



WITH THE POULTRYMAN HOW A VERMONT WOMAN GETS EGGS ALL THE YEAR ROUND



Vermont woman writes about some of the things she has learned in her care and observation of hens for a number of years that she thinks may be of interest to others who have the care of small flocks on a farm. She says:

I believe that most hen houses are too light and that hens are expected to do good work continually exposed to a strong light that no other animals could endure. Should hens sit with closed eyes or have watery eyes, as good many of your subscribers complain of, I should prescribe blinds instead of medicine. A hen will by choice find a semi-light place in which to nest and roost; therefore, the light should be in the lower part of the house where she eats and exercises, while the upper part is used for nests and roosts.

To keep the house free from lice I use lime and kerosene, using a machine oil can for the kerosene. To keep the hens free from lice I have in the hen house in winter a box two-thirds full of a mixture of road dust and wood ashes, and to induce them to keep scratching in it I add occasionally fresh wood ashes, roasted eggshells, saved through the summer, and bits of plaster pounded. The charcoal in the ashes, besides taking the place of grit, is an aid to digestion, while the other items make material for new eggshells.

I believe that one male to a dozen females would lower the egg production and the vitality of the flock, especially in confinement. My proportion is one male to thirty females.

This spring I had one male to twenty-eight females, and hatched eighty-four chickens from the first ninety-seven eggs set. These hatches came off at two periods, May 9 and May 17. I do not plan to have any chickens hatch later than this, but from thirty eggs sold to a neighbor there were hatched June 20 twenty-seven chickens.

As both hens and eggs are composed largely of water, I aim to get as much into them as possible, in their feed as well as by a supply of drinking water; then, to prevent disease, I salt my flock every day in the year. I feed as follows, though only twice a day in summer and half the quantity: In the morning cornmeal, salted and stirred up with water, one tablespoonful to each hen. At noon sliced raw potatoes, half as many small ones as hens. At night, oats, two quarts to each twenty-five hens. I feed no cooked food, except occasional meat scraps, and no commercial foods. I doubt their value, except in small quantities, for hens already doing good work. There may be better methods of feeding, but this, with a small flock, having free range, results in a healthy, active flock of hens with eggs all the year and no sickness or weakness among the chickens.

Feeding Milk to Fowls

The great benefit to be derived from the feeding of milk to fowls seems to be almost entirely ignored by the majority of poultry keepers. If hens are fed all the milk they can be induced to drink, along with a corn ration, great gains can be expected in the egg production.

Last year we fed our fowls largely on corn, especially our laying hens, and for a balance ration we supplied all the milk we could possibly spare, and the result was an advance of eggs over any previous winter in our experience. On farms where there is a good supply of milk there should be no reason for not receiving a good supply of eggs. There can be no better ration for a flock of laying hens than plenty of corn to produce fat and milk to balance the corn ration, and furnish the necessary elements for egg production. Where milk is supplied liberally to fowls, animal food, in the form of cut green bone, can be reduced, as milk supplies largely all the elements found in bone. Milk and corn make a much better combination than milk, wheat and oats. Feeding the layers on corn and milk alternately with green good, in the shape of cabbage or prepared clover, we have an almost ideal food for egg production. Poultry are particularly fond of milk, and it can be given in almost unlimited quantities without any serious results following. It very often happens that feeding meat too freely produces diarrhoea, which checks the supply of eggs, but in feeding milk we do not experience such unfavorable results. In the country where it is not convenient for the farmer to get bone fresh from the butcher, he can supply milk instead, which is almost or quite as good as bone. We know of a lady breeder who feeds corn and milk the year round to both young and old, with very satisfactory results, using the sour milk (after boiling it) in mash with decided benefit, especially with the young growing stock. Next year we shall use boiled sour milk, wheat bran and corn meal, sprinkled with pulverized char-

coal, for our young chicks, believing we have a food that will be wholesome, palatable and inexpensive comparatively to some of the so-called "prepared chick foods" now on the market. At the same time we shall provide skimmed milk as we have previously done for the fowls to drink, believing we can realize more from the produce in feeding in this way than any other way we could feed. We are quite positive it would be impossible to get too much milk before our fowls, as milk, in a majority of cases, is in limited amounts, not enough, on the average farm, to endanger the chick in contracting any bowel trouble.

