Potato-growing in Maine.

What kind of crop is more generally grown in Canada than the potato? In the Maritime Provinces, even farmers have to depend on the West for flour and other wheat products. Peaches are not grown in Canada, except in a few favored sections, and the great West, while exporting wheat by the million bushels, cannot grow corn, and has to get its fruit supply from outside. But the potato flourishes and is grown everywhere. It may safely be assumed, then, that any information regarding specially successful culture of this favorite tuber will be welcomed everywhere.

Some remarkable figures, giving average yields of potatoes in the different Northern States, are given in U. S. Farmers' Bulletin, No. 365, lately received. The State of Maine, rocky, hilly and barren, as it is supposed to be, and, on the whole, is, leads all others far and away as to yield per acre, and is surpassed by New York State only in number of bushels produced. In 1908, the average yield per acre of potatoes in Maine was 225 bushels, while the largest average yield in any of the other nine potato-growing States was but 82 bushels. That, however, was an exceptional season. But the ten-year average credits Maine with 177 bushels per acre, while the other nine States show yields running from but 81 to 91 bushels, respectively. The one county in the State of Maine which leads all others in potato-growing, and, indeed, is the greatest potato-producing county in the United States, is Aroostook, in the extreme northern portion of the State, bordering on New Brunswick. Probably eighteen out of the twenty million bushels of the 1908 crop of Maine were grown there. From careful observation of the growing of the potato crop in Aroostook County, it is computed that the yield there averages 275 bushels per acre.

The climate of this county is cold, with a short growing season and a heavy rainfall, the drier seasons being the most favorable for the potato-growers. The soil is, in general, a friable loam, containing a good many loose, small stones, and is naturally well drained.

ROTATION OF CROPS.

The rotation is a simple one. Potatoes are grown on any piece of land only one year, and are followed by one crop of oats or spring wheat, seeded with clover and timothy for hay. This crop is cut for hay one year by many of the best farmers, and plowed in the fall for a new potato crop. The furrow is usually turned to a depth of seven or eight inches, and in the spring the surface is thoroughly worked over, four times in all, with a disk harrow, followed by a spring-tooth cultivator.

PLANTING.

Planting is done from the 15th of May to the 1st of June, using about 13 or 14 bushels of seed per acre. The seed is cut by hand into pieces containing two eyes, and of such a size as to feed readily through a planter, and is dropped by the planter in rows about 33 inches apart, and from 12 to 15 inches apart in the row. There are two types of planter in use, one operated by one man, the other requiring two, but giving a more even stand; both are two-horse machines. The seed is dropped very little, if any, below the surface of the ground, and is covered by a couple of disks at the rear, which throw over it a ridge about four inches high. The planter at the same time distributes the fertilizer, from 1,200 to 1,500 pounds per acre usually being applied. The fertilizer commonly used contains about three per cent. of nitrogen, seven or eight per cent. of phosphoric acid, and nine or ten per cent. of potash.

CULTIVATION.

The first cultivation is done just as the plants are appearing above ground, and a little earth is thrown over them, thus smothering weeds. No hand-hoeing is given, dependence for weed destruction being placed upon hilling, which takes place alternately with cultivation, until some time in July, when the vines almost cover the ground. About six or seven workings are usually given. On account of the heavy rainfall, hill cultivation gives best results. As one farmer may have 50 or 75 acres of potatoes, two-horse, double-drill, riding implements are used.

SPRAYING.

Much importance is attached to thorough spraying, which is done with a sprayer cart covering several rows at once, with pump driven by power applied from wheels. Bordeaux mixture for the prevention of blight, with Paris Green or other arsenical preparation added for the bugs, is the material used, and three to five sprayings are given during the season.

DIGGING.

The crop is dug entirely by machine, one of the large elevator diggers being found necessary. This work requires from two to four horses, about 3 acres being a day's work. About seven to nine pickers are required to keep up with it. This is about the only hand labor required, the crop being entirely worked by machine from the time the seed has been made ready for the planter until the potatoes are turned out of the ground and lie ready for picking up.

On these large potato-growing farms very little stock is generally kept. The short rotation, with clover as a leading crop, and the use of artificial fertilizers has, so far, been sufficient to maintain the soil in good condition for the growing of their special crop. Some observers are of the opinion, however, that unless stock in good numbers is kept, the time will eventually come when it will be impossible to grow good crops of clover, and then the prospects of profits from potato-growing would be seriously injured.

