

Soils and Crops

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Maintaining Size and Quality of Breeding Hogs.

There is no class of live stock on the farm that will deteriorate so rapidly and permanently as will swine, provided the necessary principles to avoid such are overlooked. The two following points are worthy of consideration in that they deal with the basis of maintenance of size, quality, and health, and therefore successful increase with the herd.

1. The regular introduction of new blood.—In breeding is usually fatal to the hog. The evil results are seen in many ways in the first generation. The practice may be necessary at times by advanced breeders, but should be absolutely avoided by the practical or commercial hog-man. Line breeding, provided intelligent care is used and with due consideration of improvement of type and strength of the individuals chosen, is an excellent practice, provided it is not carried to excess. After all, with the bacon hog, out-crossing is the safest, provided the breeder has type solidly in his mind. Out-crossing stands for strength and vitality. Prolificacy is of equal importance. The dam of the boar newly introduced to the herd has much to do with the size and strength of future litters and the prolificacy of her grandchildren. In this the hog-man should take a lesson from the cattleman and horse-man. The sire's three immediate dams are worthy of the closest investigation.

2. Keeping good sows for several years.—The common practice with many swine raisers is to breed their gilts as early as possible. With the young sow once pregnant, growth is checked. She is often a small or medium-sized pig when she farrows her first spring litter. She is bred at weaning, or sometimes before, for a late summer or fall litter, after which she is sold. At most two litters are taken from her, frequently but one. For the upkeep of the herd, the best sows are chosen from the spring litters. This practice has certain economic features in that the cost of maintaining the mature brood sow is eliminated, and when she is marketed as a yearling she is usually light enough to class as a heavy bacon, or a light sow, obtaining a price little below the market for the bacon classes. The result, however, of year by year, choosing future breeding stock from the progeny of the young, and frequently insufficiently grown, sow, will surely become apparent. Size and vitality will be sacrificed. There are certain ideals even in a sow. She must be typical of the brood sow, strong, deep, capacious; she must be a mother—kind, gentle, and careful of her young—prolific, and with the tests and mammary development to feed her large litter. Once in a while one finds such a sow or one with some of these qualifications. Is it wise to part with her as a yearling? Will not some of her progeny be likely to inherit her virtues? Would not sows from her future litters as a mature animal be better still? The writer has in mind sows in the various herds that have been kept from five to seven years, and have been producers of large, strong litters throughout. These have been exceptions, it is true. The average good sow frequently becomes clumsy and awkward after three or four years of age. She destroys her little pigs through no desire of her own and ceases to be profitable. To sum up, it is a wise policy to retain one or more sows, depending on the size of the enterprise. Choose breeding stock as far as possible from these mature animals. Other sows, less desirable, may be marketed after one or two litters. The proven brood sow, however, should stay in the herd until she ceases to be an economical producer.

3. There are several other points in swine management which have much to do with the maintenance of strength and quality. (1) Keeping the young sow growing bone and muscle instead of fat, in other words, skim-milk, nitrogenous feeds, green feeds and exercise. (2) Exercise and outdoor life during the winter when the sow is carrying her young, and the use at

this time of roots, alfalfa, or clover, a light nitrogenous meal mixture and plenty of mineral matter—earth, soda, ashes, charcoal, etc.—are points truly essential to the production of large, healthy litters. Profits from hogs, after all, depend largely on being able to produce many pigs per sow. The surest way to cleanse and scavenge the body of the pregnant animal is to pump plenty of pure fresh air through the lungs by means of exercise.

In conclusion, the hog is a simple and lowly animal of simple and lowly ways, but capable of reflecting more conspicuously and promptly than possibly any other farm animal, the effects of good or bad breeding and feeding practices.

What About Water Freezing in Poultry Houses?

Cold poultry houses now advocated. Farmers who now sell and probably will continue to sell the bulk of the poultry products in this country, keep hens for the money there is in them and very seldom for pleasure. This is why elaborate and costly buildings, with fairly large amounts to be deducted from sales to cover interest and depreciation, were never very popular. When the cold poultry house was advocated, it was immediately felt that it would solve the question, because it would provide plenty of ventilation which kept it dry and the birds remained healthy in it.

