

Cover Crops.

"Cover crops benefit the orchard in many ways, the most important being in taking away from the trees water and plant food, so that the trees gradually slow down their growth and go into the winter well ripened up," said Prof. F. C. Sears, before the Nova Scotia Farmers' Association, last January. "Sow the cover crop about July 1st. We have found crimson clover, sown at the rate of 15 pounds per acre, one of the very best crops for this purpose. And it has proved satisfactory, not only in the experimental orchard at Wolfville, but also in our model orchards in all parts of the Province. Summer vetches and buckwheat are also good, and where couch grass is troublesome, the last named and rape are perhaps the best plants to use for cover crop, as they help to kill out the couch by smothering. Common red clover is considered very good by some, and certainly has its advantages, but in my own experience and observation it does not make enough growth in the autumn, and growers are apt to hold on to it in the spring to get a growth, and thereby dry out the orchard soil and injure the trees."

Fruit Exhibits for Dominion Exhibition.

To all Canadian Fruit-growers: The Commissioners of the Dominion Exhibition, to be held this year at Halifax, Sept. 22nd to Oct. 5th, have adopted a most elaborate prize-list for fruits, to ensure the largest and most instructive fruit exhibit ever shown in Canada, and all Canadian fruit-growers, from every section of the Dominion, are cordially invited to assist.

The special Canadian prizes of \$50, \$30 and \$20 are offered for collections of fruits grown in Provinces named, only one prize going to each Province. Another class is arranged in which every Province competes separately for three prizes each of \$30, \$20 and \$10.

Large prizes are offered for exhibits of pears, plums, peaches and grapes. Gold and silver medals, and diplomas, are offered for exhibits from any Fruit-growers' Association, Horticultural Society, Farmers' Institute, Agricultural Society, or Electoral District Society, in Canada.

Large prizes are offered for all the commercial varieties of apples, in barrels and boxes, as well as collections.

Send to M. McF. Hall, Manager, Halifax, for prize-list, and send him entry card before August 27th.

Send all fruit exhibits to me, Horticultural Building, Dominion Exhibition, Halifax, to arrive before September 28th. J. W. BIGELOW, Wolfville, N. S., Supt. Horticultural Dept.

Potato Spraying in Maryland and New York.

Three years' test of spraying potatoes at the Maryland Experiment Station showed an average increase of 52 per cent. on fields sprayed three or four times from June to September. On late varieties, when no blight was present, New York State experiments showed a net profit of \$11 per acre when potatoes were only 25 cents a bushel. The application of Bordeaux mixture, aside from preventing parasitic diseases and repelling flea beetles, conclude the Maryland Station authorities, causes the plants to make a better growth, probably by protecting the foliage from the intense summer light and heat, and so is of value even when no disease is present.

THE FARM BULLETIN.

Some Things About Denatured Alcohol.

Alcohol can be prepared so as to render it unfit for drinking, and its advantages as a means of producing heat, power and light are many and varied:

1. If alcohol catches fire, the flames can be extinguished readily by water, while water merely spreads the flame when put on burning gasoline.

2. Alcohol is practically odorless, while gasoline is not, as everyone knows.

3. Alcohol is perfectly safe, non-explosive, and can be cheaply manufactured.

4. It can be used for everything that gasoline is used for.

5. It will give light for the home at less cost than coal oil or electricity; the light is white and steady, and there is no staining of lamp chimneys.

6. It can be used as a substitute for coal oil for summer cooking.

7. It can be made from waste products and roughage from the farms, such as poor potatoes, apples and grain.

8. Germany, France, Switzerland, Holland, Belgium, Italy, Russia, Sweden, Norway, Austria-Hungary, Portugal and the United States impose no tax on alcohol for industrial purposes, and, as a result, the fluid is largely used in these countries for the purposes above stated.

Let Canada get in line.

Seeds and Weeds.

During June the Seed Branch of the Dominion Department of Agriculture and the Farmers' Institute Branch of the Ontario Department have been co-operating in holding a series of Field Meetings in the interest of the cause of good seeds and eradication of weeds.

