

How Can the Farmer Educate Himself?

The education of the farmer is a question often discussed, but a few words as to its great advantages perhaps would not be amiss. It was considered at one time, and is considered yet, in parts of Nova Scotia, that the smartest boy in the family would make a good minister or doctor, but the dull son did not need much education, as he would probably be the farmer. Now, experience and proof has shown this to be a fallacy. Years ago, when the land was new and fertile, and insect pests were almost unknown, a farmer was sure of a good crop with hard work, and knowledge concerning the needs and cultivation of crops were seldom needed. But how is it to-day? The soil in most cases has lost much of its previous fertility; insects and diseases attacking crops have multiplied exceedingly in the land, and, owing to the growth of large cities and competition in the selling of farm produce, the sort of produce or variety of fruit or vegetable that was years ago looked for in most markets is now looked askance at. The fat pig and the scabby apple are not the best selling products to-day. The markets require fruit in the best of condition, meat and butter also of the best quality, and anything beneath the mark finds a slow sale and few purchasers. How is the farmer to know when he can produce the best quality of produce or stock which commands the highest price at a profit unless he has a knowledge of modern methods. He cannot depend altogether on what he learned from his father; times and conditions have changed. He would not use the scythe or the flail because his father or grandfather did. No more should he depend altogether on methods which, though best in their day, are now considered of little value. The bare fallow and high hilling of potatoes are examples of this class. Then he should have a knowledge of the elements contained in manures and fertilizers. I have known of some farmers who think they can determine the quality of a bag of fertilizer by smell (the stronger the better), and the same of manure, with only a vague idea of the meaning of the guarantee of the manufacturer. He may know what is the best food to feed his cattle for milk or meat, but little of the kinds of plant food he must apply in order to get results. What is the farmer to do if he is willing to learn? The best way is to subscribe for such a paper as the "Advocate," study what he can on these subjects in books written for his benefit by experienced men, get and read the experimental farm bulletins, and, still more important, try some of the modern methods on a small scale and compare the crop side by side with one grown on the same old plan he has always practiced, and if he finds it pays continue to improve and be up-to-date. The doctor or lawyer must study and read, as well as practice their profession, and the farmer's work, if carried on with the light of modern investigation, is more of a profession than either that of the lawyer or the doctor. The farmer who wishes to be successful in these modern times must know something of geology, chemistry, botany, etc., each one of which is a science in itself. The farmer who does not take any stock in modern ideas and methods would be surprised if he was told that growing a crop requires application of each of those sciences in combination. Of course, a good crop can be grown without this knowledge, but to obtain the greatest yield at the least expense, and to be enabled to take more interest and pride in his work, such knowledge is of much benefit. Much has been said of the great advantages of an agricultural-college training, but even if the teaching is free, the ordinary farmer, especially in this Province, could not afford to attend it, pay for books and board, or can he always afford to let his son take this advantage. Strange to say, that he can often afford to help his son through a law, medical, or business school, but when it comes to a school for farming, he hesitates. The institute and society system, as practiced in Ontario, is a great help to the farmer, but in some of the societies in this Province the improved methods of cultivation and fertilizing are often left in the background. Now, how can the best cattle be grown without proper attention paid to the primary question of producing food? Many of our agricultural society members depend on imported meal, grain, etc., when they could easily grow good substitutes if they were up-to-date in crop-raising, as they think they are in stock-raising. The Government lecturers are also great helps to the farmer who desires knowledge. Many of these men are experienced and practical farmers, who offer their suggestions to those willing to hear, but the only drawback is that they usually confine themselves to the richest farming districts, while those who need it most are neglected. Last, but not least, agricultural exhibitions, if conducted in a clean manner, encourage the farmer greatly. He sees samples of products and live stock which give him better ideas of his business and show him in a way to what perfection they can be produced if intelligence be combined with hard work,

and he should go home stimulated with the resolve to do better than he has in the past.
Halifax Co., N. S. E. M.

