Soils and Crops

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

FEEDING FOR WINTER EGGS

No other place presents such opportunity for making a splendid profit from poultry as can be found on the farm, but inattention and lack of proper care often serve to make many of our farm flocks an expense rather than a profit-producing factor which they should be and would be under proper management.

Assuming that the fowls have fairly good houses to stay in, the next most important thing to do to get winter eggs is to feed properly. This does not necessarily mean expensive feeding but that the birds must be given the right kinds of feeds, of the proper amount and at the right time.

Hens will not lay enough eggs to pay for their feed if kept in houses having no straw or other litter on the floors with the window panes broken out and the doors wide open but will stand around huddled up together trying to keep warm. Therefore, before cold weather sets in, see that the poultry house is in good liveable shape for the hens during the winter. Give it a general overhauling and cleaning and put about six inches of good dry litter of some kind on the floor.

Regularity of Feeding.

Almost as important as what to feed is the regularity with which you feed. Regularity in feeding is one of the primary factors in getting a good egg production from your flock. You will be surprised, if you have never fed regularly, how soon the fowls will get to know when it is feeding time. A sufficient amount must be given the birds to keep up the body requirements. Many people seem to think the reason they do not get eggs in the winter is because they do not have variety enough of grains to make a good producing mixture. This is not so, for very good egg yields can be had from a mixture of cracked corn and oats or wheat and oats will do very nicely for a scratch grain, supplemented by a good dry mash and some sour milk, beef scraps or tankage.

Give the birds some green food three of four times a week in the shape of cabbage, rape, or mangel wurtzel beets if they are available. Green food is a good regulator for the birds and seems to help to keep them in good condition. If the flock is composed of Leghorns, Anconas or other of the smaller breeds, feed about one quart of the grain mixture a day to 15 hens. If for Plymouth Rocks, Wyandottes, Rhode Island Reds or other fowl of this class, allow one quart to 12 hens, feeding one-fourth of the amount early in the morning, another quarter some time between 10 o'clock and noon and the remaining one-half at about 3.30 in the afternoon especially during the short days of the late fall and winter months. As the days begin to grow longer, advance the feeding time about 15 minutes each day until your afternoon feed comes at about 4.30. This will make the change so gradual that the birds will hardly know it is taking place.

A good mash mixture should be kept where the flock can have access to it at all times. One composed of equal parts by weight of cornmeal, bran, middlings and beef scraps or tankage will give good results. Milk in any form is splendid and where one has enough to keep it before the fowls all the time, the beef scrap or tankage may be cut down from one-half to three-quarters. Splendid results have been obtained by making the milk take the place of the animal protein (beef scraps and tankage). If milk is fed, do not feed it sweet one day and sour the next for bad results are often experienced by changing from one to the other and are noticeable in the loose condition of the droppings. It is best to feed milk in the sour state.

The question is often asked: "What is a good egg yield for a farm flock in the winter?" One egg to every three hens a day or 33 1-3 per cent is very good. There are no secrets in the proper feeding of hens to get eggs whether it be winter, spring or summer, but it does take a little pains to feed the birds so as to keep them in nice healthy condition.

The grain should be scattered in the litter throughout the house (not just thrown down in a pile) so as to make the birds work to get it. Keep in mind that only active birds are egg producers.

Watering the Flock.

Lack of water for the farm flocks is one of the greatest drawbacks to getting a good egg yield. Be sure the birds have all the water they want to drink. I have been out among farm flocks during cold, freezing weather and have seen the poor birds standing around an old pan or dish of some kind about half full of ice or worse, yet there was no dish at all for water. In the first place, it is not right to treat the fowls in this manner and moreover, no eggs will be laid by hens that do not have a good supply of water. As the hens begin to come into laying condition and to lay, they drink vastly more water than during the time when they are moulting or shedding their feathers, in other words, when they are not laying. Do not feel satisfied with your efforts in this direction by giving the birds just water but in the winter take the chill off.

On very cold days a warm mash fed at noon, about all the birds will eat up clean in 10 minutes, will help to fill the egg basket.

Provide lime and grit in some form as it is absolutely necessary for the fowls to have grit with which to grind their feed and lime for the purpose of making shells for the eggs. This can be done by having a good-sized box of gravel about the size of peas and some old plaster; or by purchasing commercial grits and oyster shells.

In going among the birds, do not hurry or move about too quickly as every time you scare them, you check their egg yield. Before going into the poultry house, call to them, "Chick, chick!" or rap on the door so that they will know you are approaching and will not be taken unawares. Leghorns, which are considered a highly nervous fowl, can be made very tame by careful treatment.

It often bothers one who is starting to keep poultry, as well as those that have been keeping it for years, to know when the birds are getting enough food. This can easily be determined by going out to the poultry house at night for a few nights after the birds are on the roosts and feeling the crops of a few of them. If they are full, the birds have had enough to eat. Otherwise, they are not getting food enough.

