

The Mangel Wurzel.

The sowing of mangel wurzel has been completed for the season; however, the following article on the subject on good authority is so replete with valuable suggestions, not only for the preparation of the soil and its sowing, but after, for its cultivation and storing, that we reprint it for the benefit of our readers. We have in our own experience often found great profit from lessons in agriculture read and stored away in our minds to be practised when needed.

Seed—Six to eight pounds per acre. A late sown crop might be allowed to stand thicker than an early sown—and thus a larger number of medium-sized roots would in some measure compensate for the absence of heavier roots. Sorts to sow—This depends entirely on the soil, and other conditions; and disappointment is often experienced through sowing sorts unsuited to the soil. In good, deep, rich clays and loams our Mammoth Long Red will produce the heaviest crop. On shallow soils our Intermediate and Golden Tankard will succeed best. Our Berkshire Prize, being of more robust and vigorous growth than other Globes, will do well on all soils. Time of Sowing: The Mangel is an annual, yet it likes its year to be made as long as possible. In a kind spring, those generally succeed best who sow earliest. Some bulbs, it is true, may run to seed; but the increased weight of the remainder more than counterbalances this; and if pulled when the seed stalk is just shooting, pigs do well upon them. The middle of April generally suits, unless in elevated districts where the climate is late and spring frosts prevail. Should the month of April be unusually cold or very wet, it would be wiser to wait till the first week of May before sowing—for Mangel seed will not germinate in a low temperature, but the weeds will, and they are apt to go ahead. Manure: Apply as much of the rich ammoniacal dressing, such as farm-yard manure, as you please also 2 to 4 cwt. of Superphosphate, and 2 cwt. of salt per acre, which should not be allowed to come in close contact with the seed or it will destroy its germinating powers. Mangel fattens on liquid manure in any form, and guano, 1 cwt. per acre at sowing time and a second and third cwt. at the first and second horse-hoings, will be found to pay. Cultivation: Wheat is generally the preceding crop. The farm-yard manure, at the rate of 20 to 30 cart-loads per acre, previously drawn, and slightly fermented in a heap, is spread, and the land ploughed before Christmas, if possible; but, at any rate, sufficiently early to insure a frost for the thorough disintegration of the surface deep enough to form a good bed of free mould. We strongly recommend steam-ploughing where possible. The heaviest crops ever known were obtained, in a measure, by steam-ploughing to the depth of 18 inches, and the effect on succeeding crops is most beneficial. So soon in April as the weather permits, the land is well harrowed as deep as it will work freely. By this plan the moisture is retained, and thereby the seed induced to vegetate. By deeper cultivation and evaporation, the soil is often so dry that the germination of the seed is dependent on rain. Many a plant of Mangel has been lost in a dry spring by giving the land what is well described as "the orthodox amount of spring tillage," instead of permitting it to remain in a state which a farmer would call "stale furrow." The seed is drilled on the flat at 28 inches from row to row, and not too deep. The plants should be set out 15 to 20 inches in the rows, according to sorts; the Intermediate and Golden Tankard, from their peculiar shape, may be allowed to stand closer than other varieties. As soon as the thistles appear, dig them to the depth of the plough, and the after cultivation of the crop is the usual one of repeated hoeings by hand and horse labor. Storing: Late in October or the beginning of November is the best time for harvesting this crop, and this may be most economically done by contract. Men pulling roots, women removing leaves, with children throwing into carts, should be able to complete the process at from 6s. to 8s. per acre. A good method of storing is to set up two rows of hurdles about 9 feet apart, and tilt the mangels out of the carts into them until up level with the top of hurdles, when the whole may be topped up with straw, the hurdles inside being slightly lined with the same. Another such heap may be made alongside, about two or three feet away; and if the eaves of the rough thatch meet, protection and ventilation will be equally ensured.—*Sutton & Sons' Farmers' Year Book.*

Tomato Culture.

Not long since I was reading an article on this subject in a very noted work on "garden culture," which says, "not to have the ground rich," for, it says, "the plant will vine too much and not fruit." My experience has been the reverse. My plan of cultivation is as follows:—I plow or spade my ground deep—pulverize it thoroughly, first, having it very rich; lay off four feet each way, and with a shovel throw out the earth to the depth of one foot, which fill with a compost of hen manure, unleached ashes and surface soil, putting about an inch of soil on top; procure stakes four feet long and drive down near the edge of the hole; plant in center of holes, which should be one foot in diameter.

As the plants grow, tie them to the stakes. Now the main thing is to stir the soil and pinch out all laterals or suckers, like tobacco raisers do tobacco. When the plants get to the top of the stakes, pinch out the tops—be sure and keep them well tied to stakes.

If those who are in the habit of reserving their poor soil for tomatoes will once pursue this plan they will not only be convinced that it is a good one, but will never after plant tomatoes on poor soil.—*Cor. Fruit Recorder.*

RYE FOR PASTURE.—At the last meeting of the Elmira (N. Y.) Farmer's Club, the following, from a correspondent in Minnesota, was read by the Secretary:

Farmers who are in want of first-class pasture at least expense, for this season, should prepare a lot for the purpose and sow the same to winter rye, and they will soon have a pasture for sheep, calves, poultry, in fact any kind of stock, and for young lambs it can not be excelled. Heavy stock will trample it into the ground, to some extent, if put on early in the season, but later they can be kept on it at a profit. Winter rye sown in the spring will not head out till the second year, but will stool out so as to cover the ground, producing a luxuriant mass of feed that will pay every experimental trial. It can be cut for soiling purposes the second year for grown-up stock, or it can be raised for pasture, as stated before, or it can be allowed to attain its growth and mature a crop to harvest. It will also stand drouth very well, and enrich the land. From one and a half to two bushels per acre should be sown, according to the wealth of the land.

