

## New and Easy Method of making Maple Sugar.

A correspondent of the *Mark Lane Express* referring to the principle of pneumatic evaporation applied by the Northern Tartars in a very simple and efficient way, during the winter months, in the preservation of milk, finds in it a novel and short-hand method whereby Canadians may make maple sugar. The Tartars place milk in shallow pans, and expose it to the cold winds during frost. In a short time, a dry, white, crispy substance is found on the surface, which is carefully scraped off and put into bottles. This process is repeated until all the watery portion of the milk is evaporated, and a sweet white substance, which is essentially *sugar of milk*, is thus obtained, which may be kept any length of time, in any climate, if kept dry. "This plan," says the writer, though not practicable here might be applied to the evaporation of the sap of the maple in Canada, and would produce excellent sugar at a trifling cost. Notwithstanding the assured confidence with which the above prescription is given, there being no "it," "but," or "perhaps" to qualify it, we doubt if anybody in Canada will have enough faith to try it. How very easy it is to theorize! Did ever anybody see a dry, white, crispy substance" floating on the top of a trough full of maple sap, exposed to pneumatic evaporation? Without consulting a manual or professor of chemistry for the scientific explanation of the difference between the two liquids, it is quite enough to know that sugar scales were never found formed on the surface of maple sap, and that the only method of obtaining the sugar is to evaporate the sap by applying artificial heat.

## The Cultivation of Land.

Mr. JACKSON, M.P. for North Derbyshire, attended the anniversary dinner of the Norton Farmers' Club and District Agricultural Society, held at Staveley, and gave an amusing account of his experiences in agriculture. The honorable member, on the subject of the draining of land, observed that he once had a field of thirty acres, and it grew nothing else but large camomile flowers—that was, large yellow daisies. They were so thick and so hard that a cannon ball if fired into them would have rebounded. Well, at last he commenced draining, and he drained four and five feet deep, the distance between the rows being eight feet. Whilst the field was being drained the season overtook him, and although he ploughed as fast as he drained, he was unable to sow more than half of the thirty acres. He was speaking what was strictly true when he told them that the money he received from the first crop paid the cost of the drainage of the entire field; therefore, he was not a loser by it, but a great gainer, because during subsequent years he reaped the beneficial effect of the land being drained. Some time ago he was fortunate enough to produce forty-two tons of carrots from one acre. He trenched the soil about three feet deep, and at the bottom of the trench put a quantity of good stable manure mixed with guano. He then transplanted his carrots, and for a month they hung down their heads as if there was no life in them. At last they began to smell good stuff below, and the result was they went down with a vengeance. After some time he was able to draw carrots as long as his arm, and as thick as the thickest part of it. The next year he had a similar crop of carrots, followed by a splendid crop of potatoes, and then by a good oat and clover crop all without any additional manure. If they only brought capital and science into play, it was almost impossible to over-estimate what could be done with . . . and he did not know anything that would pay a man better than to purchase land for agricultural purposes. Mr. Jackson then proceeded to recommend farmers not to pay so much attention as they were doing to the production of cereals, as he said there were other countries in which they could be grown where land was cheaper and the sun stronger, but other countries could not produce such beef and mutton as England could, and he advised them to make the breeding of beasts and sheep their principal study. The hon. member recommended increased attention being paid to the rearing of poultry, as he said £2,000,000 were spent by this country every year for eggs and poultry, obtained from the Continent, when we ourselves might produce all that the country required.—*Farmer (Scottish).*

## The Difference between Ploughing and Cultivation.

Mr. MOUNTAIN says deep ploughing may be ruinous where deep cultivation would be beneficial. This apparent paradox may be easily explained:—Where the land, just below the regular ploughed line, is undrained, panned down, and consequently has never been subjected to the ameliorating influence of aeration by exposure, it is, in too many instances, absolutely poisonous to young plants. I know of so many cases where, by at once ploughing up and bringing to the surface four or five inches of raw sub-soil, the land has been rendered much less productive for several years, that I warn my amateur farming friends against committing such a costly error. The young growing plants cannot thrive, in the beginning of their growth, in such unprepared mass, and, consequently, are encumbered before their roots reach the good buried top soil. That able agriculturist, the late Mr. Smith, of Deauston, wisely recommended that the subsoil should be allowed to dry a little after being drained before even subsoiling was attempted, and that kind and enlightened man, the Rev. Samuel Smith, of Lois Weeden, ploughed his top soil together, and then worked his manure into the uncovered subsoil, leaving it bare for a time, and then re-covering it with the surface soil. When I deeply cultivate, I plough the top soil, and follow in the same track with another plough (minus its breast or mould board): the next turn of the first plough then covers up this raw sub-soil. In this operation a portion of the subsoil gets gradually mixed with the surface soil, and thus my staple is gradually increased with benefit to the crop. My experience teaches me that from ten to twenty years will hardly suffice to bring into a suitable condition some of our tenacious plastic clay subsoils. It is on these grounds that I should, in the case of using steam power, commend the use of the grubbers, or cultivators, that stir the soil deeply without bringing much of it to the surface, and that it should be a gradual deepening instead of tearing up at once great masses of the subsoil. I have never seen any implement so suited to the purpose as that which steam ploughed a portion of my clover in 1856, in the presence of a large company. That deep cultivation showed its good effect for several years. Fowler's plough was supplemented by Colgreave's sub-soil plough. They were attached, so that as they moved along one furrow slice laid under the other, the top soil being laid on the top of the other; and yet, strange to say, I never have seen this used since. The fact is that this double ploughing takes much power, and cannot be hurried over, but it is the proper and most profitable mode. Many farmers have been ruined by rashly burying their best soil, and covering it with several inches of raw subsoil. There may be some subsoils sufficiently wholesome to permit of their being suddenly brought to the surface. In many cases ploughing is objectionable, leaving long unfiled spaces obnoxious to the roots of plants. The cultivator has many advantages.

