

Soiling Crops.

With the best grass, it is necessary to grow green-fodder crops for cows, and sometimes for horses, for it is found that the grass alone will not support as many cows as the farm can and ought to carry on the other crops. With one-half of the area in arable land and one-half in grass, one-half of the grass being mown for hay, and thus but one-fourth of the farm in pasture, 100 acres can support no more than six or eight cows in the Summer season, unless the pasture is supplemented by green-fodder crops. Fifty acres under the plow and 25 in hay can support 25 to 40 cows upon hay, straw, and fodder, with some grass and roots fed during the Winter, and it needs all of these to supply the land with manure. But if 10 acres of the arable land is put in fodder crops, Summer feeding for 15 or 20 cows can be produced, which with the pasture, will keep up nearly the Winter's allowance of stock. As at least two fodder crops can be grown in the season upon the same ground, a great economy of feeding results from partial soiling, and as 25 to 40 tons of excellent fodder can be grown on one acre of rich land, a comparatively small area is required for the purpose. To pasture luxuriant herbage is a waste, because three-fourths of the feed is trodden down or fouled and remains unconsumed; so that where even grass is thick and heavy, the saving made by cutting and carting it to the stock repays the labor many times. It should, therefore, be a part of the system of farm management, wherever it is possible, to have some green fodder ready for cutting as early in the season as may be. We have found it advantageous to have the next year's turnip and corn ground seeded to rye in the Fall, instead of leaving it bare, and to either cut it for the cow and young stock, or turn them on to it to pasture it down in the fore part of May, in time to get the corn in early in June. Upon good soil and with the help of some fertilizers, a good growth of rye may be procured early, and if this is cut off a considerable quantity will be left upon the ground to be plowed in for the corn. This furnishes the first green fodder of the season. If the ground is not required for corn, the rye may be cut later, some part of it twice, and used up to June, when the stubble may be plowed, and either field or sweet corn planted for fodder immediately. Evergreen sweet corn grows tall and rank, and if planted in drills 3 feet apart and 3 stalks at each 4 inches in the rows, it will produce when full grown 500 pounds to the square rod. This is 40 tons per acre. But the crop needs to be fed before it has arrived at its full growth, and cutting will begin when it is 4 feet high, or in August. At this season the pastures will have given out, and extra feeding will be needed. As a few rows are cut it will be advisable to turn in the plow, and prepare a "land," and sow corn again, or Hungarian grass, or rye or turnips, or rye and turnips together, leaving the rye to grow after the turnips are pulled for late Fall feeding. This occupies the ground continually, but as none but immature crops are grown, there is but little exhaustion of the soil, and moderate manuring will replenish it. After the rye is fed off, a piece of orchard-grass and clover will be found convenient. This grass is very early. For hay, it is in the best condition at the same time as red clover, and, when mixed, these two furnish an early cutting for hay, and a late cutting or two for late soiling.

This will carry the stock on until oats and peas are ready, and if these are sown in strips in succession, a continuous supply of the best of fodder may be had up to time when early corn comes in. After corn is ready, there is no scarcity. Hungarian grass and millet, sown in June, July, or early in August, will furnish a change for corn, or may be sown upon land from which oats and peas or the earliest corn have been cut. As the ground used for these soiling crops is cleared, it should be resown at once, as the profit of soiling is made from the large product of repeated crops. The last crop sown for Fall and Winter use is white turnips, which, however, should be avoided for feeding milking cows, on account of the unpleasant flavor given to the milk; and the first sown for use the next season is Fall rye. Thus a complete round of green fodder is produced under this system, a large portion of which that may not be used may be cut and cured for Winter feeding.

This practice enables the pastures to be made the most of. To have the grass gnawed out by the roots, affords no feeding, and prevents the growth of the herbage. But by the help of green-fodder crops, when a pasture is eaten down, a portion of it may be fenced off and the stock

supplied in it with the fodder; or, which is preferable, a plot may be fenced off and the cattle partially fed therein every day, the rest of the pasture being divided into lots or separated by a portable fence, so that portions may be partially grazed in turn, and none of it eaten bare. The grass will thus recover rapidly after having been grazed, and will last longer. Partial soiling admits of introduction on any farm upon which stock are kept, and may be used with horses, cows, sheep, or hogs.—[N. Y. Times.]

A LESSON IN AGRICULTURE FROM AUSTRALIA.—Of late years in Australia and New Zealand large tracts of uncultivated land, described as "morass" and "scrub," have been cleared and laid down with the most suitable grasses for cattle and sheep pasturage. In one instance, in Australia, 100,000 acres in one tract have been so treated, with the best results; and not only is the laying down of new pastures being actively pursued by the richer colonists, but the renovation of old pastures also, thus giving a good lead to agriculturists. The necessity for the latter process is perhaps greater in the colonies than in the mother country, where the land is less fertile in its natural state, as in course of time the stronger rooted and more vigorous growing grasses assert their natural superiority over some of the weaker kinds.

WHAT IS PLASTER?—Plaster is sulphate of lime or gypsum, and when pure consists of 32½ per cent. of lime, 46½ per cent. of sulphuric acid, and 21 per cent. of water combined and not absorbed, (water of crystallization.) This water is driven off by heating, when the gypsum becomes fit for use as plaster for building purposes, the water being recombined and the paste acquiring its stony hardness again. For field use it is not heated, but the rock is simply ground fine. If the gypsum is free from impurity it is always the same, wherever may be its origin. It is easy to discover impurities, as gypsum is so soft as to be easily cut with a knife, while carbonate of lime or quartz, which are the usual impurities, are much harder.

