

caused by the winds. Live stock are now prohibited from pasturing on the roadsides in most places, and no better place can be found for planting trees than on the space between the watertable and fence, and no more pleasing sight could be imagined than a nice row of green trees on each side of the highway. I would advise planting any tree, no matter what variety, as early in the spring as the condition of the land will permit. I would not plant closer than 20 feet apart. We don't want to shut out the wind altogether, we only want to break its force. It will pay us well to have the land thoroughly cultivated and well manured, and prepared for the trees the season before we intend to plant, and then keep the land cultivated around the trees for a number of years after planting. We can make a tree grow as much in one year by such treatment as it would grow in three or four years if neglected.

A nice clump of trees near the farm buildings would add greatly to the general appearance of the place, and might be a useful shelter for stock for both summer and winter. A great many farmers seem to realize the necessity of something being done in the way of re-foresting, but I am sorry to say that very little has been done along that line.

Where one can secure saplings of hard maple, basswood or elm they might be planted in groves, but I would prefer the evergreens alone for planting for windbreaks. I would not plant the swamp spruce on any condition. Before they become high enough for a good windbreak they begin to die away. Cedar will not grow high enough unless they are planted close together. In my opinion, the Norway spruce is the best tree for a windbreak. I would prefer keeping the land cultivated around the trees to either mulching or watering. In watering, especially on heavy soil, the land becomes tough, and when allowed to become dry gets very hard.

Perth Co., Ont.

D. DEMPSEY.

Root Growing.

BY S. HURLEY, DUNDAS CO., ONT.

It is my practice to plow all my ground in fall for garden stuff, roots, and grain. If the ground has been manured in the fall and plowed under, I do not plow it again in the spring. If not, I manure and plow under in spring all ground for mangels and cabbages, as it is, in my experience, useless to try and get a crop without manure. Perhaps the easiest way to manure the ground is to spread it broadcast and plow it under. Some think it a saving of manure to open furrows at the distance you want the rows apart, fill them with good manure, and then cover the manure with the plow; then roll and sow mangel seed in center of ridges. Two years ago I tried this plan and had a good crop. This plan takes too much time. While some claim that carrots require as rich ground as mangels, it is not so according to my experience. Carrots for feeding stock should have ground in good order, but don't prepare the ground as described for mangels. If the crop is for table use, don't have the ground too rich, else the crop will not be satisfactory; many will be too large and hollow.

In growing turnips I have nearly always sown on sod. If the ground is very rich and the season wet the turnips will be maggoty.

With the exception of sowing the mangels on ridges in 1896, as before described, I have always sown mangels, carrots and turnips on the level. Disk and harrow the ground, sow and then roll.

For some years I made my rows two feet apart, but it was difficult to get through with a horse cultivator while the plants were small, so for a number of years past I have all stuff to be cultivated by the horse cultivator two feet and a half or more apart. In growing any kind of root crop I would rather have them a little on the thin side in the rows than too thick. There will be as many bushels or tons unless too far apart. Turnips and mangels 12 inches, and the large white carrot 6 or 8, will be plenty close enough. The small kinds could be left closer. When sowing I do not try to put on so many pounds of seed to the acre, but just enough to give a good crop without thinning, as thinning means work. To this end I endeavor to watch the seed as it falls so as to have it thick enough, but not too thick. Three cultivations done at the right time will do fairly well; if I am not too much crowded I cultivate oftener. I like to get on the ground as soon as the plants can be seen sufficiently, as it means less work as well as a better crop. The first cultivation must be as shallow as possible, else the small plants will be covered by the ground which will roll over them; the second cultivation can be deeper. The turnip roots spread out so far between the rows that whatever cultivating is to be done must not be left too long, else the cultivator will break off many of the rootlets.

Clover the Best Green Fertilizer for Potatoes.

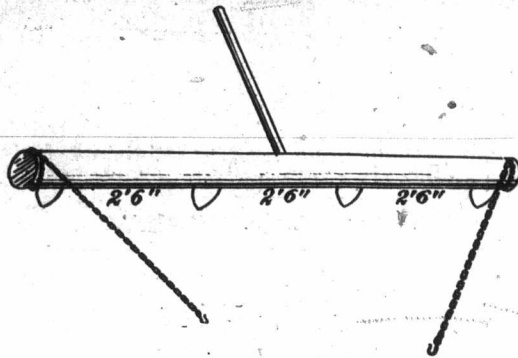
BY ELIAS B. KOLB, WATERLOO CO., ONT.

I prefer to grow potatoes after a crop of clover has been taken off and the second crop has been allowed to grow up in the fall to some height, then give the land a medium dressing of barnyard manure, say about seven to eight loads to the acre, plow it down from four to six inches deep, roll it and afterwards work it well on top with the disk harrow or cultivator, and keep on working it thus throughout the fall, so as to get the clover and

manure well rotted and the soil well mixed. The following spring plow it up to the same depth that it had been plowed in the fall, and give it a good top dressing with the harrow when it is ready for planting. In case I have no clover to plow down, any sod will do, or even stubble that had been seeded down with clover, as clover has a tendency to make the soil mellow and loose, and thus prevent the scab and rough skin on the tubers. I consider clover to be the best green fertilizer.

The varieties I propose to plant this year are Crown Jewel and Irish Cobbler (possibly some new varieties), for early; and White Rose, Farmer's Favorite, and Rural New Yorker, for late. I prefer large potatoes for seed, which I place in thin layers on the threshing floor the latter part of April or beginning of May, to get them to drive good strong sprouts. For early planting I have boxes sheltered from the north and west winds, slightly inclining to the south, in which I place the seed potatoes, covering them with the double windows the same as the hotbed. This may be done fore part of April, but care should be taken not to place the potatoes on top of each other, and also on warm days to raise the glass or the sun may scorch the potatoes, but be sure to let it down at night. Leave them in this position until the leaves begin to form and roots have started, then cut, leaving from one to two sprouts to a piece, and plant them, leaving the sprouts above the ground. It is well to do this just after a rain, or else to water them after planting, which should be done not later than the first week in May. By treating early potatoes in this way I have had new potatoes in seven weeks.

