

burg. Auditors—E. S. Archibald and J. P. Landry, Truro. Exhibition Commissioners—R. S. Starr, Port Williams, and C. R. H. Bryan, Durham.

SCHOOL CHILDREN COLLECT RAGWORT.

Miss Carmichael, President of the East Pictou Women's Council, addressed the Convention, explaining what the Council had done by offering prizes to the school children throughout the county for collecting and destroying ragwort, and that by that means over five million plants of this noxious and poisonous weed had been collected and destroyed.

Professor Cumming congratulated Miss Carmichael on what the Council had done, and especially in educating the children in the county. The thanks of the Association to Miss Carmichael was expressed by a standing vote.

LAND DRAINAGE.

F. L. Fuller delivered an instructive address on "Land to Be Drained, and the Reasons." Mr. Fuller said there is as much benefit derived from underdraining, by getting the land into shape to hold water, as in getting the surplus water removed from the soil. He cited experiments showing that growing crops require and use more water than falls on the soil during the growing season. If water is not taken off by drains, it must be evaporated, which uses an immense amount of heat, and makes the land cold. Drainage also enables us to work the land earlier in the spring, hence lengthens our season.

Q. How wide a strip will a drain affect?

A. It depends on the nature of the soil, and on the depth of the drain.

Q. What about the action of frost?

A. Land should be laid below frost.

Q. Should the joints of tile be covered?

A. It is an unnecessary expense, because (1) there is no movement of the particles of soil at the depth of the drains, at any rate after one year; and (2) most of the water enters a tile drain from below, not from the top of the soil.

E. S. Archibald, of the Agricultural College, Truro, continued the discussion on this subject, and said main drains should be run along a hollow or a swale, and laterals should be run straight up the slope, not diagonally. He described the methods of taking levels, also of using the plow in assisting in digging a drain.

Q. What slope would you recommend for main drain?

A. Not less than 2 inches per 100 feet, and 3 inches is much better.

Q. What size of tile do you recommend?

A. It depends on the grade and on the amount of water; probably not less than 4 inches for main, and 2 inches for lateral.

Q. In a quicksand bottom, would you put anything under the tile?

A. Yes; a board laid under the tile will be found advantageous.

Dr. Lavers reported for Committee on Sheep Industry, recommending an amendment to the Sheep Protection Act, requiring all dogs to be registered, and that every dog be compelled to wear a collar with a number corresponding to his registry number.

The Committee on the Eradication of Ragwort and Other Noxious Weeds, reported, recommending that legislation be enacted compelling owners of land to cut all ragwort, Canada thistles, etc., on their farms before it goes to seed, and that municipalities be required to destroy these weeds along the roadsides, and that the Government be asked to vote a sum of money to have the weeds destroyed on unoccupied lands and timber leases.

COW-TESTING.

D. Drummond, Ottawa, delivered an instructive address on "Dairying," explaining the working of cow-testing associations, and showed how the testing of one or two herds stimulated other dairymen in the same section to adopt better methods; also, the advantage of purchasing pure-bred bulls whose dams and grandams are recorded in the "Record of Performance" registry.

Q. Is there not danger of injuring cows by overfeeding, in order to make a record?

A. There is if the cow is injudiciously fed, so as to injure her digestive organs.

J. P. Landry, of the Agricultural College, at Truro, gave an address on poultry, which was illustrated by lantern slides. Mr. Landry gave many valuable hints, and showed himself well posted, and a practical poultryman.

The Committee on Agriculture in Our Common Schools endorsed the action of the Council of Public Instruction in giving instruction in agriculture to the students at the Normal School, and the lessons on nature study in the schools, and recommended that some essays on agriculture be procured from well educated agriculturists, and printed in booklet form, to be used as reading lessons occasionally, in our rural schools.

A committee composed of A. E. McMahon, A. S. McMillan and C. H. Black was appointed to appear before the Legislature to urge the enactment of the legislation recommended by this Association.

C. H. B.

Sugarmaking in New Brunswick.

Editor "The Farmer's Advocate":

Away back in the early fifties, we in this country used the little "causeau," made from birch-bark, to catch sap in; it would hold all the way from two quarts to two gallons. Then we boiled over open fires in large pots; later on, we had our pots furnished in.

