

Agriculture.

Sowing Grass Seed.

The production of domestic animals and manures depend so largely upon our grasses that the necessity of their cultivation is universally recognized.

In England over thirty distinct species are employed for different soils and purposes. In this country the number sown scarcely exceeds half a dozen. The advantages of the larger number are, that mixed grasses are found to feed animals more profitably than one kind, and that a greater weight can be produced per acre. Some kinds are of temporary duration, while others are permanent; the period of maturity differs, so that when mixed, some are always in the best condition for pasture, and some for meadow, and some prosper best in one kind of soil and some in another. These, and other considerations which might be mentioned, show the advantage of cultivating a greater variety than is usually found in the pastures and meadows of the United States.

The time for sowing seed is here. Although very much has been said by the advocates of fall seeding to prove that that period possesses advantages over any other, the fact remains that spring seeding is preferred and practiced by far the greatest number of farmers throughout the country, and, as we believe, with them rests the weight of the argument. A wide difference of opinion also exists in regard to the quantity of seed per acre. Extreme opinions obtain on either hand; but the proper quantity to sow is governed largely by circumstances. Thin seeding, when the seed is fresh, may succeed well on rich and deeply pulverized soil, while with poor seed on light, thin land, failure and disappointment would be the result. Safety in any case lies in a sufficient quantity of seed to ensure a catch, else weeds will be likely to usurp vacant places and injure the grass. Early seeding is important in obtaining a good catch. Fall preparation of the land enables the farmer to sow early and obtain a good crop of hay. None but fresh, bright seed should be sown, whatever may be the kind or mixture. Much of the failure that attends this branch of farming is the result of using immature, foul and comparatively worthless seed, a large portion of which fails to germinate while the land is overrun with noxious growths. Clean culture is a pre-requisite of good farming, and the use of foul seed generally results in requiring, at the farmers' hands, a vast amount of additional labor year after year in efforts to exterminate the pests thus introduced. However good the appearance of seed may be, it may be expected that all of it will not germinate because of a lack of vitality, and besides this some that is good will not come, on account of being covered too deeply, hence the utility of sowing a sufficient quantity to insure a catch. As a rule, the depth at which the most seeds of different grasses germinate is half an inch. Circumstances, however, of season and soil, exert more or less influence in this matter.—[Prairie Farmer.

Onions

Need an abundance of manure that contains plenty of potash. Hard wood ashes are good for them. If the manure is not applied in the fall, it should be composted then, so that it will be fine in the spring, as green manure makes poor onions. The Danvers is the best onion for market. Ten to eleven hundred bushels per acre can be obtained, but 500 is a good crop. The land is prepared in early spring as for other seeds, and when sowing, four or five pounds of seeds per acre have to be used. Afterwards, he uncovers with the same machine, and these two weedings are sufficient. Harvesting begins when the tops begin to fall, and when for any reason they don't drop at the proper season, they can be made to do so by rolling a barrel over them. Then, after pulling several rows, the space thus left is cleared of weeds and the onions thrown back upon it, and the process is continued until the crop is all pulled. After remaining on the ground long enough to dry, they are carried to the barn, deposited in pits not more than three feet deep, and topped at leisure. In topping, a knife is not necessary, nor should the tops be pulled off close, but rather leave a little.

Wheat is reported to be injured in several counties of Illinois, and much is winter-killed on the Wisconsin prairie.

Quack-killing Without Cost.

The strongest hold of this grass is its rank, jointed root-growth, which, however, it does not have until the second year from seeding; the first year it only has small fibrous roots, like any other grass, and is then quite as harmless; but if left to occupy the land it increases until the soil is filled with a tough network of strong horizontal branch roots and is always found to be such a persistent grower that persistent work is required to exterminate it. But the farmer can do this without much loss of time or labor by ploughing the ground in the fall, then tilling it thoroughly—as it will pay to do for any good crop. Quack is generally found occupying the best land on the farm, and the best crops can by proper management be substituted for it.

Some twenty years ago I found the first quack on my farm; one small patch in the crook of the fence, and another in the middle of the wheat field, just heading out. These I effectually killed the first time trying, by removing the fence and packing two or three feet of old straw from the barnyard over it, and extending it several feet beyond the bounds of the quack, to remain so for nearly a year. Twelve years ago I bought six acres filled with growing quack; this I ploughed early, and by cultivating or gang-ploughing once in a week or ten days, did not allow a green spear of it to grow above ground, until in the fall, after every one said it was dead, it was left about a month, when, showing some signs of life, I continued its tillage; then finally (and this really gave it the death-blow) I ploughed it up just before winter, when I was surprised to find the roots all there, but quite tender and bleached, though not dead; but by exposing them when in that condition to the frosts of winter and a thorough tillage in spring, before planting to corn, and by taking off perhaps a dozen stray roots I found growing among the corn, it was killed out, and the field has been clear of it ever since.

