, with such stock is permitted are Niagara Falls and Windsor, Ont.

Bad customs are better broken than kept up.

## A Woman's Burden

### THE STORY OF A WOMAN AD-DRESSED TO WOMEN.

It Tells How Those Weak and Despondent Can Obtain New Health and Strength at a Small Expense—The Facts Fully Verified by Investigation.

From the Mail, Granby, Que.

The reading public have evidence put before them almost every day of the healing powers of Dr. Williams' Pink Pills. It is sometimes asked whether these cures are permanent, and in reply to this we would say that a case which recently came to the attention of the Mail indicates that the results following the use of this medicine are as lasting as they are beneficial. Some years ago Mrs. Robert Webster, who is well known in Granby, passed through a very serious illness in which her condition very nearly bordered upon collapse. Her blood appeared to have almost turned to water. She was very weak, her appetite feeble, and she suffered from severe headaches.

Mrs. Webster had the benefit of excellent medical advice, but apparently without avail, as she seemed steadily growing worse. The least exertion would fatigue her, and finally she was for a time unable to do her housework, and was confined to bed. Her husband suggested the use of Dr. Williams' Pink Pills and purchased a few boxes. Mrs. Webster had not been taking the pills long before she found herself growing stronger. Her headaches disappeared, her appetite improved, new blood appeared to be coursing through her veins, and her nerves again became strong and active. After using the pills for a couple of months she felt as well as ever she had done in her life, and could do her housework without feeling the fatigue that had formerly made her life so miserable.

This, as already indicated, happened some years ago, and in the period that has elapsed Mrs. Webster has enjoyed the best of health. She says that if she feels at any time a little run down she takes a few doses of Dr. Williams' Pink Pills and is soon all right, and she thinks there is no medicine to equal them. The Mr. Webster, speaking of his wife's cure, says Dr. Williams' Pink Pills did her a "thousand dollars' worth of good," and friends who know her condition before she began the pills and saw the effect upon her, say the same thing. There are a number of others in this vicinity who have used this great medicine, and so far as the Mail can learn the results have always been beneficial.

There are thousands of women throughout the country who suffer as Mrs. Webster did, who are pale, subject to headaches, heart palpitation and dizziness, who drag along frequently feeling that life is a burden. To all such we would say, give Dr. Williams' Pink Pills a fair trial. These pills make rich, red blood, strengthen the nerves, bring the glow of health to pale and sallow cheeks, and make the feeble and despondent feel that life is once more worth living. The genuine are sold only in boxes, the wrapper bearing the full name, "Dr. Williams' Pink Pills for Pale People." May be had from all dealers or by mail at 50c a box or six boxes for \$2.50, by addressing the Dr. Williams Medicine Co., Brockville, Ont.

During the last 12 months at least a dozen elephant tuffers have been killed—more than have been killed in ten years previous.

**Shave Men Fall.**

Victims to stomach, liver and kidney troubles and the result in loss of appetite, backache, nervousness, headache and tired, run-down feeling, but "Electric Bitters are just the thing for a man," writes J. W. Gardner, of Louisville, Ind., "when he is all run-down and don't care whether he lives or dies. It did more to give me new strength and good appetite than anything I could take. I can now eat anything and have a new lease of life." Only 50c. Every bottle guaranteed by A. I. McCall & Co., druggists.

All one's life is a music if one touches the notes rightly and in tune, but there must be no hurry.—John Ruskin.

**In the Jaws of a Lion.**

The gallant Major Swaine tells of being knocked senseless by a lion that lacerated his arm. His thrilling escape from the jaws of death is only equaled by Dr. King's New Discovery for Consumption, which has saved thousands from desperate Throat and Lung troubles. "All doctors said my wife would soon die of Consumption," writes L. O. Overstreet, of Elgin, Tenn., "but your wonderful medicine completely cured her, and saved her life." Satisfaction is guaranteed by A. I. McCall & Co., who give trial bottles free. Large bottles 50c. and \$1. At A. I. McCall & Co.'s Drug Store.