A drawback during winter. Unfortunately there is nothing perfect in the world and people soon commenced to find certain drawbacks to the cold house. This was to be expected and would no doubt have happened with any other kind of building. One of the troubles was that water froze and the laying hens were often deprived during most of the time of what was considered an essential part of their daily ration. Moreover, women and children, who attend to the poultry in a large number of cases, had a hard time chopping or thawing out ice from vessels, and in many instances drinking fountains even broke.

An experiment at Cap Rouge.—As it seemed impossible to keep water from freezing in the modern cold poultry house without closing it too tight, making it stuffy, damp and unhealthy for the fowls, it was decided to try snow for laying hens. The experiment was conducted during five seasons, from the beginning of November to the end of February each year. An average of twenty-three birds were in each pen and both received practically the same quantities of feed, one lot getting water all the time and the other snow from the moment it was available until the testing period was finished.

What the results were.—After recording the feed eaten by each lot, the revenue was arrived at by counting the eggs and also calculating the difference in weight of the birds which were placed on the scales, every year, both at the beginning and at the end of the experiment. For the average of all tests the pens receiving snow gained 11 per cent. less than those getting water, but, on the other hand, they laid 28 per cent. better. With the valuations placed on meat and eggs, the profit from the birds receiving snow was, for the five seasons, exactly 12 1/2 per cent. higher than from the ones getting water.

Conclusions which may be drawn.—It is hard to draw definite conclusions from most feeding experiments with poultry because it is well nigh impossible to bring together two lots of birds having exactly the same breeding behind them. The time of hatching for pullets, the condition of each individual layer and many other things may also be sources of error. In this case, though, individuals were chosen as even as possible and were housed in adjoining pens. The conclusion which may be drawn is that nobody need be afraid to give only snow, when it is impossible to do otherwise, though it is admitted that water should be kept in pens when practicable.—Gus A. Langelier, Superintendent, Experimental Station, Cap Rouge, Que.



WILL IT BE AN OPERATION OR A MANICURE? —Baltimore Sun.

Meat-Curing Recipes.

The two ways of curing pork and beef are brine curing and dry curing. Brine curing is less trouble than dry curing. If brine is properly made it will keep for a reasonable length of time. If it becomes rosy it must be poured off and boiled or a new brine must be made. A cool cellar is the best place for both methods of curing. Rub the surface of the meat with fine salt and allow it to drain, flesh side down, for from six to twelve hours before the meat is cured, either with a brine cure or dry cure.

Brine cure: For each 100 pounds of meat use eight pounds of salt, two and one-half pounds of sugar or syrup, two ounces of saltpetre and four gallons of water. In warm weather nine or ten pounds of salt are preferable. All the ingredients are poured into the water and boiled until thoroughly mixed. Then let the brine cool. Place hams on the bottom of the container, shoulders next, bacon sides and smaller cuts on top. Pour in the brine and be sure it covers the meat thoroughly. In five days pour off the brine and change the meat, placing the top meat on the bottom and the bottom meat on top, after which pour back the brine. Do this again on the tenth and eighteenth days. If the brine becomes rosy take the meat out and wash it thoroughly, also the container. Boil the brine or make new brine, replace the meat in the barrel and cover with brine. Allow four days' cure for each pound in a ham or shoulder, and three days' for each pound in bacon sides and small pieces. For example, a fifteen-pound ham takes sixty days. When meat is removed from the brine it should be soaked for about half an hour in water before being placed in the smoke-house.

Dry cure: This requires more work than brine curing. For each 100 pounds of meat use seven pounds of salt, two and one-half pounds of sugar and two ounces of saltpetre. Mix all the ingredients thoroughly, rub one-third of the mixture over the meat and pack the meat away in a box or on a table. The third day rub on half of the remaining mixture and again pack the meat. The seventh day rub the remainder of the mixture over the meat and pack it to cure. Allow a day and a half cure for each pound in a piece of meat. A twenty-pound ham will take thirty days to cure. When meat is removed from dry cure it should be washed with lukewarm water before being smoked.

Sometimes there is trouble in keeping meat after it has been cured or smoked. It should be stored in a dry, cool and well-ventilated place. If allowed to hang up unprotected, it is almost certain to be blown with flies and become infested with 'skippers'. The most satisfactory way to handle the meat is to wrap it in paper and then enclose in strong muslin sacks, tied tightly at the tops.

