

set 4 acres of potatoes here on the 22nd April '89. Two eyes were used to a set. Dusting the cut sets with plaster is all right if they are to be kept in a heap for some days, but useless, when, as in this case, they are to be set next day. Still, as rain or other things might delay the planting, I should always dust the sets, though I prefer air-slaked lime for the purpose—perfectly effete, of course.

The mode of manuring the crop seems to me to have been faulty in this. the potash—upwards of 50 lbs.—contained in the 900 lbs. of artificial, dusted round the plants after they were up, was I should think wasted. Potash requires sowing very early in the spring, or even in the previous autumn, if it is to do any good to the year's crop.

The yield of the 1st prize oat crop, mentioned on page—of this number, was 134 bushels, 21 lbs., American measure = 108 bushels of 40 lbs. A first-rate yield, though not an extraordinary one considering the conditions.

A. R. J. F.

Story of the Grand Prize Crop.

THE LOCATION AND SOIL.—Mr. Coy's farm is in Presque Isle, in the center of the renowned potato-growing county of Aroostook, in Northern Maine. He is not far from the New Brunswick line, in latitude $46\frac{1}{2}$ degrees. This region is the most fertile in the Valley of the St. John River, and is as newly settled as many portions of the West. Indeed, vast tracts in the Aroostook are still in primeval forest. The soil in this case is a strong clay loam with a few stones, and the original growth was sugar maple and black birch. The contest acre was quite smooth, with a slight exposure to the East, and a small knoll in the center of the plot. The soil is naturally dry. Its fertility may be inferred from the fact that it was seeded to grass in the fall of 1882, after having been cropped with potatoes, which yielded 400 bushels per acre with only a light dressing of manure. We infer that no additional manure was applied when seeded, and no plant-food was put on during the six years the land was in grass. Yet it gave an average of two tons of timothy hay per acre in 1885, 7 inclusive, though the 1888 crop was not so large. The market value of the land is placed at \$40 per acre.

PREPARATION.—After the removal of the hay crop, the land was plowed on August 1st, 1888, the strong sod being turned under to a depth of six inches. It was carefully cross-plowed on April 30th, 1889. Two horses and one man did each plowing in one day. After lying open to the weather for two weeks the ground was gone over with a spring tooth harrow. This implement does good work on such soils, and in this case the process must have been done with great thoroughness, as three horses were used, and a full half day devoted to it. The season opened early and dry, enabling the soil to be put in fine condition.

FERTILIZATION.—The intelligent farmer will observe that while this land had borne good hay crops for six years without manure, it was naturally adapted to the potato, as the prior large crops had proved. The heavy sod, plowed down in the fall, was partly rotted, decomposing as the season advanced and facilitating drainage after wet spells, and yet retaining moisture during the short dry times. The soil, therefore, afforded every possible prerequisite for the profitable use of plant-food, especially of chemical or commercial fertilizers. The soil in its nature was peculiarly adapted to the crop, its mechanical condition was excellent, and (with a good season) it needed only a liberal supply of plant food in the right form and in the proper proportions to insure a good crop. These conditions were complied with by the use of the Stockbridge potato manure, whereas, had the cruder and slower-acting

stable-manure been put on such soil no such result could have been secured. This fertilizer contained three and one-quarter to four and one-quarter per cent of nitrogen, seven to nine per cent of available phosphoric acid, and five to six per cent of potash. Eleven hundred pounds of this "manure" was scattered along the bottom of the trenches after they had been laid off for the seed, and was well mixed with the earth in and about the trenches by hand with the hoe before planting. The balance, nine hundred pounds, was applied June 12th, at the time of the first hoeing, by scattering a small handful around each plant and working it carefully into the soil with a handhoe. Care was taken not to let the fertilizer come in contact with the leaves or roots.

CUTTING THE SEED AND PLANTING.—The land was laid off in trenches two feet nine inches apart, the outside rows being within eighteen inches of the boundary line. The seed was dropped twelve inches apart as closely as possible, making about fourteen thousand hills on the acre. The seed was carefully covered by the hoe to a depth of two or three inches. The planting was done May 15th, and was completed in one day by three men. Four and one-half barrels of potatoes were used, worth one dollar per barrel. The seed was taken from the cellar about six weeks before planting and spread thin on the floor of a dry and reasonably warm room in the house. Only such tubers were finally selected as had strong, green sprouts at the time of planting, and no small tubers were used. The seed was out to two eyes on a piece. An idea of the size of the sets is furnished by the fact that one hundred weighed five and a half pounds. The sets were sprinkled with land plaster as fast as cut, to protect from rot and assist in giving the young plants a start, and were planted the day after cutting. Only about one set in a hundred failed to come up, and such vacancies were replanted. The Dakota Red variety, grown by Mr. Coy for the third year, were planted.

THE SEASON AND CULTURE.—The season was early and the spring dry as compared with former years. The weather was cold at time of planting, May 15th, and the soil, though dry, was rather cold. This continued for about ten days after planting, when it came on warm, with frequent showers. The crop was fairly up June 5th, and on the 12th was cultivated shallow, taking two men and a horse about four hours. June 12th and 13th the crop was hoed by hand (the remaining nine hundred pounds of fertilizer was put on at this time, as stated above), and the trenches filled in level full. It was again cultivated June 20th, this time deeply and thoroughly, and was hoed on the 24th, 25th, and 26th of June. Mr. Coy intended to hoe them again, but the growth was so great that it could not be done without injury to the vines. In June there were two rains a week, and it was so wet that there were few chances to cultivate potatoes. But the natural drainage of the plot avoided serious damage, while the retentive character of the soil prevented the leaching of the more quickly soluble portions of the fertilizer—a loss that might have been no small item on a leachy soil. July and the first half of August were dryer, averaging about one good shower a week—evidently perfect weather for potatoes during this, the critical period of their growing season (1).

Sheep,—How to make them pay.

COL F. D. CURTIS.

The time has come when the farmer must meet the sheep question on a close basis. It is true, that there has been a very small increase in the price of wool this year; but the per cents of gain will not put a lasting backbone into the sheep

(1) The digging, with forks, took 5 men $2\frac{1}{2}$ days to complete.

A. R. J. F.