

comes thoroughly acquainted with its cultivation and the process of handling afterwards. We should not lose sight of the prospects of such remunerative prices as are offered at present, owing to the high prices of cotton, resulting from the present deplorable war. While we are losing in one hand from its sad effects, let us try and gain a little on the other, and go in for the growth of an article sure to meet a ready demand, and that will benefit the community at large to have it *grown, manufactured and consumed on our own Canadian soil.*

JOHN A. DONALDSON.

Quebec, 9th August, 1864.

Ashes.

To the Editor of THE CANADA FARMER:

SIR.—I send you the following extract from my note-book on the subject of "ashes."

"These are the earthy and saline matters contained in substances subjected to combustion. They vary in their properties according to the material used in producing them, consequently they vary in efficacy. 1,000 lbs. of oak-wood will produce 2 lbs. of ashes. 1000 lbs. of straw of wheat will yield 43 lbs. ashes. In these ashes we find as follows.—100 lbs. of oak ashes give, soluble salts 38 lbs., earthy phosphates 4 lbs., carbonates 32 lbs., silica 2 lbs., oxides 2 lbs., loss, 21 lbs. From 100 lbs. straw of wheat we get soluble salts 22 lbs., earthy phosphates 7 lbs., carbonates 1 lb., silica 61 lbs., oxides 1 lb., loss 7 lbs. The soluble salts are potash; the phosphates are lime and magnesia; the carbonates are lime and magnesia. These are essential vegetable ingredients. It is evident, therefore, our manure heaps are benefited by the addition of ashes. Ashes are an excellent means for ameliorating the soil. They are especially useful on strong clay, and on moist soils. They will remove moss and poor grass from lands. They do not, however, produce their greatest effect, unless they find vegetable matter in the soil, or manure wherewith to combine. A free use of ashes has often doubled a crop of grass.

"Fresh ashes when used should be mixed with pulverized or slaked lime and then slightly moistened. As a top dressing for meadows, sow ashes in April or May. If you sow grass seed at the same time and harrow the meadow, the benefit will be great.

"As food for corn, with gypsum, they are very efficacious. Fresh ashes however ought to be used sparingly say, not over ten bushels per acre, as they are caustic and will contribute to exhaust the soil by too great action.

"LEACHED ASHES.—Notwithstanding the care of those who make potash, the refuse ashes always contain a portion of this valuable salt generally combined with silica. They contain also lime, magnesia and phosphoric acid. They may be applied in the proportion of two tons to the acre, and their effect will continue for many years."

The following mixture may be considered as equivalent to one ton of fresh wood ashes.

Potash 60 lbs.; carbonate of soda 60 lbs.; sulphate of soda 20 lbs.; common salt 20 lbs.

I have applied 30 to 40 bushels of ashes to the acre upon ground which before did not fully develop the wheat plant. The product was much improved, and gave a full crop. A. K.

How to ENRICH MEADOWS.—Mr. H. Lewis, of Frankfort, stated that "he had twenty five acres of meadow that would yield annually a quantity of hay sufficient for the winter keep of fifty head of cattle. Some of his grass had already lodged, and he thought would not come up again. He should commence his hay harvest in about three weeks. This extraordinary fertility of soil and growth of grass had been effected by under-draining and by top-dressing the soil with sawdust in which was absorbed the liquid manure from his stock. He regarded the liquid manure of more value than the solid excrements of the animal. The conclusion had been arrived at by experiments and from observation. Stakes had been set in pastures and meadows to note the effects of liquid and solid manures, and the growth of grass was in favour of those spots where the animals left liquid manures. Some few years since he commenced using sawdust for the absorption of liquid manure and spreading the compost on his grass lands, the soil responding in a most remarkable manner. Latterly he had been using the dust at the rate of sixty bushels per week. The manure is hauled upon the land and spread as evenly as possible with a shovel or fork; it is then brushed and completely broken up and distributed in fine particles. This division and fineness of the manure is regarded of peculiar advantage, since the plants are better able to appropriate their food, and it reaches a greater number. About half of the meadow is under drained with horse-shoe tile, the drains being sunk three and one-half feet deep. On this portion of the meadow grows the largest grass." —*Maine Farmer.*

Preparation of Seed Wheat for Sowing.

