Soils and Crops

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SUCCESS WITH BABY CHICKS.

Raising ninety-nine chicks out of every hundred may seem a little incredible to those who have been less fortunate, or, as someone has expressed it, "fishy." Now it is not so much a matter of luck or good fortunte as it is the result of careful study and pains-taking in the most petty detail, which exists in the poultry business as well as in any other business. The writer believes that anything worth doing is worth doing well; and to do a thing well one must not omit even the slightest detail.

It is to be said, of course, that in order to insure the minimum loss, only husky, vigorous chicks are to be considered. If chicks are bought, care should be taken to get pure-breds. Most hatcheries send out only their best chicks. If one does one's own hatching—vigorous chicks can be secured by carefully selecting eggs, for the hatch, from perfectly healthy flocks.

The first, and an essential step to be taken against the prevalent diseases among baby chicks is to get them to drinking sour milk; this can be done by dipping the bill of each one into the milk. Care should be taken to see that each one gets a taste of the milk; after that they will not bother to take less than they want. This is the first thing we do when the chicks are received; and chicks hatched at home are given milk before receiving any feed. Water is omitted from the ration for the first two or three days to insure their drinking the maximum quantity of the milk. Sour skim-milk is found to be the best. Best results are obtained from sour milk by feeding it at an even consistency; to do this some feed only the curd.

Huddling of the chicks results in many losses. Wire screen fastened in a semi-circle in the corners of their house will help to prevent huddling; but if the proper amount of heat is supplied but little loss will be experienced from this.

At first the chicks are given commercial chick-feed, oatmeal, and wheat screenings. This comprises most of the grain ration for the first two or three weeks; then a little mash is added. A very small quantity of mash is given at first, on plates, or pans, once or twice each day. It is then gradually increased, and at the end of a week is kept before them at all times, preferably in a self-feeder. This consists of equal parts of wheat bran and middlings. Finely cracked corn can now be added with good results. Cooked feeds are avoided as much as possible; yet corn-cake has been fed with no bad results.

One thing that is commonly overlooked in the ration is grit. The lack of grit has been the cause of great losses. A small pile of gravel is dumped where our chicks have access to it the very first day. If you will watch them you will discover that they need no one to teach them what it is for; hence is absolute necessity.

Comfortable quarters—only a shed in our case—must be provided, and this, of course, must be kept clean and well ventilated. Plenty of light must be supplied. There must be plenty of room for exercise. Chaff should be kept on the floor for them to scratch in. Fresh, clean water is kept in the fountains at all times. Sour milk is supplied when available. A supply of mash should be kept in the feeder, and other grains should be fed regularly each day.

With this ration and proper care, a ninety-nine per cent. survival is not uncommon; thus the chicks can be made to weigh between two and three pounds at broiler age; and the pullets will mature rapidly to early winter-layers.

The petty details differ with almost every individual case, and offer splendid opportunities for study.

Artificial Incubating.

S. W. Knipe

I shall not make any effort in this article to give instructions how to operate an incubator. I will rather devote it to a few suggestions as to what you ought not to do.

It is not a wise policy to wait until a few days before you intend to start hatching before ordering your incubator. The dealer may not have the size you desire in stock.

While a second-hand incubator is not recommended, nevertheless there are many purchased each season on account of the lower price. If you do buy a used incubator thoroughly test it before using. If any parts are missing procure them, but probably one of the greatest drawbacks to buying a second-hand incubator is the fact that rarely are they accompanied by the book of manufacturer's instructions. These instructions usually can be obtained at a very small cost from the maker and in no case should one attempt to operate without them. The latter also applies to the purchaser of a new incubator. Do not attempt to put it together any other way than instructions indicate. Do not experiment. The manufacturer has already done that. Because you have used one make of a machine don't think instructions with another make can be dispensed with. It is absolutely no use to expect good results from the best incubator made if you put it in a room where windows have been sealed tight in one way or another to keep out the winter winds and frost. The incubator lamp uses a great quantity of oxygen and gives off a volume of poisonous fumes, which are sure to cause trouble unless reduced to minimum by proper ventilation.

Have a regular system in looking after the machine. Eggs can be turned and lamp filled just before or after supper daily, and then in the morning all that will be necessary will be to turn eggs and see that the temperature is alright. Have a table or shelf convenient to place trays on when turning eggs. Do not forget to close incubator door when eggs are removed for turning.

