EXCELLENT METHODS GIVEN FOR IMPROVING YIELD OF POTATOES

Farmer Should Carefully Go Over Patch and Select Those Hills That Have Tubers of Good Size—Treat Seed by Themselves and Plant in Separate Patch for Best Results.

This Field of Potatoes Yielded at Rate of 375 Bushels Per Acre.

(By PROF. L. R. WALDRON, North Dakota.)

It is a common belief that if we purchase a variety of potatoes from a seedsman that we have secured just one variety. This is true in a measure. If the seedsman is reliable, he will send potatoes that are uniform in color, depth of eyes, earliness of maturing, and other qualities. But unless these particular potatoes have been pedigreed, then we have not received one thing but many.

The farmer can demonstrate this fact to his own satisfaction. At digging time let him lay off a portion of a row containing 100 hills. In order to show this, each hill must have come from only one piece of seed.

The 100 hills are dug and the tubers of each hill are kept by themselves on top of the hill. The products of the 100 hills are now ready to be studied.

At first glance the hills may appear to run very uniformly. A little closer view will reveal the fact that about the only thing that is uniform is that they are all potatoes. The first hill has one large one, two medium-sized ones and half-a-dozen small ones. The next hill has one medium-sized one and several small ones. Perhaps the next hill has three or four good-sized ones. Another hill has a solitary tuber, but of good size. Perhaps another hill has nothing but little runts. Thus it goes through the 100 hills. The ordinary farmer will pick up the tubers from all of the hills and put them all together. He does this complacently and with satisfaction. His fathers did it before him and all of his neighbors do it. Why should not he?

Late in winter, when he begins to read the seed catalogs, he wonders why on earth, or under it, he cannot raise such splendid crops of potatoes as he sees pictured. Now, that is the point I am getting at; our variety is not a unit.

In our 100 hills that we have dug, close study might reveal the presence of at least ten strains or varieties, instead of the one that we thought we had.

The hill that bore the little runts has the runt character as a habit. It is going to persist for years, and every time we plant seed of that strain we will know to a certainty that we will harvest little potatoes.

The hill that produces one or two large and several small ones, is a common feature of potato fields.

The hill that bore three or four good-sized tubers is the one to fasten our eyes on. That is the hill that has ability and the one that we should get next to.

We will assume that we have three tubers to every hill and that the total weight of the three tubers is one and one-half pounds. There is nothing absurd in this, for often an individual tuber will weigh more.

We will further assume that our rows are three and one-half feet apart and that our hills are two feet apart in the row. This is open planting, probably more open than is commonly practiced.

At this rate of planting there will be 6,200 hills per acre, assuming nearly a perfect stand. With one and one-half pounds per hill, we would have a field of 155 bushels per acre, a yield worth striving for by the majority of farmers.

Now it may be that the hill with the three or four good tubers will not breed true, but the chances are that it will. The offspring of the hill is almost certain to produce a certain percentage of small tubers, but we may count upon it that it will produce a lesser percentage of small tubers than the average hill.

What a farmer should do at potato-digging time is to dig a fair-sized patch, leaving each hill by itself. After the patch is dug he should carefully go over the patch and select out those hills that have few tubers of good size.

These tubers from these hills should be treated by themselves and later planted in a separate patch for the year following.

If he is particular he may not be able to find more than ten hills to his liking.

In the springtime these should be treated by themselves and planted in a separate patch. The second year's product from the ten hills will be sufficient to plant quite a piece of ground, perhaps as much as the farmer desires.

If the farmer wants to follow a method even better and more accurate than this, he should plant each of the ten hills in a little plat by itself.

This requires that each hill will be sacked separately at planting time. If the ten plants show up of about equal value and all good, it is not necessary to keep them longer separate, but the product of the ten plats may be sacked together and saved to plant the main patch the year following.

If two or three of the ten plats are off, these should be discarded and the good plats saved.

If an occasional farmer follows the method here laid out, he will soon find that his neighbors will be after him for seed and they will be willing to pay him a bonus for them.

WATER REQUIRED BY DAIRY COW

Should Be Pure and Fresh and Easy of Access to Animal in Pasture and in Barnyard.

Inasmuch as it has been proven by actual experiments that the average cow will drink 1,600 pounds of water a month, great care should be exercised to provide her with water. That is true enough, but there are two other points that need to be also included.

