

Manure for the Orchard.

The question of how to keep up the fertility of our orchards is a most important one, and now in the winter season, when outdoor work is, comparatively speaking, slack, and the farmer and fruit grower are laying their plans for the coming season, is, I think, a good time to discuss it. Too many farmers, alas! seem to think that an orchard, particularly an apple orchard, needs little or no manure; yet they expect a yearly crop of fruit, and frequently a crop of something else besides between the rows of trees, and when the crop of apples fails or is of poor quality, they are the first to cry out "there is no money in apples." Certainly under those circumstances there is none, for an apple orchard, to be profitable, must be well pruned, properly cultivated, and well-fed. Who would expect to get a profit from a half-starved cow, or good work from an ill-fed horse or man, or a good grain crop from a worn out field? Now, it is true that the roots of trees derive a good deal of their nourishment from the sub-soil, and thus the land does not so quickly become exhausted, as in the case of grain crops; but in spite of this, if the upper soil is not properly fed the trees will soon begin to show it, both in their appearance and in their productiveness.

What, then, is the best manure for our orchards, and how should we apply it? First let us take the apple orchard. Now, apple trees draw in the main four things from the soil. I place them in order according to their importance: 1, potash; 2, nitrogen; 3, phosphoric acid; 4, lime. Potash can be applied in the form of wood ashes (which is the best and cheapest way in the opinion of the writer), or sulphate of potash can be used, nitrogen in the form of nitrate of soda or sulphate of ammonia, phosphoric acid in the form of bone dust. Lime is present in sufficient quantity in all manures, so we need not trouble about that. Of course barnyard manure contains all these substances, and so is a perfect fertilizer. The following is the amount recommended by Prof. James, of the Ontario Agricultural College, at the Fruit Growers' meeting held in Hamilton last December, as a yearly top-dressing for one acre of apple orchard:—Forty bushels unleached wood ashes, 100 lbs. crushed bones, 100 lbs. sulphate of ammonia. The writer adopts a slightly different system, which is spread over three years and is as follows per acre:—First year (applied in the early spring), 60 bushels unleached wood ashes, 200 lbs. nitrate of soda and 300 lbs. superphosphates. Second year, no manure. Third year, twenty good loads to the acre of barnyard manure, ploughed under. Either system accompanied by a regular rotation of crops, ought to give satisfactory results. And here I would give this word of advice, *never* take a crop of wheat or oats off an apple orchard, or, indeed, any orchard; and especially after the trees come into bearing. The crop of grain thus raised is obtained at the expense of the trees, and tells both on their growth and productiveness, not only for that season but for two more to come, and looked at merely from a money point of view is a distinct failure. The writer, after some little experiment, has adopted the following rotation:—First year, peas; second year, roots or corn; third year, barley and seed down; fourth and fifth years, grass, then repeat as before. Wood ashes are an especially valuable fertilizer for all kinds of fruit, and where obtainable at a cost of ten cents per bushel or under will pay their cost over and over again to the grower. It is a burning shame that the farmers and fruit growers of this province should allow thousands of bushels of these ashes to go over the line every year to enrich the land of the fruit growers of the United States. They can afford to pay twenty-five cents per bushel for them and then make a handsome profit out of their use. Cannot we afford ten cents and make a profit? I am sure we can.

The pear orchard requires a great deal of potash, hence it will pay to use wood ashes freely there. It does not need so much nitrogen as apples do, and I am very doubtful as to the benefit of applying much barnyard manure to it. My own idea as to the best treatment of pear trees, after they attain to bearing, is to keep them in sod and yearly apply, as a top-dressing

in early spring about 40 bushels unleached wood ashes and 200 pounds superphosphate per acre every second year; add to this 100 pounds nitrate of soda. With that treatment they are much less subject to blight, and yet bear abundant crops of good quality.

Plums, on the other hand, demand plenty of nitrogen, as well as a good supply of potash, consequently some mixtures of the following should be applied to them every year:—Wood ashes, barnyard manure, night-soil, mixed with dry earth or coal ashes, superphosphate, nitrate of soda, soap suds and soapy water. They are gross feeders and will respond readily to generous treatment. Much the same course will suit peaches, strawberries and raspberries.

Grapes draw very heavily on potash, consequently wood ashes or rotten wood, soap suds and soapy water should frequently be applied to them. They also require nitrogen and phosphoric acid in considerable quantities, so applications of bone dust, night-soil, mixed with earth or coal ashes, superphosphate and nitrate of soda will amply repay the grower for their use in the commercial vineyard. These fruits all demand clean cultivation, and which ever of these substances growers use let them not be afraid to apply them freely and regularly. Fruits, like everything else, as a rule, are only profitable when well fed, and extra feeding, intelligently done, simply means extra profit; therefore, whatever we keep or handle, let us have it of the best, feed it generously, and we shall prosper, ay! even in these so-called hard times of low prices and keen competition.

F. S. H. PATTISON.

Leicester and Lincoln Sheep.

BY W. WHITELAW.

In the December number of your journal you have an article stating that you have received a number of letters from subscribers in various parts of the Dominion asking if there is any difference in these two breeds, as bred in Canada, particularly as bred by Ontario breeders; also that a certain gentleman has been reported to you as saying that there are no pure-bred Leicesters in Ontario, and those who are anxious to purchase pure-bred Leicesters must send to England for them. Now, I would like to inform that gentleman, whoever he may be, that he is laboring under a very great mistake if he thinks there are no pure-bred sheep of the Leicester type in Canada. I am confident that there are breeders of Leicesters in Canada who are just as particular in keeping their flocks pure as any breeder of Shropshires or other breeds of sheep.