IS ONTARIO FLOUR DETERIORATING IN QUALITY?—Mr. Morrison, shipowner, of Halifax, said that were an import duty imposed on coal, Nova Scotia would buy more largely than ever of the oats, flour and pork of Canada, and that the whole trade in these commodities would eventually fall into the hands of Canada. The Maritime Province alone would buy 800,000 barrels of flour, besides cheese, butter, and everything Ontario could export to them. He, however, complained that the Nova Scotians find that the Ontario flour is deteriorating in quality, the grade extra being now no better than No. 1 was formerly.

—The Royal Agricultural Society of England announces that, at its Liverpool meeting in July of this year, it will, for the first time, admit foreign productions to competition for its valuable prizes. It has been led to extend this privilege on account of the important and intimate business relations between Liverpool and the United States and Canada, and exhibitors from both countries will be cordially welcome. The exhibition will be opened July 11, and close July 16.

MAINE has taken steps to encourage the manufacture of beet sugar. The Governor and Council have been authorized to contract with any responsible party, or company, to pay one cent per pound bounty on the sugar manufactured for ten years; provided not more than \$7,000 shall be paid in any one year. In other words, the State is willing to pay \$70,000 in ten years on beet sugar.

No Chinese farmer ever sows a seed of grain before it has been soaked in liquid manure diluted with water and has begun to germinate; and experience has taught him (so he asserts) that this operation not only tends to promote the growth and development of the plant, but also to protect the seed from the insects hidden within the ground.

Prize Farms of the Royal Agricultural Society.

An intimate knowledge of the means whereby others attain success in the business in which we are ourselves engaged is most beneficial, and a description, however brief, of the mode of cultivation pursued by some of the most successful farmers must be of interest to all who are engaged in the cultivation of the soil. Annexed is a brief report of a visit to two of the prize farms of the Royal Agricultural Society:—

A number of members of the Midland Farmers' Club recently enjoyed a pleasant trip to Clopton and Milcote for the purpose of inspecting two of the three farms to which prizes were awarded in connection with the visit of the Royal Agricultural Society to this town. At Lower Clopton they met with a hospitable reception from Mr. Henry Stilgoe, to whom the first prize of £100 was awarded. The farm is managed on the six-course system—namely, roots, barley or oats, seeds, wheat, beans, wheat—with the exception of about 20 acres of seeds, which remain down for two years. The crops then growing were:—Wheat, 93 acres; barley, 40 acres; oats, 60 acres (32 acres mown and 28 grazed); second seeds, 20 acres; mangolds, 12 acres; swedes, 31 acres; and lucerne, 8 acres; which, together with 150 acres of pasture (124 acres for grazing, and 26 for mowing), make a total of 479 acres. The cattle include eight dairy cows; 20 calves being reared yearly, and fed off at from two to three years old, and about thirty-five to forty-seven beasts fed off annually, according to the season. Eight years ago a Longhorn bull was used for the sake of the cross; but the last five bulls bought for service have been pedigree animals of the Walnut and Spencer tribes. Only 140 Oxfordshire Down ewes are kept for breeding purposes on account of the land not being healthy for lambs; but 500 fat sheep are sold off annually. Four sows of the large white breed are now kept, and their produce sold as stores. Of working horses there are only nine, steam cultivation by means of hired machinery being extensively employed. Since he entered upon the farm in 1865 Mr. Stilgoe has grubbed up several hedges and banks, and filled in ditches and old marl pits at his own expense. He has likewise drained about 170 acres, the landlord providing the pipes. Fourteen men, with one strong lad as under carter, are regularly employed with three boys and six women when the weather will permit. When Mr. Stilgoe came to Clopton there was no water except what was to be had from pits; but in the first year of his tenancy water was laid on from Margaret's Well, with iron pipes, at a cost of £97, of which landlord and tenant paid equal proportions. A diary of the men's work and of the weather has been kept during the whole of the time that Mr. Stilgoe has been in business—21 years. The company examined the homestead, the stock, and the growing crops with evident interest; but it is scarcely necessary for us to observe that they were not in a position to form a reliable opinion as to the propriety of the award in this case, as they had not before them all the data on which it was based, such as the difficulties to be encountered in the cultivation of a tenacious, heavy soil, like that in question, the produce obtained from it by skillful management, and the financial results. The land appeared to be clean; the grain crops—wheat more especially—promising; the roots, considering the unfavorable season, fair; the stock in thriving condition, the sheep being a very even lot; and the fences in good order. We may add that one of Fowler's steam cultivators, drawn by two engines of 12-horse power each, was in active operation in grubbing up a twelve acre field of two years' seeds, the soil here being a gravelly clay. On leaving Clopton the party drove to Milcote, and inspected the farm of Mr. J. C. Adkins, to which an extra prize of £25 was awarded on the recommendation of the judges. It comprises 383 acres of light land, 280 of which are arable, 51 pasture, and 52 meadow. It is cultivated on the six-course system, the course of cropping being roots, barley, seeds, wheat, beans, wheat. The crops of the present year are wheat, 89a 3r 28p; beans, 17a 2r 22p; peas, 31a 1r 16p; barley, 46a 2r 5p; seeds, 45a 2r; lucerne, four acres; cabbage, four acres; turnips, four acres; swedes, six acres; and mangolds, 28a 1r 15p. Twelve horses are kept, together with 20 dairy cows, the produce of which is sold off at three years old; 230 lambs, 149 breeding ewes, 42 cull ewes, 50 theaves, and 9 rams. The whole was in excellent order, and the crops remarkably good; the wheat being exceptionally fine.