Soils and Crops

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TAKING CARE OF THE HONEY CROP.

Honey is a perishable article no matter whether it is left in the comb or extracted. With care it can be kept in good condition for long periods, especially in the extracted form. Nectar, as stored by the bees, contains a high percentage of water, which must be evaporated before the honey can be extracted. When the cells are filled and the right amount of evaporation has taken place, the honey is sealed over and is then considered to be "ripe." It is not advisable to extract honey until at least three-fourths of the cells are capped, especially in regions where the honey is inclined to be rather thin. Comb honey should be left on the hives until all cells containing honey are sealed but should not be left on any longer than this or the sections are likely to become travel stained.

The honey should be extracted as soon as possible after the supers are removed from the hives, and if done while still warm, more honey will be taken from the combs. After the honey is extracted it must be strained to remove all foreign matter. Straining may be done through fine cheesecloth or by letting the honey stand in tanks for two or three days, when all foreign matter will have risen to the surface. If the honey is well ripened, it should be placed in the final containers at once, before it starts to granulate, but if it is too thin it should be left in the tanks a short time for further ripening. Honey should be stored in a dry place as it readily absorbs moisture from a damp atmosphere. Honey ripening in tanks should stand in a warm, dry room. Ripened honey in containers ready for market will keep better in a cold, dry place. Section honey should be stored in a well-ventilated room where the temperature is high and constant or moisture will condense on the cappings and be absorbed.—C. B. Gooderham, Dominion Apiarist.

FEEDING MEAT BY-PRODUCTS IN HOPPERS TO HOGS.

The value of organic supplements for hog feeding has been demonstrated in a number of tests completed during the past few years on the Dominion Experimental Farms.

In a feeding test conducted with four lots of Yorkshire hogs, two commercial tankages and a commercial meat meal were fed in self-feeding hoppers as supplements to the meal ration, which in this instance contained milk as well while the remaining lot was used as a check in order to determine the economy of feeding these supplements and also the quantity which the hogs would consume.

The test commenced on January 9 and continued for a period of 90 days. Each lot included seven pigs averaging from 44 to 54 pounds in weight. The meal ration for all lots consisted of ground oats, 2 parts; ground barley, 1 part; shorts, 1 part; middlings, 1 part; and linseed oil meal, 3 per cent. The meal was fed as a milk slop in troughs. Each lot of hogs consumed 1,710 pounds of the meal mixture and 3,322 pounds skim-milk. Lot 1 was used as the check and did not receive meat by-products while Lot 2 consumed 9.06 per cent of tankage; Lot 3, 11.4 per cent. of No. 2 tankage; and Lot 4, 9.06 per cent. of meat meal.

Lot 1 made slightly the lowest gains as well as the most economical gains, followed in turn by the lot on No. 1 tankage, the lot on No. 2 tankage, and the lot on meat meal. The average daily gains per hog were 1.03 pounds, 1.05 pounds, 1.08 pounds and 1.09 pounds, while the feed costs per pound of gain were 5.28 cents, 5.68 cents, 5.74 cents and 5.89 cents respectively.

The addition of the meat by-products increased the gains but this increase was not sufficiently large to compensate for the increased cost of the ration.

The results further indicate that it is not economical to add as much as 10 per cent. of meat by-products to a well balanced meal and milk ration.

These results agree in principle with those of previous tests in that organic supplements increase the gains produced in a given period and also that it is not usually economical to supply these much in excess of 5 or 6 per cent. of the meal ration.

How We Co-Operated in Cutting Corn

BY S. K. STEVENS.

Five years ago last fall it became impossible for the people of my neighborhood to get an outfit to cut their corn for the silos. It was getting late in the season and there was danger of immediate frost.

Finally a person in the vicinity who owned a threshing outfit agreed to hire us an engine if we could find a cutter. We were no better off than before, for it was impossible to get the cutter.

I proposed to a neighbor that we go and look at a cutter and see if it would pay to buy one on shares. To this he agreed and the next day we started to find one. My neighbor thought that a second-hand cutter would do as well as a new one and, of course, would not cost nearly so much. Not wishing to create any discord I agreed to look at some of that type, but on condition that before purchasing any he go with me and look over a new one. We looked over the second-hand cutters and then I showed him the better points of a new one and finally convinced him that a new cutter would be the cheapest in the end.