About thirty years ago we used an evaporator, with one large, flat pan, with corrugated bottom, and self-feeder, which was a great improvement on the old pot system; and also, about that time, began to use tin buckets for catching the sap. After trying different evaporators, we are now using an up-to-date evaporator, with all its modern appliances, which we think is very nearly complete.

We will take for our example a sugar bush of 1,000 trees. Then, you require an evaporator about 3 x 12 feet, with a 10-barrel storage tank and 4-barrel gathering tank. But, in the first place, you need a good building, about 16 x 32 feet, with 8-foot posts. This is big enough to use one end for storing wood, if you don't have to live in the camp; but you need at least 20 feet for boiling-room. This building could be put up here for about \$100; this evaporator will cost \$115; storage and gathering tanks, \$25; 1,000 sap buckets, at \$15 per hundred, \$150. You can get cheaper tins than this, but we think it pays to get the best, and if they are well painted, they will last a lifetime.

You need, also, a sugaring-off arch, consisting of stove and pan that will cost \$15. Oh, yes, and 1,000 sap spouts, \$25. I think this is about an outfit, with exception of gathering pails and sugar molds, which, we will say, will cost \$10. If you see fit, you can get covers for your sap buckets, which will cost from \$4.50 to \$6.00 per hundred. We have not used them much yet, but they are very successful in stormy weather. This gives a complete outfit, costing \$500.

Well, now as to production. Here we get from 1,000 to 2,000 pounds of sugar per year, but I understand the trees yield more in Quebec. If it is a good place, the average yield is from 1,500 to 1,600 pounds per year. We have market here for all the sugar we can produce, if it be the right kind of an article. As for prices, forty or fifty years ago we considered 10 cents per pound a good price for sugar, but later, as we made better sugar, we got a better price. I think at present the Maritime Provinces furnish the best market in Canada for it; we have no trouble in getting \$15 per hundred. Syrup is worth about \$1.50 per imperial gallon; we only put up syrup when we have an order for it, as the sugar is more easily handled.

I pay \$7.00 per hundred for getting my sugar manufactured and shipped.

As far as tanning is concerned, almost anyone can tan with Grimm sap spouts. We like to gather up all the sap each day, and boil it, as it makes a better article. Particularly it is not well to keep the sap after it is once gathered. We draw the syrup off frequently. This is something we cannot easily explain to one who does not understand it. Then we use a syrup settler, which I forgot to mention in our outfit, which will cost about \$5. We also use just an ordinary flannel strainer, like blanketing.

WM. A. COLPITTS.

Success on a New Brunswick Farm

SECOND-PRIZE ESSAY IN OUR SMALLER-FARMS COMPETITION.

After four years' experience in Ohio, several Western States, and the Canadian West, I came East, and bought a 70-acre farm. I paid \$500 down, the rest on mortgage, to be paid in hundred-dollar instalments for nine years. I had seven sheep, one pig, one mare, two cows and calves, twelve hens, a turkey and three geese, besides a wife and two small children, and about \$100 of debts for machinery.

The buildings were fairly good, but set to poor advantage, and the land was rich, but had never had seed, except the sweepings of the barn floor. About twenty acres was in wood poles and logs, seven acres in salt marsh, which was converted into broadleaf, worth \$100 per acre, by the expenditure of \$40 and one man's work for four weeks (three marsh-owners worked together and put in sluice); three acres was in a barren state, partly grown over with cranberries, which were so grown up with grass that they bore only from one to three bushels per year. A deep ditch cleared the land of water; then it was plowed, and cranberry sods were planted, and covered with about five inches of sand (which was close at hand). For three years it took about as much work as the same amount of turnips; after that the cranberries took care of themselves, and bore from 58 to 100 bushels per acre; and, as we have ready sale at from \$1.25 to \$1.75 per bushel, we find them the best money makers on the farm.