There were really four series or divisions, and a set of two speakers for each one. A member of "The Farmer's Advocate" staff visited the meeting held on the farm of Geo. Hedrick, at South Woodlee, in Essex County. The speakers here were Messrs. Simpson Rennie and L. E. Annis, of York Co. A few dozen farmers assembled, and were seated on benches in the orchard. The speakers had with them mounted specimens of some of our worst weeds, which they spread out on the grass. Besides, they gathered others from a nearby wheat and clover field. Mr. Annis first discussed the Seed Control Act, which, he says, a good many people still fail to understand clearly. It has, however, been so often discussed in our columns, that we are scarcely justified in repeating it now. For the most part, we believe it is those who do not take an agricultural journal who are puzzled about the Act. Weeds, he said, are the farmer's greatest enemy, and they are yearly increasing in numbers and variety. It was as a means of controlling the pest, by ensuring the sowing of clean seed, that the Seed Control Act was passed, and it is already having a noticeable effect in this direction. Cleaner seed was offered this year than had been available for years. A man who desires pure seed, can now be sure of getting it. If he does not, he has a means of redress. It is true that the only outlet for seed which could not be cleaned and made fit to comply with the provisions of the Act was now the United States, and this market may be shut off by the enactment of similar legislation in that country. The only recourse then will be to grow clean seed, and this can be done by cutting off or mowing down early weeds growing in fields of clover intended for seed. This should be done anyway, as it ensures a cleaner sample of seed and a better price from the seedsmen who buy it to handle.

Good farming will be clean farming, was the moral of Mr. Rennie's address. Eradication of weeds is not particularly difficult, if one will study their habits and bear in mind a few simple principles. The first essential is rotation of crops. This provides a chance to combat any and all classes—annuals, biennials and perennials. He discussed perennials first. These are plants the roots of which remain in the ground year after year, propagating, in some cases, by running root-stalks. Such are Canadian thistles. He recalled the first patch of these which appeared on his father's farm. He and his brother gathered the roots up in baskets after the plow. Subsequently he tried to get under them by plowing deeply, but, after discovering one growing from the root in a twelve-foot-deep well, excavated a few days previously, he gave this up. Afterwards, he found an easier way of coping with them. Any plant will die if you do not let it breathe. Strip a tree of its leaves a few times in summer, and it will die. Cut off all the thistle tops as soon as they appear, and you will very soon exhaust the roots and kill them. Cutting when the thistles were in bloom would not kill them, and it was not wise to depend on that system. Use a broad-share cultivator, and cut them off repeatedly while young. The perennial sow thistle can be killed the same way, although it is a very much worse pest than the Canadian thistle. It has been found in a good many localities, and should be watched for sharply. Bindweed would yield to similar treatment, only it must be thorough and prolonged. He advised summer-fallowing a spot where bindweed was found, and cultivating it once a week. He did not recommend a hoe crop, because a few plants were liable to twine around the crop and escape the cultivator. The writer happens to know, however, that two or three properly attended hoe crops in succession will completely eradicate this persistent pest. For ragweed, plow lightly after harvest, cultivate to germinate weed seeds, and then plow more deeply later on. If ragweed appears in seeded fields, run the mower over after harvest, before the weed has a chance to seed. Curled dock should be pulled from the meadows when the ground is soft, say after a rain. Carry away and burn. If left to lie on the ground, there will be enough substance in the root to mature the seed. Burdock he had got rid of by digging out the plants that were in their second year of growth. Cut them off four or five inches below the surface of the ground. Never mind the seedlings. Only a few of them will live over to the second year, and it will be quite time enough to dig them out then.

Spraying has been found fairly effective for wild mustard, but if one has a farm badly overrun with this weed, he has a job ahead of him. If he has a clean farm, and allows it to get overrun, he has himself to blame. Mr. Rennie then spoke on seed selection and cultivation. In planting potatoes, he recommended planting good-sized tubers, cut to one or two eyes per set. Planting small potatoes causes varieties to run out, and provides a market for the seedsmen's novelties. Two or three men who adopt the plan of using small potatoes as "seed potatoes," can in a very few years produce enough "seed" for a whole neighborhood.

East Prince, P. E. I.

