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NEGLECT IN THE SUMMER CUTS WINTER EGG PROFITS.

Hot days and sultry nights bring their own problem to the poultryman, whether he be operating on a commercial scale or managing a farm flock. The birds require different care and different feeding during the hot days. The old hens must be kept on the job and the young stock will have to be given every encouragement if they are to do their best next fall and winter when prices begin to come up. Much has been said of winter care, but winter care is much more difficult if your stock goes into winter quarters weakened by summer neglect.

THE TIME TO CULL.

This is the time of year to get rid of the cull hen. Culling can be done at any time, but the amateur will find less trouble at this time of year. The spirit of spring, with its flush season for eggs has passed rapidly into summer slumps. Summer slumps may be caused by two factors: First, poor feeding, and secondly, the inability of the individual hen to stand the strain. In other words, the constitutionally weak, the mentally disinclined, and physically unfit, should be doomed to slaughter. Time and space will not permit an extensive article at this time on culling. A few of the high points might be enumerated. The big beefy hen with the chuckle head, yellow shanks, new plumage and a mass of hard fat stored in the egg sack region should be given careful to market. Small, underbred, crow-headed, round-bodied types showing lack of vitality and vigor should also be let go. Keep an eye on the busy, industrious biddy who sings all day and wears no yellow pigment in her shanks. She is a most docile and friendly individual, always looking for something to eat. Her plumage may be dry and hard, and possibly broken, but she will be out-doing her more "dressed up" sister of leisure. Note when you handle her, the spread in the egg sack region, indicating ovarian activity. The deep, long ribs, the long, broad, level back, the clean-cut head, and the hard, close plumage. These are the marks of heavy production and "laying type."

LAYING-HOUSE CONDITIONS.

Conditions in the laying-house are apt to become very bad in summer. A hot, stuffy house, odoriferous with the gases from heated manure, and in every chink and crack a nest of mites is not at all conducive to health and production.

It may be difficult to ventilate some houses properly to maintain a sweet-smelling condition, but frequent cleaning will aid greatly in maintaining a healthy atmosphere. In most houses adequate summer ventilation can be secured by keeping all windows wide open and if windows are opened under the dropping board on the north side will aid materially in keeping the house cool and provide air circulation. Care must be taken to have all openings covered with wire netting to protect against skunks, weasels, etc. This precaution will also aid materially in preventing infestations of mites by keeping the sparrows out. Sparrows usually harbor and carry mites, and if allowed to frequent the poultry house and build nests they are sure to be a source of vermin. They also develop a mania for visiting mash hoppers and feed bias. In this way they will materially reduce profits and are very apt to be carriers of disease organisms from infested flocks and yards.

Mites and lice reduce the vitality of stock and interfere with production. These two common pests vary in their habits and must be dealt with accordingly. Mites live in cracks and crevices, about the nests, roosts and dropping boards, attacking the hen during the night while she is on the roost or during the day while she is on the nest. Mites may be detected by the characteristic "pepper and salt" appearance on the roosts and about the cracks and chinks. This is caused by excreta from the parasites. They are described as both gray and red mites. In reality, however, the gray mite is usually the same animal before breakfast. After his meal of good hen's blood he takes on a reddened appearance due to the blood in the body. A characteristic odor accompanies infestation and one can soon learn to recognize them and detect their presence in that way. Using louse killer on the birds will have but little effect on mites. They can be readily controlled, however, by using a good insecticide on the roosts, nests, dropping board, etc. The writer has found waste oil from the crank case of the automobile or tractor to be a very efficient and inexpensive mite control. Everyone has some at hand or can secure it from a local garage for a small sum. The roosts, nests and dropping boards should be thoroughly painted with this oil. Kerosene will have a killing effect but evaporates very quickly and has to be applied more often. There are on the market many wood preservers, coal tar by-products and other patent preparations which may be used with equal satisfaction.

