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It is the intention of the Board of Agriculture to make an importation of Thorough Bred Stock this season. The animals will probably arrive in time to be sold during the half-yearly meeting of the Board in October. This years' importation will consist of about six Short-Horn Durham Bulls, two Ayrshire Bulls, two Devon Bulls, twenty White Chester Boars, and ten Sows of the same breed.

It was intended that a deputation from the Board should attend the forthcoming Fair at Fredericton, for the purpose of making purchases, but after due enquiry it appeared that there was no Stock likely to be offered there superior to that which we already have in Nova Scotia. It is therefore contemplated to purchase at the great Canadian Exhibition, to be held at Toronto, and from breeders of known repute in the Western Peninsula of Canada.

In accordance with a desire expressed by the Legislature, a portion of the Stock will be sent down to Cape Breton, and the Board will, if possible, make ar-

rangements for having them sold at Baddeck, as the most convenient and central part of that Island.

We understand that it is the intention of William Cunard, Esq., of Oaklands, in consequence of a contemplated temporary absence from the Province, to dispose of his celebrated herd of Alderneys. There will be at least thirteen Thorough-Bred Alderneys offered—Cows, Bulls, and young Stock. These animals, it is well known, have been selected with great care and at great expense, and are in excellent condition. No better Stock of the kind can be obtained, and we trust that they will not be allowed to go out of the Province. The sale will probably take place at the same time as that of the Stock imported by the Board of Agriculture.

We publish this month several additional Communications on the Weather and Crops throughout the Province.

The Hon. Alex. Macfarlane, President of the Board of Agriculture, re-

ports that the continuance of wet weather in Cumberland County during the haying season caused much loss, and this circumstance, together with the small crop of hay on the marshes will decrease the yield very much this season. In Europe the hay crop is so light that extensive importation from America is expected. The Emperor of the French, foreseeing a long Campaign, has had agents in Scotland buying up hay for the Cavalry and Artillery service, and it is stated in the newspapers that one contractor in Kentucky is to supply His Imperial Majesty's troops with sixty thousand tons.

There has likewise been wet weather during haying time in King's County, and it is said that the marshes there have been flooded. In Halifax County we have, on the contrary, had extremely dry weather, and hay was never secured in better condition.

The owners of valuable Horses, Thorough-bred Cattle, and other Domestic Animals, have long felt the want of a

professional Veterinary Surgeon in this Province. We are far from desiring to undervalue the services that have been rendered by those who for many years, in the absence of a regular Professional Man, have been at all times ready to give their advice and lend a helping hand when assistance was required. Nor do we desire in the slightest degree to reflect upon the merits of our city Farriers and country Blacksmiths, who, with rare exceptions, in their mechanical department of Horse Shoeing, give much satisfaction. But it is very unfair to expect that such men shall be able to understand Horse Maladies, Horse Medicines, and Horse Surgery. For a perfect knowledge of these, a long course of study is required, as well as practical training in Comparative Anatomy, Chemistry, Materia Medica and Operative Surgery. Hence the establishment of Veterinary Schools in Europe and America, where young men receive proper training, and are subjected to rigid examination as to their knowledge and ability, before they go out into the world to practice, so that the public who may intrust valuable animals to their professional care shall have a guarantee that they are qualified for the work they undertake. These schools have been of very great benefit in training a superior class of educated professional men to take the place of the "Horse Doctors" of the last generation, and nearly every large city in Europe and America will be found to have the name of at least one diplomaed Veterinary Surgeon in its Directory. Toronto has not only a professional Veterinarian but provision for training and licensing Veterinary Surgeons and instructing farmers' sons in the Physic and Surgery proper to Domestic Animals. But Halifax is not Toronto, nor Montreal, nor New York, and, although our citizens have a large amount of capital invested in horse flesh, and no lack of pride in matters of equipage, yet they have not become alive to the advantage of having at hand a professional adviser whom they could consult in cases of trouble, doubt, or difficulty. No doubt many a valuable horse that might be saved is lost, some from ignorant treatment, some from neglect, and some from timidity in applying requisite remedies.

Our city merchants, who know so well the value of property, and are in the daily habit of applying safe-guards of

manifold kinds to insure its safety and preserve them from loss, might be expected to recognize the necessity of proper care in the treatment of sick animals. But it is not so, and we therefore need not express any surprise, (however deep may be our regret) that the farmers in the country do not at present entertain that anxiety for advice in curing their farm animals which we know exists in other places. Whether animals are kept on a farm for the profit yielded by their growth and increase, as in the case of sheep and cows, or for the work they can accomplish, as in the case of the horse, it is essential that they should be maintained in as healthy a condition as possible, and losses avoided by speedy treatment when illness does take place. Happily we have not been subjected to the scourge of the great epidemics which have of late years, in Britain and other countries, made many a rich farmer a poor man. But vigilance is not less required on that account, and the best safeguard we could have would be the presence in our Province of a thoroughly accomplished Veterinarian.

#### THE NEW YORK STATE FAIR.

We have received the List of Premiums and Regulations for the Thirtieth Annual Fair, to be held in the City of Utica, September 27th to 30th. The Society discourages the overfeeding of animals for exhibition, and instructs the Judges accordingly. The annual prizes are offered for Cattle, Horses, Sheep, Swine, Poultry, &c. Amongst the prizes for Implements, we notice a Gold Medal offered for a Steam Engine or Apparatus that shall successfully introduce cultivation by steam, with apparatus for pulverizing the soil, at as cheap a rate as now practised upon the farm. Premiums are offered for the best Fields of Indian Corn, Wheat, Rye, Flax, Potatoes, and many other crops; also for the best cultivated farm, (\$100), and for Essays on Farm Book-keeping, Reclaiming Swamp Lands, Under-draining, Irrigation, Experiments on the Use of Plaster, and many other subjects. Special arrangements are detailed for receiving for exhibition Stock and Articles from the Dominion of Canada, under bond. The membership fee is one dollar. Entries must be made by letter addressed to Secretary of N. Y. State Agricultural Society, Albany, N. Y., on or before 31st August. There will be evening meetings for agricultural discussions during the Fair Week.

