

By-Products of the Farm

The farmer cannot afford to neglect entirely the by-products of the farm. Now that the spring rush is on, industries that indirectly aid in paying off the mortgage on the farm or high-priced implements, are apt to be neglected. Though grain crops are, at present, the farmer's mainstay, he can realize more fully on these products by giving a little attention to the dairy, the poultry, the garden and the bacon hog. The farmer may have tried to produce all these by-products extensively and failed to realize profits to warrant his time and labor because of peculiar adverse conditions in which the market was, perhaps, the chief source of discouragement. It cannot be truly said that every farmer in the West can at present realize profits out of these by-products, though many instances are on record where, with careful management, western farmers are yearly realizing dividends on these industries. The West is essentially an agricultural country and the by-products should, under right conditions, net the farmer a profit.

But apart from the question, whether or not these by-products at present warrant any special attention, it cannot be denied that the farmer should, at least, produce sufficient for his own use. The farmer who buys butter, eggs and bacon and does not have fresh vegetables simply because he has neglected to grow them, is not realizing fully out of his farm. Home products are the best the farmer can get. They are pure, fresh and clean above everything, and if the farmer, who is accustomed to buy these products, were to figure up the account at the end of the year, he would find that a good many acres of hard wheat were turned into cash for these commodities. That the farmer works hard in the spring cannot be denied. After following a four-horse team all day he has not the energy, nor the time, to do much else in the evenings besides tending to his horses; but, on the other hand, the farmer usually has some sturdy boys and girls who can attend to the by-products if given a little direction and some aid. The by-products must be attended to in the spring or they will not materialize.

Younger Members' Part

Poultry can be looked after by the wife or the small boy if the farmer makes conditions suitable. The garden—if the farmer takes a few hours off from his usual labors to manure and plow and harrow the same so that there will be some inducement to the members of the family to do their part—may be made to supply the table with an abundance of fresh vegetables. If the chickens are not hatched this spring there will be a scarcity of fresh eggs next summer; if the soiling crop is neglected there may be a decrease in the milk flow in the dry seasons and the small herd may not supply sufficient butter to meet the needs of the family. If provision is not made for the young pigs in the form of pasturage, next summer's pork supply may be limited.

The farmer usually makes sure of growing sufficient oats and hay to supply his horses because, in times of shortage, he has to pay out good money in large quantities to supply himself with these necessities. The butter, eggs and bacon, if not produced on the farm, are bought in small quantities and the farmer does not realize, unless he keeps strict account, how much these products really cost him. When winter arrives it is a pretty fine thing to see the cellar well filled with vegetables, the dairy stored with sufficient butter, and the hog pens filled with a nice lot of good porkers. Without these by-products and with a light grain crop the farmer with a family has a pretty hard time to make ends meet.

It is a matter of taste whether or not poultry is raised by the incubator system or the old fashioned way—the mother hen. Large poultry dealers use almost exclusively the incubator, yet for the small dealer—the farmer who simply raises enough fowls to supply his own wants—it is a question which is the preferable system. Both require equal care and labor.

Setting the Hen

In the first place shape the soil under the nest so to be slightly hollow, putting in enough soft hay to make a comfortable

nest. In this place two eggs—chickens will do—but never a full setting. At night carefully lift biddy off the nest she has chosen and place her in the new quarters at the same time dusting her well with insect powder and sprinkling a little in the nest. If Mrs. Hen is quiet next day, do not disturb her or uncover her till evening. If she is not quiet the best thing to do is to let her go. Even if she is quiet it is too soon to give her the eggs. The next day she should leave the nest to feed and return of her own accord. She will do so if you cover all the nests but the one you want her to sit on. Sometimes she decides to ramble about and not go on the nest till evening. Do not give her eggs yet. If she goes on at night she will likely stay; if not, throw her out. But if she takes to her nest all right, it is safe to give her the eggs. While the hen is setting, provide her with a hopper of whole grain and a pan of water. Leave the middle of the pen bare and dry so that she can roll in the dust. Twice a week give a mash of bran or even rolled oats and any vegetables you may have. When the eggs pip cover the hen up till the hatch is out. These simple instructions will result in good results with the setting hens, even if therefore a number together.

Artificial Incubation

Writing in Farm and Dairy, Geo. Paxman, an experienced poultryman, has the following to say regarding rearing chicks by incubation:

"Artificial incubation and artificial brooding of chickens are two points on which men have improved on nature's methods. Any farmer who intends to

and forget them until after nine o'clock. I went back and put them in and had a good hatch. Of course, the time which the eggs are to be left exposed will vary with the temperature of the room. In a fairly cool room they might be left out for 15 minutes. Turn and cool the eggs twice a day until the first one is pipped, which will be on the 19th or 20th day. Then close up the machine and leave it. "Do not be afraid of the temperature getting too high towards the last. Many poultry men turn the light down until it is almost out for fear of getting too high a temperature. Let the temperature go up until the regulator lowers it again. "Testing out all unfertile eggs or dead germs is an important point. I test all the eggs on the fourth day and keep testing regularly, a few every day, taking out all unfertile ones."

The Dairy Herd

Every farmer who has a wife and family should produce at least sufficient butter for home consumption. Five cows will produce sufficient cream and butter for a large family during the year, that is, if they are properly cared for. If a farmer keeps a herd of five milk cows it is the part of wisdom to get all the milk out of them that is possible, otherwise it would be better for him to keep two cows and tend to them properly.

The dry pastures of May and June may be supplemented by sowing fall rye or bromus grass, for those who understand it, as there is a great difficulty in getting rid of it. Of course, these grasses sown this year will not materialize until next spring. This period can also be tidied over by sowing a mixture of three

will stand a vast amount of stable manure and give a surprising growth of green feed.

