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THE SEASON, CROPS, HARVEST PROSPECTS.

Halifax, 6th July, 1871.

A considerable number of the leading farmers of the Province have responded to our request for information respecting the present condition of the principal crops in the various counties, and the probable prospects of the Harvest. Their communications are published at length in our present number, and will well reward a careful perusal, their statements being, in most cases, deliberate results of painstaking observation and inquiry in the respective districts by men who know of what they write. Upon the whole, the reports indicate the probability of as abundant a harvest as we have enjoyed for many years. A brief analysis may not be without interest:—

THE HAY CROP—GOOD REPORTS.

Hay is our most valuable crop in Nova Scotia, and upon its scarcity or abundance chiefly depend our meat and dairy produce, and the comfort and success of our

farmers.. J. B. Dickie, Esq., reports from Colchester, "the largest hay-producing county in the Province," that hay is likely to be good; and another correspondent, in the same district (Truro), whose name would have given additional weight to his communication, speaks even more encouragingly; the hay crop, he says, is sufficiently advanced to warrant the fullest assurance of great abundance. From Lower Stewiacke, E. C. Banks, Esq., writes that hay bids fair to be a fair crop; and F. R. Parker, Esq., Shubenacadie, also reports hay to promise well, and that crops generally will be equal to the best of years. In Cumberland there is every appearance of unusually good hay crops. Hiram Black, Esq., reports from Amherst considerably over an average crop on the uplands, whilst the rains and warm weather will secure the same result on the English hay marshes, the benefit resulting from the overflow by the Saxby storm being now apparent. At Wallace, according to Donald Mackay, Esq., the hay crop promises to be heavy; and in Parrs-

borough district, J. D. Dickson, Esq., especially notices the hay fields as much better than at this time last year. Dr. C. C. Hamilton writes from Cornwallis that the hay crop promises well, the recent rains thickening it up very much. From Annapolis County we have also good reports. In the district around Paradise, Avarad Longley, Esq., states that the hay crop promises to be abundant; and in Granville, E. P. Troop, Esq., of Brookdale Farm, says: the hay crop bids fair to be more than average. At Annapolis, Geo. Whitman, Esq., says that grass upon some of the marshes is not as good, but on the uplands much better than last year, and promises a fair yield, both in quality and quantity of hay. In Antigonish County the meadows are described by the Hon. John Mackinnon as splendid, all nature smiling with the unprecedentedly beautiful weather. In Pictou County also, James W. Patton, Esq., Lower Barney's River, describes the hay crop as promising well; and D. Matheson, Esq., Pictou, reports favourably of all crops.

In Halifax County the grass did not start early, but the recent rainy, cloudy weather brought it on in a remarkable manner, so that on the Peninsula and in Sackville there will certainly be an average if not a heavy crop. In Musquodoboit, David Archibald, Esq., writes that the growth of grass was very much retarded, and, in many cases, the low lands damaged by freshets in May; but the recent rains have recovered the crop, which is likely to be an average one. In Cape Breton, Henry Davenport, Esq., writes from Sydney that grass most likely will be a heavy crop. A. G. Musgrove, Esq., says that at North Sydney, whilst other crops look well, grass in particular is heavy for the time of year; and from the other side of the Island G. C. Lawrence, Esq., Port Hood, writes: Hay promises a good crop, should the present weather continue another week or two. At St. Ann's, Co. Victoria, John Morrison, Esq., says there is every promise of a good crop.

HAY CROP—BAD, INDIFFERENT, AND AVERAGE.

In Hants, Alfred C. Thomas, Esq., reports from Windsor, that in upland hay fields when the oxeye daisies and yellow buttercups are deducted, the hay can be put into the barns with very little physical labour, that poor dyke will be almost a failure, good dyke an average crop. Of Lower Horton, "Observer" gives somewhat similar account; the grass on good uplands is good, but on dry uplands and old meadows the crop will be light, and the grand Prè which was flooded in 1869, will yield only a light crop. In Lunenburg district, H. A. N. Kaulback, Esq., reports that the grass is as yet very short, but it is thickening and improving, and with favourable weather in store there may be nearly an average crop. From Mahone Bay, B. Zwicker Esq., writes that the hay crop is later than last year, although this season we have much finer growing weather, (for an explanation of this paradox see his communication.) Digby Co. appears to have suffered much from the spring drought. Anselm M. Comeau, Esq., Clare, says that hay in general will be light, and that although there is abundance of rain now, yet the ground was so parched in April and May, that the grass cannot grow much. In Yarmouth there is better promise. Charles E. Brown Esq., reports that the recent abundant rains

have improved the prospect for an average crop of hay; cutting, where light, had begun when he wrote (26th June). We fear the hay must have been very light that required cutting so early.

OLD HAY.

Several of our correspondents speak of the great scarcity of hay this spring, which caused serious inconvenience to many farmers; this fact explains to us why the price of hay kept up so well at a season when it is apt to fall. It appears that there is very little old hay in the country because our farmers are wintering more stock and find a ready market for their surplus hay.

POTATOES.

In Yarmouth potatoes look very well; a few Early Rose were exhibited (25th June) fit for the table; at Mahone Bay they are very promising; in Lunenburg, they look very well; in Paradise they look well in high land, but in wet soils the seed has rotted or been destroyed by wire-worm; in Granville they look remarkably well; in Annapolis more potatoes have been planted than usual, and there is every prospect of an abundant yield. At Windsor potatoes were put in early, and have a fair chance this year; in Lower Horton they have come up well; in Parrsboro they were planted early and have come up well; in Wallace, they look healthy; in Truro they are very fine for the season, on favoured soils, but generally rather late; in Stewiacke they are of a fine healthy colour; in Shubenacadie quite a quantity of Early Rose has been planted; in Lower Barney's River potatoes are all coming well, and no complaints of rotting as last season; in Antigonishe, the crop never looked more promising. In Musquodoboit, potato raising is rapidly extending, and although planted much later this year than formerly, yet they have come up robustly, with scarcely an instance of failure in cuttings. In Cornwallis, which is our great potato county, a greater breadth has been planted than last year, chiefly of the Prince Albert, but also considerable quantities of Earl Rose and other new kinds.

OTHER ROOTS.

It is too early in the season to predict results respecting most root crops, but the indications are thus far satisfactory. In Colchester, roots could not possibly give better promise, and a good crop of turnips is anticipated from the favourable weather; in Parrsboro turnips have come up well, and have not suffered from the fly; in Cape Breton, root crops are coming away vigorously. But in Yarmouth root crops, cabbages, cauliflowers, &c., have suffered from insects even more than usual; we have the same complaint from Annapolis, and in Halifax county there is a

similar infliction. In North Sydney township, carrots are replacing turnips on some farms, as they are not liable to fly, and are thought to be better for stock. In Truro, also, there is less ground in turnips than formerly. The turnip crop requires so much hand labour that in many parts of the country potatoes are taking their place for feeding purposes.

SPRING WHEAT—WINTER WHEAT—INCREASE OF CULTURE.

The Board of Agriculture has every reason to be satisfied with the progress that has been made in the extension of Wheat Culture in the Province, to which their attention has now been directed for some time. Since the importations of Seed Wheat were made, there has been a steady yearly increase in the breadth of wheat sown by our farmers, the soil has been better prepared for it than formerly, and the results in most cases are so satisfactory as to lead the farmer to determine upon a greater breadth of wheat land next season. In Colchester, this year, there is one-half more wheat sown, and on and near the Shubenacadie River, four-fifths more, than in any one year during the last ten years; it promises well. In Cornwallis, the Spring Wheat sown is fully above average, and, so far, it looks well. In Paradise more than usual has been sown, and it looks well. In Pictou County the crops (according to D. Matheson, Esq., a very competent authority) are the largest ever committed to the ground in the County, several farmers having sown from 20 to 30 bushels of wheat, and there is every promise of a largely remunerative harvest. At Barney's River this crop presents a fine appearance. In Stewiacke wheat is doing finely. At Truro grains of all kinds look well, and fall wheat, although uncovered during the greater part of the severe winter, sustained no injury. At Amherst wheat is doing well. It is not sown extensively in Musquodoboit, but looks vigorous and healthy; in Windsor very little sown. At St. Ann's, C. B., wheat is more generally sown, and is very promising.

OTHER GRAINS—OATS, BARLEY, WINTER RYE, INDIAN CORN.

At Amherst a large area of oats was sown, and, although put in late, they are coming on finely; so also is barley. Oats have been largely sown in Cornwallis, and look well, but corn is late. In Stewiacke, oats and barley are both doing finely. At Mahone Bay grains are promising; winter-rye very good. In Hants early-sown oats on the dykes have been washed out to some extent by the rains, and thus attracted the attention of the crows, which our correspondent thinks an expensive kind of poultry, but generally the early-sown oats are doing well there; barley not so much sown as it

ought to be. In King's county grain is short as yet, but has a very healthy appearance. In Annapolis less grain has been sown than formerly, and an average yield is expected. In Musquodoboit, oats although sown late this year, give great promise of an abundant yield; barley is fully equal to former years. Buckwheat coming up well. In Lower Barney's River early-sown oats and peas look well; in Yarmouth grain is promising. In Paradise Indian-corn is backward from wet and cold, but buckwheat, barley and peas look well. In Granville, also, Indian-corn is rather late, retarded by the nights being rather cool; barley and oats look exceedingly well. In Parrsborough grains of all kinds look well; in Wallace they have a healthy appearance, and a much larger breadth sown than in any previous year. At Sydney, C. B., cereals are healthy, good in colour, and strong in shoot; but at North Sydney barley and oats are reported as backward.

FRUIT.

Horton—Few blossoms on the trees, and prospect of a light crop. Windsor—Apples about an average; small fruits promise well. Granville—Fruit, to all appearance, will be in excess of last year. Paradise—Apple crop will probably be light, in consequence of canker-worm, and other fruits light also. Annapolis—Apples blossomed abundantly, but late frosts did injury, and the crop is not expected to exceed average. Amherst—The small orchards will give a poor yield, and the plum and cherry crops will be very small. Pictou—Apples a fair crop, cherries and plums deficient, strawberries abundant. Lunenburg—Fruit blossomed abundantly. Mahone Bay—Apples promise well, plums short. Yarmouth—Abundant bloom, and good prospect of fruit, except of strawberries and raspberries, which have suffered from the unusual severity of last winter. Sydney, C. B.—Prospect of abundance of fruit, especially small fruits, currants and gooseberries being very heavy, and strawberries blooming well.

INSECTS.

On the Halifax Peninsula, and throughout the greater part of the county, the little turnip beetle has been unusually destructive to early plants, cabbages, cauliflowers, tomatoes, ground cherries, cucumbers, melons, &c. The cut-worm also has been more prevalent than usual. On the Peninsula the Mangel crop may be regarded as a failure from the insect injuries received, and several farmers have ploughed up their fields of Mangels, and re-sown with turnips. The Gooseberry and Currant Worm has been comparatively weak and few in numbers this season, so that small fruit is doing well. The tussack caterpillars, so abundant during the last year or two, in and around Halifax, have al-

most completely disappeared. The parent of this caterpillar, the dancing Vapourer Moth, we have only seen one individual of this season, a male. Later in the season, however, we may have a small crop of these omnivorous caterpillars.

OBITUARY.

At Mahone Bay, on the 27th ult., in the 45th year of his age, George Duncan, Esq., merchant, leaving a widow and four children to mourn the loss of a loving husband and father.

Mr. Duncan was for several years the active Secretary of the Mahone Bay Agricultural Society, and we regret to hear of his decease.

Reports on Crops.

LUNENBURG, June 26, 1871.

