Soils and Crops

Address communications to Agronomist, 73 Adelaide St. West, Toronto.

E. R. L.:—Please prescribe a proper ration for my cows to supplement oats, corn, corn fodder and marsh hay.

Answer:—A ration made up of corn fodder and marsh hay as the roughage and ground oats and corn as the concentrates lacks both nitrogenous elements, which are necessary in milk production, and succulence. It would be well to make the grain ration one-third each of bran, corn meal, and oat chop. An even better addition would be oilcake meal, about one pound per day. Clover hay would make a valuable addition to the coarser portion of the ration. One feed of this per day would be a suitable amount. From 15 to 25 pounds of either turnips or mangels a day to each animal would help the succulence of the ration.

J. B.:—Would you kindly give me an opinion on feeding rye to dairy cattle, i.e., in connection with other feeds, such as oats and corn?

Answer:—Rye is an unsuitable grain to feed to dairy cows for the reason that this grain is subject to the disease of ergot. Ergoted grain is liable to cause premature birth and should therefore be avoided with all breeding animals.

R. K.:—I have twenty-two fall pigs and I have no milk, only what I buy and that is half water. How would tankage go and how much should I feed to each one hundred pounds of weight of pigs? Please tell me where I can buy it and its probable price.

Answer:—The Dominion Experimental Farms as a result of experiments carried on in the feeding of tankage to swine, have adopted two systems of using this feed, which is found to be a very useful substitute for milk. One is to expose the tankage in an open box in the pen and allow the pigs to help themselves. At the same time they are give satisfying rations of either dry chop or sloppy feed. The other system is to mix the tankage with the chop and feed it either dry or in sloppy condition. When the tankage is mixed a proportion of from 5 to 6 per cent. of the mixture is used. When pigs are allowed to help themselves they usually consume a slightly larger proportion, reaching in some cases to 7 per cent. of the whole ration.

The price of tankage varies according to its protein content. Tankage containing from 50 to 60 per cent. of protein usually sells at about $55 per ton. The lower grade which contains about 45 per cent. protein, has a market price of about $45 per ton, so that the cost is about the same in either case in relation to the value of the feed. Tankage is a byproduct of the modern abattoir. It is usually sold by feed merchants and the larger seed stores.

W. H.:—I am going to keep my sheep in an old hen coop this winter. Will chicken lice stay on sheep? If they will, what should I use to remove them?

Answer:—It is presumed that the building termed a hen coop is something more than the name implies, rather a house in which fowls have been kept. Poultry lice are quite unlikely to remain on sheep. They do not remain on human beings. It would be well, however, to cleanse the house of this class of vermin. Poultry lice are usually found in cracks and crevices or behind boards near the roosting quarters. All loose boards should therefore be removed and the house given a thorough disinfecting wash, preferably put on by a spray pump. A three per cent. solution of creolin or a hot lime wash should be effective. Unless the building is much larger than the term hen coop would suggest, the sheep should by all means be given an outdoor run. In fact they would be the better for this in any case.

C. R.:—Can you tell me the reason that my five-month-old pigs have piles? What can be done for them?

Answer:—The ailment complained of is probably due to constipating foods and the need of exercise. This can be corrected by adding a small proportion of raw linseed oil to the ration, feeding liberal quantities of roots and allowing for a daily run in a sunny yard.

The Importance of Colostrum.

This big word colostrum refers to the first milk given by the cow after becoming fresh. We have always thought that the value of feeding the first milk to the calf was to clean out and start the digestive organs in the performance of their proper function. It appears from tests recently made that this position was wrong.

Experiments running over two years have established the fact that this colostrum is a real germ killer. It destroys the dangerous germs which lurk in the digestive tract of the young animal. Some of the calves in these experiments were given laxatives to make certain that their bowels moved regularly. These calves were much weaker than those receiving colostrum and the death rate was as high as among those not getting this first milk. Out of twenty-two calves which did not receive colostrum, eleven died.

Calves from tubercular cows can be raised without exposing the young animals by heating the colostrum to 140 deg. F. for thirty minutes. This destroys the tubercular germs but does not decrease the disease-resistant or immunizing properties of the colostrum. To prevent thickening the colostrum should be heated in a double cooker or in a pan placed in a bucket of hot water. A large number of calves were raised on colostrum thus treated and are doing as well in every way as the calves which nursed their dams.