1. This water should be pure. Impure water is just as hurtful to the health and vigor of a cow as it is to a human being. It produces disease just the same. It reduces the amount of milk the cow would naturally give.

2. The water should be easy of access for the cow, both in the pasture and the barnyard. With a large herd of cows, say 30 to 50, it is a good plan to have two or three watering tanks in the yard, where the cows are watered out of doors. It is worth while also to have a man remain in the yard while they are drinking, to drive the master cows away from the tanks as soon as they have drunk their fill. In turning cows out to drink, it is a good plan to first turn out the underlings and the most timid ones, giving them plenty of time to get what water they want undisturbed. Lots of money can be lost with a herd of cows by being indifferent or careless on this water question.

BETTER HOMES FOR THE FARMS

The Department of Agriculture Establishes a Branch for Information on Household Topics.

Secretary Wilson of the department of agriculture has always recognized the influence for good farming which flows from an attractive farm house, and has developed a branch of the department which, through its correspondence and its publications, has become a bureau of information on household topics. Bulletins on subjects relating to food and to home-making have been prepared which have had a circulation of more than 10,000,000 copies. One of these, The Economic Use of Meat in the Home, reached an edition of a million and a half copies. At the same time this branch of the department has given special attention to agricultural education, assisting states to plan and organize schools, to secure teachers, and to prepare courses.

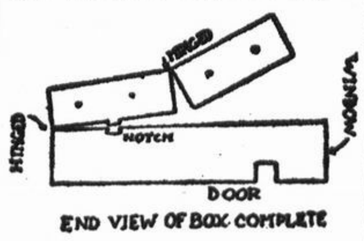
POULTRY

MAKING YOUR OWN BROODER

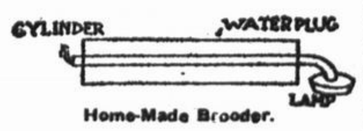
Directions and Illustrations Given of Suitable Shelter for the Little Chickens.

In describing a brooder that she had constructed herself and used successfully, Mrs. Belle Stiles says in the Missouri Valley Farmer:

A box 2½ feet wide by 3½ or 4 feet long is made of matched lumber, eight inches deep inside measure. A box cover six inches deep is hinged to

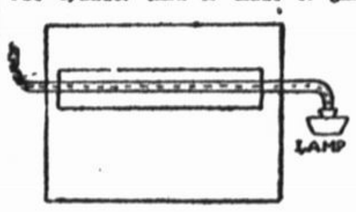


END VIEW OF BOX COMPLETE



Home-Made Brooder.

one side, and is hinged again in the center. A notch is made in each end of the box one-third of the way across from the hinged side, with corresponding notches in the cover, and in these notches rests a cylindrical tank for heating the brooder. Windows should be put in the front, and a door in one end. Small holes should be bored in the ends of the cover for ventilation. The cylinder tank is made of gal-



With Tank in Place.

vanized tin, with a hollow tube through the center of such a size that heat from a lamp can be turned in with an elbow. On the top of the cylinder there should be a screw plug for putting in water. The tank when filled with water is heated by the hot air in the hollow tube. This center tube should be long enough to extend through the brooder box and to the lamp set outside. The box should be carpeted with paper or litter, the tank put in place and filled with boiling water, the lamp put in position and the brooder allowed to warm up before the chicks are put in. When in position the cylinder should be two inches from the bottom. After the heat is up the lamp may be turned very low. If the chicks are too warm the cover may be raised and a stick slipped under the edge to give more air. Don't overcrowd. Give plenty of warm water in cold weather. Don't overheat. Give plenty of grit. Keep clean. It's a joy to raise chickens by this method, and these brooders if properly cared for will last for years.

MARGIN OF PROFIT AND LOSS

Record of the Cost of Production and Sales Will Determine Whether Hens Are Paying.

A flock of hens should be made to pay a good dividend on the investment. If they do not do this there is something radically wrong somewhere along the line.

If you have kept a record of the cost of production and the sales you will be able to tell whether or not your hens are paying. Hens that are laying an average of 50 or 60 per cent are doing well and will make a good showing on the right side of the cash book. Any averages above that will be so much more gain and will more than justify keeping the birds.

If they fall way below this mark you better investigate and find out the cause of the trouble. It may be that you have a poor strain of birds, that you are not feeding the right kinds of foods or in sufficient quantities, or that you are not giving them the proper attention that they must have in order to be great producers.