An Easy Method of Growing Potatoes.

In our rotation, potatoes follow corn. The corn is planted on clover sod, manured during the previous fall and winter, and plowed in May. In the past, we have planted and worked our potatoes as I am about to describe; this year I shall modify the system slightly. The corn stubble was plowed in the fall, usually during the month of November. In the spring, about May 1st, if the soil was fit, the surface was smoothed down with a harrow, marked out (the rows three feet apart), and furrowed with an ordinary plow. We use good sized, clean potatoes for seed, cutting to leave two eyes in each piece. The pieces are dropped by hand in the furrow, twelve to fourteen inches apart, and covered with the plow. This method of covering leaves the surface of the field rough, which is an advantage in the cultivation to follow, and which also helps the soil to absorb more heat from the sun. About two weeks after the potatoes are planted, we watch our chances for a dry, hot day—the hotter the better. By this time, every weed seed near the surface will be nicely sprouted, but very tender and easy to kill. During the hottest part of this dry day (which has never failed us) we run an iron drag cross-ways of the furrows, placing two pieces of scantling (about 6 ft. long) under the harrow, in the form of an A—a very broad A. These scantlings catch the crests of the furrows and level the field perfectly, upsetting every starting weed within sprouting distance of the surface. About a week later, or as soon as the potatoes begin to come through the ground, the drag (without the scantlings) is again run over the field, lengthways of the rows. This second harrowing will destroy any weeds that may have started since the first cultivation, and will leave the soil smooth and clean and mellow. The scuffer next comes into play. It is run through at intervals of a week, until the tops cover half the ground. Level cultivation is practiced all the way through.

Unless the ground is infested with thistles, which come up in the rows of potatoes, no hard work whatever is required to keep the field perfectly clean.

This coming season I will modify this system to the following extent: Our corn stubble was not, as in previous years, plowed in the fall. As soon as weather permits, we will go on with an Acme harrow, working the surface thoroughly to a depth of two or three inches. When the time comes for planting, we will simply plow the field in the ordinary way, dropping our seed in every third furrow. By so doing we will save three operations, namely, the marking, furrowing out, and covering. There will also be the advantage of having the well-ripened surface soil turned down in the furrow in close contact to the seed. Subsequent cultivation, with harrow and scuffer, will be practiced as in previous years.

Missisquoi Co., Que. CHAS. S. MOORE.

Style of Windows and Ventilation for Basement Stables.

To the Editor "Farmer's Advocate":

I see in the "Advocate," Feb. 15th issue, "Constant Reader" asking for best style of windows for basement, and, being a subscriber to your valuable paper and having received much knowledge and benefit from its columns, I will give "Constant Reader" my views. I built, last season, a barn 44x84, with basement wall 8 to 10 feet high, with 16 windows, 2 lights in each sash, 14x20 lengthwise, up and down, hanging on hinges at top, with hooks and staples to fasten up out of the way of stock. I think this style will give best satisfaction, as they do not swell like those hung on pivot in center. As to ventilation, I would say good height of wall or ceiling and plenty of light and ventilation are the three important points in building a basement barn. With low walls or ceiling, it is hard to get proper ventilation. My system of ventilation is 2-inch tile, one foot long, at top of wall, all around sides and ends, opposite on either side and end, which will admit plenty of fresh air and carry off all foul air, and for the above-sized barn I would use 20 of these tile; have only 15 in wall. Could not get in any more on account of bridging both sides of driveway, but can say this system has given perfect satisfaction, and at the same time is very cheap. One would be surprised in putting his hand over those holes to see what amount of fresh air is continually passing through, and not cold enough on the coldest days to be uncomfortable. Have not had to close them this winter to keep out frost, and no smell or foul odor was noticeable. My walls and floors were built with Battle's Thorold cement concrete, under supervision of Mr. Ware and Mr. Hagar, both competent men and great workers. Hoping this will not take up too much space in your valuable paper,

Yours truly, A SUBSCRIBER.
Haldimand Co.

