

# Farm Notes Of Interest

## THE FARMER'S GREAT OPPORTUNITY TO SAVE MONEY ON FERTILIZER

New Brunswick has been using some commercial fertilizer for a number of years, but within the past few years, its use has increased very rapidly. In 1912 this province used 44 per cent of the fertilizer imported to the Dominion. It has been estimated by the writer that between six and seven hundred thousand dollars were sent out of this province during the past season, for commercial fertilizers.

Several of our thrifty and thoughtful farmers some time ago began to make inquiries as to whether there was any possibility of getting these fertilizers at a less cost than they were paying.

Probably no person in the province has given more valuable time and attention to this subject than Mr. R. G. Murray, of St. John, who, while a practicing lawyer, is also an up-to-date farmer. Mr. Murray, as a member of the Kingston Agricultural Society, saw that Society buying the simple fertilizer materials and mixing them at home, thus saving a considerable amount and getting a more reliable fertilizer. Mr. Murray found upon investigation that the materials for the various "brands" of fertilizer upon the market, did not cost the mixers much more than half what they were charging the farmers for them mixed. This matter, he brought to the attention of the Agricultural Commission, which was sent out by the present Government in 1909, to learn how best the Department of Agriculture could serve the farmers of the province. He, with others, has talked "Home-mixing" at practically every important gathering of farmers since that time.

Talking has little effect on any class of people, least of all on the farmer. Nothing was done, in the way of practical demonstrations, to bring about the adoption of the scheme of buying the materials, and doing the mixing at home, until this season.

In the spring of 1912, the St. John's Agricultural Society, following the lead of the Kingston Society, took up the work of buying the fertilizer materials for its members. In the spring of 1913 the writer was successful in inducing two or three other societies to try the scheme in a small way.

It was quite evident, however, and quite right from their point of view, that the farmers must have undoubted evidence that the scheme was both practical and profitable, before they would give it a serious trial. To this end, the writer carried out the following demonstrations, during the past season.

Enough of the standard fertilizer materials were delivered to widely separated farmers, to make the equivalent of a half ton of the factory-mixed "brand" they were using. These materials were mixed on the farmer's barn-floor. A large number saw the mixing, and all agreed that the home-made mixture was then applied through the potato planter—there was no difficulty in getting it to go through to the same area of potato crop. The crops were given the same treatment during the season. The table below shows how the home-mixed fertilizer compares in cost and value with the factory-mixed.

Until within the past two or three years it was practically impossible to buy fertilizer materials outside of the concerns who also sold the mixed goods. These concerns naturally were not over desirous of selling the materials and as a consequence put their prices so high that there was little sav-

ed by buying the fertilizers unmixed. For instance, the Agricultural Society at Kingston paid at the rate of \$38.00 per ton for the materials necessary for a 4-6-10 brand, f.o.b. at their nearest railway station. This, when all necessary expenses were paid, was very little less than they could have bought the ready-mixed for. Of course we are not now considering the greater agricultural value of the home-mixed goods.

Another great stumbling block in the way of getting cheap fertilizers, either mixed or unmixed, is the unfortunate system of long credits. If the fertilizer dealer must act as banker, as well as sell fertilizer, he must necessarily get his pay for so doing. It is really too bad that our farmers cannot be brought to see the great waste of money in buying farm machinery fertilizers, etc. on long-time credits. Realizing all this, difficulty that must be overcome, I am still inclined to believe, that if the farmers could be brought to adopt the "thirty days cash" system followed by all other business men, they would never go back to the old system where they have to pay two or three times the value of a thing in order to have two or three years in which to pay for it.

A glance at the table will show what may be saved by paying cash for fertilizers. The concerns who are in

the business of selling fertilizer materials, other than the mixers, are all doing a cash business. For this reason it will be necessary to make arrangements to pay cash, in order to get the prices.

This, however, is not so difficult as at first it might seem. The agricultural societies are all incorporated, and are eligible for business through their directors. It only requires that the directors make the necessary arrangements with their nearest bank, and then secure cash with which to do business. This has already been done by the several societies which bought these fertilizer materials last spring.

By an act of the Legislature during the past session, the Agricultural Societies of the province were united in a corporation to be known as the Agricultural Societies and with powers to buy fertilizer materials for all societies who care to come into the union. Mr. R. G. Murray, of St. John, is president of this association, and Mr. A. R. Wetmore, of Clifton, is secretary. This association by being in a position to buy in large quantities should make a still greater reduction in the cost of fertilizers to the farmers of this province.