How Does She Know?

How is it that the old hen knows how? Who told her? A person who has watched the big biddy playing the chicken game on top of thirteen unripe eggs has seen her sit constantly for four days, being off only a few minutes at a time to get a bit to eat, and sometimes not coming off at all for three days. The third day he has seen her turn the eggs with her bill, and thereafter turn them every night and morning up to the eighteenth day. She will rush out after the morning sun has got things warm, and eat a splendid long breakfast on the morning of the fifth day. The amateur seeing this for the first time will get anxious, fearing the eggs will cool off. Of course they will. She knows it all right.

The hen will stay off ten minutes and be exceedingly busy. She will eat, drink and take a sun and dust bath. She will cool the eggs and then turn them every morning until on the eighteenth day she will not seem to want anything to eat, but will hurry off after it is very warm, eat a bit, drink hurriedly, rush back to the nest and get upon the eggs, carefully as if they might be so many soap bubbles. On the eighteenth day the embryo chick prepares to take a knock at the egg shell, and rights himself so he can pick upward. If his head is down, he turns in the shell. If the hen should chance to turn an egg in getting on her nest on the eighteenth morning, she will carefully turn the egg back as quickly as possible. Wouldn't you freely give \$5 to know the thought in the hen's mind that accompanies this simple act?

If the chicken in the shell be turned after getting ready to pick, he may not make the extra exertion to right himself, though a strong chick will do so. If he cracks the under side of the shell, the moisture of the shell will run out through the hole and stop the hole. After the chick has once breathed the raw air he will stifle or drown in his own moisture if the hole be stopped. He will drown in his own moisture if he does not pick the shell at all. The mother hen keeps the shells all right side up, and can tell by the rappings in the shells after the chickens begin to rap. The mind of the hen is mightily apparent or else it is all instinct. And what is instinct but spontaneous mind?

When the mother hears that rapping on the inside of the shells, a mighty mother instinct rouses in her and she is ready to fight anything and everything, including the rooster, at the drop of the hat. Her feathers get all crinkly with excitement and she is full of smothered clucks and mother love. This is where the chickens have the advantage over their incubator brethren. The incubator does not mother them.

If you were going to be a chicken, which would you choose for a mother, an incubator or a hen? The incubator may be safer and surer and does not step on you. More chickens, good, bad, and indifferent, grow to henhood and roosterhood under the incubator plan, but the incubator does not cluck at you and sing "hush, my babe," at eventide, and you cannot hurry under its wings when danger is in sight.

It is a strange thing that a hen knows how. She has never taken a course in "domestic economy" nor attended a mother's club. She never read a paper on "Switzerland" before the Hen's Federation, but she has the science of chickens "down" pretty fine.

There is a spontaneity of thought about it that gives you confidence in the general framework of things. Perhaps it is alright after all; and we needn't be so concerned and worried, but that the universe will take care of itself somehow if we don't tinker it up and fit it. On the whole we are glad to have met the hen.—Minneapolis Tribune.

Testing Eggs

During incubation, whether by natural or artificial means, eggs should be tested at least twice. Testing is for the purpose of detecting the infertile eggs, or those in which the germ is dead, and removing these from the nest or machine. If a number of hens are set at the same time, and a number of eggs are found on examination the seventh day after setting, to be infertile or dead, these may be removed, the nests rearranged under the hens necessary to cover them and the remainder of the hens reset.

