

Results of Mulching.

Some observations as to mulching convince me that its effects are not limited to a single season, nor to the crop for which it may have been specially designed. My experience with it has been in connection with strawberry growing, with a result as to that not entirely satisfactory, in view of the cost; but when I came to use the land for another purpose, as was the case last summer, I noticed a result not anticipated. The plowing after the crop was off in June (1873) was delayed a short time on account of a pressure of other work; but finally, when ready, the drouth had affected the land so seriously that plowing was next to impossible, as well as useless, indeed, for the time being, as corn (designed for fodder) would no more sprout in such a ground than in an ash heap. But near the close of July a nice shower changed the aspect somewhat. Part of the piece had been both mulched and manured; another part manured and not mulched; another strip mulched and not manured, and another part was without any recent application of either. The plowing was finished on or about July 31st, and on Aug. 1st the piece was planted for fodder corn in drills about four feet apart with no manure. The plowing was easy where the ground had been both mulched and manured the previous fall—the plow running beam deep, and turning up a moist and mellow soil. The part mulched, but without manure, was much the same, though less so, while that without any mulching was more or less lumpy, breaking up with considerable difficulty.

The corn on the mulched and manured part came up in five days, and made a rapid growth in spite of a further want of rain; while that on the part without mulching did not appear at all until moistened by a rain on Aug. 8th, so that it was not up until the 14th. Its growth then was very indifferent, and when cut in October it did not yield more than one-third as much as that on the mulched ground. The whole place was planted too late for the best result, as about Oct. 12th, when the best of it was just "topping out," we had to cut it to save it from an apprehended frost, which came on the night of Oct. 14th, killing nearly all fall vegetation; but though too green to cure thoroughly, my horse ate it with a good relish, and it supplied him with fodder for some six or seven weeks. The rank growth on the part mulched and manured in the fall (1873), coupled with the excellent texture of the ground, seemed to demonstrate that thorough mulching can be counted on to benefit succeeding crops as well as those for which it is directly applied; and I shall not be surprised to see far better clover on that part next summer than on the unmulched portions.

I ought to say, too, that the ground was bare of mulching during part or most of July, preparatory to plowing, during which time it was exposed to the full effect of a serious drouth. The mulching seemed to have increased its power to retain moisture, as well as its capacity to receive and hold it when the rains came. The material used was, in the main, salt hay in an advanced state of decomposition, having been in use elsewhere for three seasons, and the rest was mouldy cornstalks, potato tops, dead strawberry plants, weeds, and a few turnip tops. On the part mulched, but not manured, was salt hay which had been in use only one season.—Country Gentleman.

Growing Ruta Bagas.

C. T. Alvord says, in *Boston Cultivator*:—"There always has been, and probably always will be different views as to whether it pays to raise roots to feed to stock or not. Every intelligent person knows that the profit or loss in raising and feeding any crop depends on the favorable or unfavorable circumstances attending the raising and feeding of those crops. For nearly forty years I have raised roots to feed to farm stock, and I am satisfied that during this time roots have paid me as well as any other crop that I have raised. The ruta бага has been the kind chiefly raised, as I have had the best success with that than any that I have raised. I have never raised a crop that yielded less than at the rate of five hundred bushels per acre—the largest yield being three hundred bushels on one-fourth of an acre, and several crops have produced five hundred bushels on half an acre. The labor of raising and harvesting my turnips is no more per acre than raising potatoes. I feed roots raw to cattle and sheep, and boil them for hogs. I have frequently heard it said that turnips are comparatively worthless to fatten beef with, and also that if beef cattle be fed on turnips, the turnip

feed must be stopped for several weeks before they are killed, and meal or something else substituted, or the beef would taste of turnips. In numerous instances I have proved the falsity of this notion."

Nature and Use of Plaster.

The question is often asked among farmers, of what use is plaster? When, where and how should it be used? And it is seldom a satisfactory answer is given them. Nearly every farmer who has made an application of plaster had made it serviceable at any time, without profitable returns at another. Not one in a hundred knows the reason for success or failure.

Most people found the application to clover attended generally with good results; some found it good sometimes for potatoes; but not a single one could tell, what is plaster good for? Chemistry solves the question: Plaster is a sulphate of lime. Sulphuric acid had an affinity for ammonia, and when it finds ammonia it breaks up its partnership with the lime and combines with the ammonia, forming sulphate of ammonia, and this not volatile. The lime finds a companion, when deserted by the acid, forming carbonate of lime.

Hence it will be seen that when the farmer has ammonia in his soil, put there by himself in manure, or in any other manner, liable to waste, the plaster will fix it there, and in all such cases it will be applied with profit. The odor about stables and manure heaps is escaping ammonia, and the farmer can judiciously use a little plaster in both cases, saving the ammonia for his land.

Plaster saves to the soil nitrogen, one of the chief mineral agents entering into the growth of plants, ammonia is three parts hydrogen and one part nitrogen. Ammonia escapes from decaying vegetation whenever it is found, and is suspended in the air, and when, after a long spell and considerable quantities of it has ascended, the first rain brings it to the earth, and if there is a little plaster in the clover field the ammonia never raises again.

