

garden and vegetable seeds. Very frequently in the spring may be seen the cases of package seeds standing in the windows and getting the sun's rays day in and day out. This depreciates the germination value. Again, seeds may be allowed to get damp on the floor when it is cleaned, and some of them get wet, which also affects the vitality. It is to be hoped that such methods of handling seeds will cease.

During the four years and better the Seed Branch has been trying to secure the co-operation of all concerned in handling seeds, so that their quality will be improved, there has been good progress made. In the main, we believe every dealer wishes to handle good seed, and to prevent, as far as possible, the spread of noxious weed life. There have been a number of prosecutions where it has been felt that undue carelessness has been shown. With a greater discrimination in prices paid for clean, good seed, and impure, poor seed, growers will be more careful to produce their seed on the cleanest chances, and weed their seed crops in the field. It is satisfactory to know that more of this is being done from year to year. In spite of this, there is much dirty seed still being marketed.

Most farmers now know ribgrass or buckhorn when they see it. This spring, those farmers who are sowing any seed, whether grown by themselves or bought of the dealer, can eliminate nearly every seed of buckhorn from his clover by covering a few screens of any kind with two ply of cheese-cloth; dampen it with water enough that when the clover containing the buckhorn is sprinkled on it will stick. A little drying and the clover seed drops off, while the buckhorn sticks, and must be scraped off. With half a dozen sieves, and frequent repetitions, a bushel or two of seed could be gone through with quite quickly. Ragweed, another hard seed to separate, may be handled quite satisfactorily by using a 1-16-inch mesh in sieve fixed to a frame of some kind, preferably a round one, about 4 inches deep. By shaking the clover seed containing the ragweed in such a way as the ragweed comes to the surface, most of it can be separated, whether hulled or unhulled, as the clover seed will pass through the mesh. It should not be shaken too close, as then some of the ragweed would go through with the clover.

It should be remembered that the Seed Branch, Department of Agriculture, Ottawa, is prepared to test seeds for purity and vitality, free of charge. Not even a stamp is required to send the seed through the mail. An ounce is plenty, so long as it is representative of the bulk lot. Purity reports may be had very expeditiously.

T. G. RAYNOR.

Closing the Markets to Foul Seed.

Editor "The Farmer's Advocate":

Correspondence received through your office leads me to advise your readers that several of the States to the south have, during the last two years, enacted laws respecting the sale of seeds, which preclude seed merchants in those States from purchasing red clover and alsike seed of the quality that is not allowed to be sold for seeding in Canada. Most of the remaining States in which Canadian clover seeds are marketed have such legislation under consideration at the present time, and within two years there will be no market for Canadian grass and clover seeds harvested from lands that are polluted with noxious weeds. It is because of this legislation in the States to the south—which States have, until this year, been able to use the lower grades of clover seeds grown in Canada—that many Ontario farmers, who have taken alsike seed from fields on which catchfly, bladder campion or false flax are in plenty, or red clover from land polluted with ribgrass, curled dock, ragweed and thistle, find it difficult to sell their seed at any price. If the farmers who have such seed for sale will visit and inspect the larger seed-cleaning warehouses of Toronto or other centers, they will find there the best modern cleaning machinery that is to be had any place in the world; and yet, with this special machinery, the clover seeds which they raise on dirty land cannot be made clean without a heavy loss, not only of the weed seeds, but of a large quantity of the good seed. This waste amounts in some cases to as much as twenty-five per cent. of the total bulk bought of farmers. The process of cleaning is slow, and the expense for labor and machinery is too great to make the cleaning of dirty clover seeds a profitable undertaking to seed merchants. By far the cheapest and most satisfactory way to clean clover seeds is to pull the weeds in the fields before the crop is cut. A clover-seed crop on land that is so foul with weeds as to render the pulling of the weeds by hand impracticable, should not be left for seed. In future years farmers who grow clover seeds on that kind of land will not be able to find a market for it.

With so much of the dirty seed left on their hands, there is a strong temptation among farmers to sell it at a reduced price to other farmers in the locality where they live. Farmers should remember the false economy of using unclean seed,

because once seeding a field with alsike or clover seed that would not grade No. 1 under the Act would render that field unfit for the production of clover seed for several years.