Testing eggs for fertility is not a difficult matter, and while there are lamps and appliances enough for this purpose, useful where large numbers of eggs are incubated, a very simple arrangement can be made by anyone which will answer the purpose quite satisfactorily. In fact eggs may be tested by the aid

of nothing more than a bright light and a dark room, holding the eggs one at a time between the eye and the light, with the fingers and hands arranged to act as a screen to keep the direct light away from the eye.

This method works all right with some but a better practice is to take a piece of dark colored card board about nine by ten inches square, and cut a hole in the centre the shape of an egg but a little smaller in size. The eggs are placed against the hole one by one, broad end up, and held before a bright light in a dark room. In this way the contents of the eggs can be readily seen and fertile eggs at once distinguished from the infertile. A bull's eye or bicycle lamp gives good satisfaction in testing in this way.

While this arrangement for testing is simple enough, a home made tester twelve inches square and eighteen inches high, will give a much more satisfactory light for the purpose in question. It is simply a box of the dimensions given, in which a good lamp is placed to furnish light. A couple of half inch holes should be bored near the bottom at each side for the purpose of supplying air to the lamp. At the top of the box a three-inch hole should be cut to carry off the fumes. On the front side and level with the flame cut a three inch hole and over it pack a piece of felt against which the egg is laid. This tester is used only in a dark room, the egg being held against the hole in the felt.

Eggs undergoing incubation should be tested between the seventh and ninth day and again on the fourteenth. An infertile egg will appear quite clear. It will give an appearance similar to a newly laid egg. A fertile egg will have a dark spot in the larger end, with the veins radiating from it. Eggs showing a red ring or those showing a dark spot without blood vessels or "colored" eggs should also be removed. On the fifteenth day after setting, when testing is again performed, the chick should darken the entire egg except the air cell in the broad end. By watching the egg closely an operator can detect a movement of the chick.

Curing Colds in Fowls

Hens are more susceptible to colds than any other class of farm stock. A cold in a hen is indicated by inflammation of the throat, nostrils and eyes, with thin water discharges from these parts, sneezing and shaking of the head. The condition is induced by exposure of the birds to damp, chilly, stagnant quarters. It is cured by placing them in dry, comfortable, sunny, well-ventilated quarters; making them scratch actively for the greater part of their rations, and giving them pure food and water, with green stuff to keep the bowels open. As a remedy take a tablespoonful each of black pepper, ginger, mustard and flour, add lard enough to permit of the mixture being formed into pellets of the right size to be taken by the fowl. The pellets may be kept in a closed glass jar. As soon as a fowl shows running at the nostrils or eyes, or frothy discharge in one or both eyes, becomes inactive or sneezes, give two or three pellets to ward off the cold or check its development.

AROUND THE FARM

LAMENESS IN HORSES



APPED HOCK is a term applied to a fluctuating swelling on the point of the hock. There are two kinds: (1st) synovial capped hock and (2) serous capped hock. The first, as the name implies, consists of distension of a synovial bursa. It appears as a tense, fluctuating swelling, situated on each side of the point of the hock, cannot bulge at the centre on account of said tendon. This form is caused by disease of the bursa, or by violent strain. It usually causes lameness, is tender to pressure, is quite easily noticed, and hence easy to diagnose. The second form is simply a serous abscess on the point of the hock, is caused by a bruise, usually by a horse kicking in the stall, on train board, etc., and the point of the hock coming in contact with the stall post, partition, etc. It is seldom that lameness is present, the usefulness of the animal is not often interfered with, but the presence of the tumor is unsightly and reduces the animal's value.

Treatment.—The first form is very hard to treat. The patient must be given rest; good practice to give a light purgative and low diet. The affected part should be bathed with hot water several times daily, and after bathing it should be rubbed with an anodyne liniment for a few days to allay the inflammation, after which repeated blisters will have a tendency to cause contractions of the bursa and a lessening of the tumor. Another method of treatment is to lance the sac and allow an escape of the synovia, and then apply a bandage, or compress and flush out the cavity twice daily with an antiseptic, as a three or four per cent. solution of carbolic acid. There is considerable danger of this treatment causing violent inflammation of the parts unless skillfully treated after the operation, hence unless the case be in experienced hands it is better to not operate.