Always turn your eggs first; then trim your lamp and fill it. It is impossible to trim and fill your lamp without soiling fingers with oil, and eggs will absorb such substances very rapidly, resulting in eventual killing of live embryos. You will find that one filling of the lamp may last for two days, but it's best to fill it daily, then you are positive it will always have enough. Take a last look at temperature before retiring; have heat strong enough just to hold damper up a fraction of an inch. This will take care of a change of either lower or higher outside temperature.

Take out all infertile eggs on 7th day, and about 10th day pay strict attention to your heat, as the animal heat from the live embryos will thereafter increase, making it necessary for you to occasionally regulate some. Always endeavor to maintain an even temperature throughout. Be sure to have a good thermometer, which has been tested before hatch is started (better keep an extra one on hand in case of accident). Instructions come with thermometer also. Read carefully, as there are several styles, the hanging, contact and standing thermometers, so the necessity of placing them in correct psition. After chicks are hatched allow them to stay in incubator 24 hours, then be sure to have suitable brooder accommodation for them, better a trifle warm than too cold. They can get away from the heat, but they can't stoke the fire. The better care given the chicks will insure better results for the breeder.

When to Use Oversize Tires.

Oversize tires are frequently urged for the farm truck and it is promised that the higher cost of the larger tire will be more than made up in the increased mileage and other advantages obtained. However, oversize tires are not always feasible, because sometimes there is not sufficient clearance between all the tires and the adjacent parts of the truck. It is especially important to make sure of this when the truck is heavily loaded. There may be sufficient clearance when the truck is empty, but once it is loaded there may be too little clearance between the fenders and the new and larger tires. It is then wise to make sure that if the springs are severely compressed, as in going over a heavy bump, the fenders and other adjacent parts do not come in contact with the tires. In everyday use this can happen frequently, and the only result can be increased wear or injury to the tires or even damage to the truck itself.

Under such conditions oversize tires are not an economy and therefore not advisable. It pays to investigate before you oversize.

Useful Graphite.

Fifty cents' worth of graphite used about the farm can be made to pay a high percentage of interest. Flake graphite mixed with ordinary lubricating oil to the consistency of butter is a rust preventive and will cure most of the squeaks on a truck or touring car. A little applied to demountable rim studs when a tire change is made will make setting up the nuts easier and also act as a rust preventive. Applied to the rims it defeats rust. However, this is not usually advisable, as it makes black everything it touches, especially the hands of the one who must remove and replace the tire. Before a spark plug is replaced a little graphite paste should be spread on the threads. This allows screwing the plugs in to their limit without danger of breakage and at the same time helps prevent leakage of compression, especially an advantage on tractor and other heavy-duty engines. The plugs will also be easier of removal next time.

Rubbed on either side of an engine-head gasket of copper or like types it forms a binder superior to shellac, one that does not break down under heat and which does not cause sticking. Although it blackens whatever it touches, it is superior to plain cup grease for spring bolts, leaves, steering connections and the like, having the further advantage that even after the grease or oil has been used up there will still be enough graphite remaining in the parts to lubricate them for some time.

It is superior to white lead for gas-pipe joints or other joints that may be subjected to heat or where future easy removal is an important feature.

DAIRY

Dairymen who have kept milk records for a series of years well know the effect of a big storm on the producing herd. Invariably there is a severe shrink resulting from a cold, stormy winter period. To prevent this shrink requires some additional work on the part of the cow-keeper. A herdsman who is able to prevent a shrink during a blizzard understands his business and deserves commendation, for he has proven that he is efficient and skillful in his work.

As it requires extra fuel during a cold spell to keep warm, so with animals it requires extra feed when the temperature is low, which means that the feeder must always increase the ration during very cold weather. He must also see to it that an animal consumes its required amount of water, as on an average eighty-seven per cent. of milk is water. The carcass of the animal has more water than solids so the water item is essential. From experience we know that during cold weather we drink little water, and a cow will naturally drink less during a very chilly period. Especially is this true if the water supply is made difficult to reach or the tank filled with floating cakes of ice or even worse, is coated over.

On most farms the water supply comes from a tank located close to the well. Invariably it is open and exposed to the weather. With sub-zero temperature it is either necessary to keep the ice cut and thrown out, or to employ the use of a tank heater. The most practical method is to use a heater, for in this way the water can be brought up to fifty or sixty degrees, at which temperature it will be consumed in larger quantities than if colder.