The success of the Aroostook County farmers is not due, except in part, to any superiority of soil or climate. Like methods employed in other districts and States has been followed by similar results. Careful and thorough cultivation is the keynote of success.

THE FARM BULLETIN.

Our Australian Budget.

FARMERS AWAKENING.

The man on the land in Australia has long suffered because he was not a political entity. He has awakened. A few years ago, an organization called the Farmers and Settlers' Association was

Digging Potatoes Near Caribou, Maine.

Showing elevator digger and the low-down wagon used.

founded, and now there are branches in nearly every district. The annual gathering is an affair of importance, attended by 300 delegates. Ministers and members of Parliament who attended the last conference seemed to gather consternation, if not added respect, for the magnitude of the organized force, with its thousands of members. The delegates do not mince matters. There is a refreshing whole-hog flavor running through their speeches and concreted in the resolutions which is inspiring. Hitherto, the State Governments have been accustomed to pigeonhole their requests, but there is a sign in the heavens that if deeds, instead of platitudes, are not forthcoming, there will be trouble at the next general election. It generally happens in Australia that when a party has enjoyed the loaves and oysters of office for a few years, a spirit of unrest ferments, and if there is any chance of revolutionizing this settled condition of things, a great number of the general public join heartily in upsetting the team. So the farmers are now on top, holding as they do the balance of power, if they like to assert it.

SCIENTIFIC DAIRYING.

The hand separator is now generally in vogue in Australia and New Zealand dairy districts, as against the more costly method of maintaining central skimming stations. The cost of running an average creamery plant amounted to about £350 per annum, and, as most butter factories operated a number of these, the sum aggregated ran into a pretty large expenditure. Some of the New Zealand factories had as many as forty of these plants. All this expense is now being saved by the installation of hand separators in the dairies of the farmers, who are also saved the cost of carting the whole milk daily, instead of the cream to the factory every second day. A drawback to home separation is that the quality of cream from careless farmers is not always up to standard. In Queensland, cream-grading is compulsory, so that the man who delivers a low-grade article is now paid accordingly. Some of the other States are advocating this plan, as well as the compulsory grading of butter for export by State officials, as is also the case in Queensland. There is a strong party, however, against State control, because it is generally recognized that the butter so handled cannot be got to the English markets with faked brands, thus playing into the hands of the blending factories. It is quite likely that before long the Federal Government will undertake full control of the exported butter, and if they do so, the grading by experts will be made compulsory, instead of being optional, as at the present time. The dairying industry is now one of the most profitable of the land industries in Australasia, with good prospects if the producers are compelled to turn out nothing but a superfine article. Milking machines are being installed on many farms, and it only seems to be a matter of a comparatively short time when all farms milking 100 head will be so equipped. A Melbourne dairy claims to have put up a world's record for purity. The American standard for factories turning out milk for special customers varies somewhat with the different commissions. Of the twenty commissions reporting standard, thirteen place it at 10,000 bacteria per cubic centimeter, one at 20,000, and three at 30,000. The requirements of the Medical Society of New York for certified milk are fixed at a maximum of 30,000 germs of all kinds per cubic centimeter. This Melbourne factory has varied from absolutely sterile up to 200, and occasionally up to 2,000, bacteria per cubic centimeter. It is claimed that this success is largely due to the use of milking machines. [Note.—This is different from the results of Canadian and American experience.—Editor.]

There is not likely to be any great rush of stock exhibits to the Argentine International Exhibition next year from Australia, unless the authorities moderate the quarantine regulations. The harshness of these conditions may be justified where cattle and horses are from countries where such diseases as rinderpest and foot-and-mouth disease in cattle, and glanders in horses, exist, but these disorders are unknown in Australia. The mallein test in the Argentine is considered to be very severe, and owners are aware that stock do not always survive it. The Argentine quarantine laws, too, prevent importers who may lose any stock during the test recovering compensation. There is an opinion in Australia that the Argentine is a good field for the disposal of first-class stock, if the coast were clear, a big trade would spring up, especially in Merino stud sheep. Owners here do not object to reasonable

Potato Planter at Work.