Mr. Editor,—Agreeably to your request, I send you the following observations on the prospects of the crops in this County:—Spring opened earlier than usual in March, and the alternate warm rains and sun-shine, which continued until the beginning of May, promised early work for the farmers. But the month of May ushered in a spell of cold North-Easterly winds and ungenial weather, with sharp white frosts and deficiency of rain, which continued during the month, retarding vegetation and the work of the husbandman. And hay becoming scanty, many farmers had great difficulty in finishing their spring work. Up to that time the prospects of good crops were anything but promising; the young grain plants, particularly on heavy soil, looked sickly, patchy and thin, and the grass stunted. But potato and other root crops made fair promises, and now look very well; and the fruit trees generally put forth abundance of blossom, and now seem safe to yield an average return. The weather this month has been every thing that we consider good, delightful rains with reasonable warmth and sun-shine, the customary remark during this month being:—This is fine weather; the fields generally now promise a fair yield, except the grass, which is yet very short although rapidly thickening and improving. It has yet nearly a month for maturing, when, I believe, the weather continuing favourable, it will not be much under an average crop, although many of our best farmers shake their heads in doubt about it. This County used to export large quantities of surplus hay, but the lumbering business now takes all of it, and last year, although the hay crop was very abundant, yet some engaged in the lumbering business got hay, this spring, from Cumberland County. Cattle command unusually large prices, beef and everything else the farmer has to sell bring high prices and find a ready

market. All branches of trade and business were never more flourishing than at the present time, high prices for everything and money freely circulating. I am &c.

H. A. N. KAULBACH.

PARADISE, June 26th, 1871.

Dear Sir,—In reply to your favour of the 21st inst., requesting me to furnish you with information regarding the state of the crops in this district, I beg to hand you the following, embracing the result of my observations upon the subject referred to. The hay crop promises to be abundant. Wheat looking well—more than usual sown. Rye, very little sown, that little promises well. Indian Corn, backward, too wet and cold for it. Buckwheat, barley and peas, looking well. Potatoes, on high land looking well, on low land or wet soils, the seed has rotted or been destroyed by the wire-worm. Too early to speak with much certainty regarding turnips, mangelwurtzels, carrots, etc. The fruit crop, apple crop especially, will probably be light, partly in consequence of the devastations of the cankerworm. Currants have suffered by the ravages of the currant-worm. The plum and pear crop will probably be light, Cherries promise pretty well. I am &c.

A. LONGLEY.

BROOKDALE FARM, GRANVILLE, }
June 27th, 1870. }

Dear Sir,—I am in receipt of your favour of the 21st inst., and am happy to inform you, that from all I can see and hear concerning the crops in the Western part of the county, there never was a more promising appearance at this season of the year. The hay crop bids fair to be more than average. Wheat, but little sown. Indian corn, not quite up to the season, owing to the nights being rather cool. Barley and oats look exceedingly well, potatoes are looking remarkably well, and should the weather continue favorable no doubt there will be an abundant crop. Fruit to all appearance will be in excess of last year. I am &c.,

E. P. TROOR.

LOWER STEWACKE, }
June 26th, 1871. }

Dear Sir,—In reply to yours of the 21st inst., I am happy to say that in this locality crops are looking better than was anticipated a few weeks ago. Owing to the backwardness of the spring everything is somewhat later than last spring, but crops in general are now looking well. The hay bids fair to be a fair crop; wheat, oats and barley are looking finely; potatoes too, are a fine healthy colour, and if seasonable showers continue through the season no doubt a fine harvest will be the result. We have had some very fine showers of late, which has improved the

appearance of the country very much indeed; and the farmer can now look forward to the coming autumn with a fair prospect of being rewarded for his labour. I am &c.,
E. C. BANKS.

LOWER HORTON, June 26th, 1871.

My Dear Sir,—Yours of the 21st inst., came to hand. In reply would say, that the spring was cold and backward, but a very large breadth of land has been sown and planted; the grain is short as yet, but has a very healthy appearance; potatoes came up well and never looked better; corn, although late planted, is looking well; the fruit trees showed but very few blossoms, probably owing to the frosts in May, and there is a prospect of a light crop of fruit; the grass in good uplands is good, on dry uplands and old meadows the crop will be light; the grass on the Grand Pré, which was flooded in 1869, will be a light crop. The country seems very prosperous here at present. All kinds of farm produce have found a ready market at good paying prices during the last year. Beef cattle have been in good demand throughout the county at high prices. A large quantity of hay has been pressed and sent from here to Halifax and Boston, at good paying prices. The county here is looking beautifully at present. I am &c.,
OBSERVER.

WALLACE, 27th June, 1871.

Dear Sir,—In reply to your notice of the 21st inst., I beg to state, that the appearance of the crops in this district is very good, I may say better than usual. The hay crop promises to be heavy, and the grain crops have a healthy appearance, and the favourable season enabled farmers to sow a much larger breadth than in any previous years; potatoes look healthy, but the breadth under that crop is not so large as in former years; turnips and buckwheat are about being secured and the season so far was all that could be desired for farming operations. I am &c.,
DONALD MACKAY.

SYDNEY, June 17, 1871.

My dear Sir,—I need hardly report the fact, because it is noticed in the last *Journal*. After many conversations on the matter, some visits and letters addressed to different gentlemen interested in farming, the "North Sydney" is once more on its feet. I am heartily glad of it, because in no part of Cape Breton county is there such a body of intelligent well-to-do farmers, so placed that they can without inconvenience meet and act together. Mutual co-operation is the very life-blood of a Society.

As far as the season has gone, I can only say what is already known: it has been the most backward I have seen. Within the last few days there has been

a marked change for the better, and everything looks well. Grass, most likely, will be a heavy crop. Cereals are healthy, good in colour, and strong in shoot. The same may be said of all kinds of roots; although somewhat backward, vigorous-looking. Turnips generally are just going in. Of fruit there seems a prospect of abundance; the trees are blooming well. Currants and gooseberries very heavy, although the grub has shown. Strawberries are very full of bloom, and altogether the prospects are good.

But labour. This is now the drawback. Wages running up; farmers and their sons by hundreds, nay, thousands, leaving their farms to the women, and seeking employment at the collieries and railways springing up in every direction, and the cry-out here is for more hands. Can nothing be done? If it go on, we must have Chinese or Coolies. I am, &c.,
H. DAVENPORT.

CLARE, Jan. 26, 1871.

Dear Sir,—Yours of the 21st inst. is at hand, and I am sorry to state that the crops in this district look all but promising—everything looks backwards. Hay in general will be light; I believe on account of the drought in the spring. April and May were very dry, but now we have abundance of rain, but the ground was so parched and the roots dried up that it cannot grow. Potatoes and grain are only in infancy, and it is hard to tell what they will do. I am, &c.,
ANSELM M. COMEAU.

MUSQUODOBOIT, June 1871.

Dear Sir,—I beg leave to forward you the following respecting the crops prospects in our community:—

Wheat—Though not sown extensively, where sown, looks vigorous and healthy. In consequence of the lateness of the Spring season but little was sown in April, the proper time for sowing wheat in order to avoid weevil, but even the late-sown looks promising.

Oats—Although sown much later this year than on the preceding one, yet give great promise of an abundant yield.

Barley—(The value of which for feeding purposes is just beginning to be understood here), looks, for the season, fully equal to former years. Its stoutness of blade and deep-green colour as it waves in the breeze give a favourable indication of a good return.

Buckwheat—the seed-time for which is just closing, looks, where it has made its appearance above ground, well for the season of the year, and will compare favourably with the past.

Potatoes—As a crop, cultivated pretty extensively. Owing to the uncertainty in the culture of turnips, farmers are obliged to embark more largely in the

potato crop, it being the only root that they can raise profitably for stock-feeding purposes. The potato this year has been planted much later than formerly, yet the appearance of crop at the present time is quite up to the season of the year, they having made their appearance above ground, after planting, in so much shorter time than in years gone by, showing a stout robust stalk with a rich green foliage with scarcely an instance of failure in cuttings.

Hay or Grass—This crop, the great stand-by of the farmers, was much retarded in its growth, and in many cases the lowlands damaged, in consequence of the prevalence of frosts through the month of May, yet the late rains have done much in the recovery of this crop, and should they continue for two or three weeks more will make the crop an average one.

The hay and oat crops are most important to our farmers, a ready market for which is obtained at home, caused by the extensive lumbering business carried on in the eastern part of the county. These crops, including the potato, are an almost certain source of wealth to the industrious farmer; the increasing prosperity of our country, as felt by all who take a lively interest in it, make for these crops a quick sale and ready market;—the increasing and healthy tone of our markets generally throughout our Province for all kinds of agricultural produce speak well for our country's prospects and future welfare. And, dear sir, in conclusion allow me to say that we believe that one of the grand incentives to our agricultural prosperity is the lively and determined interest taken in it by our Board of Agriculture. Much thanks are due to you and the gentlemen with whom you are associated for the great interest you have manifested in the agricultural welfare of this country. The importations you have made in improved breeds of cattle, sheep and swine, as well as grain, have tended very much to our present prosperity, and your arduous endeavours for our welfare have contributed largely to the present tone of agricultural prosperity in the Province. I am, &c.

DAVID ARCHIBALD.

LOWER BARNEY'S RIVER,
June 22, 1871.

Dear Sir,—In reply to your note of June 15 respecting the state of the crops in our district, I would beg leave to state that wheat sown last of April and first weeks of May presents a fine appearance. Early-sown oats and peas also look well. Potatoes are also coming well, and no complaints of rotting like last season. Hay crop promises well. On the whole there has not been better prospects for the past two or three years. I am, &c.

JAS. W. PATTEN.

YARMOUTH, June 26, 1871.

Dear Sir,—Your circular respecting crops received. Within the last month abundant rains have improved the prospect for an average crop of hay. Cutting, where light, has begun. Potatoes look well. A few Early Rose have been exhibited for the table. Grain promising. Fruit trees of all kinds show a very abundant bloom, and with a favourable season will bear large crops. Root crops, with cabbage, cauliflower, etc., suffer from insects even more than usual, repeated sowings and transplantings being necessary to replace blanks. The small fruits show the unusual severity of last winter. Many plantations of strawberries and raspberries are so much hurt that the crops of fruit will be small. Covering and protection from cold winds are indispensable to successful fruit-growing.

CHAS. E. BROWN.

Sir,—It is the business of this letter to point out the growth of crops, the season, and the general prosperity of the country, but especially Colchester and Northern Hants. The Spring came in rather slow, owing to the cold winds and rains. Many farmers had commenced to grumble and complain of the season, which, I regret to say, is too much the case, as if they were the whole people or the world, but after the wet weather had passed away nothing was more suitable for farming operations, being quite cool enough for work, which enabled many farmers to do more in the same time; and, as crops have been more productive for the last two or three years, and prices average much higher than usual, gave great encouragement to the farmer to cultivate more ground this year than he has for many years past; and it has been done in a better manner than heretofore. There has been one-half more wheat sown, and on and near the Shubenacadie there has been sown four-fifths more than there has been for any one year in the last ten years. The general talk and enquiry was for seed and quality, and still there was plenty, owing to a good crop last year.

APPEARANCE OF CROPS.

By all appearance hay will be a good crop, for the frequent rains have just done what the farmer might expect, and all grains look admirably well, being, as I said before, better managed in the putting in by manuring and otherwise; and as to Roots, nothing in the season can be better adapted than the present and latter rains, being what roots required to distribute the gases of the manure through the earth to feed the plants, and therefore you will see the potato, the turnip, the carrot, and the mangold all coming up and looking well, even if not forward. I might say that there is quite a quantity

of the Early Rose planted, so that after this year they will be one of our common potatoes. There has been a much larger quantity of land sown in wheat, oats and barley, more potatoes, turnips and other roots than heretofore. As a whole, the crops promise at the present, if not above the average, at least to be quite equal to the best of years, and this quite gladdens the farmer's heart and makes him rejoice in his country, while some are leaving, for what reason they do not know. Therefore the farmer has everything to encourage him and to make him feel thankful for a good season, good crops and good prices. Every article that he has to sell, from the fat ox to the lamb, butter, etc., will be plenty, and prices rule higher than they did four or five years ago. And while the farmer prospers all others must do likewise, let them be mechanics, labourers or having machinery of any kind, who has more work than he is able to do, with very remunerative prices. On the whole the country looks very well, and never more prosperous.

I remain, &c.,

COLCHESTER FARMER.

WINDSOR, June 21, 1871.

