

Necessaries to Egg Production.

Having secured the hens, the next step is to secure the eggs. "How is it to be done?" a breeder of a number of varieties said to me; "my hens will lay if they have the summer surroundings." Just so, but that is impossible; but we can have fresh eggs in winter and have our hens laying at a profit. Many farmers think that if they give their hens plenty of wheat, that is all that is required. In the first place, a good hen-house must be provided. That does not necessarily mean an expensive one. Any handy man that can handle a few tools can build one. I would advise a stone or concrete foundation, also a concrete floor; lime and sand is all that is necessary. Better to take a little trouble with the floor and foundations at the start; it will save trouble and vexation afterwards. Badgers, skunks, weasels, or any other wild things can dig through the ordinary walls or floor. Whatever material you use, be sure and have the house warm; if necessary, use a stove or build a Dutch oven. Another necessary article is plenty of grit. It is not necessary to purchase crystal grit or oyster shells or any of those expensive articles; they are all right for the city man who has to buy all he feeds his hens, but all the material for the production of winter eggs is right at hand for every farmer. A good plan is to cover the hen-house floor with a few loads of coarse sand or gravel. As good a grit as can be provided is the common sandstone found on every farm, and when the farmer is gathering stones, if he would sieve out all the small stones he would have the best of grit. A hammer and stone is all that is necessary to reduce it to proper size for the hens. It is surprising how much can be broken in a short time. Have a box handy—nailed to side of building or somewhere convenient—and keep it filled with grit. Another necessary article to have constantly on hand is lime; I use the refuse—it has quite a number of sharp stones that answer for grit. These are two of the necessary articles and generally the most neglected. If you have some low-grade wheat that is free from must and smut keep it for your hens and it will yield you one dollar per bushel. Wheat is not sufficient to produce eggs. A great many farmers make the mistake that if they provide a good warm place for their hens and plenty of feed in the form of wheat and some grit that they ought to lay, and consider hens an expensive luxury if they do not. How can one expect them to lay if they have not the wherewith to make the eggs? Hens to lay in winter must have plenty of meat and ground bone. Then, I have heard some persons say, "I told you hens were expensive." Just wait one moment. You killed a beef and a few hogs. What did you do with the heads, lungs, and livers? I know most of the farmers throw such things to the dogs. I never did. Just try it: Have a head in the henhouse and let the hens pick it clean of meat; and then if you have a bone cutter so much the better; if not, bring out the old hammer and stone and in a very short time you can have the bones reduced to a shape in which the hens can make use of them. Save all the refuse of the lard and tallow for the same purpose, and if you have not enough, the butcher will be glad to sell you a few hundreds of it for a cent or two a pound, and it will be a good investment. I like my hens to have a piece of fresh meat before them all the time. Give the hens plenty of fresh water. I use a tub for the purpose; it can be washed out every day and kept clean and sweet. Last, but not least, give the hens plenty of exercise. Have the floor covered with chaff or fine straw and let the hens work for their breakfast, dinner and supper. I do not like to see the hens standing around, for it looks as if they were trying to think of some mischief. I like my hens to work all the time, and the only time I give them puddings and such things is when I want to give them a stimulant, which is in the form of a little red pepper. I use plenty of windows in my henhouse. It is not expensive. I secure all the waste glass from hardware merchants, and with a first-class cutter I cut all the glass about five inches wide; then I make my panes accordingly. It was made out of inch boards four inches wide, and a strip of half inch tacked on both edges, that gave the glass a rest, and enabled me to putty them and frame, and gave me a double window. It keeps out the cold and lets in plenty of light.

East Assa.

J. B. POWELL.

To Improve the Course.

The Weekly Drivers' Journal, of Chicago, says: "An effort is being made by the University of Minnesota to make a change in the curriculum of the institution, by which it is to be made possible to give more practical instruction in animal husbandry. At the present time, only thirty-six hours' instruction is given during the three-years' course." It will be remembered in the analysis of college courses, their merits and demerits, which appeared in the "Advocate," Jan. 20th, that the time given to such an important subject (animal husbandry) was shown to be insufficient and not in proportion to the other studies.