A Canadian Plant Registration.

A movement has been set on foot for the recording and registration in Canada of new varieties of herbaceous plants, shrubs and trees. At a meeting of the executive committee of the Canadian Horticultural Council, held in Ottawa on Nov. 13, it was decided to proceed with the establishing of the bureau on the basis of a report prepared by the Registration Committee of the Council.

The registration proposed is intended to protect the name of a new variety and the rights of the originator in the same sense that inventions are protected by patent rights. The registration machinery will include provincial representatives, as well as committees to deal with different classes of plants. Applications will be first dealt with by provincial representatives, next by the Registration Bureau who will determine whether or not the name asked for is already in use. The Dominion Horticulturist will then pass his opinion on the merits of the plant, and registration will only be given with the sanction of the Registration Committee. The proposition has been laid before the Dominion Minister of Agriculture, who approves of the plan, and gives hope that the necessary assistance for carrying on the Bureau will be provided. The Secretary of the Registration Committee and also of the Council itself is Captain L. F. Burrows, Ottawa.

Winter Pointers.

When sheep are exposed to cold, sharp winds, they become blind. Treatment, five or six drops of a saturated solution of boric acid in the eyes, twice a day. Keep it up several days.

When you stop the team on the road, put the blankets on. Have horses sharp-shod on icy roads.

Water stock in the barn rather than turn them out in stormy weather.

Keep fall pigs growing. It doesn't pay to rough them through the winter. Get 'em ready for early spring market.

If the fowls are kept busy scratching in litter, they do not mind the cold.

Seed Corn Needs Air.

Give air a chance where seed corn is stored. The air should get to every kernel of the ears. This means that the corn should not be piled on shelves or even laid on the floor. The best plan is to sling it up with twine or stick on nails so that no two ears touch each other. This will provide for the free circulation of air and thereby increase the germination.

Farming is a game of put and take. The more you put in of fertility and care, the more you take out in crops.

Poultry

The use of milk in producing eggs and poultry meat is becoming more general, as the good results are evident. Breeders who do not produce milk at home can often buy the commercial semi-solid buttermilk. Experiments have proven that five pounds of sour skim-milk is about equal to a pound of the commercial semi-solid buttermilk.

The cash value of the sour milk for poultry feeding is rather difficult to determine, but a fair price of seven cents per gallon has usually been considered fair. The commercial semi-solid buttermilk usually costs close to four cents per pound, although the cost is greatly influenced by the amount purchased and the freight rates.

There are quite a few poultrymen mixing their own dry mash by purchasing the semi-solid buttermilk for the protein and then adding as much home-raised grain as possible, plus the necessary items purchased off their neighbors or elevator. This makes an economical mash and the poultryman knows what he is feeding.

There seems to be a value to feeding milk that cannot be expressed easily in cash. It has the vitamines which produce growth and vigor. Breeding stock that have milk in their ration seem to produce more hatchable eggs than hens which get all their protein through beef scrap or fish scrap.

In feeding liquid sour milk and buttermilk the dishes should be frequently scalded and scrubbed with a corn cob to loosen the gummy accumulations. Dirty milk seems to be a source of digestive troubles. Do not feed sour milk in any type of fountain which cannot be opened up so you can see all the inside when it is rinsed and cleaned.

Right Type of Hog Essential To Export Bacon Trade.

Addressing a body of senior officials of the Live Stock Branch of the Federal Department of Agriculture at Ottawa a few days ago, Dr. J. H. Grisdale, Deputy Minister of the Department, pointed out that at the present time Canadian bacon on the British market is losing rather than gaining ground. This conclusion was drawn from a study of markets while in England a few weeks ago. Compared with Danish bacon, which easily tops the import market, Canadian sides were too short and in many cases too thick to command the best prices. The difference in price between Canadian and Danish was about three cents per pound. This was on the wholesale market, and the limited study that could be given to the retail market indicated that a wider difference between Canadian and Danish bacon was the rule. Dr. Grisdale expressed confidence that hog grading, now being established, would tend to restore to Canada her lost prestige on the British market, which is the only outlet of importance for Canadian bacon.