My dear Sir,—I received your letter, and would have answered immediately, but knowing that the way in which my own farm is worked would prevent my taking my own crops as a fair standard, I concluded to wait until I could take a roam over the country with some experienced farmer, but the wet weather prevented it, and I see that I can no longer delay my report, but I have taken every advantage offered during the limited time allowed to get the opinions of farmers from different sections of the county, and I have come to the following conclusion, after combining their opinions with my own observations:—That the upland hay—when the ox-eye daisy and yellow buttercup are deducted—can be put into the barns with very little physical labour; that poor dyke (this I know nothing about, but take the opinion of others) will be almost a failure. Good dyke an average crop. I wished to explore the dyke to ascertain as nearly as possible from personal observation to what extent the failure of the grass can be attributed to overflowing (Saxby's tide), but the time allowed me is not sufficient; but I hope to make future observations. The first piece of oat land that I came across this year attracted my attention in a peculiar way. Walking across the dyke I noticed some red land fairly black with crows (rooks, I believe, properly.) On examination I found the seeds washed out by the rains and fairly exposed to their depredations. I don't know who owned that dyke, but am inclined to think that they were about the most expensive poultry he ever fed, unless the wonderful fertility

of this class of land will cause the grain to stool out. From farmers to the north of Windsor—that is, in Wentworth direction—I hear the same complaint of early sown oats not being half covered; in the other direction I think the general opinion is that the early-sown will do well. Barley is not extensively sown, which I believe to be a great mistake, for if farmers would only be a little more careful in the quality of their seeds, a ready market would soon be found. While on this subject, I cannot help remarking that a vessel could be loaded at Windsor and first-class malting delivered in Liverpool, G. B., for about what it costs to take it to Halifax.

Wheat.—Very little sown. I have not seen a single field, although it may be sown to a greater extent than I imagine.

Potatoes, I think, had a fair chance, as the dry weather in May enabled them to be got in early.

Turnips on light land ought to stand a fair chance, as the weather has been favourable; but of course this is only anticipation.

Mangolds are a crop in little favour in Nova Scotia, and I believe in a great measure from a want of knowledge on the part of both the farmer and the seed-sellers. Ten pounds of seed, at least, should be sown to the acre, and new varieties come out every year which can be cultivated with so much more profit.

Fruit.—I think small kinds of fruit, such as cherries, plums, etc., promise well. Apples, I think, will be about an average crop.

A. C. THOMAS.

PORT HOOD, June 26, 1871.

Dear Sir,—In answer to your enquiries I beg to say that owing to the cold winds and large quantities of rain falling during the month of May the crops were late in being put into the ground, but the fine weather, with occasional showers during the present month, is making up for lost time, and the crops throughout the county are looking well. Potatoes are coming up, and look healthy and strong. Hay promises a good crop should the present weather continue another week or two. Turnips are only sown in small quantities, and farmers are only now putting them in, although in my experience I have found that they should be sown by the 15th of June. I am, &c.,

GEO. C. LAWRENCE.

NOEL, June 26, 1871.

Dear Sir,—Yours of the 21st came duly to hand, requesting me to furnish you with a few remarks on the state of the crops in our district, which I will endeavour to do as briefly as possible. In the first place I may say that we have had a very cool and dry season for putting the seed in the ground; that vegeta-

tion was very backward till about the tenth of June, when we were blessed with a very copious and refreshing rain, which caused the grass to start rapidly. We have had very seasonable showers up to this date. The Grass makes a good appearance at present, and bids fair for a medium crop. *Wheat*, which has been considerably more sown than formerly, looks exceedingly well at present. *Oats* promise well. *Potatoes* are also coming well. I have not heard of any rot. The appearance of *Fruit* is not at all encouraging at present. Canadian *Fife Wheat* was in great demand this spring, people from all directions applying for it for seed.

I am, &c.,

ROBT. FAULKNER.

PICTOU, June 29, 1871.

I am happy to say that the agricultural prospects of the ensuing harvest are of the most encouraging character. The spring was somewhat backward and cold, but well adapted to labour, and the crop, from all I can learn, the largest ever committed to the ground in this county, several farmers sowing from 20 to 30 bushels of wheat, which was got in in a very good condition. There have been plentiful rains ever since, and the crops, with the exception of the lowest grounds where there may be a surplus of moisture, exhibit a most flourishing and hopeful appearance, and unless some unlooked-for blight or mishap takes place, the farmer may fairly calculate on a largely-remunerative harvest.

As regards *Fruits*, apples promise a fair crop. Cherries and plums are likely to be deficient. Strawberries, except where injured by the hail-stones of the 4th and 17th, will be abundant; and from the general appearance of the face of nature, everything seems calculated to inspire in the breast of the husbandman feelings of gratitude and thankfulness to the kindness of a benignant Heaven.

D. MATHESON.

MAHONE BAY, June 27, 1871.

Dear Sir,—I herewith give you a brief statement of the prospect of the crops in this part of the county. So far everything looks very promising; the weather has been all that could be desired during this month; the hay-crop is later than last year, although this season we had much finer growing weather than last. The way I account for it is this: the winter of 1870 was one of the mildest we ever had, and there was very little frost in the ground, and the grass took a very early start, although May of 1870 was even colder and much dryer than last. Last winter was one of the coldest we ever had, and very sudden changes of thaw leaving no covering of snow. Consequently the frost penetrated very deep,

leaving the ground long cold before the grass could take a start. But I think there will be a very good crop of hay, but late haying. The grain and potatoes look very promising. The winter-rye is very good. There is also a prospect of a good crop of apples. The plum, I think, will be short. Some of your readers may differ with me in the statement of the weather, but what I state is correct. I have kept a regular journal of the weather for the last seventeen years, and can certify to every day.

Yours, &c., B. ZWICKER.

SOUTH GUT, ST. ANN'S,
June 24, 1871.

Dear Sir,—Notwithstanding the unfavorableness of the first part of the season for agricultural operations, farmers in this district have succeeded in putting down as large a quantity of the different kinds of seeds as in former years, if not larger. Wheat, in particular, has been more generally sown, and in larger quantities. Although May did continue wet and drizzly throughout, yet nothing appears to have perished in the ground, and the genial rays of the summer sun during the last two or three weeks, accompanied by copious and refreshing showers, have produced extraordinary results. Grass and grain fields have assumed a blooming aspect unusually rapid. The gloom which had settled upon the farmers' countenances during the month of May has now wholly disappeared, and, instead, they begin to reflect the cheering aspects of their fields and meadows. Should the season for fructification prove as favourable as the present prospects, the result will certainly be an abundant harvest. Fruit trees promise good returns.

JOHN MORRISON.

ANNAPOLIS, June 26, 1871.

In consequence of the cold weather in April and May the whole of the crops in Western Annapolis, with few exceptions, are later this year than usual. Grass upon some of the marshes is not as good; but on the uplands is much better than last year, and promises a fair yield both in quality and quantity of hay. Less grain was sown than formerly, but from present appearances an average yield per acre may be expected. More potatoes were planted than usual, and although late, they are looking well, with every prospect of an abundant yield. The same may be said of turnips, mangolds and other root crops. Squashes, pumpkins, melons and cucumbers have all suffered by the squash-bug. Many plants were saved by sifting dry ashes, lime, or dry earth on the leaves when wet, and some by tobacco in liquid, not too strong. Corn is poor, and not likely to be an average crop. The show of blossoms on the apple-trees was more

than usual, but many trees were injured by the late frosts, and the crop of apples is not expected to exceed the average.

GEORGE WHITMAN.

N. SYDNEY, June 26, 1871

Dear Sir,—I am sorry your note did not come to hand until Saturday evening, 24th, and as you wish a reply not later than 28th June, any information I could furnish would be late for the *Journal*. But I would say in answer to your request that crops in this township generally look well; grass, in particular, is heavy for the time of year. Wheat is but sparingly sown, and that not earlier than 10th of June; so I cannot say much about it. Barley and oats look backward. Potatoes look well; though late planted, they have come up well and are growing rapidly. Turnips are not cultivated to any extent, except by a few. Some farmers are giving more attention to the cultivation of carrots, as they withstand the fly better, and are thought better for stock. There is every appearance of an abundant fruit crop.

Our Society, I hope, is going to work well. Since my last communication I have received additional names, with their subscriptions, making a total of fifty-four members.

I think before the annual meeting we will likely number over sixty.

Yours, &c., A. G. MUSGROVE.

TRURO, June 23, 1871.

Dear Sir,—In reply to your note of 21st inst., would say,—That the general appearance of the crops in this county is very promising. A dry May and a wet June keep the farmers in merry tune, is the old proverb; and accordingly we farmers should be quite cheerful, as the season in this respect has been all that could be desired. About the usual crop has been put in. Hay is likely to be good—the bottom being thick and well set. Grain looks well—potatoes are coming up, and so far, prospects seem favourable. This county being the largest hay producing county in the Province, the success of that crop is looked to primarily. I am, &c.,

JOHN B. DICKIE.

ANTIGONISH, June 19, 1871.

Dear Sir,—Your favor of the 14th duly received. To comply with your request I submit the following remarks:—Owing to the late cold, wet weather in the first of May, and hay being scarce in many localities, the spring work was rather backward. To make up for this the last half of May was never more favourable, it being dry and generally cool. The crop was put in the ground in first rate condition; and though not on the whole very early, still all in good time.

Very little of wheat was sown in April, but generally the late wheat was sown earlier than in former years, owing to the favourable condition of the ground and the beautiful weather with which June set in. The potato and oat crops were put in the ground in good time, say between the 15th and end of May. Owing to the abundance of rain and the unusual heat of the weather at this early season, the crops never looked more promising. The meadows look splendid, and promise, if this weather is to continue, to give an abundant crop. All nature seems smiling with this unprecedentedly beautiful weather. I am, &c.,

JOHN MCKINNON.

TRURO.

The farmers in this vicinity have the most cheering prospects. Spring was tardy in making advances, and the warm days during the season have been fewer than usual; but through the abundance of rain which has fallen during the past three weeks, vegetation has been most rapid and luxuriant. The fields are now clothed with beauty, and are smiling with promise.

It is rather early in the season to predict definitely the character of the harvest. The hay crop, however, is sufficiently advanced to warrant the fullest assurance of great abundance. The haying season will probably be earlier than usual. In determining the time to cut their grass, farmers will do well to remember that an increase in the bulk and weight of the crop may not secure an increase in the nutriment. At a certain stage the stalk is full of saccharine and nutritious juices; at a later stage these are converted into woody fibre, which as food for cattle, is little better than a basket of chips.

Grains of all kinds look well. The extent of ground in wheat is considerably greater than usual. Small fields of winter wheat in the neighborhood of the village of Truro present a most promising appearance. Although uncovered during the greater part of a severe winter, it sustained no injury. It is beginning to ear, and will need to be harvested early in August. It is proper to remark that these fields are upon green-sward, ploughed and sown the first week in September.

On favored soils potatoes are very fine for the season; yet generally they are rather late and less promising. It is said that there is considerably less ground in turnips than in former years. This is said to be mainly owing to the continued wet weather during the sowing season. Ants are very numerous, doing great damage in some gardens to the strawberry plants. If any correspondents of the *Journal* can recommend an exterminator, they will confer a favor. The cheese factory in Onslow—about two miles from the village of Truro—is making a good be-

ginning. During the few weeks that it has been in operation, it has produced about a ton of fine looking cheese.—*Com.*

AMHERST, June 26, 1871.

Dear Sir,—In reply to your note respecting the crops, I beg to state that the upland grass promises considerably over an average crop of hay; warm weather following the late timely rains will secure the same results from the English marsh; while the Broad leaf exhibits the unmistakable benefits of the "Saxby flood," and is almost insured against a middling crop. Oats, though the backward spring caused their late sowing, are coming on finely, large area sown. The same may be said in reference to buckwheat, barley and wheat, though not a great deal of the latter sown. Though too soon to speculate upon the product of the root crop, still there is nothing to prevent a heavy yield but an unpropitious season. Our small orchards will not probably return an average yield, this will particularly apply to plums and cherries. Altogether the prospects of the crops are highly encouraging to the country, and already offer assurance of gratifying rewards to the efforts of the agriculturists. I am, &c.

HIRAM BLACK.

