

Rape Culture.

BY JOHN I. HOBSON.

Perhaps there is no problem more difficult for the Canadian farmer to solve than how to keep up the fertility of the soil. No observing farmer can have travelled through this province at intervals during the past ten or fifteen years without clearly recognizing the fact that there was more than legislation or foreign competition that was tending in the direction of ever making it more difficult for the farmer to hold his own. In many sections where I have travelled there appears to be an ever decreasing quantity of stock kept, and consequently less grass, and a greater proportion under the plow. This, on very many farms, is doing the work effectually of bringing the land into that shape that it is certain that unless some radical change is made in the system followed—a change whereby the fertility of the land is restored—many of these men will be forced to leave their farms. Artificial manures, except in special cases, are out of the question. The experience of the best farmers in the country does not tend to make them put much faith in their general use, but rather that the cheapest of all sources of manure is the farm-yard itself, and, unquestionably, on it we must mainly depend for our supply.

It is very noticeable that, with few exceptions, the most successful farmers in the country are men who follow stock-keeping largely in some of its forms. In fact, so noticeable is this, that we may well be led to the conclusion that on the ordinary soils of this province stock-keeping is the basis of good farming, and that a farmer's success will depend a good deal on the quantity of dairy produce or meat per acre his farm is made to produce. As a means in that direction, the growing of rape and feeding it off on the land has been found by many of our farmers to be followed by highly satisfactory results. During the past two or three years, owing to its having been grown extensively on the government farm at Guelph, it has, as a branch of farm management, been brought prominently to the front, and its uses and its value have been pretty freely discussed. However, although it has been grown extensively in this section of the country for many years, and thousands of lambs fattened on it have annually been sent to the American markets, yet I have found, when travelling in other parts of the province, that it is quite exceptional to see it grown to any considerable extent, and it is a little surprising that such should be the case, for there is no question of this fact, that those farmers engaged in growing it have made a good deal of money for years past in sending their lambs in prime condition to the Buffalo market, and it has been found to be no small factor in keeping their farms in a good state of fertility.

I would say to the farmer who has never grown a crop of rape that he would be acting wisely to go into it in a small way at first, and prove, by his own practice and observation, whether the conditions in which he is placed are suitable to its production, and to find out for himself many little things that can be learned best by experience.

The system which is generally followed by those who have grown it successfully is to prepare the land just as is done for the turnip crop. Taking it for granted that one of the objects in growing it is that it will be a cleaning crop, then it follows that if the land is pretty well worked the fall before a good many thistles and weeds will have been got rid of and so much less work will be required in the way of hand hoeing the next season. The last plowing should be done deeply, or if the land is inclined to be stiff, plowing in what is termed ridge and furrow—that is, putting it into drills—is an excellent plan. I have found in my own practice that it answers a good purpose, the winter's frost making it more friable when worked the following summer. An important matter is to have the land in fine tilth when sown.

As to the soil best suited for growing rape, a fair crop can be grown on almost every variety of soil properly prepared. I have a few acres of sandy soil on the opposite corners of my farm;

in one case it is what may be called a poor leaching soil, and some of the finest crops of rape ever grown on the farm were on these fields. In both cases it was sown thinly, with about three-quarters of a pound of seed to the acre, and top-dressed when the plants were into broad leaf with two hundred pounds of gypsum to the acre. Scientists can, perhaps, explain the reason why. My general practice of late years has been to grow it on land at the end of the course and apply a small quantity of manure—about seven or eight loads to the acre.

The time of sowing may be any time from about the 20th of June to the middle of July. I prefer the last week of June, if the land is in good condition and the weather favorable. The drills should be from twenty-seven to thirty inches—the latter width is preferable if the land is very rich and likely to produce a heavy growth.

A good deal has been said about whether rape should be sown on the flat or raised drills. It appears to me that as a general plan it is so much the best to sow on raised drills that it is not worth discussing. Of course, one can theorize and prove to their own satisfaction that the contrary is the right plan to follow, but the fact remains that the consensus of opinion of nearly every farmer that I have met who has grown it successfully is opposed to growing it on the flat. The only objection to a raised drill is that there is more danger of the sheep and lambs getting on their back and not being able to get up. For the first few years in my own experience a good many were lost in that way; but I soon found that close attention was necessary to keep down to a minimum the percentage of loss.

Coming to the question of sowing, if the seed is fresh and good, and the land well prepared, from one to one and a-quarter pounds to the acre is ample. It is a great mistake to sow thick. To obtain a full and well-grown crop it requires room for the plant to grow large, and high. I mean by a good crop one that when a flock of lambs is turned in they will be about covered with the plants; and it is quite a mistake to think that the strong and thick stalks of the rape plant are not quite as nutritious as the leaves. At all events, if a chemical analysis was to show the contrary, practical results would then be at variance with science.