A farmer who has experimented with poultry-droppings, well-rotted cow manure, barn manure and bone-dust for melons, reports that the best yield was gained from hills to which the bone-dust was applied.

A New York farmer kills the cabbage worm by sprinkling the plants with common black pepper from an ordinary tin box—a pound to 150 plants—sometimes previously sprinkling with soap suds from the week's washing.

Rye straw put up in bales is passing over the New Brunswick railways to Boston, where it is said to be worth more than hay. Rye is a profitable crop on land where the growing of other grain would be a losing business.

I regard well-rotted chip manure as excellent to spread on the ground in orchards. I use it in my orchards, and that it is good accords with my experience, as it does with common lime, since the chip manure must possess the same elements, in a degree, for the formation of wood fiber which the growing trees require.—[Ex.]

Near Norrköping a river was deepened to accommodate larger vessels, and some seven feet below the old bottom eight oak trees were found, supposed to have been embedded at least 900 years. The bark, the *Timbertrades Journal* says, was almost destroyed, but the wood hard and black, resembling ebony, and was sold for cabinet work.

At a recent meeting of the Yarmouth County N. S., Agricultural Society it was resolved that the society be authorized to import and furnish at cost, any quantity needed of any varieties of seed wheat, or other grain, potatoes, trees or plants. Wheat has been sown in the county on a small scale, the average being wheat from 25 to 30 bushels per acre; barley 30 to 35; oats 33.

Mr. W. A. Wheeler, Worcester, Mass., cites a remarkable illustration of the value of mulch. The surface under alternate rows of old apple trees on a dry, rocky hillside, was covered in July a foot deep with swale hay as far out as the limbs extended. The next season, "the bearing year," those thus favored were loaded with large fine fruit, and showed, he says, "a great growth of new wood and the leaves had a beautiful green and Spring-like appearance," while the unmulched rows were barren, though of the same varieties.

Harrow Your Corn.

It is strange that there are yet so many farmers who are afraid to take the harrow on the cornfield.

If the corn has been planted pretty deep there will be no danger of pulling it up, and even a stalk pulled now and then will not hurt, for that left will do so much better that it will not be missed. So start the harrow, and if you want a good yield keep it going. Commence before it is up, and keep at it till it is eight or ten inches high. The larger it is before it joints, the less danger there is of pulling it up, for every day it becomes better established and rooted to the ground.

Harrowing is the best way of cultivating small corn, because the teeth go right through to admit the air and to absorb moisture of the air for the benefit of the rootlets of the corn.

Another very beneficial advantage is that with a harrow wide enough to cover three rows of corn you can get over your ground so soon that you can repeat it so often that you can disturb and pull off the little weeds as soon as they sprout and they cannot get a start, and thus you can keep your ground clean of the annual weeds, if you start the harrow soon enough and repeat the harrowing often enough.

Of course a very important consideration is that you have a good harrow. The very best is the cheapest, although it will cost twice as much as the inferior one. If your corn is planted in rows four feet apart, your harrow should spread twelve feet, then you can take three rows across the field, and if your harrow has at least seventy-two teeth, it will cut the ground, every two inches, and if it oscillates it will so thoroughly stir the ground that it will be impossible for a weed to get in its seed leaf to escape its scarifying effects with its tiny life. Of course well established perennial, and for that matter annual weeds also, will bend around the teeth and continue to grow, hence the importance of commencing soon after the ground is plowed.

Another point is that the harrow be a flexible one, that is, that it is in two or more parts as it may adjust itself to the inequalities of the ground.

[The above appeared in the Stock, Farm & Home Weekly. The idea is not altogether a new one to the Canadian farmers in the older sections of the country, though the plan they adopt is not exactly the same as that recorded above. We have used the harrow in the corn field very successfully under the following circumstances: when the land was fully prepared we ridged it as we would for turnips, making the ridges 36 inches apart, then dropped the corn in the trenches between the drills; when finished dropping we harrowed lengthways of the drills, covering the corn, and flattening the drills considerably, and as soon as the weeds began to start we harrowed again and at intervals according as the weeds started, until the corn became too large; we thus saved a large amount of labor at the early part of the season. The land was always harrowed the same way the drills run. We never harrowed corn which was planted on the level, but would advise our readers to carefully try the experiment; if it works as well as recorded above it will certainly be a great saving of labor.]

Superphosphate has been found a great protection against the ravages of the currant worm. Spread it around the roots of the bushes and fork it in. It will also help the growth of the bushes and increase the size of the fruit.

How I save my clover hay.—I cut in the evening when there is no dew. Clover holds dew so long that, if cut in the morning, it takes too long to cure. In the morning, as soon as the dew is off the top, it is ready to cock up in large, loose shocks. I leave it in the field two or three days for the stems to cure, and then put under shelter and salt a little.

EDIBLE FERNS.—Most of the ferns found in our woods contain more or less starch, and when properly prepared are extremely palatable; so that we hear without surprise that an attempt has recently been made in France to popularize them as an article of food. The tender shoots of the common break fern, when exposed above the soil to the air and sunlight, become exceedingly fleshy, white and tender. A famous French painter is known to pride himself on his fern omelettes; and the hill tribes of Japan live on fern all the year round. In spring they eat the tender leaflets, and later in the season they eat the starch extracted from the roots.