WE BOUGHT AN ENSILAGE CUTTER.

Thus did we purchase an ensilage cutter. The next day we brought it home and the next set it up and got the hired engine and the day following put my corn into the silo easily and quickly, the cutter doing fine work. My partner's corn was also cut that season, and another farmer who was having the same trouble that we had been having hired us to put his corn into the silo.

The next fall a man was found who promised to hire us his engine and accordingly the people all began cutting their corn, but when we were all ready to fill the silo and phoned the man to bring on his engine, he flatly refused to do so at any price. We were now in a bad position as our corn was fast losing value by lying on the ground, and there seemed to be no way of getting an engine.

THEN WE BOUGHT AN ENGINE.

I ran my car out of the garage and went to another one of my neighbors and asked him to go with me to look at an engine. To this he agreed and that afternoon we hastened to the nearest dealer and found that he had on hand the very engine recommended to run the cutter that we had previously purchased. It was obvious that the engine was the solution of our problem and we purchased it on halves at once. The next day I brought it home and we started in cutting corn and in a few days the job was done.

Now we save every year the $50 or $60 formerly spent for getting our ensilage cut.

SAWING WOOD AND GRINDING FEED.

The engine and cutter did not satisfy our taste for co-operation. The fruits of co-operation were too sweet. I bought a wood-saw and my partner bought a feed-mill. Last winter that feed-mill was a source of everlasting comfort to us. When we ran out of feed all we had to do was to take our grain to the engine-house, start the engine and grind out the feed. This was somewhat easier, more comfortable and more economical than to travel three or four miles to mill on a cold winter day. Not only was it useful in that way, but we realized a neat profit on our investment by grinding our neighbors' feed.

As for the wood-saw, we cut our winter wood quickly and easily and if any of our neighbors wish any cut, we are in a position to do it easily and quickly.

Water and Shade.

Animals suffer greatly from the heat. We are busy in the summer and prone to let the live stock look out for itself. Most all kinds of domestic animals are very capable of doing this if they have the opportunity.

Too often, however, they are shut up in fields and pastures through the heat of the day without shade and without water. These two things, properly provided, will go a long ways toward keeping the animals comfortable, and there is nothing that can take their places.

The ideal pasture contains both a liberal supply of dense natural shade and clear running water, but these ideal conditions are given only to the few. On many farms they must be provided by artificial means, and where this is necessary it will mean a great deal to the farmer to see that they are not neglected.

The same sheds that offer the live stock shelter from the cold and storms of winter, may often be used to provide protection from the sun's direct rays in the heat of summer, in which case they should be kept reasonably clean and well ventilated. But stables that are closed may become well nigh suffocating to a hot animal on certain days when the atmospheric conditions are oppressive.

The artificial water supply may also be entirely satisfactory if it is adequate. A good windmill and supply tank is a great labor-saver and means a constant supply of water on hand. The important thing is to see that water is available where the animals can get it at will, or, at least, that it is supplied often on hot days.

An Attack of Woolly Caterpillars Threatening.

Late last August and also in September and early October there was an outbreak of a pale, yellowish, hairy caterpillar which attacked and defoliated many apple orchards and caused much concern to apple growers, so says Prof. L. Caesar, Provincial Entomologist. Usually an insect of this kind is troublesome only for a single year and then disappears, but from the number of adult moths which have been captured or seen lately, there are strong indications that there will be another outbreak of this caterpillar in August this year and also, perhaps, of a closely related one which is covered with black and yellow hairs instead of with yellow hairs alone. Fruit growers and others should examine their trees from time to time to see if there are many of these caterpillars present. The caterpillars will, of course, at first be quite small. If they are abundant enough to justify control measures, they may be destroyed by spraying with 1½ or 2 pounds arsenate of lead powder to 40 gallons of water. The early sprays will not destroy these insects, because they will all have been washed off or much new foliage will have come out before the caterpillars appear and this new foliage will not have any poison on it.