The after-working should consist of a free use of sculler as long as there is room to work between the rows, and it is here where comes in one of the advantages of raised drills, the work of horse hoeing being so much more readily done. If the drills have been carefully made of a uniform width, the sculler can be so set as to hoe close up to the plants, and then the work of hand hoeing, if it is done (and it certainly should be if the best results are to be obtained), is a comparatively light affair, just cutting away any weeds or thistles that may be amongst the plants. By a free use of the sculler not only will the land be left as clean as after a first-class summer-fallow, but the weight of the crop will be much increased.

In regard to the value of rape as a late fall feed, there are no two opinions as to its being the best crop grown for fattening sheep and lambs, but there is some difference of opinion as to its value for feeding cattle; not but what it is well understood that flesh can be laid on at less cost and more rapidly than by the use of any other feed that is fed off directly in the field, but the experience of many growers is that it is rather risky. Without advising as to its use for cattle, all I can say is this, that having grown it somewhat extensively for over twenty years I have found it a very cheap and satisfactory fall feed for cattle, and even pigs do remarkably well upon it when they receive a small allowance of grain. During the many years we have grown it there has been the loss of only two calves, one of them found it a very cheap and satisfactory fall feed for cattle, and even pigs do remarkably well upon it when they receive a small allowance of grain. Clearly the result of mismanagement in turning on with an empty stomach. With regard to either cattle or sheep great care should be exercised that before being allowed to feed on rape they have been well fed beforehand. My own practice is to have a grass field adjoining into which the stock can have free access at all times, and when once put on the rape leave them there until the weather gets cold and rough in the late fall, when it is necessary to house at

nights. When taken off in this way it is very important to see that they are well fed in the morning. Much of the trouble and loss which does occasionally happen in feeding rape is mainly attributable to not exercising a little common sense in these matters of detail.

A well-grown crop of rape should carry from ten to twelve lambs to the acre for eight or ten weeks, or say from about the 20th September to the end of November. Some feeders consider it a good plan to feed a small quantity of grain when in the field. My own experience leads me to think that there is no profit or advantage in doing so unless for special reasons—such as being a little over-stocked, or when meat is high and oats and bran very cheap. Of course, all good feeders know that the lambs should become accustomed to eat grain before being changed from the fields to the yards, and for the same reason it is always well to mix in a little turnip seed when sowing. If attention is paid to these things very little shrinkage will occur when put on to changed feed.

Mr. Donaldson, of the county of Oxford, one of the very best farmers and stock managers in Ontario, always feeds oats to his lambs when on rape, commencing with a small quantity and increasing until they get one pint per day to each lamb. In that way he fattens from 15 to 18 lambs to the acre, with an average increase of weight of from 25 to 30 lbs. per head in ten weeks. In this way he always turns off a splendid lot every year, bringing the very highest price going.

Mr. Laidlaw, another very extensive and intelligent feeder in South Wellington, has had single lambs increase forty and even as high as fifty pounds in seventy days when on rape.

My own flock of purchased lambs was put on last year at an average of 98 lbs.; were fed for sixty-three days, and weighed, when delivered in Guelph, 121½ lbs. However, a fair average flock of 200 good lambs would be from 20 to 25 lbs. in seventy days.

Care should be exercised that before the nights get frosty to have the lambs closely trimmed. They do not thrive so well when hanging with dirt; the buyers do not like it, and the farmer shows himself to be careless and slovenly.

A word as to the class of stock to buy. Never buy miserable runts of lambs if good ones can be had—the experienced feeders who have been in the business many years fully understand that. It does not require that they should be fleshy if they are only the right stamp of animals. I always prefer black-faces when I can get them. They, as a rule, have done best with me. Ram lambs should not be bought at any price if it is intended that they be kept on until early winter. They are troublesome with the other lambs, do not sell well, and are unsatisfactory to handle in any way. It is to be hoped that the American buyers will make such a difference in the price this year as will make farmers feel that they have made a mistake in not castrating them.

In regard to the after use of the land, it is needless to say that if the preparation for the crop and its after management has been what it should be the land will be quite as clean as after a first-class summer-fallow, with the advantage of having received from \$10 to \$20 an acre (in some cases considerably more) in the increased value of the stock from the time of their being turned on until they are taken off, or rather usually, in this section, between the 5th and 15th of December. Besides this, the land has received all the benefit of the manure without even the expense of drawing and spreading—this is a good preparation for next year's crop.

Owing to its being the last feeding crop of the season, one is a little apt to get caught with the frost before getting the land plowed. However, if it can be managed at all, it is very important that the plowing should be done. With much treading of the stock the soil will have become very firm and stiff and stands much in need of the action of the winter's frost after being turned up. Spring plowing of rape land with us has not been followed with satisfactory results. On the other hand, on our soils, when plowed in the fall, we always expect a good crop of spring wheat if the season is at all favorable, and the land we find to be in good shape for seeding down.