He is to be educated because he is a man, and not because he is to make shoes, nails and pins.—W. E. Channing.

**CASTORIA**

For Infants and Children.

The family signature of *Dr. H. H. Thacker* is on every wrapper.

**Children Cry for CASTORIA.**

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## Spring Fair

Agricultural Society Grounds Chatham, Ont.



Saturday, April 28th

1900—At 1 o'clock p.m.

### Special Attractions

Two Named Horse Races—Purses \$30.00 Each.

|                 |       |              |
|-----------------|-------|--------------|
| Dolphin W.      | owner | I. Hawkins   |
| Texas Joe       | owner | C. Crowe     |
| Darkie Boy      | owner | A. Side      |
| Little Tom      | owner | W. Barner    |
| Lady M.         | owner | T. McQueen   |
| General Shafter | owner | A. Trudell   |
| Frank Wilkes    | owner | A. Patterson |
| Ray George      | owner | F. Dolson    |
| Texas Bob       | owner | W. McGregor  |
|                 |       | L. Crowe     |

Bikes Prohibited in above race.

**RACE TWO**

|             |       |               |
|-------------|-------|---------------|
| Joe Mitten  | owner | Chas. Milvain |
| Little Jack | owner | A. Bedford    |
| Allie B.    | owner | Sam Orr       |
| Little Tim  | owner | J. Glassford  |
| Stateman    | owner | Capt. Cornett |
|             |       | Ed. Snook     |

Both races are 1 mile heats, best 3 in 5—National Trotting Association Rules to Govern.

Horses must be driven by owners in above race.

Auction sale of Bagby red Clyde Filly Cans—our load of registered Filly colts imported from counties of Huron and Bruce by L. H. Edmunds, will be sold by auction on the grounds of the above fair can be seen at the Fair Ground Stables, a few days before the Fair—terms of sale 6 mo. time on approved joint notes.

All horses must be registered in their class. No Diploma will be awarded any horse unless deemed worthy by the judges. Any infringement in regard to ownership will forfeit the Diploma. Space will be allowed for all kinds of implements, and tables will be open for the sale of grain and seeds. Privilege to sell stock will be granted to any one wishing to do so.

**Admission Free 25 Cents**

Carriages Free.

Henry Robinson, Secretary.

Jas. Chinnick, President.

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**Spices**

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**Taft's Block**

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**C. N. STILES.**

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**Sale**

AT

**J. P. TAYLOR'S**

**Grocery**

|                                  |      |         |      |
|----------------------------------|------|---------|------|
| Gran. Sugar, per lb.             | 5c.  | 21 lbs. | 81   |
| Yellow Sugar, per lb.            | 4c.  | 22 lbs. | 81   |
| Dried Peaches, per lb.           | 13c. |         |      |
| Prunes, 4 lbs.                   | 25c. |         |      |
| Evaporated Apples, 3 lbs.        | 25c. |         |      |
| Lemon Biscuits, per lb.          | 9c.  | 3 lbs.  | 25c. |
| Ginger Snaps, per lb.            | 5c.  |         |      |
| Corn Starch, per package         | 6c.  |         |      |
| Laundry Starch, per package      | 6c.  |         |      |
| No. 2 Flour, 12 lbs.             | 18c. | 24 lbs. | 35c. |
| Judd Soap, 12 bars               | 25c. |         |      |
| Jam, 5 lb. pail.                 | 25c. |         |      |
| Lemons, per doz.                 | 10c. |         |      |
| almon, per can                   | 10c. |         |      |
| Sardines, per can                | 4c.  |         |      |
| Roller Oats, 12 lbs.             | 25c. |         |      |
| Yellow Corn Meal, 18 lbs.        | 25c. |         |      |
| Toilet Soap, per bar             | 2c.  |         |      |
| Ivory, Cameo, Tiger Soap, 6 bars | 25c. |         |      |

The above goods are standard quality and guaranteed.

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These prices are for cash only.

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