PARRSBOROUGH, June 26, 1871.

Sir,—From such accounts as I have been able to gather, there is a prospect of good crops throughout this district this spring. The hay-fields are more especially noticed as much better than at this time last year. Early in the season grass came on well, but in the upper part of Parrsborough and in Upper Maccan encountered a drought which continued for a fortnight, and vegetation seemed almost to cease. Fears were entertained by all persons in those sections of the country that the crops would be a failure. On the 12th inst., however, we were favoured with a heavy rain, dispelling our fear of the failure of crops. Since then the weather has been showery, and in consequence the improvement in the hay crop is most wonderful. The county now everywhere, with the apple trees in full bloom, wears a most smiling appearance. While the drought prevailed in the upper part of Parrsborough and in Upper Maccan, copious showers fell twice at Advocate Harbor, but extended East up the shore only about fifteen miles. Most of the fields of potatoes were planted early, as the ground was dry and the weather favorable, and they have come up well except in a few instances, where they were affected by the drought; but these fields have been re-planted and there is now every prospect of a good crop of this staple article. It is still a good time for planting potatoes, especially on burnt grounds, and some persons will only finish this week. Potatoes planted on

the last of June come up in a week; those planted on the first of May or sooner take three or four weeks to get through the ground; those grown from very late planting are allowed to be good for the next years seed if not for eating.

This is, I think, the best time for putting in the buckwheat crops along the shore in Parrsborough, where the frost does not strike so early in the fall as it does inland. There it is generally sown earlier to avoid the early fall frosts in ripening. Grain of all kinds looks well; for a while, like the other crops, it suffered from the drought, but the late showers have had the same magic effect upon it as upon the grass; and the farmer's heart is cheered by its rapid growth and healthy and fine appearance.

For the last three weeks the ground and weather have been favorable for putting in turnips, and they have every where come up well, and have not been attacked by the fly. We have still a fortnight that we may put in the Swedish turnip,—the growth may not be so great as of those planted earlier, but they are allowed to be sweeter and better for the table. The early planted ones become strong and stringy. White turnips do very well for feeding out in the fall, and they may be sown any time in the month of July.

We had a very heavy frost on the night of the 5th inst., but do not apprehend that it has done much, if any damage. Apple trees here were not then in bloom, and the strawberry blossoms only partly out. Potatoes, corn, beans and other vegetables liable to injury from frost were not then up. To these several crops, if experienced as heavily inland as we had it on the Bay-shore, it may have done more or less damage.

T. D. DICKSON.

CORNWALLIS, June 28th, 1871.

In reply to your note of 21st, requesting a "brief report upon the state of the Crops," I beg to say that on the whole they are very promising. The season has been cool, with sufficient rain-fall to bring up the seed and keep the ground moist.

From all I can learn the breadth of spring wheat sown is fully above the average; so far it looks well. There is scarcely sufficient winter wheat sown to remark upon. What I have seen looks very promising. Oats are largely sown this year, also look well. The Norway does not seem to be a very great favourite with the farmers. I think the Suprise will take the lead, as they are much earlier and yield well. Corn does not look well; the weather has been rather cold, but a few warm days at this time will naturally alter its appearance.

Potatoes as usual are pretty extensively cultivated; the high price (60 c.) last spring, induced the farmers to plant a greater breadth than last year. The

Garnet Chili for yielding, hardness, and and for the West Indian market seems to be the favourite. The Rose is quite extensively cultivated this year; and some others, such as Excelsior, Bresee's Prolific, Climax, and the Goodrich, Calico, are being tested. The main crop will be the Prince Albert. It is a pity that more attention is not paid to the growing of potatoes specially for the table, the market, and for feeding purposes, instead of simply seeking the sort that yields the greatest number of bushels. I never saw the potato crop promise much better at this season of the year.

The Hay Crop promises well, the recent rain is thickening it up very much.

I can scarcely say anything about the prospect of the Fruit Crop. It is certain there was never a better show of blossoms, but I am suspicious that the crop will not be very large. Much yet depends upon the various insects, drought, &c., which often make a great difference.

On the whole I think that the farmer's prospects as regards the crops generally are good.

C. C. HAMILTON.

To the Editor Journal of Agriculture :

Sir,—Having just made a hurried trip through a portion of the counties of Colchester and Cumberland, I forward you a few remarks of my impressions about the crops, &c. Grain is very backward. I should say that less than usual is sown. It has a very healthy look and colour in spite of the great amount of rain. Wheat has been sown to a greater extent than usual, and looks very well. Potatoes are also very backward; they are fairly above ground, but not forward enough for hoeing. I heard some complaints that the wet prevented their being hoed, but I have hardly seen any sufficiently advanced to require it.

The potato fields are very free from weeds, which I attribute to the ground having been in good order when it was worked, and to its consequently getting a thorough stirring with the harrow.

The general cry is that owing to the heavy rain-fall the hay crop will be very heavy. I thought so too until I made my trip. I now think that where the land is in really good heart the crop will be very good, as the bottom is thick and the grass tall; but in average lands, although the bottom is good, there is no length of grass. This is probably owing to the backward season, and if the weather continues moist and cool, the haying season will most likely be late, and the grass may attain a fair height.

The most pleasing feature was perhaps the richness of the pastures into which the farmers of the Amherst district turn their cattle, and the consequent capital condition of the animals grazing in them, a marked commentary on the prevailing

fashion of pasturing land only when it is too poor to cut hay.

It struck me that an unusually large number of calves were being saved and raised this year. Their colour and shape told strongly of the pure blood importations of "The Board."

The lambs are, of course, still with the ewes. There is much room for improvement among the sheep, and I trust that the increased value given for wool—thanks to the enterprize of the promoters of the Oxford and Maccan Woollen Mills—will induce our farmers to preserve their lambs, that the annual "massacre of the innocents" may cease, and that instead thereof both lambs and calves may be permitted to attain their full growth. A trip through this noble farming district at this season is a great treat, and I cannot conceive any person taking such and then holding the opinion that Nova Scotia is no place for a man to live in or make a living in.

Yours obediently,

J. WINBURN LAURIE.

Oakfield, July 3.

YARMOUTH, June 6, 1871.

Dear Sir,—It is too early in the season to predicate as to crops; the winter was severe, disastrous to trees and fruit not entirely hardy. Strawberry plots in especial suffered extremely. The spring opened early enough to get seed in—as it afterwards seemed a month too soon, as several weeks followed of quite dry, cold weather, with hard frosts at night, and until the last week absence of rain threatened a diminished hay crop. Recent timely showers have removed this danger.

A very abundant bloom on all kinds of fruit trees promises a favourable season for fruit, if the still more abundant pests of insects prove not utterly destructive. In every blossom may be seen from two to ten jointed beetles devouring and laying eggs. Hand-picking is a tolerably sure cure. Yours very truly.

CHAS. E. BROWN,

Sec. Yar. Co. Agl. Soc.

NEW ANNAN, June 27, 1871.

Dear Sir,—I received your note of the 21st last evening, in regard to the state of the crops in our district, and in reply would beg leave to state that the first part of the season set in cold and dry, but upon the whole the weather was favourable for agricultural purposes; the hay crop looked very backward until about the 12th of June, when we had a very heavy rain storm, and since that frequent showers, and as far as I can learn the hay crop will be very good. Grain crops look well, and potatoes look healthy. It is generally allowed that in our section of the county there is a greater breadth of land under crop than usual,

and to present appearance, with a good harvest and the blessing of the Giver of all good, there will be plenty for man and beast. Excuse my brief note.

I am, dear sir, yours,

WM. CREIGHTON.

LOCKEPORT, June 29, 1871.

Dear Sir,—Yours of date of 21st inst. is to hand. As I was absent from home I did not receive it in time to answer by the time you wanted it. The hay crop will hardly be an average one, owing to the want of rain in May and early part of June. Potatoes, grain, and everything else, look well, and promise to be a fair crop. I do not know that there is anything more that I can inform you on from this county.

Yours, &c.,

THOS. JOHNSON.

DIGBY, June 28, 1871.

Dear Sir,—Yours of the 21st inst. only came to hand last evening, therefore my reply will be too late for the next issue of the *Journal*.

As regards the appearance of the crops in my district, I would say that owing to the cold, dry weather of last month, the grass made but little progress, but the frequent rains during this month have brought it on very rapidly, and the appearance at present is that the yield will be greater than last year.

Wheat is looking well, but little sown. Barley has a very healthy appearance, and is generally a sure crop. Oats—More sown than usual, and at present a good prospect for a large yield. The Norway oats, where sown, look very fine. No doubt the yield will be good. Potatoes—The Early Blues look well, and promise to be good. The Early Rose has a very healthy appearance;—considerable quantity planted. Beets, carrots, cabbages, cucumbers and squash have been much injured by grubs; in some places the plants have been wholly destroyed. The currant and gooseberry bushes have been well trimmed of their foliage by a kind of green worm about an inch long, which will nearly destroy the crop.

Hoping this will be of service to you I remain your obedient servant,

WILLIAM AYMAR,

Sec. Digby Co. Agl. Soc.

MIDDLE RIVER, June 29, 1871.

Dear Sir,—Yours of the 21st ult. only reached here on Tuesday, 27th, otherwise I would have replied earlier.

As regards the state of the crops in this district, it is hard for me to form a definite opinion at this early stage of the season owing to the backwardness of the spring. During the months of April and May we had an unusual length of cold, wet and foggy weather, which

prevented the farmers from getting in their crops at the usual time; consequently all kinds of crops may be reckoned two weeks later than at this time last year; but judging from the present healthy appearance of the crops in general in this locality I think I am safe in stating that a good average crop may be reaped upon.

The grass on light sandy soils is greatly benefitted by the copious showers of warm rain during the month of June, and by its appearance at present may be reckoned at least one-third over last year's growth. The yield from the Northern Red Clover imported by this Society last year will be of incalculable benefit to this district, both from the yield of animal food and its tendency of fertilizing the soil.

Our Society for this year is in good standing both in means and members, and what is very gratifying that the members act with the best harmony towards one another. Respectfully yours.

JOHN McLENNAN.

CROPS IN NEW BRUNSWICK.

A good crop of hay may now be anticipated with some degree of certainty, seeing that we have been blessed with frequent and abundant showers of rain.—Every one almost has his own peculiar notions respecting the time and manner of cutting and securing hay, but it may be laid down as a principle, that the mode which will preserve as much of the natural juices of the grass as possible, with the least expense, is the correct one. Many lot their clover and other grasses stand till the seed ripens, when the stems become hard and wiry, containing but little nutriment, and even the leaves have put on that brown appearance which is a sure indication that the sap has left the plant. Cut the grass while it is in flower, while it is yet fresh and vigorous, as it is then that it contains all its useful qualities. Plants of all sorts, if cut in full vigor and carefully dried, contain nearly if not quite double the nutriment they do if permitted to attain full growth and ripeness. Grass should be made into cocks about four feet high. By making, we do not mean rolling, as some do, but by placing one fork full upon another, giving as small a base to the cock as will permit it to stand firm. Clover hay should remain longer in cock than most other grasses, owing to the large stems requiring additional time for further fermentation, and should be turned over or upside down for an hour or two before removing to the barn, as this will remove all dampness. In cases where grass gets quite ripe before cutting, it should not be much exposed to the sun, but should be immediately made up into larger cocks, and removed to the barn.—*Col. Farmer.*

BUSSEY INSTITUTION.

A NEW SCHOOL OF AGRICULTURE AND HORTICULTURE IN CONNECTION WITH HARVARD UNIVERSITY, 1871-72.

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The School of Agriculture and Horticulture, established in execution of the Trusts created by the will of Benjamin Bussey, will give thorough instruction in Agriculture, Useful and Ornamental Gardening, and Stock-Raising. In order to give the student a sound basis for a thorough knowledge of these Arts, the School will supply instruction in Physical Geography, Meteorology and the elements of Geology, in Chemistry and Physics, in the elements of Botany, Zoology and Entomology, in Levelling and Road-building, and in French and German.