Dried beef: Here is a good recipe for dried beef. Try it by all means: Get the tender side of the round out of a good fat beef. For every twenty pounds of beef, take one pint of salt, a teaspoonful of saltpetre and a quarter of a pound of brown sugar. Mix these well, rolling out any lumps; divide into three equal parts and rub well into the beef for three successive days. Turn beef daily in the liquor it will make. It should not make much, but what there is rub into and pile on the beef. Rub a little extra salt into the hole cut for the string to hang it by. At the end of a week hang in a dry, rather warm place till it stops dripping, then in a cooler dry place. Do not smoke it; it spoils the flavor.

Canada's Potato Crop.

Prince Edward Island is the only province in the East that had a good crop of potatoes this year, although the Prairie Provinces all produced above the average for ten years. Saskatchewan and Manitoba doing particularly well. Quebec's production was below the average. British Columbia's yield was below the average but exceeded that of last year. Ontario's crop, both east and west, was not half of last year, but the northern districts showed up satisfactorily. Over the whole province, the yield was 103 1/2 bushels per acre against 152 last year and an average of 119 1/2 for the years 1911 to 1921. These facts are taken from the Dominion Fruit Commissioner's report, dated November, 1921. Excepting British Columbia, all the provinces report freedom from any serious disease. In British Columbia late blight seriously reduced the shipping stock usually available from the lower mainland. The drought in the early part of the summer played its part with the potato crops in Ontario and Nova Scotia, in the first named province particularly. Regarding the market generally, the report says that as the digging season progressed and the favorable weather continued, there was expectation of a larger crop than originally estimated and growers became optimistic. Shipments grew heavy, but the demand turned out unusually light, and prices slumped accordingly. The total yield of potatoes from all Canada this year is placed at 110,895,000 bushels against 133,831,400 bushels in 1920. The average wholesale price for the entire Dominion is quoted as \$1.55 per cwt., or about 93c per bushel.

The Welfare of the Home

The Best Story Teller in the World — By Anna Mae Brady

Memories mean much to us especially as we grow older and who is there among us who does not count the early home pictures treasured in the back of one's mind as its dearest possession? Can't you remember those happy, joyous, care-free times when Mother used to gather us around her knee in the evening after the day's work was done and tell us the most wonderful stories that have ever been our privilege to hear? Many of us have studied the art of story-telling since then and have heard the world's greatest story-teller, yet to us Mother surpassed them all.

We never knew what story she was going to tell, that was always a surprise, and how we did like to guess which one was coming! Wasn't it strange the very night Brother Jack did not wash his hands and said he was going to bed? Mother said she would tell us the story of the Pig-Brother! Jack and

Jim Thomas changed their minds even before she had finished. When Ruth Elizabeth told the most impossible things—Mother—always "just happened" to tell us a wonderfully imaginative fairy tale. And every evening we had Mother Goose rhymes for the baby, but I think we older ones enjoyed them as much as the baby did. Although we began these rhymes before she could talk, she used to laugh and clap her hands when we would say them. Sometimes we used to make up tunes and sing them for her. Those were very happy times, come to think of it they were the very happiest I've ever known.

Mother is gone now but I can shut my eyes and see her in that old rocker, and nearly every day of my life something from those stories she told comes to me. I guess I listened so intently and loved them so much that they became a part of my life. And so to the end of time for me Mother will always be the very best story-teller in the world.

The Royal Bank of Canada

GENERAL STATEMENT

30th NOVEMBER, 1921

LIABILITIES

TO THE PUBLIC:		
Deposits not bearing interest.....	\$ 95,168,911.64	
Deposits bearing interest, including interest accrued to date of statement.....	280,447,431.90	
Notes of the Bank in Circulation.....		\$375,616,343.54
Balance due to Dominion Government.....		31,290,337.14
Balances due to other Banks in Canada.....	\$ 2,426.04	23,160,749.37
Balances due to Banks and Banking Correspondents in the United Kingdom and foreign countries.....	10,572,105.10	
Bills Payable.....		10,574,531.14
Acceptances under Letters of Credit.....		4,733,607.59
		12,535,480.27
		\$457,911,049.00
TO THE SHAREHOLDERS:		
Capital Stock Paid up.....		20,400,000.00
Reserve Fund.....	\$ 20,400,000.00	
Balance of Profits carried forward.....	905,044.98	
		\$ 21,305,044.98
Dividends Unclaimed.....		14,630.77
Dividend No. 137 (at 12 per cent. per annum), payable December 1st, 1921.....	610,623.00	
Bonus of 2%, payable December 1st, 1921.....	407,082.00	
		\$22,337,386.75
		\$500,648,429.75