Body lice can best be controlled by treating with sodium fluoride. This is most easily applied dry. There are two common methods of using it in the powder form. The Pinch Method—The bird is held by the legs and pinches of the powder dusted into the feathers about the vent, in the loose fluff feathers and along the body feathers extending from the thigh forward. The Shaker Method—This is similar to the pinch method except that a can having a perforated top is used in place of using pinches. This requires much more material and consequently sunny days should be chosen and the work done during midday to give the birds a chance to get dried off before going to roost. This practice is rapidly becoming more common among poultrymen as they are overcoming a fear of wetting the birds. Beach and Freeborn give the following directions for making the dip: "The solution should be prepared in a wooden container, avoiding contact with galvanized iron. The ordinary wooden wash tub is excellent for this purpose. One ounce of commercial sodium fluoride, or two-thirds of an ounce of the chemically pure salts should be dissolved in each gallon of tepid water. The best method for dipping the birds is to hold them with the left hand by both wings. They are then placed feet foremost in the warm dip and submerged until only the head remains above the surface. They should be held in this position for twenty or twenty-five seconds while the feathers are ruffled to permit penetration of the liquid. Just before removal the head should be ducked under the surface. Hold the birds above the tub for a few minutes to allow them to drain. One hundred birds will use up approximately five gallons of dip on which basis material should be available at the start of the operation to keep the dip replenished."

SUMMER FEEDING.

During the long warm days our ration can be changed quite materially from the one used during the short cold days of winter. The hen no longer requires an abundance of heating food. There must be supplied in quantities sufficient, however, to maintain body weight. She does require, however, a liberal feed of animal material protein to keep up production.

If the houses are warm, put the mash hoppers out in the shade where the hens will consume more. The standard mash mixture is used for summer feeding, consisting of equal parts ground oats, ground corn, bran, middlings, and meat scrap. Your milk or buttermilk may be used to replace about one-half of the meat scrap. The birds make excellent use of such dairy by-products.

The grain mixture may be slightly changed, reducing the quantity of corn in favor of a little more wheat. The quantity can be materially reduced. We usually recommend feeding about seven pounds per day to one hundred hens at this time of year. This will tend to increase the amount of mash consumed. A moist mash fed at noon will also tend to increase mash consumption and aid in holding production up.

Do not forget green feed. So often when the hens are out we neglect the green feed. If they have access to a good alfalfa pasture or some green annuals as rape or oats, they will fare very well. However, during midsummer the green supply from grass runs low and it will pay you to find some supplementary greens. Sprouted oats are excellent and can easily be grown in summer. Rape makes a good summer feed, but must be fed in small quantities as it is very apt to cause "green" or "dark" yolks. Chinese cabbage sown about August 1 makes excellent greens for fall feeding. Give hens in confinement a feed of greens the first thing in the morning and again in the forenoon, and also in the afternoon during the hot weather. They enjoy salads for summer rations just as much as we do.

During midsummer the water supply becomes warm and stale. You will be repaid for the trouble of frequently changing the water. Keep the pans clean, and particularly when milk is being fed. Foul drinking dishes are not conducive to good health and the birds will drink more water if it is clean and cool. Remember, eggs are 65 per cent. water.

The faster you drive the more easily misfortune will overtake you.

The new dairy building provided by the Province of Ontario at the Agricultural College, Guelph, is being fully equipped for experimental work. Not only will scientific investigation be undertaken in connection with cheese and butter making, but attention will be given to powdered milk and ice cream production, as these industries are growing in importance and proving remunerative to Ontario dairymen.

SHEEP

Profit derivable from mutton growing on the farm lies largely in bringing the lamb crop to early maturity. I find that this can only be done by giving the lambs the best of care after being weaned. Lambs that have been well nursed during the suckling period have made large bone and flesh development and come to the weaning time prepared to shift for themselves.

Lambs soon separated from their mothers should be provided with tender, palatable pasture. This sometimes is quite difficult to provide as drouth invariably prevails throughout the country at this season. Then, too, a great many farms are not well fenced so that pasture that might be available can be utilized to the best advantage.

The flock owner must keep looking ahead in order to meet conditions of the season and provide the essential pasture the flock requires at all times of the year. Where the fields are well fenced, second-growth clover and June grass meadow pastures are available makes the finest kind of feed for the developing of the lambs. Being second growth, tender and nutritious, the lambs make splendid growth.

I find it a good practice to change the pasture for the lambs as frequently as possible as it not only gives the lambs a change of feed, but I think the pasture supply can be kept up for a longer length of time. Feeding a light grain ration of oats, corn and wheat bran is necessary in order to balance up the pasture and to induce rapid bone and flesh development.