H. B. DUROST, B.S.A.,  
Instructor in fertilizers for  
the N. B. Dept. of Agriculture.

## Root-Seed Production

It is advisable that Canadian farmers should grow their own root seed. From a general point of view there are several reasons why a man would be justified in answering this question in the affirmative. As a matter of fact, under the present terrible conditions in Europe whence we obtain the greater part of our imported root seed, it may even become a necessity on the Canadian market is not always the very best either in regard to truthness of type or to percentage and vitality of germination. It is further false economy to import practically all the seed needed for a twenty million dollars crop, if this seed can be raised within the country. And we will finally in all likelihood, as hinted above have to face a scarcity in the root-seed supply which simply must be covered through home production.

We have not yet had a very experience in root-seed growing here in Canada, but judging from obtainable records and reports, it is both possible and profitable to produce seed in different parts of the Dominion, at least for home consumption. Of those who have tried it, all agree that they obtained seed of higher germination value, produced more roots of better quality than the average market seed.

Choice of Kind

The first problem for the future seed grower is choice of kind. Shall he grow mangels, swedes, or carrot seed? The answer depends largely on locality and personal inclination. The grower who prefers mangels will very likely get better results with seed produced from this kind, provided his farm is so situated as not to suffer from early spring or fall frosts. Young mangel shoots are more susceptible to frost injury in the spring than swedes,

and as the mangel seed ripens comparatively late it is also more liable to become "frost bitten" in the fall than swede seed which reaches maturity before the frost danger occurs. Generally speaking, the further east we go the better are the possibilities for swede seed production. Carrot seed ripens very unevenly and has to be picked by hand during a period of several weeks, which makes the culture rather expensive under our conditions, except for home use.

All our cultivated roots are biennial, which means that the root itself is grown one season, is stored over winter, and is made to produce seed when planted out the next spring. Root seed is grown from either large, fully matured roots, or from smaller, pot, quite developed roots, also called "stecklings." The man who starts in right now will necessarily have to select large roots for mother plants. And this is perhaps just as well, because large roots are more readily judged for type, uniformity and other general characters than stecklings which do not show their good or poor characters nearly as distinctly. The production of seed from stecklings necessitates a "choice" from choice mother roots, belonging to a pure strain, has not been available, but at Macdonald College there are now several promising strains of mangels and swedes which may be propagated next year for distribution in 1915.

Selecting

Before selecting the seed roots the grower must have a clear conception of the type he intends to breed. For convenient inspection the roots may be lined up with the tops laid together for two and two rows. The selected roots are turned about, with tops out,

and are later collected for a second survey, when all out of type specimens may be discarded. What should be looked for is a sound, large, well developed, though by no means overgrown root, true to type and possessing a neat crown, smooth surface, full rounded ends, freedom from prongs, Certain varieties, especially among the swedes, are naturally somewhat prongy. In that case the breeder must aim to select specimens having the prongs confined as much as possible to the bottom of the root.

It should be remembered that the main seed stalk grows out the following year from the heart, as it is called. On this account one must be sure not to injure this point when topping the seed roots. The top may either be carefully twisted off, or still better, it can be cut off one to two inches above the heart.

Storing

Seed roots spoil very easily, like most other good things, and should therefore be handled carefully. The sooner they can be stored, after pulling, in a cool, not too dry place, the better. Where a good root cellar is at hand it is advisable to store them there, if possible in standing position and surrounded with peat soil or moist sawdust to preserve their moisture. If they are to be stored in an outside pit on well-drained ground. The pit is made about 6 feet wide, and the roots are piled up 3 feet high, with slats or spacers every 12 inches. The material will not slide down. After piling, the pit is immediately covered with a thin layer of straw, just enough to keep a 4 inch layer of air from falling in among the roots. The top of the pit is left without any soil so that the heat may escape more readily until the weather gets colder. When it commences to freeze the pit is further covered with 6 inches of straw, followed by 6 to 8 inches of soil, and when zero weather sets in it must finally be protected with a layer of straw manure. To ensure quick cooling of the roots it may be advisable to run a 4 inch ventilating shaft at the bottom of the pit and to draw exhaust pipes from this shaft to the top, but the openings should be closed on warm days and must, of course, be stuffed with straw, or with some other insulating material, when the temperature goes down below 28 degrees. Seed roots do not stand drought very well, and many growers, therefore, prefer to place the pit on, or at least in the order to shorten the haul from pit to planting place. In this connection it might be well to remember that the planting of the seed roots in spring time should be done on a cloudy and calm day in preference to a day with bright sun and heavy wind, which tend to dry out the exposed roots and consequently to lower the yield of seed.