## The Peck per Acre.

To the Editor of the *Mark Lane Express*.

Sir.—The peck of wheat per acre sown the second week in November looked like a fallow all winter, but is now, after hoeing, branching abundantly, and my labourers predict that it will be as good or better than the rest of the field sown thickly with one bushel per acre. Every year I sow half an acre with half a peck of wheat, in the midst of a thicker sown crop, putting it in the same day and under the same circumstances in the various fields, as they come in rotation. By this means I arrive at safe conclusions, and I would strongly recommend my agricultural friends to follow my example, by thus experimenting on a small and unimportant scale. It would abolish many prejudices, and they are bound for their own interests to ascertain the most profitable quantity of seed. My four years' trials have resulted in 58, 57, 36, 36 bushels of wheat per acre, the two first good wheat years, the two later unfavourable. I still continue to drill 4 pecks of wheat, 6 pecks of barley, 8 pecks of oats, as my general sowing—a trifle more on the lightland, but I am getting more and more convinced that, with high, clean farming, and the drill, we may, in Essex, reduce our wheat to 2 pecks. On high lands we need not fear wireworm, if we use 6 bushels of salt per acre about February, or early in March. By having our drill-cups and wheels arranged like those of Mr. Hallett, at Brighton, we can put in very small quantities of seed. It does amaze me to read that 7 bushels per acre of oats

are still sown in Scotland, and that thin sowers pride themselves upon putting in only 5½ bushels! I presume that this is done broadcast, and the measure a Scotch acre. I am satisfied, however, that such a system can never result in such crops as we generally grow on this farm—say from 8 to 13 quarters of black oats per English acre.—I am, sir, yours,  
April, 1866. J. J. Mecut.

## Good Farming, High Farming.

Good farming is sometimes high farming, and sometimes not. Ploughing under a crop of clover for wheat is frequently good farming, but it is anything but high farming. Summer-fallowing is often the best and cheapest way of cleaning and enriching land, and in such case is good farming, but it is never high farming. High farming would summer-fallow the land, and have a heavy crop growing at the same time.

The market gardens around New York afford excellent examples of high farming. Read Henderson's interesting book on "Gardening for Profit," and you will get an idea of how much produce can be raised on an acre of land. They employ a working capital of \$300 an acre; underdrain thoroughly; use from 50 to 100 tons of manure on each acre every year; have two, three, and four crops in succession during the season on the same land; never let a weed show itself; pay from \$100 to \$300 an acre rent and taxes, and make a handsome profit besides. This is high farming. They have to pay an enormous price for the land, and they must farm high or not farm at all. They could not afford to let their land lie idle a year in order that they might summer fallow, or plough under a crop of clover. Where land is worth only \$50 an acre, we can afford to adopt a slower method of enriching it than when it is worth \$500, or even \$200 an acre.

I can afford to spend \$30 an acre in underdraining my farm in Western New York, but it is very questionable whether \$30 an acre can be profitably spent in draining a farm in a section of Iowa, where good, dry land could be bought for \$10 an acre. Where corn is worth \$1.25 a bushel, it may pay to expend 25 cents a bushel in grinding and cooking it for the hogs, but where corn is worth only 35 or 40 cents a bushel, it would hardly pay to expend 25 cents for the purpose.—*J. Harris, in American Agriculturist.*

ASHES FOR GRASS.—Mr. David Goodwin, of Arrprior, sends us a fine specimen of Timothy, with the following note:—"Enclosed I send you a stalk of Timothy, over six feet in length, grown on my farm, Township of McNab, County of Renfrew. It shows the great value of wood ashes as manure, as it grew on the border of a meadow where the fence was burned last spring, and the fire ran among the old grass."

SALTING WHEAT.—A correspondent in the *Colonial Farmer* recommends the addition of salt to wheat as soon as it is threshed, adding half a pound of salt to a bushel of wheat and mixing them in the bins. He says that wheat so treated is better preserved than by the ordinary method; that it does not lose so much in weight or volume, that it makes more and better flour; and that when used for seed it is not liable to be attacked by weevil (qv. midge?) The correspondent referred to has tested the plan, he tells us, for eighteen years with unvarying results.

HAYING IN "CATCHING WEATHER."—Last year the weather was characterized as "catching"—almost any body can make hay when the sun shines, but the problem may be presented to make hay when it does not shine. With the mowing machine, tedder, horse rakes, and hay taps, an active man of fair judgment may succeed, with a mere modicum of the direct heat of the sun. The principle is continuous drying. The lack of sunshine must be made up by stirring, if the atmosphere is a drying one, and here a good tedder will be found most useful. Long exposure of clover to the hot sun is ruinous, the heads and leaves will fall off, and these constitute the best part. Grass containing clover should be dried rapidly, until thoroughly wilted, and while still green and hot, cocked up. If it has a little sunshine when first cut, it will cure in ordinary catching weather in the cocks, covered with hay caps, provided it can be opened out and shaken up now and then. The hay will be surprisingly green and good, and it will not require much labor to make hay in this way.—*American Agriculturist.*