There is no talk of drouth so far this season. We have indeed had rain enough, and to spare. The farmers who own high, dry land are in luck this season, while those whose land is low and flat have not been able yet (June 12th) to work some of the soil. Fields that were about ready to put teams on three or four weeks ago, have since been covered with water; even some of the new meadows, which looked promising in early spring, are black and dead, in consequence of the long continuation of rainstorms. A great deal of buckwheat will be sown this year on land that was intended to grow oats. The pastures are growing well, and there is every promise for the best season of dairying that P. E. Island has had for a long time. The new meadows on high land will be a heavy crop. The grain is not growing very fast, the weather being so cool, but the warm days will soon be here. A lot of farmers in some sections have still some fields not sown, and will not be sown yet for some time. Harvest may be a good one, but it will be late, and a late harvest is sure to keep the fall work behind.

Notwithstanding the very low price of potatoes all spring, a large acreage has been planted for another crop. The old McIntyres are still the favorites, although a larger percentage of white and other varieties than usual were planted this season.

The orchards just now are a sight to behold. As last year was an off year for fruit, nearly every tree this year is white with bloom, and if the June frosts keep off there will be an abundance of fruit.

Mr. Richard Burke, our Fruit Inspector, is now visiting a few of the different orchards throughout the Island, giving practical lessons on spraying and the care of the orchard.

The very high price paid for fowl of all kinds last fall was an inducement for people to go into poultry-raising. Nearly every farmer has geese this year, but I regret to say that, in this locality at least, very poor hatches are reported. Great quantities of eggs are handled by the merchants, and the price is good—14 cents cash.

Many of our farmers are improving the appearance of their premises by cleaning up their road-front and planting a few young maple and other trees; and what is prettier than our own native rock maple? Why invest in imported ornamental trees, when we can have for nothing, by going back to our own wood-lot, all we need of the prettiest of ornamental trees? Plant more trees, farmers, it will add to the appearance as well as to the value of your farms. A little paint, or even whitewash, gives a home a thrifty, prosperous appearance. Paint preserves the wood, and adds much to the appearance. Some farms are still changing hands, and some still have the "West craze," but where a man finds a better farming country, he will find many worse than little Prince Edward Island. As Father Burke says, what we want to make our Island about perfect is the tunnel, and I hope our Rev. friend will keep everlastingly at it until we get it, and when it does come (which it surely will), no one man on this Island or off will deserve as much thanks as Rev. Father Burke.

The Island is alive with horse-buyers, and many valuable ones are being picked up. I fear that many that should be kept for breeding purposes are sold for tempting figures. Wool is away up in price, and the merchants are advertising for it at 30 cents per pound. This, with lambs at 4 or 5 cents a pound, live weight, should make sheep-farming one of the most profitable branches of the farming industry; and yet, how few farmers keep sheep. C. C. C.

Free Expert Advice in Farm Drainage.

Last year the Department of Physics, under Prof. Reynolds, who has since accepted the professorship in English, was authorized by the Minister of Agriculture to go out among farmers, when requested, and take the levels of their lands for drainage purposes, locate the drains for them, and give information generally on the subject of drainage, the only outlay entailed being the travelling expenses from Guelph to the place of operation. This proposition was announced in "The Farmer's Advocate," and quite a number of farmers have availed themselves of the opportunity of having their drains properly planned and located. Usually several in one vicinity make arrangements together to have their work done at the same time, and each paying only his proportionate share, the expense is very small.

We understand this offer still holds good, and those who are contemplating the inauguration of drainage systems should apply to Prof. Wm. H. Day, the new head of the Department of Physics, Ontario Agricultural College, Guelph.

Live-stock Importation.

Commenting on the new customs regulations, by which a settler may bring into Canada, free of duty, live stock for the farm, published in our issue of May 31st, "The Farmer's Advocate" of Winnipeg says:

"Why the sapient Government officials included swine to the number of one hundred and sixty, remains to be explained, and only goes to show the distance between departments, although in buildings a couple of blocks apart. All Canadian live-stock associations should protest against this new regulation, as likely to render the ingress of hog cholera easy, which would be regrettable, especially in view of the great sums expended by the Veterinary Branch to stamp out the disease. Wake up, Mr. Fisher! Who else is supposed to be on the lookout to protect the live-stock interests of Canada?"