In Mr. Merrick's new book on the strawberry, he describes 850 distinct varieties.

One nursery firm in Ohio plant 150 bushels of chestnuts yearly for the raising of timber trees.

#### NOVA SCOTIA STOCK REGISTER.

##### MAJOR.—SHORT HORN BULL.

*The property of the Welsford Agricultural Society, West Cornwallis.*

MAJOR.—Roan, calved March 10, 1868; bred by Joseph Kirby, Esq., Milton, County of Halton, Ontario. Got by Duke of Marlboro', American H. B. 5587.

Dam, Mistake by Butterfly 2nd, C.H.B. 91.

g.d. Mountain Daisy by Garibaldi, C. H.B. 233.

g.g.d. Iris by Ethelbert, C.H.B. 234. A.H.B. 1516.

g.g.g.d. Wildame IV. by Duke of Wellington, C.H.B. 203. A.H.B. 55. Eng. H.B. 3655. Wildame Imported, by Anthony, E.H.B. 1640. Witch, by Magnet Junior, E.H.B. 2242, by a Grandson of Merlin, by a Son of Merlin, E.H.B. 6522.

Sold by the Raiser to William Roy, Esq., Kentville, Nova Scotia, and by him to the Welsford Agricultural Society, West Cornwallis, 24th May, 1870.

##### LADY LUCY THE SECOND:—SHORT HORN HEIFER.

Bred by Edwin Chase, Esq., Cornwallis, N. S. Calved 1st June, 1870. Got by Sir William, C.H.B. (bred by S. Beattie, Markham, Ontario).

Dam, Lady Lucy, raised at Lucyfield, N. S., by the Yeoman (Stone), whose sire was Twelfth Duke of Northumberland, 4744.

g.d. Beauty, by Kossuth, 618 or 1753 of vol. 3.

g.g.d. Snowdrop, by Durham, 1488.

g.g.g.d. Flora, by Wellington, 183.

g.g.g.g.d. Victoria, by Agricola, *alias* Sir Walter, (1614).

g.g.g.g.g.d. Beauty, by Snowball, (2647).

g.g.g.g.g.g.d. by Lawnsleeves, (365).

g.g.g.g.g.g.g.d. by Mr. Mason's Charles, (127.)

#### THE WHEAT WAR.

We (*Northern Farmer*) give below an opinion we find in *Harper's Weekly*, showing the efforts put forth in England to control the prices of grain in this country, and how it is managed:

It is said that the countries from which England obtains her supplies, are treated by Mr. Jackson as "appropriate contributors to English interests;" but yet his opinions are circulated far and wide, and are adopted by dealers in exporting communities as if they were uttered for their advantage. The object of these frequent publications is to produce a public opinion in England and elsewhere, so defined and general, that it will enable the English to procure wheat at their own rates. They are stimulated to this by a great necessity. The competition with the continent of Europe, in manufacturing

industry, is such that it is very important to keep labour down, but to do this they must have cheap bread.

On the score of humanity, no complaint would be made of this policy if it were pursued consistently with the interests of the grain producers of the United States; but as the latter have not been receiving a remunerative price for grain, it is not to be expected that this shall be continued. Every season we are confronted with a determined, general, and powerful interest, proceeding from the dealers of London and Liverpool, to press down this important interest.

As to the way in which it is to be done, the Weekly says: "The English employ their consular establishments to obtain precise information of the state of the crops in every wheat-growing country. This information is presented in London in a statistical form, with comparative tables embracing former years, so that at a glance the power of each State to export is ascertained. We have no such policy and no such information. The English also, from a necessity to import from eighty to one hundred million bushels of wheat, in addition to other articles of food, amounting in value, in the aggregate, to six hundred millions of dollars, spread their agents over the whole world, so that the knowledge may be minute and specific, of the quantity and value of the world's production. We have few advantages of this character. We cannot meet the systematic and effective course of dealing which is employed against us. At one time purchases of wheat are made at San Francisco and neglected in New York, and *vice versa*. Then both are left, and either the Black Sea, the Baltic or Egypt becomes the theatre of operations. The three or four hundred vessels which are constantly converging from the four quarters of the universe to England, are consigned by those who know and appreciate the views of H. Kains Jackson, and of the powerful interest which he represents and advances." Very little is done to counteract this; and it is said that it may be our abundant supplies have led us to neglect the means to make the most of them; but with the heavy burthen of taxation which the country bears, it must soon become necessary that we shall not waste our resources.

It seems that Mr. Jackson, as well as other British authorities, largely depends on the United States to furnish the wheat and flour needed before harvest, and this too, without present rates advancing. But in this he is evidently mistaken, as prices in Liverpool up to the latest cable reports are constantly advancing. But this no doubt is largely due to the dry weather on the continent, and the large demand for breadstuffs in France. There, too, all the questions of supply and de-

mand are closely watched, and as soon as it is evident that the next crop of wheat must be short, great efforts are made to lay in supplies of wheat and flour while prices are low.

The efforts of Mr. Jackson to keep down the price of wheat are in accordance with several cable reports from England furnished by commercial authorities. First it was reported that information collated from the agricultural papers indicated more than an average crop of wheat. Then in a short time we find that the "London Shipping and Mercantile Gazette" says that notwithstanding the despondent remarks of the agricultural press, wheat is progressing quite favorably and promises a fair average yield, but the prospects of other crops are discouraging." One of these commercial reports says spring grains will not be over half a crop; another despatch says "the alarm among English farmers from the continued dry weather; almost amounts to a panic." So it appears that these commercial authorities would have us believe that the drought and unfavorable season, that is so severe on other crops, will result in a good crop of wheat.