Farmers should clearly understand, too, that if their alsike seed contains more than 212 noxious weed seeds per ounce of the good seed, or red clover more than 92 of them per ounce of the good seed, then the Act forbids them to sell it, except for the purpose of being re-cleaned. It is the privilege of any farmer to send samples of seed to the seed laboratory, Department of Agriculture, Ottawa, where they will be tested as to quality and promptly reported upon, free of charge to them. To secure the more strict observance of the Seed Control Act among farmers this year, an additional number of seed inspectors are being employed. It will be their duty, so far as possible, to look into any statements of complaint or intimations as to violations of the Act that may be received from any persons who may have knowledge or reason to believe that the Act is being violated.

GEO. H. CLARK,

Seed Commissioner.

Making Fancy Sugar.

Editor "The Farmer's Advocate":

I have made maple sugar every season for the last 42 or 43 years. The indications in this locality appear to be that we will have more extensive operations in the maple-sugar industry than ever before, as some new sugarmakers are coming in with late appliances, and old ones are fitting out their places better than ever before with improved appliances, which are furnished by a few firms in the upper Provinces.

I live in one of the best (if not quite the best) sugarmaking localities in New Brunswick. In fact, some of the sugar made here is the best-flavored, brightest, finest in grain, and creamiest in appearance of any I have ever seen. I run two sugar places, tapping 1,000 trees on one place and 800 on the other. Last year we made 120 cans syrup (one gallon, wine measure), and 1,150 pounds of sugar on both places, most of which we sold at 14c. to 16c. per pound. The syrup sold for \$1.15 per can the first of the season, later \$1.10, and some \$1.05, averaging about \$1.11 per can. We supplied about one-half of it to customers, and marketed the rest in St. John. It cost an average of 14c. per pound to market the sugar, and 8c. per can to market the syrup. As I have stated, we operate two places in the production of our maple sweets. I will give you an estimate of what it cost to fit out one of them, on which we hang 1,000 sap buckets. The trees stand on quite a smooth plat of land, of about 15 or 20 acres, with slight slope toward the north-east. They are on a mountain soil, limestone variety. The trees tapped are 10 to 40 inches at the butt, mostly short, with bushy tops. The cost of 1,000 buckets, mostly tin, some tin plate, was \$130.00; evaporators, 3x10 ft., \$100.00; sugar-house, \$100.00; sled gathering tank, puncheons and other utensils, \$45.00; sap spouts, \$25.00. I am not taking value of land into consideration, and there are some other little expenses, amounting to about \$5.00. Each year we get 60 syrup cans, at 11c. each. We get up, saw, split and pile under cover the first of the winter 8 cords of wood, which usually does to make 600 lbs. sugar and 60 cans syrup. One man and myself usually operate the place, besides doing the barn work for 30 head of stock, 12 to 15 of them cows in milk. It usually takes 25 days from the time we commence tapping until we gather the last sap. It usually takes two days to gather up the sap buckets and tidy things up about the camp. This will convey an idea of about what it costs to operate the place, while the other place costs the same in proportion.

I will give a few points as to my methods and ways of making sugar. To the looker-on sugarmaking may appear to be an easy art or unskillful operation, but I can assure any person it requires as much skill to be a first-class sugarmaker as is needed in any other art or trade, and just as close attention to details and thoroughness in business to make it a paying undertaking as any other calling. Every man who makes sugar is not a good sugarmaker. I know some parties who have been in the business for a long time, and they turn out a yellow, sandy, coarse-grained product, scorched in taste, not like good, pure sugar should have. However, I have some neighbors who turn out maple sugar which, when fresh, resembles in appearance whipped cream, being soft and not too soft, neither is it too hard, it just melts when taken in the mouth, having the most delicious flavor. We think that is about what maple sugar should be. Amateurs cannot make it. Now, as to our way of making sugar. I consider tapping a very important feature. Tap at the right time and in the right place. We never think it advisable to tap at the first appearance of sap weather, as there is usually a cold spell follows the first sap spell, which will check the fresh taps and cause it not to run as freely as it should when the right season comes; also, the buckets are liable to be frozen full of sap

—and liable to damage—which cannot be gathered until well thawed. In the meantime the sap may be running to waste, and the ice is a nuisance. As to the right place, almost every tree has a lean; we usually tap a tree on the under side from the lean, sometimes on the side at right angles to the under side, very seldom on the high side, and never in a mossy place. The sap generally flows the most freely from the under side of the tree, tapping about 3½ to 4½ feet from the ground, being careful to avoid dead wood.