The dairy farmer should keep in mind that it is difficult to recover a shrink, and if his cows lose in milk it will require considerable extra feed and time to get them back to a normal production. The best way is to prevent the shrink if possible, and this can be done by keeping the animal comfortable and well supplied with food and water. Exposure to cold winds and drafts are more harmful than low temperatures. An animal, in fact, will stand with considerable comfort even zero weather, provided she has a good bed and plenty of feed, without a cold draft striking her body.

Irregular hours are often caused by storms. The men will have extra work in clearing away snow and are handicapped in supplying feed and water; this, coupled with the desire to seek the warmth of the house often results in irregular milking hours, which again adds to the shrink in milk flow. Regular milking and feeding periods are essential for best results, and so I say again, that the cow-keeper who avoids a shrink in his herd during a blizzard or cold spell deserves the prize of success, and he can truthfully be said to be an expert dairyman.

HOGS

In an attempt to learn the effect of the management of sows upon the number and condition of the farrowed pigs, fifty-three cases were brought under observation. It was discovered that the majority of those who were bringing the highest average to live pigs up to weaning time saw that the mothers were supplied with plenty of protein food and exercise. The sows were kept in medium condition and did not receive more than three ears of corn each per day. One farmer advised that a good way to give the sows needed exercise is to have the sleeping quarters some distance from the place where the animals were fed. This will force them to cover the distance at least three times each day.

THE CHILDREN'S HOUR

KINDNESS PAYS.

"I'm tired of playing this game," said little Benny Fox, bobbing his head out of a pile of leaves. "Playing hide-and-go-seek in the leaves isn't fun just for two."

Little Benny had come over to Sammie Squirrel's house for an hour's play, and Sammie was doing his best to entertain him.

"What would you like to play next?" asked Sammie.

"Oh, anything that's lots of fun," he replied, "let's get your little wagon and draw some branches together and make a twig house. Then we can have a little playhouse all to ourselves."

"That will be heaps of fun," said Sammie, "Come! we'll get the wagon. It's in the back shed."

Off they raced for the shed and tumbled in at the door at the same time. Both hurried toward the dusty little wagon hat hadn't been out for several days.

Just as Benny reached down to draw it away, Sammie called, "Stop, stop, Benny, we can't take the wagon, it's in use."

"I can't see who is using it," said Benny, looking around bewildered.

"See that big black spider?" asked Sammie.

"Shucks," cried Benny Fox, reaching for the handle, "he will scamper off as soon as we move the cart."

"Stop, stop," commanded Sammie, "How would you like to have your house torn to pieces? This big black spider has woven a beautiful house here; and, see, there are two little spiders. What would they do if we tore up their home?"

"I never thought of that," said Benny. "It wouldn't be quite right to tear up their house just so we could play with your little wagon."

"Isn't that the most beautiful lace? I do wish mother had as pretty a centrepiece for her table or curtains for her windows," said Sammie.

"Look at the corners. Every part is perfect. And it is strong when it holds such a big spider. Let's leave him alone now and go to make our twig house. We can carry the twigs in our arms," said Benny.

"Yes, and we can come back and see the big black spider, to-morrow," said Sammie; and off the two scampered.

"Fip-fip-p-p-fo-fee! I sure thought my house was gone that time," said the Big Black Spider after the two visitors had closed the shed door. "I'll just surprise little Sammie Squirrel for being so good to me."

So the very next morning when the sun peeped in Sammie's window it shone through the prettiest spiderweb lace curtain he ever saw.

Handling Bulls.

It is usually a so-called "gentle" bull that hurts people. This is because more precaution is taken with an ugly bull than a tame one. A "gentle" bull is likely to suddenly become ugly and if he is not properly secured he will hurt someone.

Two things are worth observing in handling mature bulls. First, make their environment such that they are not likely to become ugly, and second, have them where they can't do any damage if they do get mad.

The ideal conditions are to have plenty of exercise in a stout enclosure, a chance to see other cattle, good rations, and gentle but firm handling, with no teasing. It is best to have a good strong staff to lead the bull with.

The Water Supply in the Farm House

BY L. STEVENSON, B.S.A., ONTARIO AGRICULTURAL COLLEGE.

