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 economical 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 teats 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 on the Experimental Farms System 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, sods, 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 was cheap, it provided 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 12½ 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 ropy 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 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 ropy 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 unproteced, 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 up 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 103½ bushels per acre against 152 last year and an average of 119¼ 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 sad havoc 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

Tempting Dishes for the Invalid

BY MARION DALLAS.

The problem of diet in the sick room is always a matter of more or less anxiety in every home, especially where the illness is of long duration and the appetite is fitful and capricious.

In considering the diet of any patient, no matter from what disease he may be suffering, there are two essential features to be studied.

The first feature is, or should be, the nutritive value of the food. The aim of invalid cookery is to build and repair the waste which is going on in the system during illness. "Therefore, food must be given which will assist nature in her efforts towards restoration." For example, a patient suffering from typhoid fever should not be given solid food, nor a patient with Bright's disease given too much starch or sugar.

The second feature is the preparation of serving up the food. It should be served in small quantities, and in as attractive a manner as possible. The linen should be spotless and the dishes of dainty chinaware, if practical, and always whole, not chipped and cracked as we sometimes see. High seasoning should be avoided, also all extremes. In the preparation of the food it should be given a stipulated time for cooking. Nourishment plays a more important part in the recovery of the patient than we realize. The value of this branch of nursing cannot be over estimated.

It is my purpose to give some dietetic recipes for the most common diseases, with the hope that they may help those who are taking care of their loved ones in their home and whose brains are racked often by trying to think of something which will not only tempt but benefit the patient.

Consumption—Treatment and Diet.

The treatment of consumption has received much attention and study by all the greatest minds in the medical world. By a careful and dietetic treatment, a great deal may be done to arrest its progress. Fresh air, exercise, and cold water bathing are invaluable.

Avoid starchy foods and excess of sugar and eggs, if there is any tendency toward gastric catarrh. Fats and oils may be given in the form of olive oil, salads, cream, bacon, nuts, and marrow. Cod liver oil has long been held to be of eminent value and it possesses all the advantage of food. Oils should be given in very small quantities at first. Here are a few recipes.

For the Consumptive Patient.

Cream sweetbreads—Soak the sweetbreads in cold salted water, throw into boiling water and boil fifteen minutes. A little lemon juice or vinegar will whiten the bread. Drain and cut into dice. Make cream white sauce with ¼ cup cream, or 2 tablespoons of milk and 2 of cream, 2 tablespoons of butter. Blend 2 tablespoons of flour with butter, add cream and let boil. Pour over meat, sprinkle with bread crumbs and brown in oven.

Suet pudding—¼ cup of suet, ¼ cup of molasses, ¼ cup of milk, 1 cup of flour, ¼ teaspoon spice, ⅛ teaspoon soda. Put into a pudding cup and steam for three-quarters of an hour. Serve with a cream sauce.

Bacon dressing—Fry thin slices of bacon. Strain. Add to quantity of fat one-third the quantity of vinegar. Thicken by adding flour. Serve as a dressing on grape fruit.

Mayonnaise salads—Equal parts of celery and chicken, walnuts may be added. Dressing: 1 egg yoke, 1 cup olive oil, 1 teaspoon salt, pepper (cayenne pepper), mustard and sugar to taste, 2 tablespoons of vinegar or lemon juice. Beat egg with olive oil, add drop by drop, then mustard and sugar, salt and pepper; add vinegar to thin. Chill and serve.

Cream toast—Toast bread, drop into boiling salted water. Remove quickly and pour over it a thin cream sauce and serve.

Caramel ice cream—Caramel used in place of sugar to prevent fermentation. 1 quart scalded cream, 1 cup sugar, ¼ cup of caramel. Freeze.

Banana cream—Three bananas cut into small pieces, one cup water, six tablespoons sugar, one-half rind of lemon; cook ten minutes; remove rind; add one-half tablespoon hydrated gelatine, one cup whipped cream, juice of one lemon. Mold and chill.

Orange Bavarian cream—Grated rind of one orange, juice of three oranges, one-half cup of sugar, one cup of cream, two tablespoons gelatine. Method of making: Whip the cream; set in ice; soak gelatine in ¼ cup of cold water; dissolve in ¼ cup of boiling water; add juice and rind of oranges, then sugar; stir until dissolved and then partially chill. When nearly cold add whipped cream; beat until thick; mold and chill.