The following rations have been tested and found to be excellent for Leghorns, Anconas and the smaller breeds:

The number two ration, known as the wheatless ration, was fed by many during the war when it was impossible to get wheat. It gave splendid results on many farms throughout the country.

The number three ration is especially good for Plymouth Rocks, Orpingtons, Wyandottes and Rhode Island Reds.

It goes without saying that which ever ration you choose, its efficiency rests upon the quality of the grains composing it.

Ration One.

Mash mixture—16 lbs. cornmeal, 6½ lbs. meat scraps, 1 lb. of bran, 1 lb. of middlings.

Grain mixture—8 lbs. of cracked corn, 8 lbs. of wheat, 8 lbs. of oats.

Ration Two.

Mash mixture—3 lbs. of cornmeal, 1 lb. of meat scraps.

Grain mixture—2 lbs. of cracked corn, 1 lb. of oats.

Ration Three.

Mash mixture—1 lb. of cornmeal, 1 lb. of bran, ¾ lb. of meat scraps, 1 lb. of middlings, 1 lb. of ground oats.

Grain mixture—2 lbs. of cracked corn, 1 lb. of wheat, 1 lb. of oats, 1 lb. of barley.

Remember the following: Feed regularly; scatter the grain in the litter; be sure the birds have all the water they want to drink; feed milk either sweet or sour—preferably sour; move among the birds carefully; see that the birds have enough to eat and have access to grit and oyster shells. In a short time you should be getting a satisfactory egg yield.

When the egg yield is unsatisfactory, there is a removable reason.

The Dairy

Wheat bran is extremely valuable in the ration for dairy cows and is relished by them. When it is fed in limited quantities to cows producing a large flow of milk, there is less danger of the animals going "off feed."

Bran is highly palatable. It is quite bulky and, when added to the ration, assists digestion and keeps entire digestive system in good working condition. When a ration is compounded from concentrated feeds, such as cornmeal, finely ground oats and cottonseed meal, it is advisable to lighten the ration by adding a liberal amount of bran.

Heavy producing cows on a dry ration with limited succulent matter need, in addition some kind of feed having a laxative effect upon digestion. From my experience in feeding dairy cows under varied conditions I consider bran a most excellent feed for this purpose. Cows confined to stables during the winter should receive a liberal feed of bran daily to preserve the digestive system and promote food assimilation.

Dairymen should not, however, look upon bran as an economic source of protein, carbohydrates, or fat. Many a dairyman has reduced his profits from his herd by going to the extreme of feeding too liberally of bran, thinking that if a little is good more is better. Bran, like other feeds, should be fed judiciously to add bulk, palatability and mineral matter to the ration.

Cows freshening in the winter should be taught to eat bran mash. This can easily be accomplished by beginning to feed a limited amount of bran along with other feeds two weeks previous to freshening. As the cow approaches freshening reduce the other feeds, whatever they may be, and gradually increase the bran. In a few days the cow will relish having the ration dampened. A great deal of trouble may be averted at freshening time if dairymen would follow the above practice.

Enemies of House Plants

BY JANE LESLIE KIFT.

It requires eternal vigilance to keep house plants in a healthy, growing condition, and when they cease to put forth new growth, it is quite likely that they have been attacked by some insect pest. Soft-wooded plants, such as fuchsia and heliotrope, which are usually rapid growers, are more likely to become covered with insects than are the slow-growing hardwood varieties.

Persistent efforts will overcome these enemies if the remedies are applied before the insects have interfered with the growth of the plant. Once the growth is retarded the insects are much harder to rout.

One of the commonest insects to attack soft-wooded plants is the aphis, or green fly, which multiplies very rapidly. Florists destroy the aphis by fumigating their houses with tobacco twice a week; believing in preventive measures, this plan is continued throughout the year. Of course, such treatment is not practical in the house, where the smallest quantity of smoke would permeate every room. The most practical method for house plants is to gather them in as compact a mass as possible, and thoroughly wet the foliage of each. The best way to accomplish this is to use a watering can to which is attached the nozzle with the smallest holes. When the foliage is partly dry, dust it with powdered tobacco, and if this is unavailable, use snuff. If this is done while the foliage is damp, the tobacco will adhere to the leaves and stems. Be sure it reaches the under surface of the leaves, as this is the insect's favorite lodging place. After applying the tobacco, cover the plants with paper to prevent the escape of fumes which either kill or sicken the green fly. After twenty-four hours the flies should be syringed off.

Another insect as destructive as the aphis and equally as common is the mealy bug, which florists frequently call the "white scale." It is white in color and can easily be detected at the base of the leaves and about the under surface of new growths; it is usually found in clusters.