From a good paper on hay making read before the Dublin Agricultural Society, by Mr. Baldwin, we take the following brief extract, well worthy our consideration:—"As all grasses do not bloom at once, it is necessary so to time the mowing that the majority of the plants present in the swathe shall be at their best. The following rules are a sufficient guide: In the case of Italian rye grass, always mow on the appearance of the flowers, as this grass is such a fast grower that, if cut at this stage, a second cutting is obtained equal to the first, and on good land a third and fourth very little inferior. Ordinary rye grass may be allowed to produce the flowers. Clover is best cut when the heads are full in blossom. Mixed meadows should be mown when the bulk of the herbage is in full flower, or when the seeds of the earliest grasses are fully formed, such as sweet-scented vernal grass, meadow foxtail, and the late grasses, crested dogtail and meadow fescue, when they are just beginning to produce the floral organs. With us, timothy, Italian rye grass, perennial rye grass and cocksfoot flower during the latter days of June."

CHEVALIER BARLEY IN FRANCE.—The culture of the English chevalier barley, so admirable for malting purposes, has taken this season a great extension in the north and east of France; it yields well, and fetches a good price: two pounds of the barley produce about 1½ pounds of malt, the latter yielding 53½ per cent. of extractive matter, a result that brewers applaud. When more acclimated, the chevalier barley will be tried in Southern France and Algeria, it being the chief grain employed in these regions for feeding horses.—*W. F. Journal*.

HEMP RAISING IN KENTUCKY.—Mr. Blackgrave sold his hemp to R. H. Davenport at \$5.50 per cwt., the crop of fifty-four acres amounting to \$2,921. His profit, after deducting every item of expense, amounted to \$1,900. Last year the same land produced a crop, which he sold at \$7 per cwt., on which he realized \$300 less profit than on this season's crop, the latter crop being so much superior in quality.

COLORADO BEETLE REMEDY.—I have used dry hickory and apple tree wood-ashes, mixed about half and half, a handful on each hill of potatoes, for the Colorado potato beetle. The vines being wet, the ashes adhered, and since that time I cannot find a beetle on my potato patch.—*J. L. S.*

Miscellaneous.

Canada at the Centennial.

The Dominion does remarkably well, occupying almost as much space as the Mother Country. There are articles from the Provinces of Quebec, Ontario, Manitoba, Nova Scotia, New Brunswick, and British Columbia. The goods are put up in plain uniform walnut cases, that give a very regular appearance to the department. This feature of uniformity arises from the fact that the collection is under the auspices of the Government itself, the Dominion treasury having contributed \$100,000, and the Provinces an additional amount for the display, the entire exhibit being in charge of three Commissioners from the Dominion, and one from each of the Provinces. One of the striking features of the Ontario display is the elaborateness with which the school system is brought out, and in this a great deal of pride is evidently felt. The exhibitors say that their educational system is the best in the world. The geological department is made a leading feature of the exhibition. The ores and petroleum are noticeable. The Commissioners point out a lump of plumbago, six feet by four, said to be the largest ever mined. Fine specimens of red granite from New Brunswick also attract attention. There are displays of furniture from Quebec and Toronto, tweeds, woolen goods and hosiery. The ship-building industry is represented by an interesting display of models from leading ship-yards on the sea coast. Specimens of stoneware, which are claimed to equal the celebrated Staffordshire ware, are shown. Marble mantelpieces, made in Montreal, are claimed by the exhibitors to equal in delicacy of finish and beauty of design the work of the Italian chisel. The boot and shoe interests, drugs and chemicals, sewing-machines, circular and other saws, pianos, and cigars have also fine samples in the collection. The furs are particularly noticeable, the Hudson Bay Company making a large exhibit. All kinds of articles of wearing apparel are profusely displayed. The extent and variety of Canadian industries, as represented here, will surprise English and American visitors who have thought that they were well informed about the manufactures of the Dominion.

The Canadian exhibit in the Agricultural Hall is particularly good in reapers, mowers, ploughs, harrows, roots and straw cutters, and horse-powers. The variety in ploughs is if anything greater than in our own show, although the number of ploughs is much smaller. The turnip-drill in the Canadian collection is evidence of a culture different from ours. With a poor climate for corn, they made turnips and peas stand them in good stead. Of the excellence and profusion of their wheat, barley, rye, oats, potatoes and grass, there is no need to speak. Canada has also portable engines, cider-presses, potato-diggers, snow-ploughs for breaking winter roads, grain-drills and hay-loaders.—*New York Tribune*.

Hints About Whitewashing.

If lime is slaked with skimmed milk instead of with water, it will not rub off, and will have a glossy appearance. Whitewash is the best coating for walls covered with common lime mortar, and kalsomine for those covered with hard finish. If the ceiling has been blackened with smoke, a little dissolved indigo added to the whitewash will hide the smoky surface. To make a stone color, take for half a bushel of lime four pounds of raw umber and two pounds of lamp black; for a light pink, stir in Spanish brown till the color is what is desired. A lemon-colored wash may be obtained by using chrome-yellow; a fawn-color by adding to half a bushel of lime one pound of Indian red, four pounds of umber, and one pound of lamp black. To make the whitewash, slake half a bushel of lime in a cask of hot water or milk; add half a pound of whiting, one pound of glue dissolved in hot water, and a peck of salt dissolved in water. Have a wire across the pail containing the wash, when used, so that the brush may be pressed against it when taken from the whitewash. This will keep drops and splatters from soiling the floor. Use only a little wash at a time, and dip the brush perpendicularly into the pail.—*Orillia Packet*.

Forty-two acres in every one hundred acres in England, and sixty-four in every one hundred acres in Ireland, are pasture.