Now, is it not time that something more was done to counteract these great efforts to get our breadstuffs for less than their fair value? The Weekly shows that little can be expected from the Government, but still something may be done by the farmers. Let them see that more general and minute information in regard to wheat shall be furnished from all the wheat sections of the country. Let this information be sent to those papers that are most inclined to promote the farmers' whole interest. Then make it understood that in and through these papers, the best attainable information in regard to the growing crops, and the supply and demand, of wheat in all parts of the world are earnestly desired; and then see that the papers that will furnish the most and best information of this character—that will labor most effectively for the farmers' interest in this respect—have the largest possible circulation. This is very necessary, not only that the papers shall have the means to work most effectively, but that the information shall be furnished to the largest possible number of wheat growers. For the more generally and thoroughly understood this information can be rendered, the more effective it will be; hence it is for every wheat-grower's interest to have the papers that give it, widely circulated. For whenever the supply appears to be large, and prices are depressed—the more general the sales by farmers—the larger will be the stocks in the different markets and the lower the price; but the more generally farmers are induced to hold wheat, and only sell when prices are remunerative, the sooner will

this point be reached. So it is largely for the interest of all wheat-growers to have the very best information the most generally and widely understood.

Now here are two very important points for farmers to consider: One is, that for a series of years there is not the least danger of a surplus of wheat, but the larger supplies of favorable years are sure to be wanted when crops are less abundant. The other is that steam, the telegraph and the press, can be and are used with great effect by the commercial classes; and that the only practical means to counteract the efforts of these classes to obtain the products of the farmers' labors for less than half their value, is to collect the information there pointed out, and give it the widest possible circulation.

#### PRESENT CONDITION OF CROPS IN THE UNITED STATES.

Through the kindness of the Hon. Horace Capron, U. S. Commissioner of Agriculture, we have received his statistical Reports of Crops, up to 19th July.

In Wheat, twelve States show above an average crop, whilst nineteen States are below the average. It is remarkable that in the latter category we have the principal Wheat growing States of the Union, Illinois, Ohio, Michigan, Wisconsin, Iowa, California, Oregon, &c. The Commissioner of Agriculture remarks that the great wheat-growing districts all show a reduction in condition, rendering it certain that the crop of the year will be materially less than that of 1869. The estimated decrease in Wheat production for this year, is "at least" forty-eight millions of bushels.

The increase in the breadth of Indian Corn is greater than the decrease in Wheat, and the crop is above an average in every Western State, except Nebraska.

In Cotton there is an increase of nearly a million acres. "The people are devoting all their energies to the culture of cotton," and thus sacrificing food crops.

Oats are a full average in half the States, and the quality will be good.

Tobacco shows an increase in the South, but north of the Ohio it has been injured by drought.

The prospect for Apples is unusually good from Maine to Georgia. Peaches are less abundant, but Grapes promise remarkably well.

The Colorado "Potato Bug" is spreading over the Western States, and doing great damage to the crop. It has appeared also on the western boundary of Canada. Let us hope that the Canadians will intercept its progress and prevent its reaching the Maritime Provinces.

In Oregon the Daisies bloom all winter.

LABOUR-SAVING MACHINERY.

In our last number this subject was discussed by our correspondent "J.W.L.," whose suggestions are followed up, in the *Chignecto Post*, a Sackville, N. B., paper, by these remarks:—

"We have before us the July number of "The Nova Scotian Journal of Agriculture," published under the direction of the Board of Agriculture for Nova Scotia; and on examination we find it is almost entirely filled with Reports, on the state and prospects of this year's crops, from gentlemen residing in different parts of the Province, and containing a large amount of information, not only of immediate interest, but suggestive of what will be of permanent benefit to every farmer.

"One of the correspondents refers to the absence of any manufactories in Nova Scotia for agricultural labour-saving machinery, and points to the more advanced position which New Brunswick occupies in that particular. It certainly is most desirable that manufactories should be encouraged among us, and all the improved labour-saving appliances in use elsewhere should be introduced among our farmers. But this is a work of time, and until our mechanics can produce as good and as cheap an article as is imported, we need not expect our farmers to patronize them by buying an inferior article and paying a higher price for it. We know that the introduction, last year, of mowing machines, enabled the hay to be cut and taken out of the way on that portion of the marshes covered last October by the Saxby tidal flood, so that there was little lost compared with what would have been, had the scythe alone been used.

"We hear about forty-five mowing machines have been disposed of to parties in Sackville and the adjoining Parishes, at a cost of about \$3,600; and this large expenditure we believe very economic. Horse rakes, too, are very generally introduced, and the results of the use of the labour-saving machines are: hay better cured, and its increased value in the market, and the nutritious properties of the grass being preserved, its going further in wintering and improving stock."

BONE FERTILIZERS.

The Agricultural Department at Washington having been applied to of late by many of its correspondents to issue some general instructions by which farmers might manufacture their own manures, has prepared the following, accompanied by such remarks as would make the manipulation intelligible:

Bones are almost completely insoluble in water—practically so. When very finely divided, as in fine bone dust, a small

amount is dissolved by the water of the soil containing carbonic acid, but the quantity is small, and the time taken to do it is great. For the useful effects of bones, therefore, the farmer must dissolve them, and sulphuric acid is alone the most powerful and economical means for that end. It depends on the different form of bone which the farmer operates on as to how much acid will be required. The sulphuric acid used should be of considerable strength, and the farmer should ask for it of the specific gravity of 1.70 or marking 140° Twaddell. When the acid reaches the bones, the mass effervesces, boils up, and becomes warm, the sulphuric acid taking away two-thirds of the lime of the bone from the phosphoric acid, which remains united with the other third, forming a superphosphate, biphosphate or mono-calcic phosphate, which substance is perfectly soluble in water, and is called soluble phosphate, the sulphuric acid uniting with the lime forms a sulphate of lime, (gypsum, or plaster,) so that in every heap in which a superphosphate has been made, there is always an amount of sulphate of lime (plaster) formed, and the plaster forms the greater portion of the whole mass.

The bones which are used for making superphosphates by manufacturers, or which may be had by farmers, are found in the following conditions:—1. Bone dust or ground bone. 2. Boiled or steamed bones. 3. Bone ash of sugar refineries.

1. *Bone dust.*—Before the bones are crushed they are now generally boiled for the sake of the fat, which is sold to the soap boiler. It is of no value as a manurial agent, but is rather deleterious, coating the bone and protecting it from the action of the acid, and it would be advisable for the farmer when possible to boil the bones.