The second form should be treated as an ordinary abscess. If only a small quantity of

serum be present, its absorption may be caused by a blister, but if considerable fluid be present, the sac should be lanced and the cavity flushed out two or three times daily with an antiseptic until healed. Of course the cause must be removed.

Curb

A curb is an enlargement of the lower part of the posterior border of the hock. It consists in a sprain of a ligament, called the calcaneo-cuboid ligament, which passes from the point of the hock to the cuboid bone on the lower part of the joint. Hyper-development of the cuboid bone gives the hock an appearance simulating curb, but a close examination will readily detect the difference. Weak, sickle-shaped hocks are predisposed to curb, but the accident may occur to any horse. It is caused by the hind legs slipping forward and spraining the ligament. In horses that are predisposed it is easily caused by slipping, jumping, rearing, etc., and while any horse may suffer it is very seldom we notice a curb in a well-formed strong hock, with a straight superior border. Curb usually causes lameness in the early stages. It is not hard to diagnose. The horse will go more or less lame and will usually rest the leg while standing. An examination will reveal a swelling on the lower and posterior portion of the hock there will be abnormal heat in the part, and upon pressure the patient will evince pain. On exercise he is inclined to walk or trot as much as possible upon the toe.

Treatment.—The lameness from curb will usually yield to treatment readily, but the reduction of the enlargement is a slow process in most cases. The patient should be given rest and the usual constitutional treatment, consisting of the administration of a purgative, followed by low diet adopted. A shoe with the heel about an inch higher than the toe should be put on the foot of the lame leg. This keeps the heel elevated, and throws the diseased ligament in a state of repose. During the inflammatory stages, the long and frequent application of an anodyne liniment, as one composed of two ounces tincture of opium, two ounces of chloroform, one ounce acetate of lead, two ounces alcohol, and water to make a pint, will in a few days allay the inflammation and remove the lameness. While the lameness can, in most cases be cured by this treatment with good care and the usefulness of the animal restored, there will be quite a visible enlargement remaining. This enlargement is hard to reduce, and if the patient be an animal of ordinary value and required only for ordinary work, it is often deemed advisable to put him to work and allow the enlargement to remain, but if he be a high class animal, or if from any reason the owner is anxious to restore the parts to the normal condition, he must allow continued rest and blister the part repeatedly in the meantime, keeping shod with a high-heeled shoe. The ordinary blister composed of two drams each of biniodide of mercury and cantharides, mixed with two ounces of vaseline, and applied in the ordinary manner gives good results. If it is necessary to work the patient and at the same time reduce the enlargement, it can often be done. He should be shod with shoes slightly higher at heel than at toe, but the difference should not be more than half an inch, as if too great there will be danger of causing injury to other parts of the limb, by placing the foot in an unnatural position. An absorbent, as a liniment, composed of four drams each of resublimed crystals of iodine and iodide of potassium, and four ounces each of alcohol and glycerine, applied with smart friction once daily, will generally reduce the enlargement, but such enlargements are tedious to treat and a great amount of patience must be exercised.—Whip.

Boiling Grain for Horses

The practice of boiling grain for horses is not so common now-a-days as it was formerly. We can remember some years ago when grain, especially barley and wheat, were regularly cooked and fed to the working teams. It was considered particularly useful to horses that were working in winter. The practice was perhaps commoner in the Old Country than here, but in both it has now fallen into disfavor. In these days when fed at all, boiled feed is chiefly used for colts, brood mares and stallions. It is also useful to feed once a day to draft horses that are being fitted for exhibitions, or teams which are being prepared for sale. They seem to keep in a thrifty growing condition and the coat takes on a gloss and finish which no other feed seems capable of giving it.