The Threshing Problem.

Your questions re threshing to hand. You have given me a difficult problem to solve. I must confess that, although I have thought a good deal about the question, I have not been able to arrive at any definite conclusion.

The first difficulty is that nearly all farmers want to thresh early, and in so far as wheat is concerned it pays to do so. This desire for early threshing causes a demand for a large number of machines, thus making a short season, and a short season with the present charges per bushel makes the earnings too small, considering the enormous prices charged for the machines. On the other hand, the farmer cannot afford to pay more, at present prices of grain. It cost me 12 per cent. of my whole crop value to thresh it, and only one-third was stook-threshed.

The second difficulty is that machines are too dear, the price out of all proportion to the value and capacity to do good work. I never yet saw a machine on my farm that if they threshed more than 120 to 130 bushels of wheat per hour but would waste more than would pay for the work done. The machines are poor in quality of manufacture and are an endless bill of expense for repairs and loss of time to the men who buy them. Just fancy an outfit that cost \$3,600 requiring new flues with less than 130,000 bushels to its credit and a first-class engineer with it all the time, only two short seasons' work, besides other uncalculated breakages. The material used and the workmanship in these high-priced machines are a disgrace to the continent, and the quality of the work done for the farmer is a greater disgrace. If any of the managers of the machine companies want this verified, send them to me, and, if notified, I will make a point to be at home to meet them.

The solution of the whole threshing problem must begin with the manufacturer. When they can make machines capable of threshing 1,200 bushels in ten hours without waste, 70 days in the year for 5 years, without unreasonable breakages and flues guaranteed for that time, for \$2,500, with all modern improvements, I think then that threshers can do the work at a price that won't hurt the farmer and, at the same time, enable them to pay for their machines and have reasonable return for the hardships they have to undergo.

A gasoline engine and separator, with blower and self-feeder, capable of threshing 75 bushels per hour, guaranteed good for a five-year run, at a reasonable cost, would also help to solve the difficulty, because large farmers would buy them, and they would suit a combination of farmers, say two or three, but under present conditions and prices it would be ruinous to touch them.

No matter what way I look at it, I can't get over the impression that the solution to the threshing problem largely rests with the manufacturer and vendor of the machines.

Beautiful Plains, Man.

W. F. SIRETT.

Pointers for the Beginner.

In the course of editorial work incident to conducting a farm journal, many inquiries are constantly received asking for advice on starting farming. To all such we commend the following trenchant sentences:

"Early training has much to do with success; the man who has worked for a clever farmer will utilize his late employer's ideas and experience, he will understand how and when to work the soil he occupies, with what to manure it, what seed to purchase, and what to pay for all he is compelled to buy. The small holder is often—we fear more often than not—compelled to put up with soil of second- or third-rate character, and with the best in the world he sometimes fails to succeed because he is unable to last until the profitable day arrives. No man can make a living from the start off a dead soil from which all fertility has been extracted, or which, perhaps, never contained any to extract. What he needs is a soil which is kind and mellow, and which will make ample returns for the labor and money he spends upon it. On a poor soil good stock is wasted, but the small holder is usually the owner of poor stock, and if he breeds or milks, his returns are in consequence immensely diminished. Again, a bad year or a year of drought, of which we have had too many, supervenes, and all his crops fail. It sometimes happens, too, that the family of a little farmer are not loyal, and consequently not helpful. In most cases success is only achieved by a united effort, and where this effort is made, as most of us can testify, who have experience of these people, success is assured. Above all things it is essential that, next to suitable soil, there should be a near and suitable market, for the small holder ought to be a producer of his own produce. His eggs, his poultry, his fruit, his vegetables, his butter, and his milk should bring him in a steady weekly, and consequently systematic income, which is all in all to the small holder who must pay as he goes."

"The small holder, we believe, is going, and if the earth is to be mentioned above is a lamented by a farmer at an up-to-date agricultural college, and will be the result, and the fruits of brain and energy are employed."