2. *Boiled or steamed bones.*—Bones are steamed for the purpose of removing gelatine or animal matter of the bone for the purpose of converting it into glue. The effect of steaming on bones is therefore to deprive it of some of its organic matter, but it must not be supposed that the whole of the organic matter is removed; a considerable quantity remains, and some ammonia can always be found in such bones when decomposing. A reference to the analysis shows that not more than five or six per cent. of organic matter has been extracted from the bone.

3. *Bone ash.*—If bones are burned in contact with the air, the greater part of the carbon is driven off with the other combustible parts of the bone. To avoid this result, which would render the ash worthless for the use of the sugar refiner, the bones are charred in heated iron cylinders, out of contact with the air, by which only a portion of the animal matter is burned off. A large amount of

finely-divided charcoal remains, mixed with the bone earth, giving the valuable properties to the bone ash. It has become a great deodorizer and antiseptic, and capable of condensing gases within its pores, by which means it retains both the ammonia and nitrogen of the soil and the manure. The black color of the bone ash is due to this charcoal.

		(Anderson.)		(Voelcker.)	
		Bone ash.	Steamed bone.	Bone dust.	Steamed bone.
Moisture.....		6.10	8.06	12.00	8.06
Organic matter.....		5.05	25.45	31.12	25.45
Phosphates of lime and magnesia, (bone earth).....		79.20	60.48	49.64	60.48
Carbonate of lime.....		4.05	3.25	4.80	3.25
Magnesia and alkaline salts, (chiefly common salt).....		1.15	4.43	1.91	4.43
Sand.....		5.45	2.33	.38	2.33
Total.....		100.00	100.00	100.00	100.00
* Containing nitrogen.....		1.84	1.84	3.60	1.84
Equal to ammonia.....		2.24	2.24	4.60	2.24

One hundred pounds of bones, ground, crushed, or dust, (not burned,) require forty pounds of sulphuric acid, (vitriol.) This quantity, if acting solely on the bone phosphate, would remove two-thirds of its lime; but, as there is always some carbonate of lime present, this is first acted on by the acid, and thus some of the phosphate escapes decomposition, and remains in the mass an insoluble phosphate; hence in the mass there are always three constituents, the amount of which it is desirable the farmer should know, viz: the soluble phosphate, (mono-calcic phosphate,) the insoluble phosphate of lime, (undissolved bone earth,) and the sulphate of lime. These are the three important substances in a super-dissolved by the potash of the wood ashes; this organic matter is in a soluble state, the bone earth is finely divided, and there are present the potash and other mineral salts of the wood ash, all of which make a most valuable fertilizer.

The South Carolina phosphates may be treated in a manner similar to bone ash of the refinery, with vitriol, but will not make so valuable a manure, because the amount of phosphate of lime present is not nearly so great as in bone ash; it rarely exceeds the quantity in bone dust, and has 10 to 20 per cent. useless matter

phosphate, for although ammonia may be potentially present if raw bones have been used, yet a superphosphate is not made or used for the sake of the ammonia; and when bone ash or burnt bone is used no ammonia is required.

If calcined bones, or the bone ash of the sugar-house, be the material used, every 100 pounds will require  $87\frac{1}{2}$  pounds of vitriol; when these have fully acted on each other the mass would give: superphosphate of lime, 26 pounds; gypsum, 66 pounds; sulphate of magnesia,  $1\frac{1}{2}$  pounds; of soda,  $2\frac{3}{4}$  pounds, and the balance of the  $187\frac{1}{2}$  pounds would be water and undissolved bone earth. If the farmer uses steamed bones, a quantity of vitriol intermediate between the two proportions named will be needed, say 66 pounds.

The usual mode of making the fertilizer is to select a good wooden floor of a barn, well covered overhead, or to make a box floor of thick plank, laid tight. On this first throw the bones. If not in dust, it would be well to sift the bones, and place the coarser part on this floor, putting the finer portion aside for mixing in afterwards. By this means the rough bone will come in contact with the strong acid first and be more effectually divided, while the finer parts can then be added to dry up.

No metal (except lead) should be used on the floor, or where the acid can reach. Water equal to one-fourth or one-sixth the weight of bone is then to be poured on the bone, well stirred in with a spade, and left for two or three days to heat and ferment; it would be well to use the water boiling. Then add the sulphuric acid, mixing well with a wooden spade or board; the mass effervesces, or boils; stir twice a day well for two days, so as to turn the whole mass over; let it stand for two or three days to dry; add the fine bone and mix well. If not dry, use some absorbing substance, as saw-dust, dry peat, or dry earth, in small quantities, and mix well. *Do not use for this purpose lime, ashes, or marl, as they would destroy the superphosphate and spoil the whole work.* Made in this way from bone ash, this fertilizer will yield 30 per cent. of soluble salts, of which 26 per cent. is superphosphate of lime. The manufacturer will say that there is 35 to 37 per cent. of superphosphate present, but he always over-estimates; indeed 50 per cent. of soluble superphosphates is more than any farmer wants; it is too soluble, and will pass out of his ground too soon, especially in wet weather; 12 to 15 per cent. is a better proportion for the farmer, for then he has a proportionally larger amount of insoluble bone phosphate in store for future use in the soil. On this account it is better for the farmer to use raw or steamed bones than bone ash; he has a sufficient, though a

smaller, quantity of superphosphate present.

This fertilizer will not suffer from exposure to air, but it must be protected from rain or wet; it ought to be barreled up when not used immediately. This fertilizer, made as directed, will be of a whitish color if made from raw or steamed bone, and gray black if made from bone-black of the refinery; but the color of a superphosphate is of no consequence, and no test of its quality; neither is its smell; it ought to have no smell, or a faint acid odor, if any. One ton of a manure made by the farmer as directed is worth two purchased in the market.

