

## United States Letter.

Washington, D. C., March 22, 1883.

The farmers of the United States—I mean the intelligent and thinking class—are somewhat agitated just now over the provision in the tariff bill, which recently passed Congress, reducing the duty on 1st and 2nd class wools. Those who have studied the subject say that it will let in the wools of Australia and Buenos Ayres, and destroy the wool industry of the U. S. The farmers of Canada can perhaps give some advice to the farmers of the U. S. on this subject, from their own experience.

A recent correspondent of the Department of Agriculture, in his letters from the islands of Alderney, Guernsey and Jersey, says that the very best grade of cattle are bought and sent to the United States and Canada, that their imported cows and bulls are better cared for in this country than on these islands, and that in a few years the pure stock raised from this imported stock in America will be superior to that on the islands of Alderney, Guernsey and Jersey. They use the sire at one year old and send him to the butcher at two years old. This breeding from an immature sire, he alleges, is gradually leading to bad results.

The Commissioner of Agriculture, in a report just issued on the "Numbers and Values of Farm Animals," says: "The increase in number of population, and advance in price of meat, have had a stimulating effect upon the stock growing industry. There has been in operation a strong tendency in the Northwest to reduce the area in wheat and extend the breadth of corn and pasturage. It is a healthful tendency, sustained by the fact of superior profit in the production of beef and milk, and encouraged by the uncertainty of wheat growing and reduction of rate of yield under the regime of continuous wheat culture. There has been a great advance in Dakota, Wyoming, Montana and New Mexico."

The average value of horses in the U. S. shows an increase over the valuation of last year of \$12; of mules, \$3.14. Increase value of milch cows is \$4.32; of other cattle, \$1.91. Advance in value of sheep, 15c. per head; in swine, \$1.20.

The report of the State Agent in Maine to the Department of Agriculture, which is just made public, gives some interesting items on the profits of cultivating and canning sweet corn, which might be of use in Canada. He says: "It is noticeable that at places where corn canning factories have been longest established, and as a consequence, farmers understand the growing of sweet corn better than when it was first grown by them,—there we find most numerous examples of large and profitable crops. These large yields come from giving the crop high manuring and good culture. In a favorable season 1,500 cans per acre are regarded as an average crop, but there are many instances where 2,000 cans to the acre are produced, and a few where 3,000 cans have been taken from one measured acre. In one instance a field of five acres yielded \$30 per acre; and another of three acres yielded \$105 per acre. The highest price ever paid by the canning company for one acre was \$126. The varieties of sweet corn grown are Early Crosby, Early Triumph, Early Minnesota, and some local varieties."

General Wm. G. Le Duc, late Commissioner of Agriculture, has, since his retirement from that position, returned to his agricultural pursuits in Minnesota. His earnest efforts to induce a more general cultivation of sorghum are well known. A prominent agriculturist now in this city from Minnesota says that the raising of sorghum in that State has proven very profitable, notwithstanding the vigorous climate and short season, which interfere so materially with the maturing of the

crop. Although the last season was unusually unfavorable, cultivators of the crop obtained a fair yield, which was made into good syrup and sugar. He says that those who raised crops of sorghum report that they made more money out of that crop than by any other kind of farming. As Minnesota has about the same climate as Canada, why should not its farmers cultivate sorghum with equal success? Near Cape May, New Jersey, a thousand acres were planted last season in sorghum in a white sand, which has heretofore been thought unfit for cultivation, and which has produced principally scrub pine and brambles for a century. To the astonishment of all, the yield of sorghum was enormous, and now factories are to be erected, and thousands of acres of this sandy waste, like a sea bottom, are to be cultivated in sorghum.

LOTUS.

## PRIZE ESSAY.

THE BEST FIVE VARIETIES OF POTATOES GROWN IN CANADA, AND WHICH ARE BEST ADAPTED TO THE SOIL AND CLIMATE.

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Out of the multiplicity of different kinds of potatoes we now have, and which are being brought forward every year, it is, indeed, a difficult task to pick upon five varieties which would answer the requirements of the essay. From year to year we find our scientific potato growers bringing out some new varieties, and scarcely a seed catalogue is taken up but a specialty of some kind is made by our leading seedsmen. Some of those stand the test of experiment and are found to be an improvement on old varieties, while many more of them fall below the merits of existing kinds and are heard of no more. In recommending five varieties, they should be of well established reputation and such as the writer can warrant by actual trial.

As the essay calls for such varieties as are best adapted to the soil and climate of Canada, I shall assume that although the potato has a wide range of latitude, for it will grow from a southern to an arctic clime, yet its native element is a northern one, and the farther north it can be grown the better its qualities and flavor; and as the climate of Canada stretches from the forty-second parallel of latitude to the arctic circle, I shall consider the climate no more than by merely saying that any potato will, as far as climate is concerned, come to the highest state of perfection.