A motor truck with a specially constructed extension platform top, loaded with an exhibit of pumps, plumbing equipment, tools and demonstrating materials related to household water supply installation, left the offices of the Dept. of Agriculture on May 23 to tour Western Ontario. This demonstration on wheels was prepared under the direction of the Superintendent of Women's Institutes for the purpose of illustrating to the people of rural districts the best way in which to install or improve the household conveniences so necessary in the reduction of labor in the farm home. Water in the kitchen, in the bathroom and in the laundry, together with the disposal of sewage, at a cost in keeping with the farm exchequer, the purchase of the proper type of equipment, and advice on farm plumbing were the main thoughts in the demonstration.

Farm surveys have shown that too few farm houses are equipped with any water service, and that many are not taking advantage of the natural conditions that surround them. Carrying water from a spring when either a gravity line or a hydraulic ram would deliver a water supply at the kitchen sink is a waste of time and energy still being practiced. The unsanitary cesspool is still being used in spite of the fact that the septic tank is known to many, and is a convenience within the reach of all. The demonstration was in charge of two capable officials, well versed in plumbing and sanitary engineering, and as prearranged and advertised, attended gatherings of rural people under the auspices of the local Women's Institute.

Complete plumbing equipment for kitchen and bathroom was set up and demonstrated at each gathering. The work of piecing together the various parts of the equipment was done in such a way as to make clear the mysteries of plumbing to the handyman of the farm, enabling him to return to his own home and put in like equipment with his own hands and tools. Plumbers' bills have frightened most farmers who have been unfortunate enough to see them, and it has been this high cost factor that has kept the labor-saving water equipment out of many farm homes.

One demonstration stand per day was the practice, thus giving the people of the various districts visited an opporunity of inspecting the exhibit at their own convenience, at any time between noon and nine p.m., and of consulting with the officials in charge. A general meeting was held early in the evening at each point visited. The officials in charge were able to visit, on request, many farm dwellings and give expert advice on the ground, while passing from place to place during the early part of the day.

The attendance at these Farm Household Water and Sewage System Demonstrations was large and enthusiastic. It is the aim of the Department to encourage the development of an inexpensive and efficient form of plumbing equipment that is simple in installation, so that the farmer can install it himself. The bringing of water pipes into the house and the replacement of the old-fashioned dish pan by the modern sink is the first object sought. With this accomplished, the rest will follow.

Home Education

"The Child's First School is the Family"—Froebel."

How Children Learn Ease of Manner.

BY EDITH LOCHRIDGE REID.

A mother remarked the other day in the course of a conversation on child discipline, "I don't see why it is that my children always act worse when we have guests that at any other time. I'm sure it isn't because they haven't been instructed how to behave."

Now this mother was perfectly sincere in her remark, yet her own phrasing contains the secret of her distress over her children's behavior. Would a child learn to play the piano by being instructed if he didn't practice playing every day? Yet that mother was expecting just as improbable a performance in behavior. She was stressing the old idea of "company manners," and expecting the children to put on culture just as they put on clothes for the dinner party. And because they didn't she was deeply grieved and disappointed.

The reason why children of this type act worse when there are guests than they do ordinarily is because of strain and nervous tension. In the mother's anxiety to have affairs move smoothly she has held out threats as to what will happen if all the last minute "Don'ts" aren't observed, and the result has been to create an unnatural condition that is confusing and disastrous to poise and courtesy.

But aside from the mother's embarrassment over slips of etiquette and behavior, this idea of "putting on manners" is very unwise training for children. They gradually learn to act on artificial motives and lose sight of the genuine and vital character traits that are worth while and lasting.

Just the idea of alluding to the various articles of table appointment as "company silver" and "guest linen," and so on, through all the china and glassware, suggests to the child a feeling of stiffness, and an atmosphere formal and conventional, though he does not analyze it in just those terms.

Why not use the good dishes and linen and silverware occasionally for just the home folks? Then daughter Lois will not cause a panic when there are guests by piping up, "O, goody, we have the fruit in the best hand-painted bowl." If the little ones become accustomed every day to what is good enough for guests, a great deal of strain for both parents and children is bound to be eliminated.

Right in line with this follows the fact that the place to start preparing the child in "company manners" is the first day he sits in his high chair to eat a meal. There is no need for a tot even his age to throw his spoon and cracker on the floor continually, or to upset his broth or porridge. He may as well learn right then not to stand up in his chair, not to put his face down in his plate and not to scream for what he can't have. This much at least can then be omitted from the "instructions" when the Browns come over to dine a few years later.

When mother is alone and playing with the babies she can teach them much by pretending visitors. They may come in and call on her and advance and take her hand. It will become natural in a very short time.