Rape is frequently sown in a mixture of field peas, barley and millet. It is the only one of the list of plants that will grow up after being fed down, and while it makes a rather quick growth after it is pastured off the first time, it springs up and supplies a vast amount of forage after the other plants have once been fed off, and gives it a chance to grow without being crowded.

When cattle or sheep are pastured on rape they must be gradually accustomed to it as it has a very severe bloating effect. When it is damp with dew or light rain, it causes bloating to be very much worse and to come on more rapidly. No trouble is caused when feeding pigs or horses on it.

The Kitchen Garden

In all gardening operations it is well to bear in mind that as much labor, space, time and expense is required to cultivate a poor crop as to produce a fine one, and that three things are essential for a vegetable garden—suitable soil, good seed, and clean culture. Good seed is most essential; some people are so economical that they sow half a packet and put the rest aside till next year, by which time the germination power may be reduced or lost, for there is a limit to the vitality of seeds and they differ with varieties. Onion seed should never be kept over, nor parsnips nor leeks, while those only good for two years are beans and peppers, peas, carrots, sage and rhubarb; lettuce, parsley, radish and asparagus seed will keep a year longer.

The best situation is south-east, the best soil a sandy loam. It must be well drained and quite free from surface water. The soil should be well supplied with decayed vegetable matter. In small grounds the land is best marked off into squares of convenient size and the rule of rotation of crops does not allow the same vegetable to be in the same bed two years in succession, with the exception of onions which can be sown year after year in the same soil, if kept in fertilizing materials, of which, perhaps, wood ash is the best.

Keep Out the Weeds

Ground must be kept clean and weeds not allowed to start, as it is more expensive to get them out when once established than to keep up a dust mulch by running cultivator or hoe between the rows to conserve moisture and promote growth, besides not giving the weeds a chance to start.

Light dry soil, but not rich, suits the pea, for, if the land is too strong, it produces more straw than pod. Early sowing is an advantage and if the dwarf variety are preferred they can be sown in beds like bush beans. Carrots and parsnips need rich soil and early sowing, too, and the drills should be eighteen inches apart. Beets need not be hurried as they are a little more tender than some of the first mentioned, but spinach, if not sown in autumn, should be got in very early. Sweet corn and beans may be put in about May 10 provided the weather is mild.

Early Potatoes

Early potatoes may be put in about May 1. Tomatoes are very popular and can be easily grown; they should first be sown in the hotbed and planted out the last week in May. If the weather is hot in transplanting, the tomato does not succumb to moving, while the cabbage or the cauliflower will wilt to the very heart with the same treatment. In transplanting cabbage and cauliflower a dull day should be chosen. Squashes, cucumbers and the rest of the vines of that order are not planted till danger of frost is over. The soil is best light and sandy, and what are called "hills" are made, but not by raising the ground above the level—simply taking out the earth to make a hole for manure and heaping up the soil is not the best method—but making the ground all rich and planting at distances apart suitable to the size of the vine; cucumbers and melons, three feet apart, and squash or pumpkins need a little more room. Cucumbers can be planted until July and often make a good second crop after early peas, rad-

Continued on Page 26



Exhibition of Saskatchewan Products, grown by J. A. Killough, Pense, Sask.

raise 100 or more chickens ought to invest in an incubator. There should be no question about inability to run a machine. Any child can run an incubator. A 120 egg machine is about the ideal for the general farmer.

"Objection is sometimes taken to the incubator on the ground that it will not hatch a normal chicken and that incubator chickens are very subject to white diarrhoea. I have never had white diarrhoea with incubator chickens, and I have used incubators for many years.

"I start up the incubator and allow it to run half a day to a day to make sure that it is in good running order and that it keeps a steady temperature. A temperature of 103 degrees is kept right through the hatch until the last few days, when it will go higher. The controlling of the temperature depends almost altogether on the machine. With a reliable incubator one need not look at the thermometer more than twice a day. The lamp should be filled and re-trimmed once each day.

"The cooling and turning of the eggs is a most important point in getting a good hatch. It is my experience that after the 10th day you cannot kill a chicken by cooling. Watch a hen for advice in that particular. For the first few days she will stay on the nest steadily. But after the 10th day she will go off and stay until the eggs are quite cool.

"Long cooling gives stronger, healthier chickens. At one time I took the eggs out of the incubator early in the morning

pecks of oats and two bushels of peas at intervals of two weeks. This mixture forms a good substitute for the succulent grasses that should be the birds' food. Then, when the grasses dry up in the early autumn, late sown grains or corn may be provided to keep up the flow of milk. As yet corn raising is in the experimental stage, but it can be grown successfully as feed.

The Young Porkers

There is not a better way for looking after the young porkers than to keep them on pasture in the summer. It is the cheapest. The little fellows thrive well when kept out on an open run, and it is, in the end, the most labor saving method. A suitable fence must be built and for this purpose hog wire is the best and the most economical in the end. Probably the best crop to grow for the pigs is rape—the hogs like it and it has great growing properties. Rape is commonly sown either broadcast or in rows about thirty inches apart, and cultivated. When it is sown broadcast alone, it is put in at the rate of five pounds of seed per acre of the Dwarf Essex variety. It is advisable to grow two pasture lots of it so that the pigs can be changed to a fresh one while the one which has been fed down can grow up again. When it is sown in drill rows and cultivated, three pounds of seed to the acre is sufficient. It is cultivated the same as corn or potatoes would be until it shades the ground completely between the rows. Rape