

rest and second years, and that there is little gained a let the land lie in clover more than two years.

For clover, plaster of Paris makes a capital top-dressing. It has sometimes a marvellous effect. 100 lbs. per acre will answer. It should be thrown on the land just before or after rain, or early in the morning, while the dew is yet on the ground. A top-dressing of well-rotted manure has an excellent effect on the clover crop. A top-dressing of plaster immediately after haying often secures a heavy aftermath.

Beans as a Field Crop.

BEANS are too little cultivated in Canada. For years past they have been selling very high; and at all times they are most valuable as food for man and beast. Bean meal is said to be the very best food for cattle and cows. Speaking of the cultivation of the white bean, the late Judge Hall wrote thus:—

They are a valuable crop, and with good care are as profitable as a wheat crop. They leave the soil in good tuck. I cultivated beans the last year in three different ways, viz., in hills, in drills, and sowed broadcast. I need not describe the first, which is a well known process. I had an acre in drills which was the best crop I ever saw. My management was this. On the acre of light ground, where the clover had been frozen out the preceding winter I spread eight loads of long manure, and immediately ploughed and harrowed the ground. Drills of furrows were then made with a light plough, at the distance of two and a half feet, and the beans thrown along the furrows about the 25th of May, by the hand at the rate of at least a bushel on the acre. I then gauged a double mold-board plough, which was passed once between the rows, and was followed by a light one-horse roller, which flattened the ridges. The crop was twice cleaned of weeds by the hoe, but not earthed. The produce was more than forty-eight bushels by actual measurement.

An idea prevails very generally that the kinds of bean sown in England as a field crop will not do in this country. Our impression is that this is a mistake. We have heard that some old country farmers have had good success in raising them in Canada. We shall be glad to hear from any of our readers who have had experience in this direction.

The Farmer's Wood Lot.

This being the season of the year when farmers generally are cutting, or preparing to cut, their year's supply of firewood, a few suggestions will not be out of place.

Supposing a farmer requires ten cords of wood a year to supply his family fires, and depends entirely on his wood-lot for it, his wood-lot should consist of about fifteen acres. Taking into consideration the amount of firewood he will annually pick up from other sources, like trimmings and old trees from the orchard, old fencing stuff, &c., &c., we think that fifteen acres will be found ample for almost any farmer while a less amount will supply a large proportion of them.

If, then, a farmer has a wood lot of a size just about sufficient to furnish his fires, he should go about the work of cutting his wood in a systematic manner so as to make the most of his supply. Let him begin on one side of the lot—say on the southerly side, if convenient, and cut clean as he goes. The young shoots will then receive the sun, and will grow rapidly and evenly. Supposing his lot to furnish thirty cords of wood to the acre, it will take him forty five years to go over the whole, and he may then go back to the first one cut and again cut thirty cords to the acre. This is, we think, a very moderate statement, because upon ordinary land wood will grow thirty cords to the acre in about thirty years. We have in our mind a piece of fourteen acres which was cleared sowed to rye, and then pastured a year or two, and in twenty-seven years from the first cleaning, it was again cut over, when it yielded at least thirty cords to the acre. The growth was oak, chestnut and maple.

But few of our farmers seem to be aware how rapidly young wood will grow, under favourable circumstances; and as there is an increasing scarcity of wood in New England specially, we have thought it best to call attention to the importance of pursuing some well-defined plan, so that the supply may be equal to the ordinary demand.

We hardly need add that a wood-lot needs to be looked over occasionally, sometimes to be thinned out more or less. Our farmer readers already know this, and only need to be reminded of the importance of keeping a sharp eye upon their family wood lot.—*Ploughman.*

Agricultural Progress in Berwickshire.

MR. WILSON, of Edlington Mains, thus reports the improvement he has witnessed during the past thirty-four years:—

"When I began farming, exactly thirty-four years ago, the application of bone-dust as a manure for turnips was just getting into general use in this district, and the slicing of turnips for hoggets was then unpractised among us. In 1830 or 1831 I happened to procure a turnip-slicing machine from one of the midland counties of England, which—so far as I have been able to find out—was the first that was used by a tenant farmer in this county. In a very few years after that date the universal use of bone-manure caused an immense increase of the acreage annually under turnips, and also of the weight of produce per acre. The general adoption of the practice of shearing turnips for hoggets soon after, changed our whole system of sheep management. Our hoggets began to be sent to market as soon as they were shorn, say at 15 months old, instead of being kept until about two years old, as had been the previous practice. The use of bone manure produced nearly as great an improvement upon the seeds as upon the turnip crop to which it was directly applied. This increase of the green crop and earlier marketing of the hoggets produced, of course, a greatly-increased demand for lambs, and thus led to corresponding changes of practice on the upland sheep farms, from which the supplies of store sheep were drawn. Instead of an annual crop of two or three years old widders of the pure Cheviot or Blackfaced breeds, they began to cross their ewes with Leicester rams, and sold these crossbred lambs at weaning time to the Low country farmers. The command of portable manures has enabled the occupiers of these uplying farms to bring much additional land under tillage. This process is steadily extending, and as it does so, the command of green crops thus obtained is regularly accompanied by a change to a sheep-stock of a more valuable class. All these practices date earlier than twenty years ago; but they have been greatly extended and developed since then. The introduction of pipe-tiles for draining, and of guano, nitrate of soda, and bones in the form of superphosphate as manures, has supplied great additional facilities for all this. Until thirty years ago, linseed-cake may be said to have been unknown in this district. About that time it began to be used in the rearing of calves, and gradually a good many farmers began to give a little of it to their fattening bullocks for a short time before sending them to market. Now cakes of various kinds and other farinaceous feeding stuffs are in general use for the fattening both of sheep and cattle. The trade in these articles and portable manure has here as elsewhere grown to an important branch of business. Thorough draining, portable manures, artificial feeding stuffs, are now trite expressions; but when it can be reported of a district or county that all of them are included less or more in the cultivation of very nearly the whole of its farms, it is superfluous to add that a very great increase of produce has been the result. It has been said that every cwt. of guano applied to our farms is equivalent to the importation of a sack of wheat. Whether this be a strictly accurate statement or no, there can be no doubt that green crops, live stock, dung, corn, is a true sequence in agriculture, and that an increase of the first item really means an increase of all the rest."