A good manure may be made from bones without forming a superphosphate, by dissolving the animal matter of the bone by means of alkaline leys, and thus freeing the bone earth, which is then in excessively fine particles fit to be dissolved in the waters in the soil. Many recipes have been given for this. Dr. Nichols, in his Boston Journal of Chemistry, (February, 1869,) gives the following, which he recommends: Take a barrel of fine-ground bone and a barrel of good wood ashes; mix well together and add three pailfuls of water; mix the whole intimately, stirring daily; the mass will be fit for use in a week. This is a good manure for corn, a gill being used to the hill. In this fertilizer there is, as stated, no superphosphate found; the bone earth is merely separated from the hard gelatine or animal matter, which is present. Carolina phosphates at \$30 a ton will not make a richer fertilizer than raw bone at \$45 a ton.—*T. A., in U. S. Commissioner's Report.*

#### ENGLISH CROPS.

The following, relative to the crops of England, is an abstract from a letter dated June 20, written by Geo. J. Abbott, Esq., United States Consul at Sheffield, England:

A severe drought has prevailed throughout England, and more especially in the northern counties, for three months past. This drought has also extended to France, as you will see by the printed slips annexed to this letter.

The hay crop will be a very small one in this part of England. They are already commencing mowing, but the crop is light and hay has already advanced, and it is advancing in price. The cattle have been turned out in many grass fields before mowing, the pastures no longer affording them food.

The wheat crop, I think, has also been much injured by the drought, and wheat has advanced in price.

The probability is that there will be a great demand both for wheat and hay from the United States. Two years ago, in 1868, when a severe drought parched

the fields and injured the hay crop, there was commencing a large importation of hay from the United States, but when the newspapers reported that the foot and mouth disease had broken out among the cattle from Texas, an order in council was issued imposing so many restrictions upon the importation of hay that it broke up the trade.

I suggested to Mr. Johnson, who then represented the United States in London, to represent to Lord Stanley, who was then at the head of the Foreign Office, that the hay which was at that time coming to England from the United States, was imported almost entirely from the New England States and New York, and that the cattle affected with the disease, which was alleged to be prevailing, were more than a thousand miles away from the hay fields of those States, and that not one of them had ever set foot within them, so that there was no danger whatever of the introduction of the disease into Great Britain through the hay which was then imported. The order in council was subsequently modified, but not until considerable time had elapsed.

#### Communications.

PICTOU, July 23rd, 1870.

We had a special meeting of our Society yesterday, and I have much pleasure in stating that a very favourable report was made in reference to the Agricultural prospects of the County generally; that, notwithstanding the drought in the early part of the season, which at one time threatened seriously to affect the grass, the hay will turn a good average crop. Grain and root crops of all kinds look exceedingly well; and the County has seldom exhibited a finer appearance at this season of the year.

DAVID MATHESON,  
Pres't. P. A. Society.

#### WINTER WHEAT IN COLCHESTER.

TRURO, Aug. 6th, 1870.

You have enclosed a sample of White Bald Winter Wheat, sown 13th Sept. last, and which I am now harvesting. The seed sown was 112 pounds on an acre of land. When thrashed, will send memo. of result to *Journal*.

J. LONGWORTH.

[The heads are of good size and well filled, and the grains look as if they would give a fine sample. We shall be glad to receive farther particulars. In view of the remarkable decrease in Wheat Culture in the adjoining Republic, it is very desirable that our farmers should give more attention to this important crop. ED. J. A.]

NoEL, July 29th, 1870.

We had never a better season for putting our seed in the ground. We proceeded from first to last without losing a day by rain. Our hay crop will be considerably in decrease of that of last year—say one-third. Potatoes early planted, in some instances, rotted; later planted ones make a good appearance. Considerable more Wheat has been sown than for a number of years. Some sown in April and June looks remarkably well. Barley is making a splendid appearance. Indeed, all green crops are very promising at present. Fruit will be short of average.

ROBERT FAULKNER,

Sec'y. of Noel and Maitland Agricultural Society.

### PIGS.

SIR,—Every farmer keeps a pig, but I do not recollect ever hearing how much manure any farmer made from his pigs. Many keep their pigs as a kind of watchdog or ornament to their front door—possibly as a companion to the geese that occupy the high road; and even when he is temporarily absent on a cruise, traces of his presence remain in the rooted-up land about the house and highway; but the nuisance of this is recognised by most, and, as a step in advance, the pig has a covered place in which to sleep, and an enclosed yard in which to take the air. My farm is an upland farm; manure must be made, or the farm would not maintain itself, and the pigs are a great assistance. My pig-pens are about six feet square. To each of them a yard of the same size is attached, under the same roof, but open to the air. These yards have been excavated to a depth of about 30 inches, giving room for about six large loads of earth in each. The pig is naturally a clean animal and rarely fouls his bed. Giving him straw inside, he goes into the yard to void his dung. He spends part of his time rooting amongst the earth, tearing up the sods, &c., and, in so doing, thoroughly mixes his dung with the earth. A fair-sized pig will thus work up a load of earth every week into strong manure; and the earth supplied constantly fresh keeps the pig healthy. As my pigs are largely fed on house and garden refuse, I thus obtain a large supply of excellent manure from a source that on most farms is entirely neglected. In addition, I throw into the yard all garden and road weeds, sods from ditch clearings, &c., thus helping to feed the pigs and getting the weeds thoroughly destroyed.

But there are other profits from pigs that have been entirely ignored here—their bristles and skins. Brushes are made from pigs' bristles, saddles from

their skins. Pigs' bristles to the declared value of \$1,020 were imported during the past year. We ought, instead, to have exported over \$5,000 worth. Probably few people are aware that a brush factory is in full operation in Halifax; yet Mr. Tyler, the enterprising proprietor, showed a very creditable assortment of brushes at our Exhibition in 1868, and he is desirous of purchasing his materials in the home market, instead of importing from Russia. The bristles of our pigs are quite fit for the purpose. Those only from the back are suitable for brushes, and at present no demand exists for the hair from the sides; but I have communicated with dealers in hair, and am led to believe that very shortly a profitable market for the sale of this hair, too, may be opened up.