Rations for Heavy Milk Yields.

The opinion too often held that one cannot afford to feed a heavy ration to milking cows is rapidly changing. Experience is teaching that low feeding is wasteful and a generous ration profitable. To try to make ones grain supply spin out by reducing the ration is like withholding water from a thirsty patient. The Record of Performance work with dairy cows has taught useful lessons on gauging the ration. The desire to make records at any cost has taught that a good cow can be trusted to judge of the quantity of a well balanced ration that may be eaten with profit.

At the Lacombe, Alberta, Experimental Station during the year 1925, ten Holstein-Friesian cows qualified in the Record of Performance with records ranging from 12,992 lbs. of milk and 519 lbs. of fat to 21,885 lbs. of milk and 868 lbs. of fat within the year.

No fancy feeds were fed to these cows, the object being to use only such feeds as were within reach of every dairyman. The meal ration consisted of a mixture of 220 pounds of oat chop, 120 pounds of bran and 100 pounds of oil-cake meal. This gave good results as a protein rich feed for heavy producing cattle. All cows were well fitted for R. O. P. The meal was restricted for a few days before calving and for some time after calving, until the inflammation had gone and the cows were back to normal. There is then less danger of over-feeding or causing digestive troubles. At other times the cows were allowed practically all the meal they would clean up.

The dry roughage days consisted of alfalfa, prairie hay and oat greenfeed. Alfalfa formed the main bulk, but hay and greenfeed were fed as well, and it was found that the variety is better than any one feed. Oat and corn silages provided the bulk of the succulent roughage. In the late fall and early winter months, swede turnips were fed as well as the mid-day feeding. A sample daily ration for a cow giving 70 pounds of milk is as follows: Dry roughages, 12 pounds; oat silage, 5 pounds; swedes, 35 pounds; meal mixture, 22 pounds.

In summer the cows had rye and oat pasture as close to the building as possible. They were also fed silage, and meal, as much as they would clean up.

Live Stock Markets. An important paragraph in the review of the present situation of the cattle trade by the Markets Intelligence Service of the Dominion Live Stock Branch reads: "The strongest demand on the market is for: neat weight stock of good killing quality, and this condition may be depended upon to continue during hot weather. Heavy supplies of soggy grassers will break the market. Caution in liquidation with particular attention to season conditions, is strongly advised. Midsummer demand is mostly for small meats, but, in view of scarcity, a good outlet overseas and strengthening United States markets on choice and good heavyweights, such cattle may be depended upon to strike good levels. The excellent condition of pastures, the good prospects for grain, hay, and fodder crops should suggest a policy of operation in which full finish and a judicious carry-over are the main issues. There is nothing in the general situation to negative the belief that the beef market is well on the road to recovery. The usual autumn depression is of course inevitable, but the degree of it depends entirely on the general policy pursued. Those who take note as to seasonal conditions of markets will probably benefit."

Relative to hog prospects the reviewer has this to say: "Our latest cable advice from Great Britain are in more optimistic tone than early in the month (June), and hopes are entertained of a sharp reaction to prices. Producers are advised to get their hogs in good finish and to sell subject to official grading, which will give them the benefit on select stock. The majority of the Canadian packers are now purchasing on the basis of the new standards, and producers should see to it that their hogs are so bought at country points." As to sheep, a short supply led to the market holding up well, and on Eastern markets at the end of June the average price was well above that for the corresponding month last year. Western prices, however, were not as strong, but supplies were generally so meagre as to prohibit the establishing of a market. Heavy sheep were somewhat hard to move. Choice lambs weighing not above 75 lbs. are the choice of the market and good prices are forthcoming for such stock. From eighteen to twenty cents per hundred pounds was no uncommon price for choice lambs during June. Light stock is always preferred, especially in hot weather.

Simple Canning Recipes.

At this season of the year when there is a demand for information as to canning, drying and storing processes for fruits and vegetables, the booklet of recipes issued by the Dominion Fruit Branch will be useful to many. The recipes are not only simple and practical, but their reliability has been tested by leading authorities. The booklet is available, free of charge, to those who apply to the Publications Branch of the Department of Agriculture, Ottawa.