A mother who includes good manners and polite behavior in the every-day home life, will never have reason to force courtesy upon her children.

Unequal Compression Trouble.

Throttled down or driven at low speeds the engine ran perfectly, but when the speed was increased to fifteen miles an hour or better it would run unevenly. The valves had been ground and appeared all right. The spark plugs were changed and a test showed a good spark was being delivered at each plug. The ignition system was gone over and the points found in good shape, with all parts apparently in good working order. Changing the carburetor adjustment from a maximum to a minimum of richness of mixture proved unavailing. The push rods and rocker arms of the valves were in perfect order and yet the trouble continued. Finally testing the compression was tried and one cylinder registered sixty pounds, another fifty and the others about forty pounds each. Evidently here was the secret of the trouble, but what caused this unevenness of compression? Our problem was to locate it and it was found due to weakened valve springs. The valves were not closing tightly nor quickly enough. —Ed. Henry.

A Tile Smokehouse.

The owner of a tile smokehouse is firmly convinced that every farmer who prepares his own meat should have a similar smokehouse to aid in the job.

The one in question is six feet wide and six and a half feet long. It is seven feet high to the eaves, and the concrete foundation and floor were cast in one piece. The tiles used are 4x8x12 inches and are laid up in the usual manner. The door is of wood, tightly fitted, and it carries a small window covered with screen which can be raised or lowered to regulate the smoking process.

The roof is a solid concrete slab, only two inches thick but well reenforced. Though the building has stood for several years there is not a single crack in its surface.

Hooks made of quarter-inch iron rod and bent to shape are hung from the ceiling within.—H. R. Dalton.

A Homemade Grindstone.

Though the owner had a good emery in the shop, he built the grindstone from scrap material for use on garden tools and knives. What prompted the venture was probably the existence of an old stone on the scrap pile which obviously was sound at heart, out of shape and chipped though its long-worn exterior proved to be.

First the wheel was mounted between centres and dressed down with an old file. A small saw horse was built, two bearings mounted one at each end upon this, and through them was run a steel shafting to fit.

One end of the shaft was deformed and cemented to the centre of the stone with pure cement and water. Care was taken to have the wheel properly lined up. An eight-inch pulley was then keyed to the other end.

Since the motive power required is slight, no staking down is necessary, and yet the machine is so light that it can be carried about with only one hand. So instead of moving the engine to position, the stone is placed where some job is to be handled and belted up.

Fertile brains and fertile soils are the essentials of successful farming. A working ability will bring results from such a combination.

A well equipped desk is a labor-saver in the farm home.

Soil Fertility Experiments.

The three demonstration plots that have been started as follow-up work in connection with the soil survey are now giving interesting results. The outstanding feature so far is the proved beneficial effect of lime and phosphoric acid. On the light sandy soil of the Norfolk County plot the increasing amount of decaying organic matter is beginning to make itself felt in the improved texture of the soil and increased crop yields. On all three of these experimental plots certain mixtures of fertilizers are giving paying results, while other mixtures are not.

The Triangle experiments with potatoes have demonstrated in every county where held that legumes may be used to gather all or nearly all the nitrogen required by the potato crop, and that phosphoric acid and potash in proper proportion may be used to increase both the quantity and quality of the crop with profit.

The lime phosphate experiments planned to discover the effect of lime, lime and acid phosphate and mixed fertilizer on wheat and the succeeding crop of clover, have given interesting results. Each experiment consisted of four one-half acre plots, and these were laid down on three different farms in eight different counties, twenty-four experiments in all. All these experiments were started in the fall of 1922, only the wheat crop has been harvested. The clover, however, shows marked difference in development in the various plots and interesting results may be expected next season. The outstanding results so far obtained in that acid phosphate increased the yield of wheat in every experiment. The average for the check plot was 22.2 bushels per acre, and the acid phosphate plot 34.34 bushels per acre, an increase of a little over 50 per cent. Assuming that the addition of the acid phosphate at the rate applied on these experiments would have given the same results on the 717,307 acres of fall wheat harvested in Ontario in 1923, the value of the crop would have been increased by nearly eight million dollars, at a profit over the entire cost of the acid phosphate or over four million dollars.

This work is being extended to eight additional counties and is being carried on by the Chemistry Department of the Ontario Agricultural College in co-operation with the Agricultural Representatives.

Pure Seed.

During the year 1923 the Field Husbandry Department of the Ontario Agricultural College supplied to nearly 2,000 farmers pure seed and other material with instructions and full information for conducting tests on their own farms.

