

### Increasing the Manure Heap.

Those who study the reports of Frank T. Shutt, M. A., Chemist for the Dominion Experimental Farms, will have noticed in former years' reports that many samples of swamp and river mud from Prince Edward Island have been analyzed by that gentleman, the swamp mud being reported very valuable for manure when properly prepared, its chief value being humus and its contained nitrogen, the latter element being in a non-soluble form, which is not in that state available for plant food. As these samples of mud are from thickly-populated, thriving districts, long distances apart, we have thought it advisable to gather a little information from those in that Province who have had practical experience in preparing those muds for use and have seen the increased crops from the use of this natural fertilizer.

There are many of our subscribers, whose soil requirements and their facilities for making use of swamp deposits for increasing their manure heap, who may find some helpful hints in the following statements.

From a very early period in the farming operations of that Province, the practice has been to haul large quantities of swamp mud into the cattle yards, pig and sheep sheds, and all stables where cattle or other stock are left loose, besides an extra thickness of the mud under the manure heap at the stable windows. The liquid drainage from the stable manure has the effect, in a few months, of converting the mud into a quickly-acting, rich fertilizer. On many farms hundreds of loads of manure are added to the season's supply in this way at a very small cost, the labor alone being an item of expense, for the liquid portion of the stable manure would have otherwise been mainly lost.

In later years other practices have been adopted by some. One way is to get out a number of loads of swamp-mud in the winter into a convenient field. On top of the mud stable manure is placed, in the proportion of one load of manure to two loads of mud. Before the regular spring work of planting and sowing begins, the entire pile is turned over and mixed, care being taken that a fair share of stable manure is covered by the mud. In a very few days active fermentation sets in, and by the time it is wanted the entire pile is one homogeneous mass of easily-handled manure, quite equal in its effect in producing crops with an equal quantity of the best from the stables.

Other farmers use freshly-burned lime for composting with the mud-pile. In this case half a bushel of lime is found sufficient for each one-horse load of mud in the pile, the summer or fall being the most suitable time for lime-composting. But the result from this class of compost is very good; some badly-cropped farms, so poor that renovating by keeping live stock was impossible, have by its use been restored to a high state of productivity.

We are told that for more than forty years farmers in that Province have obtained almost magical results from applications of lime, either as freshly-burned rock limestone or as mild lime, as found in unburnt oyster- or mussel-shell mud. Some of the gentlemen from the Dominion Experimental Farms sharply criticize the practice. One of them, when addressing a public meeting, when speaking of the shell muds, remarked, "Well called 'mussel mud'—more muscle than brains in using it." But the Chemist, Frank T. Shutt, M. A., did not talk or write that way, reserving his opinion till he had an opportunity to examine the Island soil. The analysis proved that it was lacking to an extreme degree in lime, and his advice to the farmers in that Province tallies exactly with their constant practice.

### A Six Years Rotation in Nova Scotia.

In this county, grain-growing is not carried on to any extent, and land is seldom plowed until it needs reseeded to grass. Dependence is placed almost entirely upon the pasture for the growing and fattening of cattle. My own rotation is one of six years—three years hay, followed by peas and oats, then roots manured with kelp (seaweed) when possible, and followed by wheat, with which the stable manure is applied and the land reseeded to grass. When help is not to be got, then the stable manure is applied with the roots. I certainly advise the growing of all the grain necessary, as prices in our markets almost prohibit the farmer from buying.

I think that mixed farming, with the exception of selling hay or grain, is by far the best and safest system to follow, but a specialty should be made of some particular branch. The different lines can all be carried on together, and any one of them presents splendid prospects of success if only the right class of stock be kept.

American Banner oats and Mummy peas, at the rate of two bushels each per acre upon fall-plowed soil thoroughly harrowed and rolled, is a favorite crop. We sow wheat upon bare fallow, land manured, gang plowed and harrowed in the spring; seed drilled two bushels per acre—and rolled.

The following are favored varieties of various crops: White Russian spring wheat, American Banner oats, Mummy peas, Early Rose and White Prolific potatoes; D. M. Ferry's Improved Purple-top and strap-leaved ruta-baga turnips. I will try this year small lots of Climax wheat and Sensation oats.

Antigonish Co., N. S.

Bay View Farm.