The only advantage of a scrub cow is that it doesn't take so long to milk her.

DISEASES OF DUCKS AND GEESE

BY HARRY M. LAMON.

Mature ducks and geese are practically free from disease. There is a certain amount of loss among the old stock but as a rule more on account of disease. Occasionally they become ruptured but rarely if ever get egg bound. They are practically free from lice and other pests.

There is a greater loss among ducklings than among mature stock and every precaution should be taken to keep them in the best of health. Prevention of disease should be the byword in raising any and all types of fowls.

Be sure that brooder temperatures are correct and that feed used is absolutely sweet and clean, and likewise the houses and yards. The water dishes must be kept clean and well disinfected and the young birds have plenty of clean food if you want to maintain them in good health.

One of the most common diseases that ducklings are subject to is gapes or pneumonia. It is not the same as gapes in chickens but a form of cold which approaches pneumonia. When the ducklings have contracted pneumonia they stand around, stretch their necks and gasp for breath. When it has reached this stage they die in a very short time. Occasionally mature ducks are affected. To prevent and cure this disease be sure that the brooding house and sleeping quarters are free from drafts and that the brooding conditions are correct.

Fits is another disease that attacks ducklings three or four days old. They simply keel over and die. It is undoubtedly caused from digestive troubles and can generally be prevented or stopped by feeding an abundance of green food. Diarrhoea is a common trouble among baby ducks ,often caused by their becoming overheated or chilled in the brooder or by improper feeding.

The ducklings may become lame and many of those affected die. The trouble is generally caused by feeding a poorly balanced ration, sour feed, overfeeding or damp pens.

Occasionally ducklings will have an watery discharge in the eye, caused by too much sloppy feed. Place the birds by themselves, correct the feed and bathe their eyes in some antiseptic solution such as boracic acid and in a short time the condition will disappear.

Feather eating occurs generally in ducklings that are kept in crowded quarters. It starts when a bird is injured and the other birds, attracted by the blood, pick at it. Soon the habit spreads among the flock. Remove the feather eating birds, if it has not spread through the whole flock, and place them with older birds fully feathered. This will generally break the habit. Where it has become quite general give them plenty of range from which they can secure all the green food they wish.

Rats are very destructive if they get among ducklings, therefore provide against these pests.

Goslings are very free from disease, and a large percentage of those hatched should be raised. Diarrhoea is caused by bad feeding, by soft feed in a sloppy condition, by stagnant water or dirty drinking dishes. Change their feed at once and give them a small amount of cracked corn daily. Faulty feeding may also cause lameness. Therefore study correct feeding.

Supply grit and gravel and beef scrap if you expect geese to do well. Goslings sometimes contract an infectious disease called goose septicemia which is similar to fowl cholera. There is no known remedy. Kill the diseased birds and change the balance of the flock to new ground if possible. The houses, feed troughs and drinking vessels which the birds have been using should be thoroughly disinfected.

Both duck and geese feathers more than pay for the cost of picking and saving. The soft feathers should be separated from the quills as there is quite a difference in the value of the different grades. After picking, the feathers should be put in a dry, airy place so that they will dry out thoroughly. This process can be hastened by stirring the feathers every few days. Failure to dry the feathers thoroughly will result in their heating and molding, and one will have to take much less for feathers in this shape than if they are thoroughly dried.

SHEEP.

As a rule lambs are better taken off the ewes when between four and five months old. By that time the ewes will not have a great deal of milk and it is better for both the lambs and ewes that they be separated. The breeding flock will have an opportunity to gain up in flesh and if the lambs are put on good pasture they will make better gains. If it is possible the separation should be made on a cool day and if they can be put at different ends of the farm it will prevent a good deal of fretting and worrying. It is not advisable to put them together again but to make the first separation final.

A rape pasture with a grass field adjoining makes an ideal pasture for the lambs after weaning. If this is not available, second growth fresh clover or fresh spring seeding that has made good growth will make a good substitute. In the case of pure-bred flocks where the male lambs have been kept for breeding purposes it will be necssary to separate them from the ewe lambs.