The regular course of study, to be pursued by candidates for a degree, will fill three years. The instruction of the first year's course will be given at the Lawrence Scientific School, in Cambridge, and students of the first year must live in or near Cambridge. The instruction of the second and third years' courses will be given at the Bussey Institution, and students of the second and third years must live near the Institution, which is situated in the town of West Roxbury, near the village of Jamaica Plain, about five miles south-west of Boston, and close to the Forest Hills station on the Boston and Providence Railroad.

REQUISITES FOR ADMISSION.

Candidates for admission to the first year of the regular course of the School must be at least seventeen years of age, and must present testimonial of good moral character; they will be examined in Arithmetic, Algebra as far as equations, English Grammar, and Geography. Candidates for admission to the second year of the regular course must be at least eighteen years of age, and must present testimonials of good moral character; they will be examined upon the studies of the first year in addition to the above-mentioned subjects.

The first examination for admission

will be held on Thursday, Sept. 28. 1871, at Lawrence Hall, Cambridge, beginning at 9 A. M.

Any person, who is not less than eighteen years old, may join the School, without examination, to pursue any special course or courses of instruction which he is qualified to pursue with advantage; but such special students will not be regarded as candidates for a degree.

BOND OR DEPOSIT.

Every student, when admitted, must give a bond, in the sum of \$200, to pay all charges accruing under the laws and customs of the University. The bond must be executed by two bondsmen, who must be satisfactory to the Steward, and one of whom must be a citizen of Massachusetts. Instead of filing a bond, a student may pay his tuition-fee for the year in advance, and deposit such a sum of money, not exceeding \$50, as may be deemed sufficient to secure the payment of other School dues.

ACADEMIC YEAR.

The Academic year begins on the Thursday following the last Wednesday in Sept. (Thursday, Sept. 28, 1871), and ends on the last Wednesday in June, with a recess from December 24th to January 6th inclusive.

INSTRUCTION.

Instruction will be given by lectures and recitations, and by practical exercises in the laboratory, the greenhouse and the field. Examinations will be held stately, to test the student's proficiency.

The subjects to be taught during the year 1871-72, are as follows:—

REGULAR FIRST YEAR'S COURSE (AT CAMBRIDGE.)

Physical Geography, Structural Geology, and Meteorology, Prof. WHITNEY.

General Chemistry and Qualitative Analysis, Assist. Prof. JACKSON.

The Elements of Physics, Assist. Prof. TROWBRIDGE.

Levelling and Road-making, Prof. ———.

The Elements of Botany, Prof. GRAY and Assistant FARLOW.

The Elements of Zoology, Prof. SHALER.

The Elements of Entomology, Mr. SANBORN.

French, Mr. BORIS.

German, Mr. ———.

SECOND YEAR'S COURSE (AT WEST ROXBURY.)

Theory and Practice of Farming, Mr. MOTLEY.

Preparation and care of manures and composts. Breeding and care of neat stock, with special reference to the dairy. Breeding of horses and swine. Preparation of the ground for root crops, hay, and grain. The sowing and planting of different seeds and roots for farm use. Field work with ploughs, harrows, and

seed-sowers. Harvesting of hay and grain. Use of mowing machines, hay-tedders, horse-rakes, etc. Examination of agricultural implements. Farm accounts.

Horticulture, Prof. PARKMAN.

Propagation of Plants; the methods of practising it, and the principles on which they rest. Propagation by seed; by cuttings; by layers; by budding, grafting, and inarching. Methods of obtaining new varieties of fruits, flowers, and vegetables. Horticultural glasshouses, their construction and management. The flower garden;—perennial flowering shrubs and trees; bedding plants; foliage plants; the rose; the lily; the rhododendron; the azalea; the gladiolus, etc. The fruit-garden;—the strawberry, raspberry, peach, grape, apple, pear, etc. Nurseries and their management. Manual practice of horticultural operations.

Agricultural Chemistry, Prof. STORER.

Soil, air and water in their relations to the plant. The food of plants;—manures, general and special. Chemical principles of tillage, irrigation, systems of rotation, and of special crops and farms.

Applied Zoology, Prof. SLADE.

The anatomy and physiology of domestic animals. Their proper management in health and disease. Epidemics,—their nature, progress, mode of introduction and proper treatment.

Entomology, Mr. SANBORN.

Habits or economy, anatomy and transformations of insects; their embryonic development, and their relations to the surrounding world. Means of controlling or keeping in check the increase of injurious species. Systems of classification. Collection and preservation of specimens.

Quantitative Analysis, Prof. STORER.

Laboratory practice. Methods of analyzing rocks, manures, plants, milk, etc., and of investigating problems in agricultural chemistry.

The third year's course of instruction will be hereafter arranged, and will be given for the first time in the Academic year 1872-73.

During the first year of the regular course the student will be expected to pursue with equal diligence all the subjects prescribed for that year; but during the second and third years the student's course of study, particularly as regards the amount and direction of his manual practice, may be varied at the discretion of the Faculty of the School, in accordance with the student's aims and purposes.

Women will be admitted to the courses of instruction in horticulture, agricultural chemistry and entomology at the Bussey Institution.

FEEs AND EXPENSES.

The regular fee for the academic year will be \$150; for half or any less fraction of a year, \$75; for any fraction of a year greater than one-half, the fee for the whole

year will be charged. The fees for special courses of instruction are as follows:—

Course on Farming.....	\$40.00	for the year.
" Horticulture.....	\$40.00	" "
" Agr'l Chemistry.....	\$40.00	" "
" Applied Zoology.....	\$40.00	" "
" Entomology.....	\$20.00	" last half of the year.

For Laboratory instruction in Quantitative Analysis (including the course on Agricultural Chemistry).....\$150 for the year.

The tuition fees will be freely remitted to poor and meritorious students.

The other expenses of a student for an Academic year may be estimated as follows:—

Room	\$30.00	to	\$100.00
Board for 38 weeks.....	152.00	to	304.00
Text-books.....	20.00	to	25.00
Fuel and Lights.....	25.00	to	35.00
Washing.....	19.00	to	38.00
	\$246.00	to	\$502.00

The teachings of the School will be amply illustrated by the rich scientific collections of the University, and by a botanic garden, a large and profitable farm, greenhouses, propagating houses, and field experiments. The single object of the School is to promote and diffuse a thorough knowledge of Agriculture and Horticulture.

For information, apply to

JAMES W. HARRIS,
Secretary,
CAMBRIDGE, MASS.

Communications.

OAKFIELD, June 17.

SIR,—Following up the subject of my last letter to you, and very closely connected with it, is the question how to check the exodus of our youth—chiefly from the rural districts. I called upon the students of Dalhousie College to furnish an Essay on this subject; and a brief notice of the reasons of our young people for leaving the Province may not be uninteresting, and may induce all who profess an interest in their country to do their share towards checking the emigration.

Each Essay attacks the newspapers that make the people discontented with their own country, and that paint in such brilliant and seductive colours the attractions of foreign parts; this, I do not doubt, has much to do with the outpour of people.

The abrogation of Reciprocity is also given as a reason. No doubt the opening of the U. S. markets would create a great stir in the Province, coal owners in particular would derive handsome dividends, but selling our coal seems to me living on our capital, like the shipwrecked mariner who, afloat on the salt ocean and deprived of anything to assuage his thirst, opens his veins and satisfies himself with a draught of his own blood. For the moment he is satisfied, but it is at the expense of his strength. We may export the raw material—we shall soon

meet the call for the increased labour, and then again as of old we should commence exporting our own hands to work up our own material and enrich a foreign nation.

I believe that more really healthy development has taken place in Nova Scotia in the last five years than ever before, and that in spite of one of the most trying commercial crises the business world has ever known. I believe in keeping our Fisheries to ourselves, in keeping our coal at home, and in our own people using it to manufacture their own metals and other products for themselves and for export.

Much blame is attached to wealthy capitalists who keep their money locked up instead of developing the manufacturing capabilities of the Province. No doubt there is a small modicum of reason in this, well worn cry, but let us look the matter fairly in the face. The well-abused wealthy capitalists have in most cases made their own money, not by rash speculation in a few years, but as a rule the energy of a life time has been spent in the attainment of wealth; when a man has reached, say 60 years of age, is it reasonable to expect that he should, instead of investing his hard-earned fortune so that he may sit down in ease and comfort during his declining years, go into speculations, placing himself and his wealth in the hands of men who, no doubt, are energetic, but in many cases visionary, and generally without the practical knowledge of the business they propose to carry on. Now I hold that we are an essentially manufacturing country, but we must not run a tilt at men who have done their share towards building up the Province and have made their money in commerce, because they will not, to please us, put their earnings directly into some business with which they are unacquainted. If they wish to keep their money afloat, how much more natural is it that they should stick to the business which the experience of a life-time has made them masters of.

This cry to some one else to do the work reminds me too much of the waggoner's appeal to Hercules for assistance, instead of putting his own shoulder to the wheel.

I look to co-operation, to joint-stock associations, to work out the desired end; to self-help and not to dependence on others. To this end competent managers are necessary—men who have had a technical education—who are masters of machinery and its proper uses. Now it is well known that our people are handy and ready—that a man can go into the woods with an axe and settle himself down and make tolerable shift. I have, therefore, when attending our Agricultural Exhibitions, looked for some signs of inventive genius. Now, as far as my

memory serves me, the only original thing that I have seen is a joint cradle and churn in which the mother could rock the baby and make the butter at the same time. Our ploughs in our best agricultural districts are made from Scotch patterns; our threshing machines and other implements copied from American imported ones; therefore I think that the ingenuity of our people is not developed, and I think that the proposal made by one gentleman in his Essay that a School of Science should be established in the Province, with classes on the same subject in connection with the various High Schools, is an idea that should be worked out.

There is great talk about the formation of a Central University for the Province. I go in strongly with the advocates of this. Let the University that is most anxious for this honour take the matter up and rally its friends; with their help, and with the assistance that the Provincial Government could not refuse to give to such a purely Provincial purpose, a School of Physical Science, as applied to Agriculture, to Manufactures, to Engineering and Mining, could surely be organized in connection with the College. We should then have fitted our young men to enter into and manage undertakings which, for want of due supervision, are not now attempted; and I believe that the same spirit of enterprize that now leads them to the States would then stir them up to develop the resources of our highly favoured Province. None will benefit so much as the farmer by the application of science to farming; none will benefit so much as the farmer by any step that will increase the wealth and population of the Province. This is therefore a farmer's question, and this must be my apology for writing of it at such length in your journal.

I am, &c., J.W.L.

TRURO, June 21, 1871.

To the Editor of the Journal of Agriculture:

SIR,—A few days ago business took me to the nether end of Clifton, historically known as Old Barns, in my estimation the handsomest and most thriving farming district in the township of Truro. The crops generally, though not far advanced, were looking remarkably well for the season, and may be taken as the index of what they are in this and other parts of the county. They have benefitted largely from late rains, and everything is now growing apace, and everyone interested in agriculture anticipates an abundant harvest. The fine appearance presented by the crops of Clifton did not surprise me, after witnessing many signs of progress since my last visit, such as new fences, brush cut down, land cleared, new land broken up, and last, but not least, new barns. With all respect to the

good folk of that place, it appears to me that New Barns would have been a name more in accord with the thrift and enterprize of the people than Clifton, and it would have the advantage of retaining, in some measure, a name that has been considered a land-mark in the history of the Province. When the first English settlers arrived in that part of the Township, of all the former French erections they found but two old barns in existence, on which account they named the place Barn Village, or Old Barns, which name it retained till about three years ago, when the inhabitants having grown wiser than their forefathers, changed it to Clifton. The Settlement is pleasantly situated on the Bay of Fundy, opposite Fort Belcher, and is approached by a very attractive shore drive of six or seven miles from Truro. All city folks coming hither to rusticate should not fail to visit the place, where a large quantity of the best produce that annually supplies their market grows.

In this connection, permit me to say a word about thorough-bred sheep. You are aware the Onslow Society imported some lambs of the Leicester, and a cross of that and the South Down breed, last Fall. I was fortunate in buying from the Society a ewe lamb of the cross breed, and received at the same time four Leicester ewe lambs from the same breeder in P. E. Island of whom the Society purchased. So far as I have heard these sheep have given the best satisfaction to their owners. Mine were tagged, and put in pasture early in the Spring. On being shorn, unwashed, the first of June, the cross turned off a fleece of 6½ lbs., and the Leicesters 6½, 6½, 6½ and 7½ lbs. respectively.

