

and covered," as we say. The rest of the piece I had ploughed with my own team to a good depth and well turned over. The corn on that part which was poorly ploughed, showed the best all through the season, and turned out more and better corn than the other.

Stalk or stubble ground should be ploughed deeper.

The reason for so much and thorough surface culture is, that the roots of the corn obtain their nourishment from near the surface, and do not strike deep into the soil. For this reason, do not cultivate deeply after the roots have made much of a start, else they will be broken and injury be done to the corn, but let the subsequent culture be principally with the harrow and cultivator, leaving the ground as nearly level as possible; having an eye to proper drainage by cultivating the last time across the lands and opening out the land furrows.

To recapitulate:—Seed procured as per the foregoing germinates with more certainty, grows more vigorously, tends to ripen earlier, and improves in quality. To prove which, I may mention that I have had for sixteen years, a variety that, at the beginning, was so large and late, that but a small portion of it would ripen. Now, it is of good size, very firm on the cob, weighing well and early enough for any season we have had since I got it acclimated.

I would not advise the culture of corn on a large scale, in sections of country where its success is doubtful, but try some, by all means, as an experiment; for it is by striking out into new fields of enterprise, that some of the most valued acquisitions to art and science have been brought about.

Don't be confined to old and tried varieties, but retain them as fixed facts, and ever be on the alert for something new and equally reliable with a possibility of improving on the old. If the best of results are not experienced, and the highest expectations reached the first season, don't be discouraged but try on, remembering that none, or very few of the cultivated varieties of grain, fruit, vegetables or flowers, which now reward the labor and make glad the heart of the husbandman, were naturally so valuable. They have been brought to their present state by judicious cultivation.

In the future, when sufficient time has elapsed to demonstrate the foregoing by actual planting and harvesting, those who act upon these suggestions will be doing me, and probably others, a pleasure, by publishing their experience.

Pleasant Plain, Warren Co., Ohio.

WM. FERRIS.

Sorrel.

EDITOR CANADA FARMER:—In looking over the February FARMER, I noticed a paragraph about the cause and preventive or eradication of sorrel. The writer of this article holds that the presence of sorrel indicates acidity in the soil, which is an assertion I do not altogether agree with. Therefore for the good of those who read this paper, I will give what I consider the true version on this subject.

If sorrel only grew in a soil possessing a sour property, a person would naturally think that sugar cane would only grow where the soil is sweet, but we find both sorrel and sugar cane growing side by side in the same soil. That sorrel is natural to certain soils I will admit, but the sour property of this plant is caused by the action of the atmosphere and sun upon its juices.

To show more plainly that the soil has little or nothing to do with the taste of different plants, I will call your attention to the apple, or any tree which can be grafted. If a farmer has an apple tree which bears an inferior sweet or sour apple, the first thing he thinks of (if he is an intelligent farmer) is to have it grafted with some more marketable kind. As he might have every limb bearing a different kind of apple, without any previous alteration in the soil, thus plainly showing that the change takes place wholly above the surface of the soil.

That summer fallowing will destroy sorrel, I will admit, but the reason that lime and salt appear to destroy it, is because it makes a change in the soil which is not agreeable to its growth, therefore it must die.

I suppose nearly every farmer has seen that plant which belongs to the order of ferns, commonly called "Devil's Guts," or "Old Man's Beard," growing on certain low land, or damp ground, of which I remember hearing a man say it indicated a sour property of the soil; but just under-drain that soil and its days are numbered in that place, thus

plainly showing that it delights in a soil having an excess of water. And so it is through the whole vegetable kingdom, especially that part which is found in its natural state.

This peculiar property is not wholly confined to the vegetable, but we find it strongly marked in the animal kingdom. For instance, in the Highlands of Scotland, we find a small breed of half-wild cattle, while on the low land, or most fertile parts of England, we find the heavy Durham. On the Chalk hills of England the Southdown sheep only are found, while on the lower or heavy land we find Cots-wold and Lincoln sheep, two breeds much larger than the former, therefore requiring a more luxuriant vegetable growth than could be found on the Chalk hills.

E. B. P.

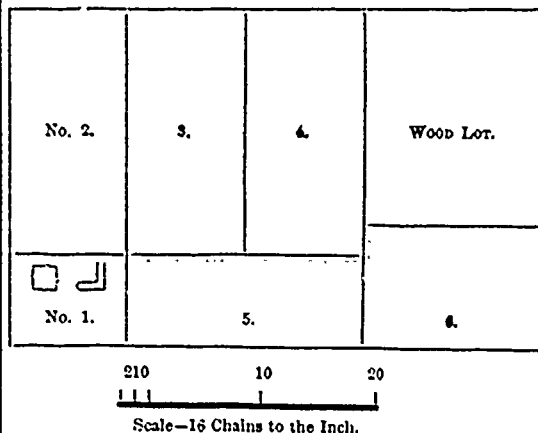
Brant, Ont.

The expression "acidity" was not used in the literal sense in which our correspondent has taken it, viz., that the sorrel derives its acid taste from the influence upon it of the state of the soil. What was meant by the paragraph was that the presence of sorrel showed a sour or bad state of the soil which a clean summer fallow or the application of lime and salt would rectify.

Laying Out a Newly-Cleared Farm.

In the CANADA FARMER of March 15th, "Farmer" asks for help in laying out his farm. As the subject was occupying my thoughts not very long ago, I send him the condensed result of them.