The last census gives us nearly 38,000 farmers in the Province. It is a fair calculation that every farmer kills at least one pig annually. Each pig will give about one-third of a pound of bristles; these properly dried are worth at least 50 cents per lb. Thus, through neglect of this trifle, over \$6,000, which should go into the farmers' pockets, is either sent out of the Province or altogether lost.

In a future number I hope to furnish full particulars of the proper way to treat the bristles, both in removing and drying them, and hope also to be able to speak more decidedly about the value of the side hair. Pork, whether in carcase or in barrel, is always sold with the skin on, as there was a belief—now exploded—that it was the only means of detecting measly pork. Customers, however, still cling to this notion; and, if we want to sell, we must humour the buyer. But with those of us who kill for our own use it is different: the skin so used is wasted. In the barrel, it simply absorbs pickle and takes up room, and when cooked, the rind is cut off and thrown away. Why should the carcase not be skinned like that of any other animal at the time of killing? The pig-skin is far too valuable to be thus wasted. When dressed, a fair-sized pig-skin is worth from two to five dollars. A practical tanner would be able to pronounce better on this point, but I believe that it would be necessary to tan pig-skin with oak-bark, instead of hemlock. Horse-hide tanned with hemlock is comparatively valueless; tanned with oak-bark it is so strong and durable that it is cut into strips for lacing machinery belting in preference to any other kind of leather.

My pig, like the White Chester, has grown to an unreasonable size. In Ireland "the pig pays the rent;" and I believe he would often pay the store bill here, if all was made use of him that could be got. I call him "the farmers' friend."

Obd't. yours, J. W. L.

Oakfield, Aug. 9th, 1870.

MIDDLE RIVER, July 28th, 1870.

Your note of the 5th ult. was duly received, but my absence from home prevented me from replying sooner.

As regards the state of the crops in this district, I am happy to say that, notwithstanding the unusual drought of the months of May and June, the abundant rain in the early part of July has so revived the crops, that, judging from present appearance, the yield in this district will be an average one. Wheat, oats, barley, and buckwheat, never looked better at this season of the year. The potatoes are all in full bloom, and if the disease keeps away, the yield will be a very profitable one.

Before closing this note, I may state that our Agricultural Society here imported from Halifax last season a large quantity of seeds, among which were a quantity of the Ramsdell's Norway Oats; and, judging from its appearance now, the yield will be enormous. I have succeeded in getting thirty ounces of it for my share, and I think I can safely calculate upon five bushels in return. I have sowed it where I had a crop of potatoes last year,—the soil being alluvial and light, somewhat sandy. I gave it a light coat of dry wood-ashes; and now, to look at it as it shoots out in head, it has a healthy appearance.

Our Society is in good standing, and every thing works harmoniously among its members. We have this summer imported two mowing machines, in addition to the one imported last year.

JOHN McLENNAN.

### LETTER FROM T. H. RAND, ESQ.

The following, although intended as a private note, will be perused with interest by many of our readers. Mr. Rand, while Superintendent of Education, was a Member of the Board of Agriculture, and took a warm interest in its proceedings. It will be seen that although the object of his European tour is Educational, yet he does not neglect the Agricultural interest:—

CORK, July 28th, 1870.

Allow me to thank you for your kind letters of introduction, which I received all right before leaving Halifax. We had a pleasant trip across, and landed at Queenstown on Sunday, 1.35 A. M.

Among sights of interest I visited the Agricultural Show of the County of Cork, held in Cork on the 27th inst. I forward lists of entries of the Show, thinking they may be of some service to you. The Short Horns were fine—far finer than anything I had ever seen before. So were the Sheep, one of which was estimated to weigh over 300 lbs.

From here, I go to Killarney via Glengairiff and Bantry, thence to Dublin, With kind regards, &c.  
T. H. RAND.

SYDNEY, C. B., July 21st, 1870.

In reply to your letter dated 5th inst., I have much pleasure in stating that the crops in the County of Cape Breton look remarkably well at present.

In the early part of summer the drought was very great, and it was feared by many that there would be a ruinous failure in the potato crop, and even greater in that of hay. Copious rains falling in heavy showers, at intervals of a few days, for the last month, have cheered the hearts of our farmers, and given a great start to all description of crops; and if we be favoured for the next month as we have been in the last, a full average crop may be confidently expected.

I have travelled much in Cape Breton during the past six weeks, and my own personal observations, as well as the information received from others, enable me to anticipate a bountiful harvest.

JOHN FERGUSSON.

THE YARMOUTH EXHIBITION.

YARMOUTH, 13th August, 1870.

Sale of Stock concluded this afternoon, the prices realized were much less than the Stock should have brought, the conditions of the sale prohibiting open competition, and the obligation to keep all, old and young, for two years, militating against high prices.

With judicious management, the County should be well stocked with pure bred Chester White Pigs, from this importation, and with the record of cost of importing from Pennsylvania, those desirous of procuring this breed may judge of the preference to be given to those bred in the Province.

We have made all necessary preliminary arrangements for our Exhibition in October. Premium lists will be mailed to any address, on application either to Charles E. Brown, Secretary, or to Benj. Killam, Jr., Chairman Managing Committee. We shall hope to have entries from the Shore Counties at all events, the steamer *M. A. Starr* affording weekly means of transit, and some contributions of articles of small bulk, such as fruit, butter, cheese, &c., from Annapolis, Hants and Kings, while if stock could be got here from the Eastern Counties, and sold after the Exhibition, the prices it would bring would amply repay all expenses. The rates published in the May Journal, obtained for stock in Antigonish in 1869, do not average one-half the prices obtained here for cattle, indeed, whatever could be sent here for Exhibition, with the intention to sell afterwards, either at auction or at private sale, would

probably sell better than in any market in the Province.

The weather continues very favorable for the growing crops; hay mostly secured in better condition than for many years; potatoes a large crop, of good quality, and matured before the blight affected them; grain, corn, beans, squash, &c, growing finely under the unusual heat. There is so little fruit grown in the County that one seldom hears any remarks upon it. I have a few apples of "Grimes' Golden Pippin," or a graft of 1867, which I am watching with much interest, hoping the variety will succeed here.

CHARLES E. BROWN,  
Sec. Yar. Co. Ag. Society.