"FINING" MANURE.—An English gardener lays great stress on what he calls 'Fining Manure.' He means breaking up the lumps, tearing in pieces the long, strawy parts, and bringing it all into such a fine state that it can be thoroughly mixed with the particles of the soil. Having broken it up, he mixes it with ashes, leaves, sawdust, turbar, and all the refuse of his garden, laying it up in thin layers. When it has become partly decomposed, he everhauls it, turning it over with the shovel, and making it one homogeneous mass. After the heap has lain a few months, it gets another working, when it is thoroughly 'fined' and ready for use anywhere. He is a very successful gardener, and ascribes no small part of his success to this careful preparation of his manure. Farmers and others may learn a hint from his example. It is plain that coarse, lumpy manure cannot benefit land as much as that which is broken up and finely diffused through it. One reason why liquid manure and guano act so efficaciously, is because they are so minutely divided among the soil.

TAN BARK.—Fresh tan bark is not of any manurial value, yet after years of decay and decomposition it becomes fair vegetable mould. The waste lime from the vats will exert a beneficial effect on any soil which requires lime, or where slaked lime is valuable for an application. Hair is a highly concentrated and valuable manure.

Failure of the Spring Wheat Crop.

To the Editor of THE CANADA FARMER

SIR, As you invite communications on subjects of importance to farmers, I beg to draw attention to the partial failure of the spring wheat crop of Middlesex during the past season. The loss to the farmers of Middlesex from this source was heavy, as a great breadth of land was sown for spring wheat, and the yield was inferior both in quantity and sample, not exceeding ten bushels per acre as an average while the field produced straw enough for twenty-five bushels per acre and gave promise of that yield at mid-summer and just before harvest. Various opinions have been expressed as to the cause of the failure. Some farmers think that a sort of blight struck the wheat about the time it was in blossom, caused by too much rain in spring and too much heat and sun-burn just before harvest. Others affirm that the seed has run out, and that a fresh importation of seed from foreign parts would produce an old-fashioned crop of twenty-five or thirty bushels per acre. Others say a too constant cultivation of wheat without a proper rotation of green or root crops has exhausted the properties of the soil necessary for the production of wheat. The subject was discussed at the recent Annual Meeting of the West Middlesex Agricultural Society, and the majority of the Board of Directors, without ignoring the foregoing causes as accounting to some extent for the failure, attribute the greatest share of damage to the depredations of the Aphis or Plant Louse, which almost blackened every field, and in many instances so completely covered the stem just below the wheat head, as not to leave room for the insertion of a pin point, and as the insect must subsist on the juice or sap contained in the stalk or straw, the immense numbers to be found on every stalk must have had a tendency to shrivel the berry and reduce the yield.

In 1859 the frost so injured the fall wheat of Middlesex as to deter many farmers from sowing it, so that spring wheat became the staple crop and main dependence. The failure of that in 1863 has set the farmers hereabouts to thinking how they may avoid a recurrence of the disaster. Therefore, if any of your contributors will ventilate this subject, and enlighten us as to the true cause of the failure throughout Western Canada, it will much oblige,

Yours truly,

COUNTY CLERK'S OFFICE, } JAMES KEEFER
London, February 2nd, 1864.

Experiment in Flax-Growing

To the Editor of THE CANADA FARMER.

SIR,—Observing an ably-written article on the cultivation of flax in the first number of your excellent periodical, I am induced to send you a sample of flax grown in this neighbourhood the past season. The grower, Mr. Wm. Blair, a flax-grower for thirty years in the North of Ireland, settled here, in North Orillia, in the Fall of 1862. He says he never saw in Ireland flax in its raw state so clear and bright in colour; and but for his having left it a day too long in the water—by which it is rendered too soft—he doubts whether he ever grew a better sample in fibre. The mistake in the time of soaking occurred from the fact, that in Ireland it requires to be in the water from eight to twelve days; whereas, in this case it only remained seven, that being a day too much. Mr. Blair is not prepared to account for the difference whether it be in the water, the climate, or from any other cause, but in the saving of time, it must be admitted to be a great advantage in favour of Canada. He is fully satisfied with his experiment, and, as soon as his farm will admit of it, will cultivate flax for the market. Had the sample been "scutched," it would of course have had a far better appearance, but it was only hand-worked. Mr. Blair has sent two samples to Ireland for inspection, and should any thing arise out of it worth communicating, I will do so with pleasure.

I may add, that both flax and tobacco have been grown in the new settlement of Muskoka with equal success, and are much used as domestic articles.

R. J. OLIVER

Orillia, 29th January, 1864.

[NOTE BY ED. C. F.—The sample of flax sent by our correspondent has been duly received, and seems to be an excellent one. We shall preserve it for examination by any parties who take an interest in the cultivation of an article which is destined yet to rank high among the products of Canada.]