Then with regard to soil, nearly all our land will grow potatoes profitably; and we have land varying from a light gravel to a heavy clay. But a sandy loam enriched by firmer alluvial deposits; new lands filled with decayed vegetable matter, and those lately cleared and burned over, also limestone soils, are in my experience the best types of potato lands,—although, as I said before, any kind of soil will do. Heavy clay land, well broken up and thoroughly drained and manured, can be brought into an excellent condition and produce a good crop of potatoes. My experience in potato growing has been in a clay-loam of a limestone tendency, enriched by well rotted barnyard manure. For a number of years I have been experimenting, and have been growing nearly all the various kinds of potatoes that have come out. Since 181 I have raised the following varieties: Clarke's No. 1, Burbank's Seedling, Beauty of Hebron, St. Patrick, Susy, Peerless, Pride of America, Ruby, Bliss' Triumph, Mammoth Pearl, Improved Pinkeye, Early Ohio, Early Vermont, Superior, Late Rose, Early Rose. Supposing my soil average, which I think it is, and that the climate or temperature is average, being on the forty-second parallel of latitude, or London, Ont., the results of my experiments should be a guide to any part of the Dominion. The points upon which I tested the merits of these sixteen kinds, are: 1. Earliness; 2. Productiveness; 3. Quality; 4. Hardiness, or keeping properties.

The five kinds which I have found to score the highest in these four points are Clarke's No. 1—6 lbs. seed, 240 lbs.; Burbank's Seedling, 230 lbs.; Beauty of Hebron, 200 lbs.; St. Patrick, 245 lbs.; Susy, 275 lbs. The other eleven varieties fell short of these in productiveness. Clarke's No. 1 I found to be fully a week or ten days earlier than the Rose; to be of equal flavor, and much more prolific and have the same keeping qualities. At the present time, however, 9th of March, while I write I notice that they are sprouting consider-

ably, and for a late keeping potato it could not be recommended, but for an early potato and a general cropper I have found it superior.

The Beauty of Hebron I consider a well established early variety, and last year side by side with the Early Rose, I found the former exceeded it by fully 25 per cent. in yield. On examination at the present time the Hebron is firmer than the Clarke No. 1, and I should decidedly say, retains its keeping qualities longer. As a second early potato out of the 16 varieties mentioned, I have found the Susy to come in just in the nick of time to avoid the ravages of the bug. It is a quick grower, so the bugs appear to have no effect on the top; side by side with the other 15 varieties the Susy was very little affected, but I consider this arose from the fact that the vines missed the ravages from the first batch of bugs, which were killed by Paris green, and they were too far advanced to be injured by the second brood, which would be in time for the late varieties. I am satisfied for a second early potato the Susy has no equal. It is a beautiful pink on the outside and grows uniform and smooth and of excellent quality, and inside is as white as flour.

The St. Patrick, as a medium early, I found, in weight of production and cooking qualities, far exceeded all others of my 16 varieties. The appearance of this tuber itself in a market, allowing no other virtue, would sell it—having a white, smooth, silky skin. I found the fewest small potatoes in the St. Patrick of any variety, and, so far as productiveness, they came next to the Clark No. 1, and in quality and hardiness they have no equal. Of the late sorts (however, I do not recommend late varieties) the Burbank's Seedling turned out the best with me, and yielded next to the St. Patrick. As a standard, late variety, I am satisfied that the Burbank Seedling will become an established sort.

Though recommending these five kinds, I am fully persuaded that for a profitable crop farmers should not aim at growing too many varieties, and hence, out of the 16 varieties named, five have been picked as presumably the best, and out of these five I consider two kinds as sufficient for any ordinary farmer; and of these I recommend the St. Patrick as a medium, and the Beauty of Hebron as an early kind, as they are prolific, of good quality, hardy, and have more general good properties than any others, and are also potatoes that command a good price in foreign markets. These kinds are superior in productiveness and equal to the Rose in flavor and shipping qualities.

I need hardly say that whatever sort of potatoes is grown, and whatever merits particular kinds may have, culture and the judicious changing of seed are important facts in potato growth. Change of seed is a help, even the same kind of seed from a distant locality. Each crop takes something peculiarly its own from the soil, and more fertility is left for a foreign than a home grown variety. Although recommending the 5 kinds named, it would be well for my fellow farmers to test by experiment what varieties are adapted to their respective soils and localities, for each sort has its peculiar needs, and does well or ill as these needs are met with; a clay soil will suit a variety that will not succeed in a sandy or limestone soil, and vice versa. Indeed, I very much doubt if some of our so called new varieties are not the same as the old, only they have changed slightly by climatic influence and difference of soil. All our well known varieties which have done such good service are on the wane, such as the Early Rose; and the Garnet Chili has been lost to us for years, but we find the St. Patrick is only a descendant of the Chili, and the Beauty of Hebron has come from the Rose stock; and so with other new kinds, they are only improved sorts of the old varieties.

Although the mode of cultivation is not comprehended in the essay, from various experiments I do not feel satisfied in recommending any one particular method above another, hill or drill, deep or shallow planting. The results depend upon the season, the soil and culture. The best results I have found from ploughing old soil in the fall, harrowing in the spring, thoroughly manuring with twelve loads of short, well rotted manure to the acre, cultivating well in hills, 3 feet apart in the rows, and two feet six inches apart in the hills, and two sets in a hill. I cultivated twice each way with an ordinary one-horse scuffer, and hilled up with a double mould-board plough. I dug about the middle of September, and stowed the potatoes away carefully in bins, in a well ventilated cellar, kept from 32 degrees to 45 degrees Fahr. Below 30 degrees the germinating power of potatoes is injured, and above 45 degrees it is set in action.