Yours respectfully,

J. L.

Miscellaneous.

ST. USTATIA GUANO.

We have now and again grievous complaints from our farmers of the difficulty of obtaining manure. Inland farmers say they have no mussel-mud, they have no kelp within reach, and many of them have no swamp muck. They feed hay and potatoes to their cattle, and yet they cannot make manure enough to sustain the fertility of their farms. In order to meet this great difficulty, the Board of Agriculture induced Mr. Stanford, some years ago, to establish a Bone Mill. But our farmers did not take to Bones, and there is so little demand for Ground Bones that Mr. Stanford has no encouragement to go on. He has the Mill in good order, and he has plenty of raw bones, and he is willing enough to grind them up; but the orders received are so very few, and so very small, and so very far between, that

he cannot afford to keep a stock on hand that may or may not be called for. Mr. J. A. Hughes proposes to give our farmers another chance of redeeming their worn-out farms. He intends to bring a ship-load of Guano to Halifax, early next spring, provided a desire for it is shown. The article we have seen, and think highly of. In the meantime we publish an analysis of it, and will recur to the subject again:—

Organic matter and ammonia.....	18.59
Oxide alumina and iron.....	14.68
Carbonate of Lime, soluble.....	1.20
Magnesia.....	3.28
Alkalies.....	1.17
Phosphates.....	9.00
Sulphates, Soda, &c.....	4.20
Moisture.....	6.00
Silica and Lime.....	33.88
	100.00

Compared with Peruvian Guano it is not as strong or forcing a manure, but more supporting to the plants through all the stages of growth. At the price named \$10, it should be a cheaper material to the planter or farmer than the Peruvian, and in some seasons it will answer better as it will sustain instead of burning up the young plants.

HOW TO MAKE PRODUCTION POPULAR.

It is an undoubted fact that farm life is unattractive, and is like a tread-mill. One must rise at light and toil into the night, and cannot have a dazzling prize to lure him on—and he must feel that a roaring world is busy all about him, and he is hid from the sight of it. He feels separated from the beating pulse of the world; and in our age when a railroad runs within easy range of every man, it goes hard to feel that the world is alive with new ideas and new schemes, and inventions, and discoveries, in which we can have no part.

This difficulty must be reached and obviated by bringing the world home to the fireside—I mean that production will become popular just when you make it as enlivening, thoughtful, and poetic as the work of the professions and city arts. Heretofore it has been supposed that a meagre knowledge of reading, writing, and the rudiments of Geography were sufficient for a farmer. When you lay it down that our farms must have their high school and the farmer his college training, you will make agriculture the most bewitching employment under the sun; you will make it what it was to Virgil and Horace, and what it is now to Greeley and Beecher, and what Buerbach in his Villa on the Rhine makes it to Sonnenkamp. Now the farmer walks ignorantly over thousands of beauties, of discoveries, of laws, of thoughts, of sources of wealth, and he

does not see them. With a thorough education he will recognize; for instance, many a man has tilled over a silver mine and not know it; he has walked over untold wealth and discoveries which he had no power to recognize. Give him now a knowledge of Chemistry, and he will understand the composition and nature of the soils that he works, and his brain will be alive with study and thought, while his hands plough.

He will know the nature and use of a mineral spring—what to do with a deposit of peat or marl. Indeed you have set him on a search, taught him to expect something, and you may be sure he will find something. Teach him Botany, open before him the organic world of plants, trees, and flowers. Every flower that is to another but as a grass spire, is to him a cup brimful of wisdom. Emerson sings, as he looks on the farmer's work,

One harvest from thy field
Homeward brought the oxen strong,
Another crop thine acres yield
Which I gather in a song."

There is no reason why the farmer should not be educated to see the beauty and the wisdom that receives his booted heel. Give him a thorough scholarship in horticulture, so that he can keep even pace with all improvements in varieties of fruits and vegetables, and try experiments himself in the origination of new varieties. It will bring his soul into quick thinking connection with such experimentors as Van Mons, Verschaffelt, Downing, Warder, President Wilder; it will lead him into sympathy and a comprehension of such princes of enquiry as Agassiz, and Tyndall, and Faraday. What matters it that he is on a farm? his very feet tread the volumes of nature, and these volumes are open books to him. He cannot go into his pasture, or his garden, or his orchard, but new truths meet him, and incite him. I do not know a pleasure much more exhilarating and healthy than that which comes from success in hybridizing, or by seedlings originating an improved fruit or flower. Last year I brought to bloom several seedlings of *Gladiolus*, one of them proved to be a variety hardly ever equalled. Do you know what pleasure, what a fresh draught of life that gave to me? I absorbed its life and beauty into my life, and felt for even that one flower my life had not been in vain. There are farmers who are every year by their experiments and scholarly zeal, proving themselves benefactors of their race. Take Dr. Kirtland of Cleveland, who started our Governor Wood and several others of the best cherries;—take Seth Boyden of Jersey City, who originated the Agriculturist, and more of the finest strawberries,—instance Boyers and Allan, Bary and Longworth, who, by patient care, have added much wealth to our list of grapes and pears. I think I should like to

have my name go round the world embodied in a strawberry, or labelled on a peach. No one who sucked the sweet juices but will breathe a blessing on me, and my immortality will be secured by the ever recurring spring, giving a new bloom to my cheek. That will be better than publishing a volume of priceless sermons, or being immortalized in Latin by two D's in capitals. Why, do you think farm life could have been dull, or production drudgery to Goodrich of Utica, who, after years of patient culture, gave us as the result, the Harrison, the Goodrich, the Garnet, the Cuzco, and the Gleason Potatoes? Such men are putting spurs to progress,—they are doing more than all gold miners to increase the material prosperity of the land, and they are doing only what every young man may do. The field is absolutely infinite. We need new apples and new pears still,—new strawberries and cherries. I prophesy that in ten years we shall have Quinces more soft and delicious and fragrant for eating than peaches,—berries that utterly supplant what we now use,—and such an advance in fruits and flowers as will make past progress seem to have been slow.

For one I hail the Agricultural Colleges with intense joy. I deprecate every attack upon them. Correct their errors, but give them every encouragement. Let us have rural schools of the first order of merit. It is not enough to educate our lawyers and ministers, educate also in the fullest sense your tillers. In England it is becoming quite common to educate the second son for a minister and the third for a professional agriculturist. That is it. Give us professional farmers; make farming as much and as truly a profession as law, and preaching, and healing.

Last fall, at our State Fair, one of the most interesting sights I saw, or have ever seen, was a collection of somewhere near a hundred varieties of potatoes, and some two or three score varieties of tomatoes from our State Agricultural College, each labeled, and all presided over by a young student, who was as well skilled in such roots as ever a classical student was in the roots of Latin and Greek. Now I do not care to eat tomatoes, but I can work very enthusiastic in raising them. Fejee, Early York, Tilden, Sim's Cluster, Cook's Favorite, Lester's Perfected. I like to know the origin, history, color, and solidity of each; just the shade of color, their prolific rank, and season of ripening. And really I esteem acquaintance with every new potato, from the old Western Red, at \$1.50 per barrel, to Early Rose at \$90, as much as my acquaintance with Cicero, Virgil, Sallust, and Homer.

Nor is there any reason why the farmer should not be taught astronomy. Thank God, one does not leave the stars behind when he leaves the city gas-light.

There is no reason why every farmer of moderate means should not have his small telescope mounted in an observatory on the roof, and with it take many a tour far wider and more useful than the tours of the wealthier tradesman. Whereas the one goes to buy dry goods, the other goes to buy truth; the one goes to the metropolitan towns of his native earth, the other visits the metropolitan worlds of space.

Let the idea be thoroughly adopted, that no one needs a more thorough education than the farmer, that he must have a thorough discipline of mind. Send him out into the fields to meet sciences, inventions, discoveries, art, poetry, and law, and you have utterly transformed him.—You have turned the drudge into the king; you have made him Lord of the soil. Now you rarely find a farmer who has skill or information that goes further than a well-covered mow, and a well-curried stall. His farm is only so many acres of pasture, and meadow, and woodland, out of which to get the heaviest crop and the best living.—*From the Gardeners' Monthly*,

FRUIT IN THE VICINITY OF MONTREAL.

The alluvial terraces surrounding the mountain in this part of the Province of Quebec have long been celebrated for the growth of fruit, especially apples, and in sheltered situations for pears and plums, while small fruits are grown successfully far north of Quebec city. Of the apples which succeed best in the vicinity of Montreal, I note the following in the order of their suitability, viz: Fameuse, St. Lawrence, Pomme-Gris, Alexander, Early Joe, Spanish Reinette, Autumn Strawberry, Duchesse d' Oldenburg, Red Astrachan, Bourassa, Dominic, Ribston Pippin, Blue Pearmain, Indian Rareripe, Lady Apple, American Golden Russet, Keswick Codlin, Early Harvest, Primate, and Tetoffsky; also, the Montreal Beauty, and Transcendent Crabs. All the above do well here if proper attention is given to pruning the trees after the leaves have begun to unfold in spring: some of them towards the end of my list, if pruned in winter (as is customary here) become affected with black or sap canker, which commences at the pruning, and spreads very often over the whole tree. This applies mostly to trees originated in warmer climates than ours, or rather where the winters are shorter.

The St. Lawrence apple originated in Montreal about fifty years ago, in the garden of the late Henry Schroden, from the seeds of some decayed apples thrown on a manure heap. Three others, seedlings of some merit (one of them a russet) originated from the same lot; but the St. Lawrence is the only one now in cultivation, and the original tree is still alive and healthy; or at any rate was a few years ago. I have given these few particulars, as the origin of the variety is not generally known. The first Northern Spy and Early Joe apples in this Province were fruited in my grounds from trees brought from Rochester, N. Y., over 22 years ago. Early Joe fruited at five years old, and has

borne regularly and profusely ever since, and is a perfect picture of health. Northern Spy fruited when fifteen years old, bearing a few apples that and the succeeding year, and then died root and branch. I have tried several trees of the same variety, with similar results. Both these varieties originated in the same orchard in New York, and both are of the finest quality; but I regret to say that Northern Spy will not succeed here, and we must look to you for our supplies of them, as they have already become the standard winter apple of this market. King of Tompkins County, Baldwin, English Golden Pippin, Detroit Red, Summer Rose, Early Strawberry, Maiden's Blush, Swaar, Gravenstein, Talman Sweet, Twenty Ounce, Hubbardston Nonsuch, and a number of English varieties, are not suited to this climate; while others, such as Esopus Spitzenburg and Fall Pippin, are hardy, but very poor bearers with us.

About four years ago a succession of cold rains in the latter end of May completely killed off the apple caterpillars, which for the last fifty years have been so destructive to the orchards here as to cause many to abandon the culture of the apple altogether. The riddance of this pest has greatly stimulated the planting of fruit trees, and there have been more orchards planted during the last three years than during the ten years previous. I note these facts because it is erroneously supposed here that the protecting of insectivorous birds during the last few years has caused the disappearance of the apple caterpillar. During a close observation of twenty-five years, I have never seen an insectivorous or any other bird that would touch an apple caterpillar, and my observations are confirmed by our oldest orchardists. I do not wish to undervalue the protection of birds, but I can positively affirm that our exemption from apple caterpillars is in no way connected with such protection.

This whole subject of insect devastation is one which must in future compel the serious attention of the horticulturist. The prevalent ignorance of entomology as practically applicable to horticulture, is deplorable. If the societies of the Dominion would apply themselves to study the conditions under which insect life prospers, they will inaugurate a new element of success in fruit culture, an element becoming every year of increased importance from the constant increase of our own minute but formidable enemies.

I may remark, however, that apple trees here, if we except the caterpillar, are exempt from many insect depredations, owing to the severity of the winters and the depth of the snow, as after a very mild winter insects here are much more numerous and troublesome.