Farming in Manitoba.

BREAKING UP THE ORIGINAL PRAIRIE.

Northwestern Canada is particularly fortunate in having such a large area of rich virgin soil in the very best possible condition for the new beginner. Nature has apparently done her utmost to prepare the way for the millions of pioneers soon to take possession of its immense areas of prairies and park lands.

Although nature has done much to prepare the soil of a prairie farm, there is still considerable work necessary before the land is ready for the seed, and the yield of future crops depends largely on how this preliminary work is done. For the best success the prairie sod must be so thoroughly rotted and broken up that there is abundance of soil to form a seed-bed for the grain. This can best be accomplished by plowing the land when the plants are full of sap. This is usually from May 1st to June 15th, but in a very early season work can be commenced two weeks earlier than this date. The breaking should be done quite shallow, only sufficient to turn all the sod. This will generally be from 2½ to 3 inches deep, depending on the smoothness of the land. This shallow plowing will sever the roots of the natural grass plants, leaving portions of them in the ground and turning the balance of them up to the sun to wither. The furrow should be sufficiently wide to allow the complete inversion of the sod. The fancy plowing of the old countries, with the furrow set on edge, showing a handsome "comb," is not desirable here. The flatter the furrow the better will the sod rot. It is desirable that the furrows be straight, so that none of the land be missed by the plow. Straight breaking also lessens the work of backsetting. All surface boulders and small clumps of scrub should be removed before the breaking is commenced. This will not only give an air of neatness to the farm, but also permits of labor-saving machinery being used to the best advantage. If the breaking is at once well packed with a land roller running the opposite direction from which the land was plowed, it will smooth out the wrinkles in the furrows, compact the land, and greatly hasten the rotting of the sod.

As soon as the sod of the breaking is thoroughly rotted, the second plowing, or "back-setting," as it is commonly called, should be commenced. This is usually done in the same direction as the breaking, but a little deeper, so as to bring up some additional soil to furnish a good seed-bed. All backsetting is finished on this farm before harvest. This prevents the weeds from going to seed. The land is well disked in the autumn, and all that is necessary to make a perfect seed-bed for the grain in the spring is a slight harrowing either before or after sowing.

Many farmers on light soil are abandoning backsetting. They break deeply, and simply use a disk harrow to work up the rotted breaking. This plan has been tried on the Experimental Farm, but the deep breaking is much heavier on the horses, and the sod does not rot nearly so well. On land cleared from timber and scrub, which is usually quite free from sod, very satisfactory results are obtained from breaking deeply, followed by surface cultivation with disk and iron harrows. Where the scrub is composed exclusively of willows and rosebushes, the work can often be done with very little chopping. A strong scrub-plow furnished with an upright coulter fastened into the point of the share will root up and turn over quite large willows. These can be raked out later with the harrows and burned.

Cleared scrub land is the only kind on which it is advisable to raise a crop the first year, and even then it seldom pays to grow anything besides field roots and vegetables.

S. A. BEDFORD.

Newspaper Comments.

The Christmas "Farmer's Advocate" number was a most creditable edition in every respect. The work, typographically and editorially, was beyond criticism. The "Advocate" is a welcome visitor in many Western homes.—The Liberal, Portage la Prairie.

The "Farmer's Advocate" has issued an excellent Christmas number, a special feature being the reproduction in photogravure of typical works by several prominent Canadian artists. Many articles and illustrations of exceptional merit are specially adapted to the field which the "Advocate" occupies. The short stories and special articles have been well selected, and the general excellence and decidedly Canadian tone will be widely appreciated.—The Dauphin Press.

The holiday number of the "Farmer's Advocate," published at Winnipeg, Manitoba, is a gem. Very few papers this side of the line equalled it. It is crammed full of fine photo-engravings of stock, scenery, fine homes, enterprising breeders and prosperous farmers in what we are wont to think is the cold and inhospitable Northwest. Evidently there is much prosperity in agriculture in that region, if the "Advocate" is its index, and we presume that it is.—Indiana Farmer.