One hundred and twenty-one distinct experiments were conducted during the season on the Field Husbandry area.

Feeding the Calf.

Experience has taught the importance of feeding the calf milk of uniform temperature from day to day. But results are obtained when this temperature is kept between eighty and one hundred degrees Fahrenheit. A young calf should not be fed milk that has started to sour. The pail should be thoroughly cleansed after each feeding in the winter time as well as during the summer season.

The farmer who tests every ear of corn that he intends to plant this coming spring will be more certain of his seed than he who tests only a few or none of the ears.

YOUR BOY AND YOU

That boy of yours is sometimes quite a problem to his mother—most every son is. He simply won't do things mother wants him to do, and consequently he is a "bad boy" too often for mother's comfort.

To dad he is not quite the problem that he is to mother, for dad remembers that he was once a boy who tied cans to dogs' tails, threw snowballs at passers-by, or got chased by the crabby old man who lived just over the hill. He can remember when he crawled under the bed to get away from the punishment mother was going to administer, and did later on, when he had to go to bed without supper, or do long extra hours of work in order to get him into ways of righteousness.

Boys will be boys, especially when they are just coming into manhood, for then they try to break away from parental authority and assert prematurely their manhood.

That is a critical period in the life of the boy. Judgment must be used in handling him, for then a life is often either made or broken. The parent has a great responsibility in the way the boy goes.

Students of the youth period of life say that we should endeavor to guide our boys, not control them. We should seek their confidence, not demand their obedience. In getting their obedience and maintaining a control, we assert a physical power over them. But when we guide them through the confidence they have in us, through the sympathy we can give them when they actually need it, we gain our point through their emotions. This is the logical way, for at that time of life the emotions are the most active.

We should also use patience. Constant rubbing will make a stone smooth and polished, while hammering will often break it. We can not expect obedience to our every word, especially when, due to our own indisposition or lack of thought, the commands are ill-considered. But we can by diplomatic, indirect suggestion, usually direct the boy in the way he should go.

Beetles That Are My Friends.

I have seen people lift boards and rocks from the ground so the chickens could gather in the multitude of scurrying black bugs hiding there, never dreaming that these ground beetles are good friends of ours. They live on insect pests. Probably most ground beetles you see are black, but there are ground beetles in bright metallic green, metallic red, spotted, and differently marked.

The cutworm is one of their choice tidbits, and they destroy very many of them. One kind is partial to potato bugs, and others have a liking for other pests we are glad to have them eat. The larvae of the ground beetles are hard, sturdy worms with strong mandibles somewhat like the nippers of a crawfish. When they set these hooks on a fat cutworm it will cut down no more corn and tomatoes. It attacks cutworms in the sod, where we have very little chance to get at them. They are hungry chaps, too. One ground beetle larva has been known to eat a half-dozen cutworms for one meal.

We have always been taught that the ladybugs were harmless friends, but we did not know that the larvae of the ladybugs were among the most useful helpers we have. They are especially fond of the aphis. They proved one of the most effectual checks to the green bug on wheat, but most farmers were more frightened than ever when they appeared, thinking they were a new wheat pest. I have seen dozens of these larvae feeding in one patch of aphis. It seemed marvelous that any aphis should escape, and not a great many do.

The ladybugs, as all such insects that feed on other insects, breed very fast, and are only held in check by lack of insects of their liking to feed upon. Let aphis become exceptionally thick and ladybugs show up in numbers. It is this provision of nature that helps so much in keeping down this special pest. One scientist has stated that from a few aphis enough would breed in one year, if unmolested, to bury the earth to the depth of a foot or two. Ladybugs also attack scale and other insect pests.—A. H.

My Expensive Mistake.

Breeders and importers who care for their reputation make a great mistake in selling inferior stock at any price. I made one such mistake that served as a good lesson to me. A man wrote for prices on yearling bulls. I quoted him $250 and up.

He wrote back: "I won't pay no sich price; I can get a putty fair one for $125."

I replied: "I will send you one for $125."

He sent his cheque and I shipped him the bull. It would have been much better for me if I had sent the bull to the bone yard, or soap factory, for the man showed him to his neighbors as a specimen of my stock, and of course they said they would never go to Brown for any.—George H. Brown.

Make the smokehouse high enough to hang the meat at least nine feet above the fire.

Cow-testers are proving themselves pioneers in a new age of dairy production.