The best way to rid a plant of these insects is to wash them away. To do this, lay the plant upon its side and syringe it thoroughly, then turn it over and syringe the other side, thus drowning the bugs. Or they can be brushed off with a small camel's-hair brush. If the bugs are very numerous, go over the stems and leaves with a small brush dipped in a solution composed of one part alcohol and three parts water. A little of this solution goes a long way. Another remedy requires a tablespoonful of kerosene to two gallons of water, and being inexpensive can be applied with a rubber hand sprinkler. A third remedy is obtained by boiling the green leaves of tomato vines, draining the water through a colander. This water is deadly poison to the mealy bug, but as tomato leaves are only obtainable in summer, the use of the remedy is restricted to that season.

Red spiders are the most troublesome of all insect enemies. They are very common, seem to flourish in a hot, dry atmosphere and are so small that it takes an experienced eye to detect them. Their color is a peculiar red, they always attack the under surface of the foliage and work rapidly. In a week they will skeletonize an entire leaf, leaving only the main veins intact. They weave a web so fine that it almost defies detection.

The best remedy for the red spider is cold water, vigorously applied, either with a syringe or with full force from the mouth of the pump, or faucet, as this destroys the web and removes the spiders, but this treatment must be persistent. One application is worthless and only repeated efforts will keep them away. Red spiders attack both hard and soft wooded plants. Of course, the latter are always harder to cleanse, as the tender growth must be handled so carefully in order to prevent injury.

The enemy to plant life that is really the hardest to combat is the scale. Numerous varieties of scale attack house plants. Some are soft and easily destroyed; others are hard-shelled, clinging tenaciously to the stems and under parts of the foliage. To rid a plant, especially a large one, of any of these scaly insects requires a great deal of time and labor, but it can be done. Turn the plant on its side and clean off the scale with the aid of soft paper and a fine tooth-brush literally scrubbing them away; then sponge the plant with strong soapsuds. Whale-oil soap is the variety florists prefer for this purpose.

Scale insects seem to thrive best on the many varieties of Nephrolepis, or Boston fern. Here we find them especially hard to eradicate, as the foliage of the plant is so soft and pliable that one grows weary long before the last insect is killed, but unless the work is thoroughly done, it is better not to undertake it.

If the plant is badly affected, cut the top off entirely and fertilize the soil about the root with weak manure water or any good plantfood. It will soon respond to such treatment, sending forth a new head of growth. Cleanliness is the greatest enemy to insect life.

Breaking Heifers to Milk.

About a month ago I got hold of a "long" two-year-old Durham heifer. She had never been handled, not even tied in a stable since she was a calf, and consequently was as wild as a hawk. About two weeks ago she came fresh, and now I am milking and handling her as nicely as any old cow I have. My method of handling her, which is my usual way, may be of interest if not of help to some of your readers.

The first night we had her, it took my father and I a long time to drive her into the barn, and still longer to get her into a stanchion. Then we began feeding and petting and fussing with her, so that by the time she freshened we could handle her without her showing excessive nervousness or fear.

When I began milking her I fastened her legs, using a "rig" I have used nearly ever since I began farming. I take a quarter strap from a single harness, putting a snap in where it fastens to the breeching ring, buckling it back with an ordinary "joint" bridle bit in the loop, made by this buckling. The holes in the strap enable me to adjust the strap as to length, as is required by the size and degree of "meanness" of the cow.

To apply I put the heifer in a stanchel. Then placing the strap by the snap end I put it around the left hind leg, just above the gambrel joint, from behind forward, on the outside, slip the snap through the ring of the bit which is fast in the strap; then crossing the strap so as to bring the snap again from the rear to the front on the outside of the right leg, I snap it into the free ring of the bit. Then pushing the right leg back as far as it will go, I sit down and begin milking, avoiding all roughness and milking rather slowly for a few times.

This "rig" when properly applied makes a modified "handcuff tie" and not only prevents kicking, but also raising a foot over three or four inches from the floor. It is very easily and quickly applied and can in no way injure the heifer. By standing very closely to the heifer's right flank there is little or no chance of their hurting me; in fact, the only danger is of their falling over on me in case they try to kick, and that danger is negligible. The stray, including snap and bit, should be from thirty to thirty-six inches long, the smaller or "meaner" the cow the shorter. A snap with the tongue broken out, leaving a hook works as well as a perfect snap and is a little easier to fasten and unfasten.

I have used this method a great number of times, and it has always been successful.—C. A. Wagner.

A CANADIAN GIRL PIONEER

At a pioneer post in the interior of B.C., between Smithers and Prince George, at Francois Lake, is a tiny log cabin hospital maintained by the Presbyterian women of Canada, and in charge of the hospital is a young Canadian woman doctor, Dr. Maysil M. Williams, a graduate of Toronto University of '21. Dr. Williams, whose birthplace is Beeton, Ont., is doing unique work for so youthful a girl in a frontier post and is doing it with conspicuous success.