### Timothy Leads Down by the Sea.

We have such a great variety of soil in Nova Scotia that the preference any crop or any variety of crops of grains or vegetables may receive is more or less of a local nature. Nothing I have ever tried in grass takes the place of timothy. I have never failed to get a good catch with any kind of a grain crop that was sown with a "seed drill." I sow 8 lbs. late red clover, 2 lbs. alsike clover, and 6 lbs. timothy seed per acre. With wheat, barley and oats I sow the seed with the drill seeder when sowing the grain. The seed is scattered broadcast in front of the drill hoes, and is covered by them. I always roll fields which have been seeded down. I usually do it when the grain is a few inches high. White Fyfe and White Russian wheat; American Banner and Siberian oats; Duck-bill barley and Golden Vine peas give best results. For ensilage corn, Pearce's Prolific is the leading variety. We grow a great number of varieties of potatoes, turnips, mangels, carrots, etc., and we always try any new variety which comes well recommended. The bulk of our crops have always consisted of Purple-top swede turnips; Long Red and Yellow Intermediate mangels; Giant White and White Vosges carrots; Dakota Red, Rural New Yorker and Burpee's Extra Early potatoes. I think the newer named varieties of turnips, mangels, carrots, etc., give the best results. This I attribute to the fact that some seed-man has given special attention to selecting and growing seed for a few years, and has then given it a new name, while it is simply one of our standard varieties grown under favorable conditions.

Colchester Co., N. S.

F. L. FULLER.

### Agriculture in Nova Scotia.—No. II.

Although this Province boasts of the possession of the oldest "town site" in Canada, its development along agricultural lines has not been so full as that of our younger Province. The resources of the country are many. Lumbering, shipbuilding, and fishing give profitable employment to thousands. The mining of coal, gold, iron and manganese is being constantly carried on, and is bound to increase, since British and American capitalists are investing largely in mining properties throughout the Province. Lunenburg County claims one-tenth of the ship tonnage of the whole Dominion.

In view of these facts we can scarcely expect to find here an interest in agricultural matters equal to that existing in Ontario. Further, the country is very irregular, being largely a succession of hills, valleys, and mountain ranges. Travelling by rail, one is surprised to see that the cultivated lands are chiefly on the hills. This is due to the peculiar fact that the bed-rock often crops out in valleys, while the hills are usually clay. There is a large area of both hill and dale which, though not much broken, is barren land.

"Visit London and see the world." "Visit Annapolis Valley and see Nova Scotia," about expresses the sentiment of the good people who are fortunate enough to live there. While their estimate may be slightly biased, there is some excuse for it. Globe-trotters who visit it in summer declare that, like that famous show, "it beats the earth." I can well believe it must be a garden of delight in summer; even now, it is a thing of beauty. To the traveller coming in from the eastern or northern part of the Province it appears as a pleasing surprise. In round numbers, the valley is a hundred miles long by four to seven in width. The cold north and north-east winds do not affect it materially, for the North Mountain, high and continuous, cuts them off. Running parallel on the south side a similar chain gives protection from Atlantic gales. With favorable conditions of soil and an almost ideal fruit climate, the farmers could not wisely do other than engage in general horticulture. Apples and plums and the small fruits grow to perfection. Although grapes do well, I have not seen a single vineyard, but peaches do well in certain sections. I know of one man who has a peach orchard of 700 trees. The apple crop is the main one of the valley; last year it was 300,000 barrels, netting the farmer about \$3. Several farmers realized from two to three thousand dollars from their orchards. Last season, plums and small fruits were a drag. It is surprising that there is not a canning factory in the whole valley to profitably handle a surplus of these. Ontario and New Brunswick canned goods come in by the carload. As might be expected, very little attention has been paid to animal husbandry in the valley. Near Wolfville there are quite respectable herds of Durhams, Jerseys, and Polled Angus, owned by Messrs. Chase, Starr, and Stairs, respectively. During my two weeks' visit I have not seen a single sheep, though the hillsides would seem splendid sheep runs. Not enough hogs are grown for local demand; western hams and bacon hold the markets.

To maintain fertility and feed the growing orchards large quantities of artificial fertilizers are purchased by the farmers, and since they do not raise enough coarse grains to feed their stock they are forced to buy large quantities of Ontario mill-feeds, even though they pay dearly for them. Could our best feeders at home do business at a profit with feeding-stuffs at prices quoted here this week, viz., oats 50 cents, middlings \$1.25, bran \$1.10, and chop \$1.25 per cwt.? Almost everything in manufactures, from a ham to a self-binder, comes "from Canada," which means from Ontario. As a level-headed farmer stated the other day, "we buy everything and sell nothing." It is hardly so bad as that, but money is needlessly going out of the country. Last

year Halifax imported from our Province \$225,000 worth of butter. This could have been made right here, where the natural facilities for dairying are better than in most sections of Ontario, but farmers say that while they can grow three-dollar apples they will not milk cows. Cheese factories and creameries have been but indifferently successful, owing largely to this. So far I have heard of but one creamery which might be called really successful. This is the one at Wolfville.