Shipping Potatoes in Winter.

To make a box car safe for shipping potatoes in weather that is below freezing, the floor, walls and ceiling of the car must be covered with building paper held in place with laths. After papering, a false floor should be laid on supports running lengthwise. This allows a free air channel, four to six inches deep, below the false floor and extending from the centre of the car to either end and connecting with vertical air-passages formed by false walls built four to six inches from the car ends. False walls, also, should be built a few inches from the sides of the car. The false floor should not cover the area between the doors. Here a stove is installed, if the shipment is likely to pass through severe weather. A false door should be built on one side for a stovepipe and bulkheads put across the car at either side of the doors to form a "well" for the stove. These false walls, as well as the centre bulkheads, rise well toward the ceiling, and with the false floor form two large bins around which the air continually circulates. The bins should be lined with paper.

Care of Barnyard Manure.

The conservation and application of farm manure is a matter of vital importance to farmers, as the amount of available plant food in the soil is the principal factor in determining crop yields.

Barnyard manure is the most effective fertilizer and best soil improver known. Each ton contains approximately 10 pounds of nitrogen, 5 pounds phosphoric acid and 10 pounds of potash, supplying three essential elements of plant food. For increasing soil fertility farm manure is unequalled and it is one of the most valuable assets of the farm. The more manure the larger the crops, the larger the crops, the more live stock that can be kept which in turn will produce more manure and increase crop production.

All the liquid manure should be saved as it is far richer in nitrogen and potash than the solid excrement. The floors and gutters in the stables should be sound and liquid-tight. Sufficient litter or bedding material should be used to take up all liquid.

Manure for corn, which is one of the principal crops entering into rotations of all stock farms in Eastern Canada, can be applied as made by drawing it directly to the fields and spreading it where corn is to be sown the following season. This practice means not only a saving of labor but prevents losses in plant food from leaching and heating.

With the limited amount of manure usually at the command of farmers, it is not desirable to plow it under too deeply. If well incorporated with the first five inches of soil, it will, by its fermentation, warm the surface soil and increase its moisture-holding capacity and thus nourish and feed the young crop when it is least able to forage deeply for its food.

Parents as Educators

Making the Most of Stories—By Mary Frances Davis

One of the most valuable assets of the mother of small children is the ability to search through her treasure-house of stories and find just the right one for the need of the moment.

All children love stories, and are eager to listen to any interesting one, but by giving careful thought to the selection of her stories a mother may make them contribute directly to the mental and spiritual development of her children. The real purpose of telling stories is to give joy, and of course this primary aim should always be uppermost in the mind of the narrator.

The simplest way to classify stories is according to the age of the hearers. Nursery rhymes are used universally as the very first stories, for they delight children who are still mere babies. The jingling rhythm first attracts the attention, and after many repetitions, as the little minds develop the words begin to convey mental pictures, and the story is gradually understood. Many babies only two years old recognize and enjoy most of the Mother Goose rhymes.

There is a slight gap between the stories given in story-books. We have found that two-year-old children greatly enjoy simple tales relating their own personal experiences, when told in a clear, direct manner. For instance—"Once a little boy named Preston went out for a walk, and he fell down and began to cry. His friend, the squirrel, ran down from a tree, and looked at him. Then his big friend, the dog, ran to him and barked 'Bow-wow.' Then along came his sister, and said, 'Don't cry, little Brother.' So the little boy stopped crying, and stood up, and smiled at all his friends." Mothers will find ample material for these home-made stories in every-day happenings, and should use simple words and keep the action brief.

The stories that naturally follow these fall into two classes, those which relate incidents that might really have happened, and those which open up the world of fairies and make-believe.

Children of kindergarten age delight in fairy tales, because they stimulate the imagination. In this stage of mental development the imaginative powers are very alert, and little children live almost as much in the world of make-believe as they do in the real world. Because af this their minds crave fairy tales.

Nature lessons may be taught beautifully and impressively through stories. Children enjoy these, and at the same time gather much valuable information.