ASSETS

Current Coin.....	\$ 16,012,219.57	
Dominion Notes.....	28,540,559.25	
United States Currency and other Foreign Currencies.....	29,912,018.81	
	\$ 74,464,797.63	
Deposit in the Central Gold Reserves.....	13,000,000.00	
Notes of other Banks.....	2,828,510.11	
Cheques on other Banks.....	21,594,382.76	
Balances due by Banks and Banking Correspondents elsewhere than in Canada.....	24,080,818.88	
Dominion and Provincial Government Securities, not exceeding market value.....	24,050,584.08	
Canadian Municipal Securities and British, Foreign and Colonial Public Securities other than Canadian, not exceeding market value.....	9,832,512.43	
Railway and other Bonds, Debentures and Stocks, not exceeding market value.....	15,128,520.60	
Call Loans in Canada, on Bonds, Debentures and Stocks.....	13,080,429.50	
Call and Short (not exceeding thirty days) Loans elsewhere than in Canada.....	24,543,074.57	
	\$22,603,630.56	
Other Current Loans and Discounts in Canada (less rebate of interest).....	\$163,017,459.32	
Other Current Loans and Discounts elsewhere than in Canada (less rebate of interest).....	89,132,820.47	
Overdue Debts (estimated loss provided for).....	411,365.20	
	\$253,561,644.89	
Real Estate other than Bank Premises.....	985,573.59	
Bank Premises, at not more than cost, less amounts written off.....	10,627,758.86	
Liabilities of Customers under Letters of Credit, as per contracts.....	12,535,480.27	
Deposit with the Minister for the purposes of the Circulation Fund.....	985,000.00	
Other Assets not included in the foregoing.....	549,341.48	
	\$500,648,429.75	

H. S. HOLT,
President

EDSON L. PEASE,
Managing Director

C. E. NEILL,
General Manager

AUDITORS' CERTIFICATE

We Report to the Shareholders of The Royal Bank of Canada: That in our opinion the transactions of the Bank which have come under our notice have been within the power of the Bank. That we have checked the cash and verified the signatures of the Bank at the Chief Office as at 30th November, 1921, as well as at another time, as required by Section 56 of the Bank Act and that we found they agreed with the entries in the books in regard thereto. We also during the year checked the cash and verified the securities at the principal branches. That the above Balance Sheet has been compared by us with the books at the Chief Office and with the certified returns from the Branches, and in our opinion properly drawn up so as to exhibit a true and correct view of the state of the Bank's affairs according to the best of our information and the explanations given to us and as shown by the books of the Bank. That we have obtained all the information and explanations required by us.

PROFIT AND LOSS ACCOUNT

Balance of Profit and Loss Account, 30th November, 1920.....	\$ 546,928.20
Profits for the year, after deducting charges of management and all other expenses, accrued interest on deposits, full provision for all bad and doubtful debts and rebate of interest on unmatured bills.....	4,037,836.49
	\$ 4,584,764.69
APPROPRIATED AS FOLLOWS:	
Dividends Nos. 134, 135, 136 and 137 at 12% per annum.....	\$ 2,436,486.67
Bonus of 2 per cent. to Shareholders.....	407,082.00
Transferred to Officers' Pension Fund.....	100,000.00
Written off Bank Premises Account.....	400,000.00
War Tax on Bank Note Circulation.....	203,154.04
Transferred to Reserve Fund.....	132,995.00
Balance of Profit and Loss carried forward.....	905,044.98
	\$ 4,584,764.69

RESERVE FUND

Balance at Credit, 30th November, 1920.....	\$ 20,134,010.00
Premium on New Capital Stock.....	132,995.00
Transferred from Profit and Loss Account.....	132,995.00
Balance at Credit, 30th November, 1921.....	\$ 20,400,000.00

H. S. HOLT,
President

EDSON L. PEASE,
Managing Director

C. E. NEILL,
General Manager

Montreal, 19th December, 1921.