Planting

Being naturally cross-fertilized, roots of different varieties, belonging to the same kind, should not be planted close to one another. Two mangel varieties may be sown if separated 100 to 250 yards, especially if the fields are divided by a wood lot, or by a field of tall growing corn. Swedes and turnips, again, require even wider spaces. They are not only cross with varieties of their own kind, but also intercross, i. e. a swede may cross with a turnip and vice versa. In districts where the "Bird Rape" (Brassic campetris) is prevalent pains should be taken to exterminate this weed, as it is a danger in this respect for both swedes and turnip seed production. Carrot root sets cross with each other and with the wild carrot. Where this weed is common it is simply impossible to grow first class carrot seed.

Land intended for seed growing should above all be rich, well drained and, if possible, sheltered from heavy winds. Liquid manure, is a splendid fertilizer for seed roots. On moist soils it is advisable to supplement the liquid manure with 300 to 400 lbs. of Acid Phosphate per acre. Where a general mixture of commercial fertilizers is used it is better to supply the nitrogen with Sulphate of Ammonia than with Nitrate of Soda, as the latter tends to rush the growth of the young seed stalks too much, making them weak and less resistant to wind pressure.

After the land has been properly worked it should be well packed with a roller and marked before planting. Common distances are 24 inches by 24 inches for small roots and 35 inches by 35 inches for large roots. Three men, when used to the work, can plant about an acre in a day. One man lays out the roots in their places, another digs the holes and the third man puts in the roots. The root in the first hole is covered with the soil from the second and so on. Where the soil is deep enough the roots should be planted firmly straight up and down, and should be set so deep that the crown barely reaches the surface. With "one shaped" varieties, and on shallow soils it may be advisable to tilt the root, always remembering to plant them as deep as the soil will permit with the crown reaching the surface. If the plow is used the roots are placed against the land side in the opened furrow. It is a good plan to cover them partly with drawing loose earth with one stroke of the foot to the bottom of each root so that they may keep in position when the furrow is thrown back. Unless, however, the workers are familiar with this method, it gives scarcely as satisfactory results as the spade planting method which causes a firmer and more regular stand. The root-seed land should be kept cultivated as long as possible in order to preserve the moisture. On smaller areas it pays well to use the hand cultivator between the rows, when the length of the seed-stalks prevents the use of the horse cultivator.

It is very important that the seed be harvested in right time. Very often the field does not ripen quite uniformly, and all the seed on one and the same plant never matures simultaneously. The first formed seed on the lower parts of the seed stalks ripens earlier than the rest, and as this seed is stronger and consequently more valuable than the later formed seed the grower should endeavor to secure it before it falls off. Mangal seed is ready when the true seed inside the brownish cluster shows a mealy surface when cut with a knife. It is time to harvest swede seed when the bottom silicles or pods are getting brown on the outside and the upper ones have attained a yellowish color. Where seed is grown in small quantities it is of course possible to dry the seed stalks by hanging them up in a well-aired place in the house or in the barn. In this case a sheet or a tarpaulin should be spread out on the floor so that no seed may be lost. On a large acreage the stalks must be

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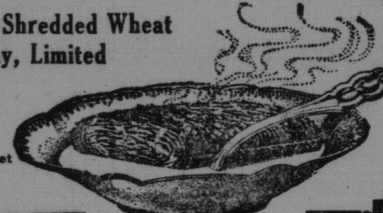
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MRS. LAURA MAY  
While in Savannah, Ga., to see his wife, Mrs. Laura May, and eight-year-old daughter, C. H. May, a travelling salesman, of Seneca, N. Y., was arrested as a result of an action for alimony and custody of the child, filed in the Superior Court. Mrs. May expressed the belief that he would leave the jurisdiction of the court unless restrained. The judge fixed his bond at \$1,000, which Mr. May gave.

# FRENCH

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