Strange Botanical Phenomenon

The most remarkable botanical discovery in recent times has been the discovery a short time ago that the Douglas fir growing in certain pats of the dry belt of British Columbia yields a good sugar quite as palatable and much sweeter than cane or beet suger used on ordinary occasions in the households of the world.

The photo accompanying will tell better than words what it looks like. Every year for centuries the Indians have gathered it, and the bears break down branches to get it; but until lately it has escaped the white man's attention. It contains nearly fifty per cent. of Melezitose, a rare trisaccarhide, formerly only obtained from a shrub in Persia.—Francis Dickie.

MAKING AN OLD KITCHEN NEW

BY DORIS W. McCRAY.

The other day a group of women met to talk about making over kitchens. After partaking of an unusually good picnic dinner and the usual exchange of recipes, we began the regular meeting.

Our specialist, sent by the Women's Institute Branch of the Provincial Dept. of Agriculture, first asked the women which they wanted most, light or water in the kitchen. She told of one woman who had a sink and running water put into her kitchen for $6, another for $8, each confessing that she could have afforded it long ago had she known how small the expense would be. Several women present who had had electricity installed, pointed out its advantages, and said they used the power not only for light, but for running their various machines. The relative cost of acetylene, electric light from a farm plant, and light from the high-power line were discussed.

HOW MUCH WINDOW SPACE?

Brackets over the sink and worktable to hold lamps where they would give best light for evening work were then recommended. Our specialist said the glass area in a kitchen should be 20 per cent. of the floor area.; for instance, a room measuring ten by twelve feet would have 120 square feet in the floor, and therefore the windows should total twenty-four square feet of glass. She mentioned white walls as making the room seem lighter and larger; but light gray or tan walls are preferable because softer in tone and easier to keep clean in a room where canning, separating and some of the heavy tasks incident to butchering are done. Our hostess stated that she likes her white kitchen and finds it little trouble to keep clean, but she has no small children, and her summer kitchen (in the basement) accommodates separator, washer and meals for harvesters.

THE BEST FLOORING.

Samples of flooring, including oiled hard maple, varnished hard pine, inlaid and printed linoleum, were then shown. The oiled floor is good when a little oil is used and it is rubbed well into the grain of the wood, using much pressure. Women who had different floors told of their advantages and disadvantages, linoleum was in favor as the easiest to clean and the prettiest to look at. The method of preserving it is to give it three coats of good grade floor varnish every other year. She had seen a linoleum fourteen years in use which had been given this care and it was in fine condition. After the figures have worn off the printed linoleum, two coats of paint and one of varnish were advised. A worn ingrain carpet treated with a filler, paint, and varnish makes a good substitute for linoleum.

Mop-wringers then came up for discussion and it was remarked that one never sees a janitor wringing a mop by hand.

KITCHEN ARRANGEMENT DISCUSSED.

There was more truth than poetry in the humorous cartoon showing the woman in an old-fashioned, kitchen, walking several rods during the making of an apple pie. At our meeting a kitchen plan was shown and the lines of travel traced which the owner would walk during the preparation of meals. The plan was then re-arranged by means of a few changes which would save many hours of work and miles of travel during the year. We then adjourned to our hostess' kitchen and watched her make a pot of coffee, walking just eight steps, while our specialist told how in the old kitchen of her girlhood home, she had walked eighty steps in performing the same task, while a little thought in arrangement of materials would have saved time and steps. The advantages of tea carts, wheel trays, and tables on castors were discussed. Our hostess explained the advantages of her kitchen which she planned just as she wanted it when they built the house a few years ago. It is a most convenient kitchen for a country home.

We then filled out questionnaires which set us thinking about our own kitchens. The questions concerned water supply, light, ventilation, floor and wall finishes, kind of fuel, storage space, equipment and floor plan. Questions about equipment were worded something like this: "Do you have a refrigerator, high stool, comfortable chair, dish drainer, gasoline iron, carpet sweeper, vacuum cleaner, wheel tray, power washer, electric iron, mop wringer, fireless cooker, pressure cooker, dumb waiter?"