By what I had thus learned about the treatment of quack I believed I could kill it while tilling a hoed crop, instead of losing a year's use of land and the year's work while killing it; so I hired twelve acres of as old and tough quack turf as was in town; ploughed it in the fall, which subjects the roots to the action of the frost, which partially deadens and loosens the soil, so that the spring tillage will be much more effectual than it could be in a fresh-turned turf; then with my wheel drag, with its long steel teeth projecting forward, hatched out the quack roots, often at the rate of about half a ton from an acre; these, after a few days, were enough dried and reduced to allow of repeating the operation, when the drag was run a little deeper, so that the second or third time it went about as deep as the soil was ploughed, and got the roots pretty well on top, besides getting the land into very fine tilth for planting.

I planted the whole field to corn, cultivated it out once by the marker-tracks, before the corn was up; cultivated twice more and hoed the corn; then used shovel-plough (which would cut and cover any quack attempting to grow as it killed up the corn), continuing this first one way of the field, and next crossing it, until the corn was too large to go through it. The result was the best piece of corn in the neighborhood, and quite a clean corn stubble, except occasionally a spear of quack. This corn stubble I cultivated once over in the fall, then ploughed and planted to potatoes the next year, tilling and growing a heavy crop, which effectually killed the crop. And this I call the most practical and economical, as well as the most thorough and profitable, way to kill quack, for I contend that I did no more work in cultivating these two crops, while killing the quack, than it was profitable to do for the best growth of the crops themselves.—[H. Ives, in the New York Tribune.

It is reported that the wheat crop in Middle Tennessee is badly damaged by a worm resembling the army worm.

The tax imposed in Germany on American provisions has had a depressing influence on the American markets.

In the Estimates presented to the House of Commons of the Dominion is the item \$217,206 for arts, agriculture and statistics.

Boston street-car horses are attacked with a strange disease which baffles the efforts of the veterinary surgeons.

Last year 1,028,368 acres of Dominion lands were allotted in Manitoba and the North-west Territories.

Successful Farming.

At a meeting of the Vermont Dairy Convention, Mr. Whitney, who had abandoned mercantile pursuits for agriculture, tells of his successful farming:—

Arrived here, he bought his mother's run-down dairy farm, going in debt for the whole, and in course of time restored it to its primitive productiveness solely by means of the resources of the land itself. This success is due in the main to two principles, which he has persistently adhered to—namely, to sell nothing except in the most concentrated form, which in his case has been butter and meat; and to save every particle of fertilizing matter, and put it where it would do the most good. While he does not object to heavy manuring, he finds his profit in broad manuring; and while he does not object to deep plowing, he finds shallow pays him better. He has more faith in frequent than in deep plowing on his soil, though he is not willing to say that the grass does not hold out longer where he has plowed deeper and manured heavier. Evidently tillage with him is manure, though he does not say so. He takes up every year a large piece of his poorest meadow and plows it, and harrows it with a disc-harrow till it is thoroughly pulverized, and then he harrows it more, working in the manure he has to spare for it meantime. He raises large crops of corn, cuts it while yet in the milk, and feeds the stalks at a large profit over letting it stand till the husks become white, as is the custom generally. He has eschewed pumpkins because they are in the way of the cultivator, which he uses freely. This "superficial farming," as it was characterized by the genial Colonel Sprague, received the indorsement of by far the larger part of the assembly.

Cattle and sheep are dying for want of food in some sections of Canada.

PLANTING.—So soon as the ground is settled, plant the trees, shrubs, etc., that they may get an early start, and be well established by the time droughts come. Like animals, much depends on early growth.

All scars made by pruning off large branches of trees should be painted or tarred, or otherwise protected from the rain. Many fruit trees become hollow, or fall into premature decay, from the rain penetrating through the cuts made in pruning.

Never put a hatchet with which you have cut down a sickly tree, or you will inoculate the healthy tree with the disease.

In New Zealand oats are sold at 10s. 6d. per quarter of 320 lbs.; wheat, 32s. per 480 lbs.; barley, about the same, and at these prices the farmers are growing rich, such is the propitiousness of the soil. Cattle there are sold from £5 5s. to £4 10s., and sheep at 7s. 3d. to 12s. 3d.

THE NORTHERN CLIMATE PRODUCES THE BEST SEED.—The N. Y. Tribune says: "Wheat is unable to bear our torrid summers. It must mature before the heat of July. We are obliged to get seed of new varieties as the old ones become worn out, from localities where the season is shorter and more pinching than our own. So with other cereals."

There is especial reason for carefully selecting seed corn this year, as on account of the lateness of the last crop, but little ripened before frost. Corn saved before freezing and stored in a warm, dry place, will almost certainly thrive. The place must be dry and warm. The finest ears must be selected, and it would have been better if the earliest ripened had been saved at the time of gathering.—[Farmer's Review.

James Wolverton, Grimsby, had considerable experience with the Cankerworms, and tried three ways of combatting them. He found the use of pitch-tar—not coal-tar—the easiest and very useful. After a few days the tar hardens and it becomes necessary to make a fresh application. He also used Paris Green mixed with water, applying it with a garden pump. This must be put on very early in the season, as soon as the buds burst, else the mischief will have been done. He also tried fall plowing—say in the end of October—with a view of opening up and exposing the chrysalids, and thought this had a beneficial effect.