The best time for planting fruit trees here is to take them up in the fall, heel them in for the winter, and plant out in the spring. The cold dry weather so prevalent at the commencement of winter is very destructive to fall-planted trees. If the holes where the trees are to be permanently planted are prepared in the fall, and the tree laid in the same by the heels and well covered, so that in the spring it would only have to be raised to an upright position, not more than one tree in a hundred would fail.

I have planted a great number of dwarf apple trees during the last twenty-five years. With rare exceptions they succeed for a few years only. They form an enormous protuber-

ance at the graft, and if the roots are not thrown out above the junction, the tree either dies or breaks off there. I have only one dwarf apple tree remaining (Autumn Strawberry), which is twenty-two years old, and a marvel of fruitfulness; but I know that it has rotted *above* the stock. Dwarf apples will never be a success here in a pecuniary point of view.

PEAR CULTURE.

As this is the most northern limit for the pear tree to be grown with success, I must trespass on your patience a little by stating a few of the circumstances under which pears were formerly grown here, as contrasted with the modes of cultivation generally practised at the present time, as they furnish some useful hints to those who may attempt the culture of the pear in the northern parts of the Dominion. The early French settlers planted in the vicinity of Montreal a great number of pear trees, of kinds that were common in Europe over a hundred years ago, such as summer Bon Chretien, White Doyenne, Capimont, Green Chisel, and a few early summer varieties. Many of these trees attained a great age, and grew to a large size. I have trees grafted from a Beurre Capimont, which was cut down a few years ago in this city, the wood of which was quite sound, and it was at least a hundred years old. I had these scions grafted on perfectly hardy wild pear stocks, and yet I have had the greatest difficulty in keeping these young trees from being winter-killed, in one of the most sheltered and favourable situations on the island of Montreal. Now, previous to the terrible winter of 1858-9, there were quite a number of these large pear trees about there, which bore large crops of fruit and were, for trees of such age, in a thrifty condition; and I find from personal examination and enquiry that most of these trees were never manured or had the ground cultivated about them; that they made a very small annual growth, which was in consequence well ripened at the end of our short hot summers; that this small growth had a tendency to make the tree fruit early, and this early fruiting would check the redundant growth of an unusually favourable season, and enable the tree to ripen its wood as usual. Such were some, at least, of the conditions under which these fine old trees grew and prospered. Let us consider for a moment the conditions under which pear trees are planted by the million at the present day, and which *grow*, but *don't* prosper.

In the first place, the nurseryman endeavours, by high manuring and cultivation, to have his trees fit for sale at two or at most three years from the bud, and his trees are as large as they ought to be at twice that age. These frothy half-ripened things are sent all over the country. The parties who buy them read up the subject of horticulture; they learn of the immense progress trees make with high culture and manuring, and they saturate their ground with rich stimulating manure. In a season or two the roots have got fully established, and a strong rapid growth follows, very delightful to look at, but which the succeeding winter will certainly destroy.

TURNING OVER THE GRAIN after it is thrashed, should never be neglected. No matter how dry it may appear, it will sweat if not turned occasionally. If it gets heated, turn it at once, and then run it through a fanning-mill.

DON'T SOW TOO EARLY.

A decision was rendered recently in one of the Philadelphia courts against a claim for damages made by Jacob Kessler, a market-gardener, who brought suit against Mr. Dreer, the well-known seedsman of Philadelphia, for having sold him Early York cabbage seed that "run to seed." The seedsman of the whole country are indebted to Mr. Dreer, and no doubt will tender him their hearty thanks, for the grit he showed in standing a suit rather than to compromise, as the chances were more than even against him, the sympathies of the jury being most likely to be with the complainant in such a case. The ventilation of such a matter is exceedingly instructive to those engaged in gardening operations, as was shown by the facts elicited on the trial, the gist of which was, that Mr. Kessler had sown the cabbage seed on the 5th of September instead of 15th, and that error, combined with an unusually mild and growing fall, practically lengthened the season, so that the cabbage plants became "annuals"—running to seed within the year of sowing—rather than *forming heads* and acting as "biennials," as was expected of them. Now, just here an excellent lesson comes in with another vegetable. Most of our so-called scientific gardeners are English, Scotch, Irish, or Germans; they come here, most of them, with a thorough contempt for our rougher style of doing things (a practical style born of our necessities in the higher cost of labor); and it is next to impossible to convince one in a dozen of them, that there is anything in horticultural matters here that he needs to be informed of. Accordingly, if he wishes to raise celery, he starts his seed in a hot-bed in February, just as he would have done in England, and is astonished to find in July that, instead of forming a thick and solid stalk, as it would have done there, it spindles and runs to seed. If his knowledge of the art had been based on common sense, instead of the blind routine practice attained in a colder climate, he would have known our season—from April 1st to July 1st—would sum up nearly the same mean of temperature here as it would there, from February 1st to July 1st; and hence it was not only unnecessary here, but dangerous to the welfare of the crop, to sow such biennial plants as celery in any other place than the open ground, and that not before April. It was just such an error that the market-gardener made who sued Mr. Dreer. He had been following likely in the English or German method, and paid the penalty not only of losing his crop, but losing his lawsuit, by not adapting his practice to our conditions of temperature. As the matter of sowing the seeds of cabbage, cauliflower, and lettuce to make plants to winter over in cold-frames, is

one in which there is a widespread interest, I may here state that the time of sowing in fall, in a country having such an area and difference of latitude as ours, is somewhat difficult to gauge; but taking the latitude of New York as a basis, the safest time we have found to sow is from the 10th to the 15th of September. Of late years we have inclined rather more to the latter date, and have even sown as late as the 30th September, with excellent success, in warm, well-sheltered positions, in a rich, well-prepared soil. In connection with this subject, I would refer to the evils arising from the two common practice of many of our agricultural and horticultural journals, selecting from English papers articles that often seriously mislead. For example, a Boston magazine not long ago copied a long article from the *English Journal of Horticulture*, telling us, in a very patronizing way, how to propagate the golden tricolor-leaved geraniums. The writer laid great stress on having a sharp knife, and cutting the slip in a particular manner, then to insert it in silver sand, and a lot of other nonsense, that any boy of six months' practice here would have known was absurd; but above all, the operation was to be performed in *July!* He might have got the sharpest knife that was ever made, and the purest silver sand that ever lay on the seashore, but he would have utterly failed in our climate, if he attempted the work in July. This is only one of scores of such absurd selections as we see yearly in some of our horticultural journals. If the conductors of such have not original matter to fill up with, better far that they leave their pages blank than to show their utter ignorance of what is suitable to our climate.

[The above is from the *American Agriculturist*, and from the pen of the celebrated market gardener Peter Henderson. We understand that during the present season some cases analogous to the one described have occurred in Nova Scotia. The only remark we wish to make at present on the above article, is, that while Mr. Henderson shows a needless antipathy to some "Boston Magazine" he at the same time exposes a little bit of ignorance of which no English gardener's apprentice could be guilty, in speaking of "silver sand" being found on the sea shore. The silver sand of English gardeners is quite a different substance from that known to poets, and one would have thought that Mr. Henderson knew something about it. Its efficacy in promoting the rooting of cuttings is such that without it many plants could not be propagated at all.—
ED. J. OF A.]

RECREATION.—After the harvest is all secured, go a fishing for a few days and take a little rest! A farmer needs it if any one does.

TALK WITH FARMERS.

MAPLE SUGAR MAKING.

The following little essay on maple sugar may not be of much interest to some of our backwood friends, but as all are not familiar with the sugar-bush, it is given for the benefit of the uninitiated. The farmer here referred to was a Lower Canadian, well versed in all matters that savour of "home production," rather than from the store.

"What sort of sugar season have you had near Penetanguishene?"

"Oh, fine; there has been a great deal of sugar made."

"Do you work at it yourself?"

"Yes, and that is why I want to get the sugar-bush. The land is bad; it is so stony that it cannot be ploughed, and there are good maples on it, and it will suit well for sugar-making."

"How do you make the sugar?"

"In the spring, as soon as the sap will run, we collect the sap by tapping the trees with the axe, and setting troughs, which we make out of basswood, to catch the sap; we also make buckets for the same purpose. We then rig our camp and kettles, and having got our wood together, and the shanty fixed, we get the team and go round to the trees and collect the sap, which is brought to the camp, and we then fill all the kettles. The sap is carefully strained through woollen cloths, and soon boils. We keep the fire down as soon as the sap boils, and as it boils away we fill up the kettles until the syrup gets pretty strong. We then put all the contents of the kettles into one, to come first into sugar, and fill the others with fresh sap. The one with the syrup is kept well off the fire; the others are made to boil as fast as they can, so that they do not boil over."

"How do you prevent the sap from burning and browning in the kettles?"

"We take care to keep the kettles pretty full, and then the fire does not make the sides of the kettles too hot; it does not burn or brown easily."

"Does it not boil over when it gets thick?"

"Oh, yes, it would; but we take care of that. Some hang up a bunch of twigs or brush over the kettle, with the points of the brush cut off square, and which go just inside the kettle. As soon as the sap boils up the twigs break the bubbles and it stops the boil."

"Is there any other way?"

"Yes; some take a piece of pork, and hang it by a string just so that when the bubbles rise they shall touch the pork; and as soon as they do this they break and go down owing to the fat. Others put a little bit of butter in the kettles, and that keeps down the bubbles; but both these plans make the sugar taste a

little, and for that reason the twigs are best."

"Do you ever use white of eggs, or anything else, to clear the sap?"

"Some do; but if the sap is kept clean and free from dust and other things there is no need of anything of the kind. Nothing makes the sugar so good as the pure, clean sap."

"How do you know when it is done?"

"We judge it by taking a little between the finger and thumb. When it is fit you can feel it, and it sticks in a particular manner. It may then be poured out into moulds, and it will become solid and can be stirred into loose sugar."

"What is the best part of the season, and in which you make the best sugar?"

"The beginning and middle of the season are best. Towards the end we make the sap mostly into molasses, as it does not 'sugar' so well."

"What kind of 'sugar work' do you like best?"

"I like the kettles set in arch best, the sap kettle being the one over the fire, and the sugaring-off kettle farthest off. I always use my potash kettle arch for this purpose, and make excellent sugar in that way."

"How many kettles make a complete work?"

"I like four kettles, and we can then boil down about fifty bushels of sap a day."

The idea of a 'bushel of sap' was new to me, so I asked for explanation as to how the bushel measure came to be applied to liquids.

"You see" (the answer was) "we make our pails to hold half a bushel each, and so we keep count."

"But your pails." I replied, "only hold two gallons each." (I had the common patent pail in mind, but that did not suit Lower Canadian ideas.)

"No," he said, "we make our pails to hold four gallons each, that is half a bushel."

"How do you collect the sap?"

"We use a sleigh with a barrel, and the horses."

"Don't you use cattle?"

"No; not much. It is dangerous for the cattle to get at the sap, which they will do if they can, and drink till they burst themselves. They will also get at the molasses, too, if they can, and a very little molasses will kill an ox."

"Well, but won't the horses drink the sap?"

"Yes, and they are very fond of it, but won't take enough to hurt them. They will always take a little drink every time they come to a trough, if they can; it does them good, and makes the winter coat all come off at once, and leaves them very sleek, with beautiful coats."

"How much sugar could you make in a season?"

"The last season I worked at it I made a thousand pounds weight; but it was very hard on the horses, as the trees were so wide apart, and I had so far to go, and I will never try them so hard again. They were overdone, and were injured for their spring work."

"Is your sugar always alike?"

"Yes, I always make it good."

The fact is that our Canadian farmers with their usual improvidence have so cut down our beautiful groves of maple that a good sugar-bush is now a rarity. Maple always grows on the best land, and makes the best firewood: so that what would be both a valuable source of income, and also of domestic economy, is sacrificed for the present need. Maples carefully tapped and properly taken care of will last for generations, and yield sugar every year; but they have been ruthlessly slaughtered in every direction, and the consequence is that a good sugar bush is a great rarity. Maples are now being planted in many places, and as they grow tolerably fast, and afford a beautiful shade, while they neither throw up suckers nor are in any other way a nuisance, we may yet hope to see these trees regularly planted round our fields and homesteads, and by the roadside. In soil that suits them the result would be shelter for the fields in winter, and the snow kept on the wheat, and thus winter-killing avoided, and in the summer good shade for our cattle, and for ourselves a picturesque beauty added to our landscape, which none begin to appreciate until after they have denuded the land of all trees, and have felt the inevitable effect of exposure in winter, want of shade in summer, and the drought which always attend the removal of forest trees from the soil. Many places in Spain are now uninhabitable by drought for want of timber, which formerly were well watered tracts.