Boys are especially interested in true stories of heroes, and many historical facts may be presented in this way.

Several recent collections of children's stories are indexed according to the moral lessons they contain. This method of classification is very useful to mothers who like to use stories as a means of discipline. A skillful story-teller may relate her story with the idea of correcting some childish fault, without losing the fresh, appealing charm of the story itself. Perhaps this is the supreme test of a good story-teller.

THE ROAD TO SUCCESS.

Dallas News

Walk Into My Kitchen!

By Marjorie Sims

Why should not my kitchen be one of the most attractive rooms in my house, since I spend a larger proportion of my time there than in any other one room, except my bedroom?

The kitchen I grew up in was big. It took an endless time to mop. The window looked out on the hog lot and all I could see was mud. The stove came out in the middle of the room and I had to walk around it to get back to the sink. The pantry was across the room from the stove and the table and the miles to be walked in bringing dishes from the dining room, across the kitchen to the table by the window (washing them while we gazed mournfully on the hog pens), then carrying them back again—some to be put away in the pantry, and some to be returned to the dining room—the miles did not add anything to our zest for housework.

The floor was always dark because a dark floor did not show spots. The walls, ceiling and woodwork were dark green for the same reason.

Those readers of this page who have never worked in any but bright, cheerful, sunny, small, convenient kitchens can never appreciate them as I do mine—after the kind I have described.

I decided that my kitchen was too big and I find now that the ten by twelve floor space is all I need even for my large family. Our house has a living room in which the family can "live" so I do not need to plan on using the kitchen for anything more than kitchening in!

There's so much beautiful in Nature to be looking at while working, that what is the use of staring at barn, alley, or hog pen all the time? The windows over my sink look out on the road, and on some days I have a movie all of my own. The other window, full length, gives me a view of flower and vegetable gardens and the driveway. Just grass and trees make a restful view.

The Best Position.

I really had some things to enjoy in the old kitchen. One was the breeze from the south and another was the shaded west window that let enough of the afternoon sun in to keep things cheerful. The tree outside the west window saved us from a hot room when getting supper ready. My own kitchen has a door and window on the south, and two half-windows over the sink on the west. I have been in many delightful south-east kitchens but I wanted the east side of our house for the long living room and sun parlor. I have always said that if we built our kitchens first and then built the rest of the house around them, we could have what we wish and the kitchens would not be stuck into the only corner left for them.

Proper ventilation makes such a big difference—it gives us a cool room to work in when necessary and provides a way to draw off the odors of cooking that we do not wish in the other part of the house. I enjoy the spicy smell of gingerbread, but need I always announce to the whole family that I've let the potatoes boil dry or the eggs scorch?

Good light is necessary for efficiency. The woman who for eleven years lighted a match every time she looked into the oven was wasting matches, endangering her life and the house, and cutting her efficiency at least in half because the hand holding the lighted match was no help in turning, lifting or taking food out. Later on she found that she could get plenty of light into her oven by simply turning the stove around.

Light should come from over the left shoulder. If it does not, we work in our own shadows. For this reason a central light is not satisfactory; each working space needs its own light. I had one light put in over the sink, one near the range and a third near my mixing cabinet. I might have had a central fixture into which to screw a three-way socket. Then I could have used three cords and had my three lights wherever I wished. If I could not have had electric lights, it would have been easy to have shelves built near or over these various working surfaces and put lamps on them.

Question of Curtains.

Curtains have a place in the kitchen but only certain kinds of curtains. Cretonne is not good because it does not launder satisfactorily. Heavy unbleached muslin is not good, either, because it shuts out too much light. My curtains are made of dotted Swiss, thinly starched, and ironed in pleats to give my windows the fresh, crisp look I love. Because of the amount of pleasure I get from these curtains I am perfectly willing to spend the time it takes to iron them. If you do not have the time or desire for curtains like mine, try this type: get very sleazy, thin unbleached muslin, for sash curtains. Crochet loops across each end and run the curtains on two rods—one at the top of the sash and the other at the bottom. These curtains do not blow out over things when the windows are open and can be pushed aside to let in as much light as desired. If the rods are fastened to the window casing, the curtains can be raised with the window. They do not need ironing but are simply washed out at night, stretched on the rods and by morning they are dried in pretty, fresh folds. I use colored loops to make them more attractive.