To the Editor of THE CANADA FARMER:

SIR, As the time for sowing fall wheat is near, I send you a short notice of different ways of preparing wheat previous to its being sown to prevent smut in the crop. Although some of these are already well known and used with success, it may be well to give them all together:—

No. 1.—A method commonly used by English farmers.

Wash the wheat two or three times, or until the water comes off clear, and all the light grains that swim on the top are taken off, then the wheat is put in brine strong enough to float a fresh egg, to steep the space of thirty hours, stirring it now and then. Having steeped the time prescribed, the wheat is spread as thin as possible on a floor, and after you have sifted a quantity of lime upon it, sweep it to and fro till the grains are separated from one another, and are covered with the lime; it is then fit for sowing immediately.

No. 2.—Another method practised by English farmers.

Take of the water that runs from a dunghill a sufficient quantity to cover and steep the wheat you intend to sow; add a pound of saltpetre, and as much common salt as will make a brine strong enough to float a fresh egg, steep your wheat in that brine for the space of twelve hours, then spread it upon a floor and dry it with quick lime in the manner above mentioned. The wheat thus prepared must be sown the same or the next day, as, should it continue four or five days in the lime, it would be rendered unfit for vegetation.

No. 3.—A method strongly recommended in an abstract of experiments made in 1755 and 1756, at Trignon, in the presence of Louis XV., which was re-printed at Paris, by the King's order, in 1786.

For every bushel of wheat intended to be sown, take five pounds of hardwood ashes and ten quarts of water; put the ashes in a tub and pour the water upon them; and as a kettle large enough to warm at once the whole quantity of water intended to be used is not easily procured, fill the largest kettle you can conveniently find with part of the water, warm it and put it in the tub; you must thus warm part of the water several successive times, and pour it into the tub until the whole is lukewarm. Stir the ashes often during the two first days, and let them settle the third, taking off from time to time what swims on the surface. On the third day, the ashes being settled, the liquor must be drained clear from the sediment into another tub, by means of a small hole bored through the first, just above the ashes; then take two ounces of quicklime for each quart of that liquor, and after you have boiled part of it, put in the lime to dissolve. When the lime is dissolved, add to it the liquor, which you are to warm and pour into the tub at several times, and repeat the same till the whole is lukewarm. After you have well stirred and mixed the lime in the tub, put in the wheat you mean to prepare and stir it well; let it steep there ten minutes, then take it out and dry it as quick as possible by spreading it as thin as you can, either on boards or sheets. When well dried this wheat may be kept two months before you sow it; therefore, one may choose the most convenient season to make this preparation. If your seed is not clean it will be necessary to wash it previously to the preparation with the lye, in common water, till it comes off clear, taking away at the same time all that swims on the surface; then dry it previous to your putting it into the lye.

No. 4.—Preparation recommended by Mr. Couillard in 1790.

To steep 210 lbs. of wheat requires 25 quarts of water, 2½ lbs. of dung of poultry, the same quantity of sheep dung, or instead thereof pigeon's dung. This mixture must steep twelve or fifteen days in a tub, and be stirred now and then with a stick; at the expiration of which time it must be drained clear from the sediment. Take part of the liquor and warm it; dissolve in it 3 lbs. of slaked-lime, or a pound and a half of quick-lime. If, at the time of the dissolution, the effervescence should be too strong, it must be checked by means of a small quantity of cold water. This lime-water must then be mixed with the overplus of the infusion of dung, then put the 240 lbs. of wheat (after it has been washed, scummed, and dried properly), in that liquor to steep for the space of about ten minutes. Then spread it and stir it often till the next day, when it is fit for sowing.

Mr. Couillard likewise successfully used human urine and chimney soot for this preparation, in which case he diminished the quantity of the other ingredients.