Iceless refrigerators, those which lower into a hole beneath the cellar floor, were favored, since they would also serve as dumb waiters for carrying fruit jars up and down cellar. The price of these refrigerators ranges from $35 to $45, and in some cases they have been copied by the home carpenter. A hole two feet deep in the cellar floor was suggested as a cool place in which to keep milk. A window box is handy for the less cold part of winter, the box being attached to the sill so that when the window is raised the food can be put into it to keep cool.

Other kitchen problems were talked over, and I am sure every one of us went home and improved our own kitchens, if only to move the salt box and the tea canister nearer the stove.

THE CHILDREN'S HOUR

MONEY-MAKING STUNTS.

Taking care of my mother's chickens I have found to be a profitable business.

My sisters were knitting sweaters to earn money, and, as they were earning money, I was eager to earn some also. I had no way to earn it. One day mamma told me if I would take care of the chickens she would give me an egg out of every dozen. I thought this a good way to earn money, so I started out.

My duties are as follows: In the morning I give them feed, water, and open the nests. At night I give them feed, water, gather the eggs, and shut the nests. About every two days I make them a mash which I put in the self-feeders.

We have about 100 hens. Some White Leghorns and some Rhode Island Reds. On an average we get about five or six doezn eggs a day. We now have about fifteen hens setting, so we do not get as many eggs as at first.

On an average I get about eighty cents each week. From this I put ten cents in the bank each week for the Christmas Savings Club. I also put away that much at home.

I keep enough on hand to buy my pencils and tablets for school, and to give at Sunday School.

I enjoy doing this work very much. —Marjorie J.

Last year my mother gave me four ducks and a drake and told me I could do whatever I pleased with them, so I saved all the eggs and set them as fast as I got enough to set. I hatched 104 of them and raised ninety-five. I sold enough ducks to bring $60, all of which I put in the bank and it is there yet. I mean to leave it there and to put more with it.

We had some ducks to eat. I think ducks are better than chicken to eat.

The last fourteen ducks I gave to my mother to pay for the feed I used feeding my ducks. I fed the little ducks bread or johnnycake in milk until I got them started, then I gave them a wet feed of corn meal, bran and middlings, with a little meat scrap mixed in. I keep them closed in small pens on hot days and let them out in the evenings when the sun wasn't so hot for them.—David S.

The best money-making stunt that I ever had was a share in an acre of cucumber pickles. I know that there is money in them for I have tried them. There are many more things to make money, but I take pickles for mine. Here is my reason for liking them.

Last year my father planted an acre of pickles, and if we would hoe them and take case of them, we would get part of the money they brought.

At the end of the summer we had made $79.98. We each got $11.98 to add to our bank accounts.

We made the very best use of our money. Just now, when we don't need it, we put it in the bank because it is drawing interest. Then when we need it, it will be a much larger sum than when we put it in there.

I think it is well for children who have the chance to grow something of their own and get the money from it for their own, because it teaches them how to raise a special thing and how to care for it.

We have put in another crop of pickles this year and the money will be ours if we take care of them. You can't lose on pickles, because if they do not grow, you don't have to bother with them.—Martin L.

Poultry Manure for the Garden.

Poultry manure is an ideal garden manure. It is very strong. It contains more phosphorous than other manures. I found that if the dropping boards were dusted with ashes or soil to absorb the ammonia, and the scratching material was mixed with the droppings from the board in a compost pile it made a top-dressing for use during the summer that had no equal among fertilizers, improved only by using acid phosphate or absorbing material on the dropping boards. It made my plants dark in foliage and rapid in growth. It will be improved by the addition of some bonemeal if acid phosphate is not used as an absorbent.—A. H.

The next time you have trouble fastening an engine, cream separator, or even a barn partition to a concrete floor, try the following plan and I think you will be as well pleased with it as I have been:

Chisel the necessary holes in the concrete. With a templet, set the bolts and hold them accurately. Melt sulphur and pour into the holes to fill them, and let it harden. It will so weld the bolts to the concrete that they can not be twisted loose, and will spring enough that it will not crack. The one caution is, be sure the concrete is perfectly dry, or the steam generated by the hot sulphur will drive it out before it has had time to harden.—E. B.