Have a Harness Room in the Stable

If you are planning to build a new stable see that you arrange to have a harness room conveniently situated in it. If you have a stable already, try and fix it so you can have some place to hang the harness other than on pegs behind the horses, where if a horse gets loose it is knocked down and trampled under foot and where it is continually exposed to the fumes of ammonia arising from the manure. Ammonia injures the harness more, perhaps, than an occasional knocking down by a possible loose horse.

A harness room should be situated so that

no harness need be carried far to its horse. It need not be any larger than is necessary to accommodate all the harness required, but it should be large enough to hold all the harness without hanging more than a set on the one pair of pegs. It is also a convenient place to store other things used in attaching horses to their vehicles, machines and ploughs, such as neck yokes, whiffletrees, clevises, whips, chains, etc. By a proper arrangement of pegs and shelves, a deal of stuff may be piled in a small room and at the same time be easily got at when wanted.

The Pasterns of the Draft Horse

The degree of slope in the pasterns of a draft horse has much to do with the durability of his feet and the action of the animal. The skeleton of this portion of the body is made up below the fetlock joint of four small bones, the first of which is the pastern bone, the others continue the slope. When a horse places his foot on the ground the frog receives first the concussion, transmitting it to the heel, from which it passes to the bones of the foot, the navicular, coffin and coronary bones—so arranged in a properly constructed foot and leg that each receives a share of the buffeting.

In a sloping pastern, that is where the slope is say, forty-five degrees, the pastern bone receives only a small part of the concussion incident to the movement of the horse, and this would be largely received by the three smaller pasterns and spent before the fetlocks were reached. The fetlocks, when the pasterns have their proper slope, swings in a sling of ligaments and tendons and protects the bones of the leg from the shocks and irritation that arise from concussion.

Straight pasterns are productive of ring-bones, sidebones, navicular disease and other disorders of the foot and lower joints for the reason that where the shock of the impact of the foot falls directly and most severely upon the joint formed by the coffin, coronary and navicular bones, an irritation is set up in this region which finally results in inflammation and the deposition in the joints and on the bones of bony increment that produce the diseases mentioned.

Given slope and sufficient length, the pasterns possess a springiness that receives completely the shock of impact of the foot, and protects the bones of the region from injury from this cause. Slope, however, is more important than length, or even size. A pastern that slopes well back with the points at either end strong and clean, a fetlock that comes near the ground every time the foot is set down, is generally accompanied by sound feet and clean lower bone and the horse possessing such a structure in his underpinning will make a smoother, straighter, cleaner and higher mover. There is a springiness in his gait that can come from nothing else. A straight pastern decreases a horse's command of his feet, and a horse with such conformation literally forces his feet into the ground or batters them to pieces on the hard pavement.

Dairy Note.

Care must be taken to avoid feeds that will taint the milk.

Milk from a freshly-calved cow should not be skimmed until after the eighth milking.

A box or trough containing salt, to which the cows have free access, should always be provided.

Cream should be cooled as quickly as possible to 55 degrees, and kept at that temperature or lower.

It pays to treat cows with invariable kindness. They should never be driven fast or worried by dogs.

The udders and flanks of the cows should always be washed or brushed clean before milking is commenced.

Pure water should be provided for the cows, and they should be prohibited from drinking stagnant, impure water.

All vessels, including separator bowl, used in the handling of milk or cream, should be thoroughly cleaned immediately after they are used by washing in lukewarm water and then thoroughly scalding with boiling water. A brush is preferable to a cloth for washing tinware.

Calves from dairy cows which are destined to become milk producers, should not be kept fat during their growing period, not if you wish to raise strong, vigorous, high-performing cows. They are best kept in a thrifty condition, fed liberally but not on feeds that will fatten them. There is reason in this. Young dairy stock should be trained for their work and a part of the training is to feed them so that their digestive tract is distended more by coarse fodder and hay than by meal, and consequently the capacity for handling large amounts of food is developed, thus giving the first requisite required in a dairy cow and equipping her to perform better her function.