This concern is operated as a joint stock enterprise, on rather novel lines. The Arcadia Dairy Co. has a retail business in Halifax and keeps a team constantly employed supplying its private customers with its products. Butter only is manufactured in the winter, and both cheese and butter in summer. The butter is put up in 4-pound bricks, or is packed in earthenware jars of 3-5 lbs. capacity, which, when empty, are returned to be re-filled. They are easily cleaned, durable and cheap, costing from 7 to 9 cents each. The price obtained is 23 to 25 cents; cost of delivery, 2½ cents per pound, leaving a good price net. About 500 customers are catered to.

Last summer a company was organized at Middleton, in the center of the valley, for the purpose of erecting and operating a pork-packing factory. It was capitalized at \$50,000, of which there is already \$37,000 subscribed. Operations have been begun on the plant, which is to commence handling hogs about Oct. 1st. The promoters are very sanguine of success, while the farmers are interested to the extent that they agree to provide the hogs, of which one hundred per day will be handled this first season. The hogs at present in the Province are not well suited for the bacon trade, so that again Ontario has been drawn on. A director of the company is expected here this week with a car of well-bred boars purchased up there. These are to be sold at auction to the farmers for the purpose of grading up and improving on present stock.

J. J. FERGUSON.

Middleton, N. S., March 6, '99.

### Clover Favored in British Columbia.

To the Editor FARMER'S ADVOCATE:

SIR,—For our land, with the climatic conditions prevailing here, the common red is, I think, the best possible clover for us. One year in clover gives us feed and a fine stubble and aftermath to turn under. Owing to our favorable climate, clover ordinarily makes a good catch with any grain crop, but I would prefer land properly prepared and sow the seed early in spring without any other crop. If land is in good heart and well prepared, ten pounds of seed per acre will give a good stand, and in ordinary seasons a good yield in first crop, and also a fine growth to cover the soil during winter. Clover sown either with or without a crop is sown broadcast; if with a crop, after the grain has been sown and finished except rolling. If sown this way rolling will cover sufficiently, or brushing in answers very well. It depends somewhat on local conditions whether it is safe to roll after clover or grass seed has germinated, but I think a doubtful experiment to harrow under such conditions.

Spring wheat is only grown in the coast regions of B. C. for chicken feed, and consequently bushels is of first importance, and the soft wheats, as a rule, give the largest yields. Oats—Banner, Gothland, White Wonder, and Bonanza are all good; but in nothing is the great diversity of climate, soil and local conditions more clearly shown than in the success of grains and potatoes distributed to the farmers of the Province. Some varieties of a comparatively low order of merit in one locality will succeed well in another under very different conditions. In roots, for feeding, the best mangels are the Tankard or Medium Long. In carrots, the short-rooted varieties are most profitable, for along with the fact that they are, as a rule, heavy croppers, they are easily harvested, which is a very important consideration. In corn, for ensilage, those early varieties that will develop and nearly ripen the grain are more desirable than later varieties. Early Butler, Selected Leaning, North Dakota White, King of the Earliest, Pearce's Prolific, and Canadian White Flint are among those that for several years have proved satisfactory, giving a fairly heavy yield and a well-developed cob of corn.

THOS. A. SHARP, Superintendent.

British Columbia Experimental Farm.

### Green Oats, Peas and Clover as Manure in Nova Scotia.

Mr. R. Robertson, Superintendent of the Maritime Provinces Experimental Farm, at Nappan, N. S., writes us in regard to their seeding operations that they prefer to have all land for spring grain seeding fall plowed, and thoroughly cultivated in spring, making a fine and mellow seed-bed. For roots and corn it is not considered so important to have the ground plowed in the autumn, but thorough spring cultivation is of just as great importance as for grain crops. Their rotation is grain, roots, grain, clover hay, which, together with the barnyard manure, provides a good supply of humus. Of late years the practice on the Nappan Farm has been to sow clover along with every crop of grain, and to use it for plowing down, if not needed for hay. This coming season it is Mr. Robertson's intention to plow down a green crop of peas and oats, sown in the proportion of two of the former to one of the latter, as well as a crop of clover on the same land.