Provide for a Dry Time.

As in nearly every summer a time of drought occurs, which dries up the pastures, causing the cows to shrink in their milk-flow and all stock to lose flesh, it is the part of wisdom, where a supply of ensilage is not carried over for summer use, to provide some green forage or soiling crops to tide over such an emergency, and now is the time to make calculations for this. An acre or two saved from the corner or side of a grain-field, convenient to the barns, and sown early with a mixture of grains, or of oats and vetches, and another acre or two sown a few weeks later, is almost sure to be needed some time during the summer to keep the stock from failing, and if the season should happen to be so favorable, owing to frequent rains, as that the soiling crop is not needed, it will not be lost by any means, but may be cut and cured for winter feed. If corn for ensilage or for curing for winter use is not sown, a piece at least for feeding in the green state during a dry time should be provided, as it is but little trouble, is easily cut and carried, and will be found extremely helpful should the pastures fail. A few acres of rape sown any time in May or June will supply a large amount of excellent forage for sheep and pigs or young cattle in the late summer and the fall months. The seed is cheap (from 6 to 10 cents per pound), and two pounds is enough for an acre, if sown in drills, and it has the good quality of springing up again after being eaten down. The tendency among farmers to devote every possible acre to grain-growing is a mistake in these times, when the price of grain is low and the price of live stock and its products high in proportion. There is very little money in growing grain for sale, but a good return from feeding it to stock, and by feeding it, two profitable objects are effected: one from the sale of the stock and its products and one from the fertility added to the farm. The more stock we feed well, the better crops of grain we shall secure. It is not a question of less grain, but of fewer acres and more bushels per acre, and this result, by judicious management, can with reasonable certainty be secured. Forage and soiling crops and ensilage constitute a trinity of food supplies that goes far in solving the problem of successful farming, and the addition of clover and roots makes the provision for stock-feeding and soil fertility nearly complete.

Root Growing.

The increasing favor with which corn ensilage is being received in most parts of the country as a winter feed for cattle and other stock may possibly have a tendency to lessen the area devoted to root-growing, as ensilage supplies, to a considerable extent, the succulence which is considered one of the principal virtues of turnips and mangels. While with ensilage fewer roots may be necessary, we are confident it would be a serious mistake on this account to abandon the cultivation of roots, as there is no really satisfactory substitute for them in the winter feeding of cattle and sheep in maintaining a healthy condition of the system and promoting the best growth and development in young stock. There is good ground for the belief that the signal success of British breeders of pure-bred stock in attaining and holding the pre-eminent position freely accorded them as leaders in the improvement and development of the various classes of live stock is very largely due to the free use of roots in the feeding ration, and if Canada holds second place to the Old Land in producing high-class stock, as we believe she does, it is in no small degree owing to the same system of feeding. In countries where corn is cheaply and plentifully grown, and is convenient for feeding purposes, the tendency is to feed it exclusively, or nearly so, with the inevitable result that an excess of fat is produced, lowering the value of the meat product, producing an undesirable type of animal, and impairing the procreative functions, thereby leading to uncertainty of reproduction, and in many cases to barrenness or sterility. The highest type of animals and the best quality of meat, it is safe to say, is produced where roots form a considerable proportion of the feeding ration, and Canadian breeders will certainly lose ground in the race for supremacy in livestock production if the best stamp of for any reason they abandon the cultivation of the juicy, succulent turnip or mangel, which has contributed so largely to the fame of the motherland in this respect. Mangels are found to be a cheap and healthful food for hogs in winter, and carrots for horses and cows, and it will pay the farmer well to raise a supply of each to carry his stock successfully through the year. These crops should be sown early, in order to secure best results, while turnips, as a rule, do best when sown about the middle of June.