In fencing a farm, I want my fields as large as can be, to save fencing and land; as regular in form as possible, to



facilitate ploughing, &c., and as many opening direct into the barn-yard as I can make do so, for convenience in hauling, and to save roads, either permanent or through crops. Some five fields will commonly be division enough in a moderate-sized farm, and so I would divide the land in question somewhat as in the plan above. No. 1 would enclose house and barn, and the rest of the field would do for permanent meadow or pasture, and if now laying out the farm would, if otherwise suitable, do for an orchard. It takes up about ten acres. Nos. 2, 3, and 5 are each twenty acres; Nos. 4 and 6, being each a trifle more or less than that, according to size and shape of wood lot. A second fence along the dotted line will enclose the only permanent road needed, and let his stock have the run of the bush, if "Farmer" is so disposed.

Orillia, Ont.

A BACKWOODS FARMER.

Reducing Bones.

EDITOR CANADA FARMER:—Can you give me a recipe for reducing bones by fermentation—not the one given in the FARMER of April 15, 1874?

OLD SUBSCRIBER.

Put the bones in a barrel, and mix with them about an equal proportion of ashes. Keep them always wet with soap-suds, applied as hot as possible, but not in such quantity as to leach the ashes. The bones will be disintegrated in the course of a few months.

Or, try the following method of reducing bones which is given in the New York Tribune: To 100 pounds of rather finely ground bone take 25 pounds oil of vitriol, sift out about two-thirds of the coarsest bone, put in a tub made by sawing in two a fish barrel or hoghead, moisten uniformly and well with water, then add gradually the vitriol, stirring and mixing thoroughly. Let it stand 24 hours, or until the coarsest parts are well softened, then mix in the finer part of the bone, which will dry the mass and fit it for handling. If the bones are very coarse, more acid, by 5 or 10 pounds, may be used. If the bones are unground it is more trouble to dissolve them in acid than they are

worth. In that case either reduce with ashes, or burn them, and dissolve the burned bone in acid. To reduce with ashes requires several weeks of time. Pack them, after breaking up with a sledge somewhat, in a barrel or box, filling the chinks up entirely with wood ashes, then pour in enough water to wet the whole, but not enough to drip out from the vessel. In time, if kept moist, the animal matter of the bone will decompose, and the whole mass may be crushed to powder. To burn bones, build them up in a heap on a low pile of wood and set fire. When burned they can be mostly crushed with a flail or sledge. The powder is treated as directed for bone dust, except that 60 or 65 pounds of oil of vitriol may be used for 100 of the burned bone.

Experience in Raising Turnips.

EDITOR CANADA FARMER:—This is my three years' experience in raising turnips on land that is bad with weeds. The first time I tried them broadcast and had 300 bushels. The second time I tried them in drills and only had 250 bushels. Both seasons were alike favorable. Those in drills were a much better sample. It seemed as if it was a profitable crop both times, if there had not been so much work with the weeds. They were in the same field each year but on a different place. The land was all alike.

The next year I thought I would try some plan to get clear of so many weeds. I hardly know how to do, but I was determined to try something; so I prepared the ground as early as I could get on it. I had a good iron harrow which fitted the ground, no matter what shape it was. I went to the blacksmith and got irons made that I could fit into the harrow for cutting and tearing out weeds. The ground being prepared, as soon as the weeds came up about an inch or two high, I went over it with the harrow which made a complete job in cutting and rooting them up. I then left them until the weeds came up the second time. Then I took the harrow and cleaned them off again. I let the land lie a few days and then I sowed it broadcast. I was sure the seed was good, because I raised it myself; and I sowed it very thin. It came up very even, and the plan of killing the weeds proved successful. There were a few weeds come up, but the turnips were so far ahead of them that they amounted to nothing.

As it happened that year, on account of a lot of extra work, I did not get anything more done to the turnips, but after taking them up, I had 350 bushels of good large-sized roots, beside a lot of small ones which were left in the field. Oneida, Ont. J. E.

DRILLING CORN FOR A CROP.—An Indiana farmer is satisfied that the immediate result of drilling in corn is an increase of ten to fifteen bushels per acre, to say nothing of the economized labor both in planting and tending.

PLOUGHING IN AUGUST.—Says old "Walks and Talks" in the American Agriculturist:—Mr. "G. B.," of Nebraska, who asked me some time ago whether I would plough land when it was dry in August, wrote me again just before winter set in, that if he had waited, he should not have needed to ask the question, for says he, "I could not help noticing that the land ploughed in August is in by far the best condition now," and also that "land ploughed a year ago, when very dry, now ploughs up again in much better condition than that ploughed when the land was wetter." This is precisely in accordance with my own experience.

TURNIPS AND CORN TOGETHER.—A Westchester Co., N. Y. farmer is in the habit of sowing yellow Aberdeen turnips among his corn at the last passage of the cultivator, when the plants are about five feet in height. The turnips do not make much growth until the corn is cut, after which they swell rapidly. The cost is nothing except for seed and harvesting, and corn, being already cut, is not injured when the turnips are gathered in. From one to four hundred bushels of turnips per acre have been thus obtained without lessening the corn crop. Weeds are not tolerated, and the whole strength of the land is devoted, as it should be, to useful crops.

PRESERVING MANURE.—The Boston Journal of Chemistry states that the sources of loss in the storage of manure are two: first, the escape of volatile ammonia and other gases; and secondly, the loss of valuable salts by leaching. The first difficulty may be obviated by covering the excrement with eight or ten inches of good soil or loam, which will absorb all escaping gases. A bushel or so of plaster may be advantageously scattered over the heap before the soil is thrown on. The whole mass should be perfectly covered, leaving no "chimney" for gaseous exudation. The danger of leaching may be avoided by covering the heap with hay or straw sufficiently thick to shed most of the rain. If kept in this way a sufficient time, the manure will undergo spontaneous decomposition, the products of which will be ready for immediate assimilation by plants. The usual process of carting manure to the fields in the autumn to waste, by both the above processes, some of their most valuable constituents, should be avoided.