Says Sam: Know your boy or girl before you begin to figure on how to keep them on the farm.

The old straw stock moved back to the field and spread evenly will pay bountifully for your pains.

Choosing the Right School-Teacher

By Margaret Conn Rhoads

Rural school boards and farm parents are just beginning to realize the need of employing rural-minded school teachers to teach the children who attend the consolidated schools. By "rural-minded" teachers we mean men and women who have farm interests most at heart; men and women who have been reared on farms themselves and who see a future for the pupils who stay on the farm.

It is hard for the town or city-trained man or woman to sense the romance in farm life; to understand the opportunities it offers for a successful and useful career or to visualize a future in such quiet surroundings. Too often these city-trained teachers (all unconsciously, perhaps) hold up to their pupils' eyes the glowing opportunities of the city. They are entirely lacking in rural mindedness, because it is not a part of their being.

In all the daily teaching in the farm districts there should be a note of loyalty to life on the farm. Lessons along many lines can be taught with direct reference to use in a rural life. No city-bred man or woman can really assume the farm attitude, no matter how desirous he or she may be of instructing the pupils in the prescribed lessons of the school. Therefore, all boards selecting teachers for rural schools should endeavor to select teachers having a love for farm life; who have themselves been reared on farms and who can instill into the minds of a larger percentage of their pupils a real desire to continue rural life.

Such teachers can become great factors in keeping boys and girls contented in the rural districts and can

direct their education toward the lines of success. When these children are taught the value to their community of the farmer-business man; of crops scientifically raised; and of the challenge it offers to a young man or woman to take the ground and make of it a productive place that feeds and clothes its people and promotes the scheme of life, then we shall be training our children to love the life that is open to them and to choose the farm as their abiding place.

The child who lives on an average farm until he is through high school, has much of his real farm knowledge learned. From the time he is old enough to throw corn to the chickens, to the time he takes charge of the "north forty," he has learned much of the habits of animals, of the growing of crops, of the value of land fertility and of the importance of farm accounts. Why then should the farm school board bring in a factor that oftentimes lessens the value of the very thing the farm parents want instilled into their children's minds, by putting them in charge of teachers whose training and ideas are entirely foreign to the conditions around them.

Each year young men and women are going out from our consolidated schools to be trained in school teaching. Let us endeavor to have many of them return to the farm districts to teach, where they can give to their pupils not alone a necessary fund of book knowledge, but also a knowledge of the importance and the opportunities in rural life. We need teachers who can direct the attention of the pupil toward advantages which may be his.



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COMMON SENSE ABOUT GERMS

A reader of a thoughtful turn, would like a little light upon the germ theory of disease. If germs are so very deadly, and if they multiply so fast, how is the human race saved from extermination, she asks. She would also like to know what common sense tells us to do about germs.

The fact of the matter is that disease germs, dangerous though they are, do not have everything their own way. They are not very long lived. They cannot exist unless they find suitable soil. They must have proper degrees of temperature and moisture. They are blasted by the breezes of the atmosphere and withered by the bright rays of the sun. If every single disease germ proved fatal to every person attacked the result would be a speedy end to the human race. But disease germs must attack in force to be effective, they must find a non-resistant soil, and even then the human body will generally destroy them after a resistance that we speak of as an "illness."

I think it is safe to make the broad statement that germs from the body of a person in health will do no harm to other persons. It is true that even a healthy person carries constantly germs that are capable, under certain conditions, of creating disease, but while the body is in health they lack virulence.

There is one great exception, and that is in the bodies of persons who are "disease carriers." These "carriers" are those who had had a disease, such as typhoid fever or diphtheria, have recovered from it so that they are immune to its germs, but for some reason still harbor the live germs in their bodies, and are capable of passing them on to other persons in such a way as to transmit the disease. I do not think that harmful carriers are so very numerous, but there are enough so that I feel sure that all persons employed in dairies, in bakeries, in restaurants, or in the production or preparation of any food supplies should be regularly questioned as to their previous illnesses and a physical examination made to determine their safety to the public.