We use a 7/16 bit. When the sap commences to run freely and we think the season is at hand, we do not stop to gather, but keep on tapping away for a day or two. If we have a good run, we will then gather and store it. If the run continues, we then tap again, so as to get as much as possible out of the first run. We usually have everything clean and in readiness to commence boiling, as soon as the run subsides or shows signs of doing so, we commence boiling and gathering. Perhaps we may not tap any more for a day or two, or until we get through with the first run. We use a modern evaporator, which we find a very efficient machine. This first run we usually make into syrup, for which we have immediate demand.

In boiling to syrup, we strain the sap into the feeding vat, and the evaporator feeds itself automatically. The sap enters the front end of the evaporator, which has four pans, the sap passing from one to the other by siphons until it reaches the rear pan, and keeping on coming until it goes to syrup, or nearly so, when we shut it off and boil to about 13 lbs. 2 ozs. to the gallon, when we draw it off and strain it. When cooled and settled, we place it in cans, which are labelled, bearing our name and address. If we wish to make it into sugar after it has been strained and settled, we place it in the sugar-off pan, when we start a good sharp fire, which we think necessary, as there is less danger of scorching with a good fire than a slow one. When it starts to boil there is always some white froth rises to the surface, which we skim off. In starting to boil it foams considerably, and would run out of the pan, but we drop in a small quantity of clean butter, or whip it with a pronged stick, which stops it foaming, and keeps it from doing so. We now let it boil until we think it is nearly thick enough, when we place a small quantity on snow, and if it breaks up fine when removed it is about the right consistency for sugar or soft candy. We then remove the pan from the fire, and set it where it will cool, sometimes on the snow or on ice, and allow it to cool until it is quite thick in the bottom of the pan. We then place the pan on the floor of the sugar-house, partly on one end, and run the contents together as much as possible, and stir slightly with a ladle for a few minutes, when we cease and allow it to become quite thick, set the pan straight or level, and we then remove a few pounds from the bulk, which we stir thoroughly and place in the molds as quickly as possible (that is the way we make what we call creamy sugar). After it cools well it is wrapped in butter paper, and is ready for market. I omitted to mention when describing our mode of tapping, that we use covers on our sap buckets, as they not only keep out moss, flies, grubs, millers, snow and rain, but also keep the sap cool in warm and sunny days. Sap should be gathered and boiled as soon as possible after coming from the tree; and not so much the dross we take out of it as what we keep out has to do with quality and color. Also during a storm, unless a very cold one, there is nearly always more or less sap runs, which can be saved if the sap cans are covered. However, a wooden cover is of no use, unless placed on in a slanting position; otherwise it will soak along the under side of the cover and drop in the bucket. The cover should project well over the edge of the can, so the water will drop outside. There are many other features that can be written about, and no doubt you will get the opinions of other sugarmakers.

Albert Co., N.B.

BENJ. N. HUBLEY.

THE DAIRY.

Leading the Way.

An example of a farmer in London Township, Middlesex Co., Ont., is referred to with warm approval by the Ontario Milk Commission in their recently-published report. This man keeps a herd of 30 to 40 cows, which were all bought subject to the tuberculin test. The interior of the stable is whitewashed twice a year, and the floor sprinkled with lime daily. The manure is hauled over one hundred yards from the buildings. Before milking, the udders of the cows are well brushed. The milk on being drawn is at once removed to the milk-house, twenty-five yards away, where it is promptly cooled. The milk is delivered in the city at five cents a quart, chiefly in large quantities, to hospitals and hotels. The commissioners add: "In almost every district a few such illustrations are to be found, leading the way to general improvement."