Studying Needs of One Breed.

It is poor policy for a beginner to endeavor to keep several breeds of poultry. The probabilities are that he will give them all like attention and food when they need to be treated according to their natural dispositions and peculiar needs.

The results are that he will favor a certain breed because they do better for him, when in reality the others would have done just as well if they had received the treatment which was due them. Do not attempt too much, but select a breed and then a variety and stick to them.

Discard Mongrels.

Mongrel fowls should not be kept for egg production because the eggs will be uniform neither in color nor size. This factor of itself is of enough importance to induce one to select a pure breed, even though the mongrels might possibly lay as well as the pure-bred fowls, but this is very doubtful.

POULTRY

FIGHT ON TURKEY PARASITES

Youngsters Must Be Protected From Excessive Heat and Dampness, Says Government Bulletin.

No kind of young poultry is so susceptible to the effects of unfavorable conditions as the young turkey. They must be carefully protected from the attacks of parasites, and from excessive heat and dampness, says a government bulletin, until they have gained sufficient strength and size to wander away with the parent turkeys and care for themselves on the range.

The chief danger from lice and mites attacks to the poults is directly after the poults are hatched, but the best remedy is to deal with the hen before the young are hatched. The plumage of the hen should be dusted with insect powder, and close down to the skin from head to hock joint, being careful not to get it into the eyes. This should be done at least twice a week until two or three days before hatching.

The most careful attentions should be given to this. Never use lime or sulphur for this purpose. Nothing is better than some insect powder, if it does not contain ingredients that are injurious to the eyes.

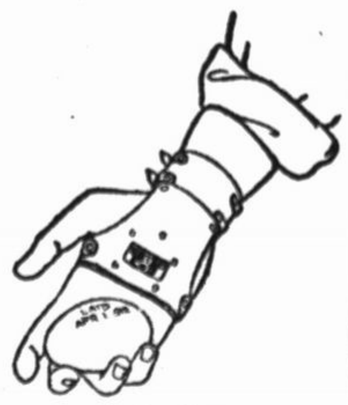
It may often occur, however, that the hen will not have been properly treated, and also the lice and mites will be found on the young, and in order that the poults may live and thrive, they must be freed of these enemies. As soon as the young are ready to leave the nest they must be examined carefully for lice, which may be on the top of the head, under the throat or about the wings or vent. Some of them are gray in color and difficult to see.

They may be destroyed by the use of sweet oil, rubbing a small amount upon the head and throat; insect powder is sufficient for the other parts of the body. It is very important that only a small amount of the sweet oil be used, as too much is injurious. Kerosene should never be used to destroy parasites.

ODD WAY FOR DATING EGGS

Rubber Stamp Held in Place in Palm of Hand Performs the Operation—Type Removable.

A Minnesota man has patented an ingenious device for putting the date on eggs. It consists of a rubber stamp of removable type which fits



Dating Eggs.

into apertures in the palm of a glove-like cover which is strapped around palm of the hand. As each egg is picked out of the nest the date is imprinted upon it, and there is no necessity to going all over the day's "crop" after they have been collected. The type, of course, is inked from time to time.

Remedy for Diarrhoea.

When simple remedies fail to correct diarrhoea in birds, give the following: Subnitrate of bismuth, one to four grains twice each day, or pulverized cinnamon bark, two grains twice each day. The soft feed given the bird should be dry or as nearly dry as possible. In case the trouble is checked too abruptly, give from 20 to 30 grains of salts in a tablespoonful of water. One or two grains of calomel in soft water is also a good corrective.

POULTRY NOTES

Feed dry feeds—no mashes.

For the first feeds use plenty of dry oatmeal.

Now is the best time to try your breeding stock.

Chills, wet food and lack of sunshine are the main causes of bowel trouble in chicks.

Where the dropping boards are made of matched lumber the job of cleaning them is easier.

This is a good time to put a square of tar paper in the bottom of each nest box for the benefit of lice.

If a new poultry house is to be built this spring see if there isn't a sandy spot handy on which to locate it.

If all the chickens and full-grown hens run together, the stronger chickens will get most of the feed and keep the others poor.

In operating brooders remember that uniform heat should always be maintained. It is better to have a little too much heat than too little.