As we were near a creek, we found ducks a very paying fowl, where, in most cases, they eat their heads off. A turkey, given our little boy, has produced us an income of from \$20 to \$30 per year. I may state that when one gets a turkey that

comes home at night, and raises six to ten turkeys first year, he is foolish to sell her and keep young ones, as the old turkeys hatch stronger birds than the young. Our geese brought in smaller profits, accordingly, but are a sure crop, and, with good prices, pay very well. We started with 12 hens, 6 of which were pure-bred Barred Plymouth Rocks. We got a pure-bred cockerel in exchange for a day's butchering, and the second year kept only first-class pure-breds, as we find them as good layers as any when young ones are kept, and they make splendid mothers. We separate the yearlings from the two-year-olds in spring, and set only the latter's eggs. Then, when they sit, we send to market, and find they compare favorably with turkey on the table.

To keep hens laying, fatten turkeys, and make poultry-keeping a success, I find buildings must be light, vermin-proof, and well protected from weasels, skunks, rats, etc. A good rat cat is well worth a cup of new milk night and morning, and a kind, obedient dog has saved us many dollars, as well as steps, as poultry dogged will seldom bother grain or garden more than twice.

A ten-acre field that was so wet it had never been used for much but pasture, I tiled bit by bit (thanks to my Ohio experience). The tiles ran into a creek, and I did the work in summer myself, as it did not require an expert. I did not count the exact cost, as I did not count my days' work, but think \$15 per acre would cover it. On this land I set out raspberries (could get all I wanted for digging up). Five dollars bought a lot of currants and gooseberries, and I have set out twelve apple trees a year, as I have gotten the ground tiled. I have sold Yellow Transparent, Duchess and Red Astrachan apples. Although the orchard has not brought in much money, it is in a fair way to do so, and is a great satisfaction to have. I do not crop the orchard, except with red clover. I cut one crop for the pigs, calves, etc., and the aftermath I let remain on ground. The next year I plow it all under. I may say I would rather have one acre of tiled ground for orchard than 2½ without.

Our grade Shorthorn cows we traded for two first-class Jerseys, and from them we raise one calf a year, besides a pig in summer and one in winter. Our butter and eggs run our grocery account, and our two pigs, calf (when grown) and a sheep, more than keep us in meat.

We started with seven sheep, and have never lost more than ten. About four acres of sandy, hilly land, growing sand peas and grass, I fenced in for sheep pasture, and next to it I grew an acre of rane in three lots, so I could let the sheep in first one piece and then another.

I started with a 13-cwt. mare four years old, but found I had to have another horse, so bought a mare 12 years old that was blemished and in poor condition for \$25. From her I raised three colts, and from the other two, the mares having them year about. Since the old mare is done, I break in colts, and then sell after they are well broken-in.

To sum up, I have 5 acres in sheep pasture, 20 acres in rough pasture and woods for sheep, young cattle and cows in five-time; 3 acres of cranberries; 7 acres of marsh; 10-acre field in orchard (3 acres of it unplanted is in garden, alfalfa or hay); 10 acres in grain and turnips; 5 acres in corn and green oats; 10 acres in hay. My grain field this year will be in hay, mostly clover next year, and pasture the third year. In August, after hay field is cut, I pasture it off, and let the old pasture grow up in clover, which I plow under in September.

To meet our first payments, I went to woods in winter, my wife doing the barn work alone. Now our buildings are in first-class order, fences will last a lifetime, our small amount of stock is first-quality, and our poultry and small fruits are money-makers.

My best investment was a saving, good-natured wife who is always willing to help out of doors, and to whom I give all the credit of our success.

Through our years of struggle I carried a \$1,000 policy on my life and now that we are clear of debt, I have added one for my son and daughter. Eight years ago we were indeed poor, but now we envy no man, for though we keep no bank account, yet our farm has trebled in value, and our prospects are of the best.

Westmoreland Co., N. B. R. G. OULTON.

There is an old adage that what man has done man can do. We often think of it when hearing of a man growing corn, alfalfa, or some other money-making crop, where his neighbors have failed and given up. There is a rather general opinion in the Maritime Provinces that corn-growing cannot be successfully carried on in that region, except in very special circumstances and extra favorable seasons, yet we have lately received two letters from Prince Edward Island farmers who have grown it very successfully, one for fifteen years, with only two failures. No doubt, locality, soil, etc., have an important influence, but we fail to discern that these men are situated so very peculiarly. It looks as though methods and perseverance have a great deal to do with success. Grit is a great thing.