As one of the oldest breeders of Leicester sheep in Ontario, I will state that, unfortunately for the breeders of pure Leicesters, there has been too many sheep imported into Ontario from England under the name of Leicesters, that no breeder of them would attempt to exhibit at any show in Great Britain as pure-bred sheep. For many years in the past certain gentlemen were in the habit of importing Lincoln sheep from England (some of them I believe were prize winners at the Royal and other shows there) and exhibited them here afterwards as pure-bred Leicesters. Also quite a number of sheep were imported from England into Ontario as Leicesters and shown at our fairs as such, when they were known on the borders of England and Scotland as Yorkshire Long-wools or cross-breeds.

Now, to come to the point, what constitutes or what is considered a pure-bred Leicester sheep in Great Britain at the present time? In the first place we find there the English Leicester, or what may be called the Bakewell or Dishly breed, bred chiefly in Yorkshire. A number of such sheep were imported some twenty-five or thirty years ago; they were of fine quality, but rather too small and tender to suit the Canadian people. They were crossed with other long-wooled sheep and still called Leicester; but really it was impossible to tell what sort of a breed they were. I am not aware that any specimen of the old Bakewell type can be found in Ontario at the present time. Then we find the Border Leicester of the same origin as the Bakewell, but much larger and hardier. They are principally bred in Scotland and the border

counties of England, and they have been bred there for about eighty years with the greatest care, as to purity of blood, and if we take the number sold every year, and prices obtained at the public sales, they are undoubtedly one of the most popular breeds in Great Britain. At the great sale held at Kelso last September there were sold over twelve hundred shearling rams at very high prices. We find that thirty rams sold from the celebrated flock of Lord Polwarth averaged \$260, the top price being \$760. Another flock, belonging to Mr. Clark, also a very noted breeder of Border Leicesters, sold at an average of \$135, top price being \$468. Many other noted breeders might be mentioned such as Miss Stark, Messrs. Jack, Torrance, Dodds and Bosanquet. I may state that of late years quite a number of this breed of sheep have been imported into Ontario from the most noted breeders in England and Scotland. Amongst those who have imported them, I may mention Mr. John Kelly, of Shakespeare, who certainly has been a most successful breeder and exhibitor, and within the last twenty years I have imported some thirty in all, ten rams and twenty ewes. When I first imported them I found a very strong prejudice against them by many breeders of long-wooled sheep, but of late I think that prejudice has almost died out. The Border Leicester is now the recognized Leicester sheep of Canada, and I have no hesitation in saying that they will be in future. No other breeds called Leicesters can successfully compete in the show ring with them, and in proof of this I refer any one to the prize list of our Provincial and other large shows for some years back. Now, in conclusion, I wish to state that there is a very great difference between the pure-bred Border Leicester and the Lincoln, and any man who cannot see the difference must be as blind as a bat.

Shire Horse Meeting.

The annual meeting of the Shire Horse Society of Canada was held on January 24th in the Agricultural and Arts offices in Toronto, a number of breeders and importers of Shire horses being present, the President, Mr. F. Green, jr., in the chair.

The minutes of the last meeting were read and confirmed, and the Secretary then read his report, which showed that fifty-six Shire stallions and mares had been recorded in the past year, a slight increase over previous years.

A number of questions were then discussed, such as the advisability of proceeding with the publication of the first volume of the Stud Book, and also of offering special prizes for Shires at the forthcoming spring stallion show, and it was finally decided not to bring out the first volume for another year, in order to admit more of the Shire stallions imported years ago before the English stud books were instituted, these horses being admitted, subject to the action of the revising committee, in the first volume.

As the treasurer's report showed a balance on hand sufficient for present needs, it was decided not to call on old members for any further subscription till Jan., 1892, and it was also decided to expend \$50 in giving a sweepstakes prize of \$20 for the best Shire stallion exhibited at the spring show, and in adding \$30 to the regular prize list for Shires, viz., \$5 to each of the three prizes in the first two classes.

The secretary's report was then adopted, and the meeting proceeded to elect the following officers for the ensuing year:—President—John Gardhouse, Highfield, Ont. Vice-Presidents—For Ontario, John Donkin, Riverview, Ont.; Manitoba, Hy. Munn, Brandon, Man.; Quebec, J. V. Papineau, Barnston, P.Q.; Prince Edward Island, Thos. Robbins, Centreville, P. E. I. Directors—Messrs. J. Y. Ormsby, V. S., Springfield-on-the-Credit, Ont.; Wallie Glendenning, Elsmere, Ont.; J. G. Wardlowe, Downsview, Ont.; Robt. Mackness, Tullamore, Ont.; W. H. Millman, Woodstock, Ont.; E. M. Jarvis, Clarkson, Ont.; F. Green, jr., Toronto, Ont. Delegate to Central Farmers' Institute—J. Y. Ormsby. Delegates to Industrial Fair Association—The President and F. Green, jr. The name of Mr. James Addison, of Malton, was sent in to the Agricultural and Arts Association as a judge on Shires at the spring stallion show.