SMOKE

in ½lb. tins

and 15¢ pkts.

OLD CHUM

The Tobacco of Quality

Straw Stacks Are Fur Pockets

Straw stacks and hay stacks are veritable fur pockets for the trapper who exploits these places. As soon as a stack is established, whether built of surplus hay that wouldn't go under cover, or of straw following the threshing season, it at once becomes an apartment house for field-mice, rodents and vermin. Furthermore, the elevation of a straw stack makes a fine place for a fox to inspect the country, looking for food or for enemies.

Skunks are found under stacks, and so are rabbits, especially if a woodchuck has been accommodating enough to burrow underneath. However, both skunks and rabbits will frequently dig dens under the stack. Minks visit stacks in quest of rabbits and birds that seek shelter here. So do raccoons. Foxes and coyotes visit such places to hunt mice and vermin.

So, if you have an old hay or straw stack in the field somewhere, you will be sure to catch furbearers there. Foxes like to climb on top and dig for food. Your traps should be buried a few inches under the surface. Use chaff to cover them, and wrap each steel trap with wax paper. Use from three to five traps, according to the size of the stack. Bury bits of cheese scrap a foot deep. This will attract the mice, and eventually coyotes and foxes will come. A few inches of snow covering the top makes your chances better because with snow on the ground the food of furbearers is more limited, and the fox or coyote can more readily climb to the top when snow helps him get a better foothold. Furthermore, snow covers up signs and smells that have been left in setting the trap.

Raccoons will climb to the top of a hay stack and dig for vegetables, such as cabbage, carrots, sweet apples, if these are buried for bait, or for meat or scent baits; especially will the raccoon come for birds or dead chickens buried a foot deep.

Minks will not climb up as will most other furbearers if they scent food, but will explore every nook and crevice underneath. A good mink set is made by digging out a hole in the side of the stack near the ground, using a pointed stick or bar to ream out a hole three feet deep. In the rear of this hole fish-bait may be placed, which will catch not only minks, but is a dead sure set for all skunks that pass.

Some of the best trappers do not stake a trap of any kind set in a stack, but merely secure it to a clog. A fence-post makes a good clog for ordinary animals and is not suspected as it lies on the stack. Or the clog for the trap may easily be buried in the straw. As soon as an animal is trapped he leaves the stack, when if the trap was staked securely he would do considerable scrambling around and might spoil your chance of catching other fur animals.

Of course straw stacks too close to farm buildings will not be likely to yield more than skunks, but in many sections there are plenty of stacks in more remote locations which are headquarters for other fur animals. Very often trappers miss good sets near at home.

If you kept a rust and rat expense account for a month, you would kill the rats, house the machines, and grease the tools without being told.

Anyone can go down hill, but it takes determination to make the upgrade.

It is the last part of the race which determines the winner; it is that little extra effort to do better which makes success in farming.

Co-operation and consolidation are essentials of business and farming efficiency.

Irrigated Farms in Southern Alberta

In the Famous Vauxhall District
Bow River Irrigation Project

An especially good location for mixed farming and dairying. Splendid opportunity for young men now living in districts where good land cannot be bought at reasonable prices.

THIS IS NOT PIONEERING, the first 10,000 acres are fully settled and another 10,000 acres now ready for settlement; maximum distance from railroad, seven miles. Good roads, telephones and schools. Easy payments, extending over 18 years.

This Is the Best Land Buy in Alberta

Write for further information to:
CANADA LAND and IRRIGATION COMPANY, LIMITED
Medicine Hat, - - Alberta

CENTRAL NURSERIES

Have the kind of Trees, Shrubs, etc., you want to plant. The best that grows and sure to please. Free catalogue. No Agents.

A. G. HULL & SON
ST. CATHARINES, ONT.

HORSES COUGHING? USE

Spohn's Distemper Compound

SPOHN'S DISTEMPER COMPOUND

to break it up and get them back in condition. Thirty years' use has made "SPOHN'S" indispensable in treating Coughs and Colds, Influenza and Distemper with their resulting complications, and all diseases of the throat, nose and lungs. Acts marvelously as preventive; acts equally well as cure. Sold in two sizes at all drug stores.

SPOHN MEDICAL COMPANY, GOSHEN, INDIANA

YOUR HENS MUST LAY REGULARLY IN ORDER TO PAY YOU BEST

SWIFT'S MEAT SCRAPS

Produce More Eggs and Bigger Profits for you.

Mix one part Swift's Meat Scraps with 3 Bran and Shorts for best results.

Write for Free Booklet and Prices.

SWIFT CANADIAN CO., Limited

1185 KEELE ST. - - TORONTO