Egg chocolate—To be served as soon as made. Two square of chocolate, ¼ cup of sugar, ½ cup water, 2 cups milk, added gradually, vanilla. Cook to a paste; stir constantly; let boil five minutes. Remove from fire and beat in whites of two eggs, well whipped.

Velvet cream—¼ box gelatine, ¼ cup cold water, 4 tablespoons lemon juice, ½ cup sugar, 1 cup cream (whipped). Soak the gelatine and dissolve over hot water; add lemon juice and sugar; set on ice to cool. When it begins to harden add cream; beat until thick. Mold and chill.

Coffee cream—2 tablespoons gelatine, ¼ cup strong coffee, ½ cup sugar, ½ cup cream. Soak the gelatine, add coffee and sugar, cook. When it begins to thicken add cream. Beat, mold and chill.

Nutted cream—Three tablespoons gelatine, ½ cup cold water, 2 cups cream, whipped, ¼ cup nuts, ¼ cup boiling water, ½ cup powdered sugar. Dissolve gelatine; mix nuts, sugar and cream; add to gelatine; stir constantly. Mold and chill.

Sherry jelly—(Will ease dry, parched lips). ½ cup water, ½ box gelatine, 4 tablespoons sherry, rind and juice of one lemon.

French omelet—When eggs can be eaten without disturbing patient, or where there are no signs of gastric catarrh, I found the following omelet very much relished. Separate one white and yolk; beat the white until very stiff; beat the yoke until lemon color; add one tablespoon of water to yoke; add salt and pepper. Fold white into yolk. Have one teaspoon of butter melted in the pan. Turn the omelet into pan and cook for one minute; reduce the heat; try with a knife lightly. Fold and turn into platter. Serve at once.

Creamy omelet—Beat up the whole egg; add one tablespoon of cream; heat and butter the pan. Pour egg into the pan and constantly lift from the centre of pan till cooked. Serve at once.

Winter Work for the Beekeeper.

With the bees all snugly packed away in their winter quarters and requiring no further attention for the next four or five months, the beekeeper can now turn his attention to preparations for next season's activities. As the active season is comparatively short and commences with a rush, the man who would make the best use of his time and secure a maxmum crop from his bees must be prepared with everything in readiness before it is actually needed. Most of these preparations can be made during the winter months.

For every colony of bees a beekeeper has, he should have at least three full depth or six shallow supers for surplus honey. He should have enough 10-frame hives complete to take care of all the increase he is likely to make during the summer. A lack of supplies when honey is coming in and bees are swarming means a heavy reduction in the amount of honey stored. All supplies should be gone over carefully and put into proper working condition. If any new ones are required they should be ordered early, as most dealers allow a discount on early orders. These supplies can be made up before the spring. When ordering hive bodies, supers, etc., in large lots, it is most economical to purchase them in the flat in crates of five. The material is all cut to standard size and ready to put together. If a beekeeper is handy with tools and can obtain good lumber it is very much cheaper to make the hives, floor boards, etc., at home, using a standard hive as a model. The frames, however, are difficult to make without special machinery and should be obtained from a regular manufacturer. Comb foundation can be ordered early, but it is not advisable to put it into the frames before the spring. This work should be done in a warm room as the wax is very brittle when cold and is easily broken. Broken combs, cappings, etc., can be rendered early and the wax obtained manufactured into foundation for spring use. Any manufacturers of bee supplies will convert the wax into foundation at a reasonable charge.

All drawn combs should be carefully protected from the ravishes of mice and wax moth during the winter as they are one of the most valuable assets a beekeeper has. The best method is to place the combs in supers and to tier the supers one above the other with a queen excluder beneath and another over the top of the pile. This will prevent damage from mice. To prevent molding and damage from wax moth the combs should be stored in a dry, cold place, exposure to a temperature of 11 deg. F. will destroy larvae of the wax moth.

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

Let the bacteria bring back your nitrogen.

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

The farmer's training in co-operative marketing will ultmately 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.

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 it has 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 and Jim Thomas were never going to wash their hands again wasn't it strange that Mother should 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.

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 manure 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.