Just as the human body in health is perfectly safe to others, the same body in contagious illness is actively dangerous to others. The germs that rest in the mouth and throat harmlessly during health become active for evil when health has given way to illness. Most of the spread of contagious disease comes from a well person coming in contact with one who is ill with the disease.

I will sum the matter up by saying: Don't bother about germs so long as you are in good health. In case of illness quarantine yourself until you know that you cannot spread contagion. Avoid actual contact with persons who show symptoms of contagious disease. That's all you can do. Don't worry.—Dr. C. H. Lerrigo.

Topics in Season.

To kill thistles: If from one-half to one teaspoonful of caustic soda is put on the heart of a thistle, it will wither to the ground, and the roots will die in five minutes.

It is not safe to go into a silo of freshly cut corn unless fresh air has been first freely admitted. Let the blower run for two or three minutes, to force air into the silo, before going into it. The danger is due to gas caused by fermenting corn. Sometimes people are killed by the gas.

Cut second-crop red clover, pile it up and don't thresh it. After you plow your wheat ground, take this clover and cover the bottom of your spreader with it. Fill the spreader with manure and scatter it on the wheat ground, then disk and harrow it in. This gives you a mighty good stand of clover, the next year.

To kill trees, use this formula: One pound of arsenic, one pound of washing soda, one-half pound of whiting, and four gallons of water. Dissolve the soda in a little water, make a paste of the arsenic by adding a little water, then add the arsenic paste to the water containing the soda, stirring all the time. Boil this mixture for half an hour, and be careful not to inhale the fumes, for they are poisonous. Better do the boiling out-of-doors. After boiling, remove from the fire, and add the rest of the water, with which the whiting has been mixed. Make a girdle around the tree, hacking downward and leaving the chips in place to form a frill. Pour a pint of so of the arsenic solution into the cuts. If the tree is small, cut it low and swab the stump with the arsenic solution, and this will prevent suckering. We repeat, do not inhale the fumes of boiling arsenic.

Fertilizing flowers: When the plants come into bud give an occasional application of liquid manure, using a long-nosed water can without the sprinkler. At budding time the plants will have used a part of the nourishment in the spring dressing, and the use of liquid manure brings food in a quickly available form at a time when it is most needed. Applications may be made once a week. The liquid should be the color of weak tea and is applied at a distance of from two to five inches from each plant, according to size. Wet the soil thoroughly.

Rats are about as much good to the farmer as a hole in a 4-ugnut, but not quite.

A Twilight Pastoral.

Fair Jennie takes the milking-pail, And to the meadow trips along, The unbentams slant across the vale, And sweetly ring her merry song.

The meadows with white daisies gladden, The cricket stops his chirp to listen; As o'er the fields her sweet voice rings, And high upon an elm tree bough A robin gaily sings.

Richard hears the sweet voice call, And sees the cows slowly moving toward her, No call for him, but yet he goes, For twilight is the time to woo her.

So Richard leans upon the bars, And watches Jennie till the stars Shine through the elm tree bough The robin gaily sings.

—E. H. Pitcher.

Live Stock Slaughtering and Sales.

In inspected slaughtering this year, the Dominion Live Stock Branch reports a decrease in both calves and sheep compared with last year, the total being 137,359 calves compared with 173,721, and 97,792 sheep compared with 101,227. Cattle slaughtering shows an increase of 22,694 and hogs of 152,259, the totals being 222,689 cattle to 199,965, and 1,092,544 hogs to 940,285.

Sales at public stock yards during the first six months of this year show an increase of about 50,000 cattle and approximately of 100,000 hogs, compared with last year. Calves showed a decrease of over 11,000 and sheep and lambs of 12,000.

O.A.C. No. 104 Winter Wheat.

The O. A. C. No. 104 variety of winter wheat originated at the Agricultural College by crossing the Dawson's Golden Chaff and the Bulgarian varieties and has made the highest record of five leading varieties tested on one hundred and twenty-eight

farms throughout Ontario. Not only is it a high yielder, but from equal quantities of flour it has produced more bread than the Dawson's Golden Chaff. It is interesting to know also that it has been more hardy even than the Dawson's Golden Chaff and almost as stiff in the straw and seems to be less susceptible to chaff.



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J. B. REYNOLDS, M.A., President. A. M. PORTER, B.S.A., Registrar.