USES FOR BEAVER-BOARD

One of our neighbors recently did some building and we saw for the first time the real practical utility of beaver-board. We had seen it advertised often in our farm papers, but never before had seen it in use. The result was that last winter when we had some remodeling of our home to do, the first thing we struck out for was some of the beaver-board. Since we have used it, we are more enthusiastic about it than ever before. We certainly consider it an improvement over the old plaster method.

One thing that makes beaver-board appeal especially to farmers is the fact that it is so easily used in any building plan, and farmers are their own carpenters to a very great extent. Our work was to be done in winter-time, so we decided that we could do a great deal of work ourselves. Thus we saved a very large carpenter's bill. Beaver-board is used in interiors for walls and ceilings, in the place of lath and plaster. It is a sort of wood-pulp product, very strong, yet light in weight. It is put up in pieces of various lengths up to fourteen feet, and in various widths. Thus for wall purposes, it fits into the regular building scheme, with studding sixteen inches apart. You can easily lift a piece into position or lay it on "boxes" and cut it to measurements. It can be

cut with a sharp knife or with a saw. It is very light, as is shown by the fact that the writer brought 800 feet of the material from the city, ten miles away, on a small sled drawn by a road mare.

Furthermore, the cost is very reasonable. It is put up in bound packages which are easily handled; there are about a dozen sheets in a package. This expedites the handling where a large quantity is to be used. Of course, packages are broken where only a small quantity is required.

We farmers will soon have to come to being more economical with our dwelling-room just as the city dweller must be. Building material is becoming too expensive to have any idle room going to waste. That is one reason that we decided to remodel our house. It was a large old-fashioned structure with enormous rooms. From one of them, for example, a bathroom, a cozy den and a modern-sized room were made, and all at a very small cost. We have certainly been won over to this new type of interior finishing. The seams are paneled with wooden panel strips, or long strips of adhesive tape. These can be painted the same color as the beaver-board, or a different color, depending on the scheme to be carried out. The beaver-board is of a light color and serves well, and looks well, for a long time without being painted at all.

For bathroom walls, beaver-board with a special imprint to represent tile, is made. When this is used and

painted white, it has the same appearance as tiled walls. We are going to do some more remodeling this winter. We will use beaver-board.

Takes Root Early.

The willow is one of the most adaptable plants. A willow switch, merely stuck in wet, suitable ground is almost certain to take root.

Don't let the mice put you out of the fruit business.

Always smile at the old cow for she provides the best market for waste forages.

The farmer's training in co-operative marketing will ultimately prepare him to co-operate fully with Nature in production.

The present is a good time to purchase pure-bred live stock. No man can afford to farm with scrub sires and all would make more profit with pure-bred stock right through the flocks and herds.

Sunlight is the best guard against tuberculosis. Make sure there is plenty of light planned for the new stable or if the old one is going to do for some time to come, enlarge the windows. Roughly, the upper half of three of the sides of the dairy stable should be glass and that glass should always be clean.

Poultry

A considerable number of poultry houses are built so high and the amount of air space that must be warmed by the birds is so great that it is impossible for winter temperatures to be pleasant. This can be remedied by putting in a straw loft to occupy all excess space in the top of the house not needed as head room by the caretaker.

In providing ventilation also, enough space should be left open in the south side of the building so that the open front will equal one-tenth of the total floor space. This open screen ought to be near the bottom of the south side rather than at the top so that the warm air from the roosts will not flow up and out of the open space.

A pair of scales and a record sheet in the dairy stables will soon show which cows are profitable and which are not.

Sheep Notes

When different classes of sheep are kept on the farm it will be found advantageous to separate them for winter feeding and care. Unless this is done some members of the flock will get more than their share of feed, while the weaker animals will get less.

In feeding silage to sheep care should be taken not to give the animals any that is spoiled. Sheep are peculiarly susceptible to injury from feeds which form gas.

The breeding ewes need exercise in winter. The health and vigor desired cannot be obtained by housing the animals too closely indoors.

Promote peace among nations by promoting good will among neighbors. Plan as far as possible to get the mature out to the field as made. In this way close to a hundred per cent. of the fertilizer value of this product is conserved for crop use.