A. KIRKWOOD.

20th SORGHUM, along the line of the Illinois Central R. R., is reported in a very fine condition. If we have no early frosts, some large fortunes will be made.—*Prairie Farmer.*

PEAT COMPAR, is to be formed in Rochester, N. Y., to supply the city with fuel. It seems that the peat can be cut, dried, and conveyed to the city at a much less cost than coal. Long Island and New Jersey, it is said, are likely to produce large quantities, and the method of drying the peat and preparing for market has been patented.

THE JAPAN VARNISH TREE.—*Le Moniteur Illustré des Inventions* recommends the introduction into France of the *Rhus vernix*, which yields the Japan varnish. It is cultivated in Japan and China, and could doubtless be raised to any extent in this country. The varnish is produced by making an incision in the trunk in the same way that is practised in gathering pitch from the pine. The yield is said to be very large, and there is every prospect that the cultivation of the tree would be profitable.

CHESS.—A sensible contributor of the *Ohio Farmer* writes:—"I have known men that called themselves good farmers sow grain that had from 15 to 30 grains of chess in every broadcast handful, and still protest that they sowed clean grain. If some of our opticians could construct a pair of goggles through which farmers could see chess wherever it grows, I think that the theory of its growing from wheat would soon die out, and it would be a great blessing to mankind."

FLAX IN PERTH.—The deliveries of flax in this town thus far this season exceed the most exaggerated expectations of Messrs. Black & Forrester, the pioneer promoters of its growth in this section, and the enterprising proprietors of the only scutching mill at present in operation in this county, or in this section of the Province. The deliveries for the past week, we have been informed, average three tons per day, some of it coming from beyond London and much of it from the neighborhood of that city.—*St. Mary's Argus.*

FLAX CULTURE IN AMERICA.—More ground has been put under flax cultivation than for many years, but hardly enough to exercise any perceptible influence on the price of cotton. The great and essential difference between the fibre of flax and cotton is, that the former contains a large quantity of gum, which we are unable to extract by any steeping process now in use. This excess of gummy matter presents a serious obstacle to sliding or drawing the fibre, which is the basis of all spinning operations. When a process shall be discovered by which the gum can be entirely removed from the fibre, flax will be spun as readily and as fine as cotton.—*New York Herald.*

FLAX CULTURE.—But a few days ago we were shown a sample of flax grown on the farm of Sheriff Treadwell, at L'Original. It was not quite as tall as the plant usually grows—which no doubt was occasioned by the great drought—but in every other respect it was of healthy appearance, and inferior to none we have ever seen. Last year there was a considerable quantity of land under flax between L'Original and Montreal, but we are informed that this season, the quantity is about six times greater. This, in itself, is a proof that the preceding crop yielded a handsome profit, and that the growth of flax, in this section of Canada at least, may be carried on with advantage.—*Ottawa Union.*

STORING WOOD.—S. G. of Peterboro, N. Y., sends us his mode of storing wood that is green, for the purpose of seasoning it. He has an open shed, 11 by 40 feet—built by setting six posts firmly in the ground—three of them being enough shorter than the other three to give the required pitch to the roof—lay poles on these posts and cover with boards—covering each joint with a good slab. Under this shelter he cords the wood when it is prepared stove length in winter and spring, whether it is green or wet, or both. In November he removes it to his wood-house adjoining the kitchen. He thinks such wood is worth one-third more than wood that has not been cured under cover.—*Rural New Yorker.*

LIME SINKS IN THE SOIL.—A correspondent of the *Germantown Telegraph* says:—"Lime acts upon the soil in two ways: one mechanical and the other chemical. Its specific gravity being greater than that of common soil, it has a tendency to sink until it finds a soil of its own specific gravity. This generally takes place when it reaches the subsoil; hence the benefit sometimes derived from increasing the depth of the surface soil—the lime, which had during the previous cultivation sunk to what was then the subsoil, is again brought up and mixed with the surface soil. This mechanical action may be more readily explained than the chemical action: the lime by sinking loosens the soil, and admits of a free passage of air and moisture.