Dutch curtains for the full length window are satisfactory. These consist of a pair for each sash, those of the upper sash being finished at one end with a heading and at the other end with a hem. Finish the pair for the lower sash with a heading at each end and run them on two rods which are fastened to the casing. When the lower window is opened the lower sash curtains slide up under the upper pair. Light can be let in from or shut out from either sash as desired. There is a pretty seersucker material on the market which does not need ironing. This material comes all white or white background with colored stripes. Finished with a simple little cotton edging that costs a few cents a yard, it is most attractive.

Gingham curtains finished with a rick-rack or plain bands, crossbarred dimities and swisses are all satisfactory materials.

The Cozy Corner.

My cozy corner does more than any other one thing to make my kitchen—and therefore myself—cheery. I sat considerable time in that dark green kitchen, on a straight, ordinary "kitchen chair" waiting for cake to bake or for the tea kettle to boil or watching the meringue that had to be snatched out of the oven at just the right second. I do not mind sitting in the kitchen I have now and I find my friends and neighbors like it too.

Over by the long window I have a comfortable little sewing rocker. There is a book shelf under the window sill, because I like to read something besides a cook book once in a while. One neighbor said to me, "whenever I have a minute to rest I want to get away from my kitchen—clear out of it." Well, may be I should feel that way, to, if I had to work in her kitchen. Mine is not the kind I am always wanting to get away from. Another neighbor said, "don't you think a rocking chair is too good for the kitchen?" and I replied that nothing is too good for the kitchen if it is built to serve its purpose. Spindle-legged rockers no longer good enough for the parlor have no more place in the kitchen than does the picture, An Indian Massacre, hanging over the bed in the spare room where the guest is supposed to sleep peacefully! A comfortable, substantial rocker, either wicker or wooden, has just as definite a place in the kitchen as the sink, range, or table. At least I think so!

The things which it seems to me, make any kitchen cheery, are its size, its coolness, its brightness and its coziness. And so, in contrast to the dark green kitchen of my girlhood, my kitchen of to-day is comfortably small and cheerfully bright. I say this because it could be glaringly bright. I like to look out of its windows and watch passerby on the road. And when I am tired and want to rest a minute I can rest right there, and not have to go through the dining room or up the hall to the living room to find a spot into which I can "drop."

I keep a pot of parsley or some other green growing thing, in the window sill. What a difference it makes! It would have cheered up my old dark green kitchen and I know curtains would have done worlds for it, too.

The Trees Don't Strike.

One day, this summer, after reading all the news about the coal and railway strikes, I happened to be taking a ramble through the woodlot. In the course of my walk I passed several fine piles of all-body maple stovewood that was cut last spring and is seasoning properly for use next winter. It is true that we only meant to use it in the kitchen stove, but if there is any shortage we will not find it necessary to burn the furniture or tear up the floors to get fuel to keep us warm. We went through a winter in the war without using the coal stove, and can do it again. Of course coal is handier to use, and needs less attention, but if the coal operators and their employees will quarrel it doesn't mean so much to us as it does to city people. The woodlot is a kind of insurance for the home that is worth keeping up. A shortage of coal for fuel will stimulate reforestation in the country, for many farmers already realize that it is not safe to be entirely dependent on outside supplies of fuel. It will also promote the development of electricity for the transportation companies, and all users of power see the danger of being entirely dependent on coal. These things in turn will help to conserve the world's coal supply, which is in danger of being used too rapidly in our modern enterprises. So that we can see that even strikes may serve useful purposes never dreamed of by those who promote them. If we haven't sense enough to practice reforestation and conservation Providence makes use of our struggles and foolishness to lead us to the right course.—Peter McArthur.

Value of a Woodlot.

A woodlot on every farm, maintained under the rules of scientific forestry, drawn upon for fuel annually, would make about half of the population of Canada wholly independent of the coal miners and the coal mine operators in the matter of keeping the home fires burning.

The man who works late may catch up with his work, but the one who starts early keeps ahead of it.