ADVICE FROM NEW BRUNSWICK.—The Nova Scotia Board of Agriculture had a meeting recently, to make some preliminary arrangements for the importation of cattle, sheep and pigs, next fall. The present intention of the Board is to import from Ontario, as the stock obtained from there last year, and on previous occasions, have given entire satisfaction. We hope the Board will be successful in the future, but we think it would be more to the advantage of the country if a direct importation of sheep from the other side of the water was made. Our latest importations of sheep from Ontario have not been the most satisfactory."

The above is from the *Colonial Farmer*. Good sheep can perhaps be got cheaper in England than in Ontario or Quebec, but we have tried both plans, and have

found the Western sheep to give more satisfaction than those imported directly from England.—Ed. J. of A.

HINTS ABOUT WORK.

Haying and Harvesting are supposed to be the most important work for July. There is a sense, of course, in which this is true. But if those of our readers who keep a daily record of their farm operations will turn to them, they will find that gathering the crops constitutes, notwithstanding its traditional and real importance, a very small part of the actual work of the month. With mowers, reapers (we wish we could add binders), tedders, rakes, and unloading fooks, all run by horses, harvesting calls for the exercise of very different faculties than it did when the farmer, notwithstanding his many cares, found it necessary to lead the mowers and crakes in the hay and wheat field.

THE MOST IMPORTANT WORK OF THIS MONTH is doing those things which we are constantly tempted to neglect. Among these may be mentioned:

The cellar, drains, sinks, privy, etc., must be kept clean. Dry earth is the best and cheapest disinfectant. For sinks and drains, use copperas or chlorid of lime. The nights and mornings are frequently chilly. Make a little fire on the hearth, or in the stove. Go to bed early and get plenty of sleep.

KILLING WEEDS is one of the most important labors on the farm, at this season. None should be suffered to go to seed, if it can be avoided without too great expense. At any rate, not a weed should be suffered in corn, potatoes, and other hoed crops.

KILLING CORN, notwithstanding so much has been said against the practice, still has many advocates among intelligent farmers. In our own case, we throw up a little soil to the plants early in July, in hopes of smothering some of the small weeds in the hill. About the first of August we go over the field, and hoe out such weeds as have escaped, and the soil that has been thrown up can be hoed away without injury.

WOOD ASHES AS A FERTILIZER.—This is one of the most valuable fertilizers within the reach of the farmer. The unleached article has the more potash, but the leached is thought to be quite as valuable. In leaching they shrink a good deal, and lime is usually added, which increases their value. They are generally sold, too, at a less price. Ashes are well suited to all farm crops, and are very beneficial in the fruityard and orchard. Most farmers sell wood in the cities and villages, and rather than go home empty they should carry back ashes and other fertilizers, to replace the potash, lime and phosphoric acid that have been carried off in the crops and animals sold. Ashes show immediate effects from their application, and at the same time last long in the soil. They are very highly appreciated in the onion growing districts, but may be applied with equal advantage to ordinary farm crops. They should be kept as near the surface as possible, spread and harrowed into the seed bed or applied directly to the growing crops. Make a business of saving, buying and storing ashes during the winter for the next season's operations.—*American Agriculturist*.

Reports of Agri. Societies.

YARMOUTH COUNTY AGRICULTURAL SOCIETY.

FEBRUARY MEETING.

Quarterly Meeting. Minutes of last meeting read and approved. No *Journal of Agriculture* having been published since November, and no communication from Secretary of Board of Agriculture, the grant for 1870 is not yet determined.

Voted to dispose of seed on hand as follows:—Early Rose potatoes at \$1.00 per bushel, in any quantity, to any applicant. Russia Wheat and Seed Barley at cost, until season of sowing, when balance on hand will be disposed of at auction.

Voted to purchase a Stud-horse, if one can be got at from \$300 to \$500, also from 6 to 12 Southdown and Cotswold Lambs, wherever they can be best procured.

Voted to appropriate \$500 toward an Exhibition, to be held on the same date as last year, on Thursday, 5th October, details to be arranged on next quarterly meeting.

MAY QUARTERLY MEETING.

Quarterly Meeting. The President in the chair. Number of members to date, (41) forty-one; amount subscribed, (\$157.00) one hundred and fifty-seven dollars; cash on hand, exclusive of subscription list, \$417.49) four hundred and seventeen dollars and forty-nine cts.

Minutes of last Meeting read and approved. Provincial Grant for 1870, since received, (\$189.00) one hundred and eighty-nine dollars.

The Seed on hand having been duly advertized, about (11) eleven bushels of "Early Rose" Potatoes were sold at (\$1) one dollar per bushel; there was not a single applicant for either Wheat or Barley;—after the middle of April, the whole lot was advertised and sold at auction; "Early Rose" brought 65 to 85 cts. per bushel; Barley 90 to 95 cts., while the bulk of the Wheat, (12) twelve bushels, brought only 69 cts.; so much for the attempt to promote the growing of Wheat in the County.

In reference to the purchase of a Horse, Mr. Horace B. Porter having bought the Horse "Black Hawk" from the Hon. W. A. Henry, and the latter gentleman, in a letter to the Secretary, giving the Horse a high character, stating that he did not think the Society could do better even if they paid hundreds of dollars for a Horse, it was not thought necessary for the Society to buy one.

Voted that the Ayrshire Bull "Prin o of Wales," now in the keeping of Mr. Ansel Goudey, be offered at auction on the first Saturday in June, the purchaser to be a member of the Society and to give bonds to keep him three years.

Voted that the preparation of a Premium List for the Exhibition in October, be

left to the Secretary, with an amendment in the Class of Working Oxen, to include two more Sections, 5 years old and upwards, and 6 years old and upwards.

It is presumed from the interest taken in the Society last year, and from the success of the Exhibition, that there will be room for selection in the choice of Committees for the Exhibition at the next quarterly meeting in August.

CHARLES. E. BROWN, Sec'y.

SATURDAY, 3RD JUNE, 1871.

The Ayrshire Bull "Prince of Wales," having cost to this date nearly \$150, and having been duly advertised was offered to-day at public auction, by Messrs Wm. Law & Co., being a regular weekly auction day. There was a large assemblage of miscellaneous buyers but not many, apparently interested in live stock. The first bid was ten dollars, the next forty, and there was no trade, so "Prince of Wales" was knocked down to Charles E. Brown at forty dollars. A fine yearling grade Short Horn Bull, from "Western Prince," was offered at any advance on forty dollars, but withdrawn.

Our sales of stock are very discouraging. With the great improvements effected within the last few years, visible in the number of fine young stock growing up and demonstrating the value of pure blood, it is difficult to understand the backwardness of our well-to-do farmers in failing to engage more heartily in the improvement of their stock. There is no lack of demand for the grades, calves of three or four days old will sell at five to six dollars, forty dollars has been offered and refused for promising yearlings; and two or three years old Heifers bring from fifty to seventy-five. With more care breeding higher grades better prices will be obtained, and there will always be a market in the United States for surplus stock if good at higher prices than at home.

CHARLES E. BROWN, Sec'y.

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Rough Plate Glass

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Can be supplied as under:

In PLATES containing not above	s.	d.	
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4 "	0	7	
5 "	0	8	
6 "	0	8	
7 "	0	8	
8 "	0	9	
9 "	0	9	
10 "	0	9	
12 "	0	9	
15 "	0	9	
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A THOROUGH-BRED

BERKSHIRE BOAR,

16 months old. ALSO—Two do. do., about 8 weeks old. Apply to the FARMER at Ashbourne, Dutch Village. Halifax, July 1, 1871.

NEW AND IMPROVED

VEGETABLE SEEDS.

POTATOES.

King of the Earlys or Fifty Dollar Potato—The earliest, most prolific, and finest of all the American varieties. 133 lbs. raised from one. 25 cents lb.

Climax—For earliness and productiveness ranks with the very best ever sent out either by American or English growers. 12½ cents lb.

Breeze's Prolific—Tubers large, regular in shape; produces no seed balls; flesh white; cooks quickly; is very mealy and of excellent quality; yield exceeding one hundred fold; a most valuable variety for field culture. 12½ cents lb.

Early Rose—This standard variety has proved one of the best ever introduced. It has given satisfaction to all its earliness and productiveness being attested by all cultivators of note. 5 cents lb.

Garnet Chili—Early Whites and Russian Blues. So well known by all cultivators in this province, need no comment.

Champion Scarlet Runner—A gigantic variety. 50 cents quart.

Marblehead Mammoth Drumhead Cabl e—A large variety of Flat Dutch. 12½ cents. packet.

Improved Early Paris Cauliflower—12½ cts. packet. Sealey's Lecithan White Celery—The largest in cultivation. 12½ cts. packet.

Giant Rocca Tripoli Onion—A large variety, and better suited to this climate than Danvers' 12½ cts. packet.

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Mammoth Prize Squash—Grows to weigh 180 lbs. Trophy Tomato—The earliest and best red. 10 cts. packet.

Sutton's Ringleader Pea—Has proved itself the earliest stick pea grown. Height 3 feet. 30 cts. quart.

Saunders "Little Wonder" Pea—The best and most productive dwarf Pea known. Requires no sticks. Height 9 in. 25 cts. quart.

Carter's Imperial Suced and Mammoth Mangels. Carter's Mammoth Mangel Wurzel—40 cts. lb. Carter's Imperial Suede—40 cts. lb.

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FLOWER GARDEN, KITCHEN GARDEN, AND FIELD.

OUR stock of SEEDS, of the growth of 1870, is now complete, and comprises the finest assortment ever offered in Halifax. The last season having been very favorable for the ripening of Seeds, the quality of all kinds will be found excellent.

Farmers and Agricultural Societies will do well to examine our stock of TURNIP, CARROT and MANGEL-WURTZEL, Seed Oats, Seed Potatoes, TIMOTHY and CLOVER, all of which we offer at lowest market rates.

Dealers will be supplied on liberal terms, either by the pound, or in small packets for retailing. FLOWER SEEDS forwarded free by post to any part of the Dominion.

An Illustrated Descriptive Catalogue, containing much useful information as to the culture of Seeds and the management of the garden, may be had free on application.

AVERY, BROWN & CO., May, 1871. 8, 10 and 12 George Street.

Early Rose Potatoes.

20 BARRELS, in prime order. For sale by AVERY, BROWN & CO. May, 1871.

AGRICULTURAL BONE MILL

THIS MILL is now in full operation, and large quantities of Bones are offered for sale. The Mill is under supervision of the Board of Agriculture of Nova Scotia, and all Bones sold at the establishment are genuine.

PRICES.

Half inch Bone.....\$24.00 per ton. Finely-ground Bone..... 30.00 "

Delivered free of charge, on board the Cars at Richmond Depot.

Purchasers will save trouble by sending their own bngs, which, together with orders, may be left at Stanford's Leather Store, 26 Water Street.

JAMES STANFORD.

Halifax, N.S., June, 1868.

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Norway Oats, for Seed.

100 BUSHELS of the above Oats, celebrated for their prodigious yield. For sale very low.

—ALSO—

The new EXCELSIOR WHITE OATS, highly recommended, and greatly superior to the Norway. May, 1871. AVERY, BROWN & CO.

WANTED.

ANY person having a pure Ayrshire or Devon BULL for sale, will please communicate particulars, stating price, to the Secretary of the Merigomish Agricultural Society.

JOHN S. COPELAND, Secretary Merigomish Agri. Society, Pictou Co. May, 1871.

WANTED!

Any person having a Pure DEVON or DURHAM BULL for Sale, will please communicate particulars, stating price, to the Secretary of the Onslow Agricultural Society.

W.M. BLAIR, Sec'y O. A. Society. Jan'y, 1871.

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