COLCHESTER COUNTY AGRICULTURAL EXHIBITION.

OPEN TO THE WHOLE PROVINCE.

Wednesday, 29th September, 1870.

PREMIUM LIST.

	1st	2nd
Best stallion of any age or breed	\$4 00	\$3 00
" Brood mare and colt	4 00	3 00
" Pair of draft horses	5 00	3 00
" Single draft	3 00	2 00
" Carriage horse	3 00	2 00
" Saddle horse	3 00	2 00
" Colt, 3 years old	3 00	2 00
" Colt, 2 years old	3 00	2 00
" Colt, 1 year old	3 00	2 00
" Sucking colt	2 00	1 00

THOROUGH-BRED CATTLE.

Best Durham bull, 2 years old and upwards	\$3 00	
" under 2 years	2 00	
" Ayrshire bull, 2 years old and upwards	3 00	
" under 2 years	2 00	
" Alderney bull, 2 years old and over	3 00	
" under 2 years	2 00	

GRADE CATTLE.

	1st	2nd
Best bull, 3 years old and over	\$3 00	\$2 00
" Bull, 2 years old and over	3 00	2 00
" Bull, 1 year old and over	3 00	2 00
" Bull calf	2 00	1 00
" Milch cow	4 00	3 00
" do 3rd best	2 00	
" Heifer, 2 years old	3 00	2 00
" Heifer, 1 year old	3 00	2 00
" Heifer calf	2 00	1 00
" Fat cow	3 00	2 00
" Pair fat oxen	5 00	3 00
" Pair working oxen	4 00	3 00
" Pair 3 year old steers	3 00	2 00
" Pair 2 year old steers	3 00	2 00
" Pair 1 year old steers	3 00	1 00
" Pair steer calves	2 00	2 00

SHEEP.

	1st	2nd
Best ram, any age or breed	\$2 00	\$1 00
" Pen of 4 ewes	2 00	1 00
" Pen of 4 ewe lambs	2 00	1 00
" Ram lamb	2 00	1 00

SWINE.

Pure Bred Chester White.

	1st	2nd
Best boar of any age	\$2 00	\$1 00
" Spring pig	2 00	1 00
" Sow of any age	2 00	1 00
" Litter of sucking pigs	2 00	1 00
" Boar of any other breed	2 00	1 00
" Sow of any other breed	2 00	1 00
" Spring pig of any other breed	2 00	1 00
" Fat hog of any other breed	2 00	1 00
" Litter of sucking pigs, any other breed	2 00	1 00

GRAINS AND SEEDS.

	1st	2nd
Best bushel wheat	\$1 50	\$1 00
" Bushel barley	1 50	1 00
" Bushel rye	1 50	1 00
" Bushel oats	1 50	1 00
" Bushel peas	1 50	1 00
" Half bushel beans	1 50	1 00
" Dozen ears corn	1 00	0 50
" Bushel timothy seed	1 50	1 00
" Bushel red clover seed	1 50	1 00
" 5 lbs. turnip seed	1 00	0 50
" 5 lbs. mangold wurtzel seed	1 00	0 50
" 5 lbs. beet seed	1 00	0 50
" Peck of Flax	1 00	0 50
" Peck of Hemp	1 00	0 50

ROOTS AND VEGETABLES.

	1st	2nd
Best bushel early rose potatoes	\$1 00	\$0 50
" Bushel table potatoes	1 00	0 50
" Bushel potatoes for stock	1 00	0 50
" Collection potatoes, 1 doz each kind	1 00	0 50
" Bushel carrots	1 00	0 50
" Bushel turnips	1 00	0 50
" Bushel mangold wurtzel	1 00	0 50
" Bushel beets	1 00	0 50
" Bushel parsnips	1 00	0 50
" Half bushel onions	1 00	0 50
" 6 heads cabbage	0 50	0 25
" 6 heads cauliflower	0 50	0 25
" 2 squashes	0 50	0 25
" 2 pumpkins	0 50	0 25
" 6 heads celery	0 50	0 25
" Bouquet flowers	1 00	0 50
" Collection roots, exclusive of potatoes, 6 each variety	1 00	0 75

FRUIT, ETC.

	1st	2nd
Best collection apples, 12 each kind	\$2 00	\$1 50
3rd best collection, do	1 00	
Best dozen apples any variety	1 00	0 50
" Dozen pe. rs.	1 00	0 50
" Half peck plums	1 00	0 50
" Crock or tub butter, not less than 20 lbs.	2 00	1 00
" 5 lbs. butter in rolls or print	1 00	0 50
" Cheese, not less than 15 lbs	1 00	0 50
" Half barrel salmon	3 00	2 00
" Half barrel shad	2 00	1 00

DOMESTIC MANUFACTURES.

	1st	2nd
Best 10 yards all wool full and dress'd cloth, hand loom	\$2 00	\$1 00
" 10 yards all wool (sheep's) grey twilled homespun	2 00	1 00
" 10 yards cotton and wool twilled grey homespun	2 00	1 00
" 10 yards all wool, women's wear, hand loom, any color	2 00	1 00
" 10 yards all wool flannel, plain	2 00	2 00
" 10 yards all wool flannel twilled	2 00	1 00
" 10 yds cotton & wool flannel, plain	1 50	1 00
" 10 yds cotton & wool flannel, twill'd	1 50	1 00
" 6 pairs men's socks	1 00	0 50
" 6 pairs women's hose	1 00	0 50
" 6 pairs men's mits	1 00	0 50
" 2 lbs knitting yarn	1 00	0 50
" 2 lbs 3 or 4 ply yarn	1 00	0 50
" Shawl	2 00	1 00
" Men's plaid	2 00	1 00
" 10 yards flax sheeting	2 00	1 00
" 10 yards flax towelling	2 00	1 00
" Sample flax thread	1 00	0 50
" Sample dressed flax	1 00	0 50
" Sample dressed hemp	1 00	0 50
" Variety of straw goods	2 00	1 00
" Straw bonnet or hat (ladies)	1 00	0 50
" Straw hat (man's or boy's)	1 00	0 50
" 16 yards all wool carpeting	4 00	2 00
" 16 yards rag carpeting	3 00	2 00
" Woollen yarn hearthrug	1 00	0 50
" Rag mat	1 00	0 50

FARMING IMPLEMENTS, ETC.

	1st	2nd
Best plough	\$2 00	
" Harrow	2 00	
" Cultivator	2 00	
" Roller	2 00	
" Ox yoke	1 00	
" 3 dyke spades	2 00	
" Set tools for tile draining	2 00	
" 3 potato forks	2 00	
" Hand churn	1 00	
" Sofa	3 00	
" Lounge or couch	2 00	



Best Half dozen chairs.....	2 00	
" Washing machine.....	2 00	
" Bedstead.....	2 00	
" Dining table.....	2 00	
" Double set carriage harness.....	3 00	2 00
" Single set carriage harness.....	3 00	2 00
" Set double team harness.....	3 00	2 00
" Truck harness.....	2 00	1 00
" Saddle and bridle.....	2 00	1 00
" Leather trunk.....	2 00	1 00
" Wood and leather trunk.....	2 00	1 00
" 2 sides sole leather.....	2 00	1 00
" 2 sides upper leather.....	2 00	1 00
" 2 sides harness leather.....	2 00	1 00
" 6 calf skins.....	2 00	1 00
" Buggy.....	4 00	2 00
" Open wagon.....	4 00	2 00
" Express wagon.....	3 00	2 00
" Hay wagon.....	3 00	2 00
" Box cart.....	2 00	2 00
" Double sleigh.....	3 00	2 00
" Single sleigh.....	3 00	2 00
" Pair bob-sleds.....	2 00	1 00
" Grindstone.....	3 00	2 00
" Collection of felt hats.....	2 00	
" Collection of stoves.....	4 00	
" Collection of lasts.....	2 00	
" Collection of pegs.....	1 00	
" Pair men's boots, pegged.....	2 00	1 00
" Pair men's calf boots, sewed.....	2 00	1 00
" Pair men's Congress boots, sewed.....	2 00	1 00
" Pair men's calf boots, pegged.....	2 00	1 00
" Pair men's congress boots, pegged.....	2 00	1 00
" Ladies' leather boots, pegged.....	2 00	1 00
" Ladies' leather boots, sewed.....	2 00	1 00
" 6 p's misses' and child's do sewed.....	2 00	1 00
" 6 p's misses' and child's do pegged.....	2 00	1 00
" 6 p's misses' and child's serge boots.....	2 00	1 00

Truro, May 12th, 1870.

**THE ANNAPOLIS EXHIBITION.**

The Annapolis Agricultural Society will hold an Exhibition on Thursday, the 13th of October next, at the Court House in Annapolis. Admission to non-members, 12½ cents. The premium list embraces numerous prizes for Cattle, Sheep, Horses, Swine, Apples, Tomatoes, Roots and Vegetables.

**Conditions.**—1. All the Stock offered for competition must be bona fide the property of the exhibitor, and owned for a period of one month previous to the time of being exhibited. All animals must be furnished with halters.

2. All articles exhibited must be raised or produced by the members exhibiting them, and also be the growth of the present year.

3. An entrance fee of twenty-five cents (25c.) will be charged each member on animals exhibited.

4. Everything enumerated in the Prize List should be on the ground by ten o'clock on the morning of exhibition.

5. Entries on articles for exhibition must be made previous to the 10th of October, in order that the committee of arrangement may know before hand what preparations are required.

6. The Society will dine at five o'clock. Premiums announced at four o'clock.

7. No articles to be removed till after three o'clock, P. M.

GEORGE WHITMAN, *President.*  
GEORGE WELLS, *Secretary.*

ANNAPOLIS,  
July 9th, 1870. }

**Miscellaneous.**

**THE RECLAMATION OF SALT MARSHES.**

Mr. S. N. Pike, who is engaged in reclaiming salt marshes in Hudson County, New Jersey, in a recent note to the Department of Agriculture, Washington, states that 4,000 acres are nearly drained and reclaimed. About 500 acres are now plowed, of which 200 acres are under cultivation this season. The experimental crops last year, consisting of tobacco, corn, oats, cabbage, potatoes, and several varieties of garden produce, proved entirely successful, and fully assured the opinion he had originally formed respecting the fertility and productiveness of these lands. The plan which Mr. Pike has thus far carried out, includes the construction of substantial dikes or banks to protect the land from tidal overflow and percolation, a thorough system of drainage, to relieve the land in the first instance of the standing water, and subsequently of any excess of rain-fall, together with permanent self-acting sluices, which discharge at low tide. The first breaking up is accomplished with difficulty; yet, in one season, by natural action of the atmosphere, sun, rain, frost, and the equally potent influence of the plow, the whole body of the land will be changed to a rich permeable soil open to the highest cultivation.

**THE CUCUMBER BUG.**

The Cucumber Bug has appeared in Annapolis, and we have an application for a remedy from a correspondent there. We therefore transcribe the following from the *Colonial Farmer*. His Bug-ship has not yet visited Halifax County:

"I send you an item, if you think it worth publishing, which effectually protected my melon, squash, cucumber, and other vines from that destructive pest, the 'striped or cucumber bug,' the past season, with only one application, viz.: a strong solution of hen-house manure—say one peck of the manure to one and a half gallons water; let it stand twenty-four hours, and sprinkle the plants freely with it after sunset. The above was suggested to me by a negro woman living on my place, who has some experience in gardening, and says she used it for years, and has never known the first application to fail to drive them off, and they never return."

**DEVON BULL WANTED!**

Any person having A PURE DEVON BULL, not under 2 year old, for sale, will please communicate particulars, stating lowest price, to the "Secretary of the Union Agricultural Society of Yarmouth."

JOHN CRAWLEY JR., *Sec'y.*

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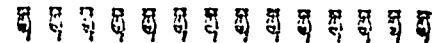
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June, 1870.

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**ARABIAN SPICE**

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The ARABIAN SPICE is warranted to surpass anything yet introduced for Poultry.

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