For late potatoes I leave them on the threshing floor for about two or three weeks, until they have started good strong sprouts, when I cut them for planting (which I generally do from the 20th to 25th of May), cutting off the end of the potatoes that has the most eyes, and leaving only from one to two good, healthy eyes to a piece, and plant them as soon after cutting as possible. I always plant in hills, covering them only about one to two inches. The way I do is this: After the land has been prepared I take a marker (see figure), such as a corn marker, making the rows 2 feet 6 inches apart, marking the land plainly both ways; then planting is begun by dropping a piece at each place



POTATO LAND MARKER.

where the marks cross, covering it lightly with earth drawn on it with the foot. After planting is done I roll the ground.

When the leaves begin to force through the ground, go over with a very light harrow to kill the small weeds, if any, and to make the soil loose. As soon as the plants are large enough to allow the scuffler to go through I start to scuffle, and do that once a week if possible until they blossom. I prefer shallow cultivation, and my method of planting allows the land being worked both ways, thus dispensing with almost all the hand work. After they are in full bloom I hill them, and then leave them until they are harvested. I might state that I prefer working the potatoes after a rain, as soon as the earth is dry enough to allow cultivation. For destroying bugs I use Paris green and water, using a tablespoonful of Paris green to a large tin-pail full of water, and putting it on with a sprinkling can. This should be done as soon as the young bugs appear, and should be repeated in about a week or ten days after the first application, which generally suffices unless a rain washes it off, then they should have another dressing. As to spraying for blight, I would like to get information on that myself.

[NOTE.—We cannot but believe that such a strong solution of Paris green as is above recommended will seriously damage the potato foliage, and, therefore, injure the crop. One pound of Paris green to 150 gallons of water is the standard application for an acre of half-grown potatoes.—EDITOR.]

Potato Growing—Clover a Good Fertilizer.

BY J. B. STONE, NORTHUMBERLAND CO., ONT.

No doubt you are well aware of the difficulty in changing a man's system of doing work. There is a right way and there is also a wrong way to do everything, and when a man gets on the wrong line he is very slow to face about. I have a system for growing potatoes which, if followed, I have no hesitation in saying will almost insure a man a large crop. I prefer a good deep clay loam soil, or a rich sand loam; stiff clay is not good for potatoes. Barley, peas or clover are good crops to precede the potato crop. I prefer to have the land well cultivated in the fall; then early in the spring, as soon as the land is dry, manure, putting twenty loads per acre, and plow this under, cultivate it well, and

drag it down smooth. Then with the plow mark out the rows three feet apart and four inches deep, and drop the seed one piece in a place, one foot apart in the row, and cover with the hoe. As soon as the tops can be seen the whole length of the row, put on the drag and smooth down the rows. If the weeds come up very thick, I prefer going through first with the hoe, and then run the cultivator through them say five times during the summer, and you will be well paid for the six times if you try it.

To prepare the seed, I always cut the seed small potatoes once and the large ones so as to have two eyes in each piece, then roll the seed while wet in common land plaster or gypsum and plant at once, and after the potatoes are up about six inches high, sprinkle them with land plaster, three hundred pounds per acre. This is the best preventive against blight or rot I have ever tried. Paris green is the best bug destroyer. I have never failed to secure a first-class crop when handled in the above manner. For an early crop the seed should be in the ground as soon as dry enough to till comfortably. For a general crop I would say have them planted between the fifteenth and twentieth of May. Burpee's Extra Earlies are very nice for an early crop. We shall plant this year for our principal crop the Burbanks Seedling and Rural New Yorker No. 2. There is no better fertilizer than clover. Land which has been allowed to run down cannot be revived in any better or cheaper way than by plowing down clover.

My Way of Growing Potatoes.

To the Editor FARMER'S ADVOCATE:

Select a piece of oat stubble which has been sod the previous year. After harvest give it a good dressing of manure, plow it under and harrow the land thoroughly so that all weeds may have a chance to grow. Late in the fall plow it pretty deeply and leave it rough for the frost to pulverize, and you will find in the spring that the land will be loose and friable, and if there was any couch grass it will be pretty well killed. In spring harrow down smooth as soon as land is in good condition, so if there are any weeds they will start to grow. Then leave the land till about the 20th of May, when in ordinary seasons it will be time to plant. We then harrow the land over two or three times to kill all weeds that have started and roll it to make it smooth. This is important, as it will insure getting the potatoes in at an even depth. Select tubers that are nearest perfect in shape and medium to large in size. Those that have not been allowed to sprout or have not been exposed to light will have most vitality. We cut sets with either one or two eyes and do not find that it makes much difference which, but we cut pretty deeply into the potato. This we think important because the young plant has to depend on the set for its nourishment till it is ready to feed from the soil. We prefer having the seed cut a day or two before planting and left in a cool cellar. Care must be taken not to let them heat, as they are apt to if piled up high.

When ready to plant, take a wheel plow that will turn a wide furrow. Set your plow to go about four and a half inches deep. Open out a ridge so that your rows when planted in either furrow will be 28 to 30 inches apart. Plant in every second furrow, dropping the seeds 12 to 14 inches apart and plowing wide enough to have your rows the above distance between. Just before the potatoes come up give the land a thorough harrowing, and continue this at intervals of a day or two till the plants are up well in rows. After this stir frequently with the cultivator. We do not hill now; we used to, but have learned better. We find that the cultivator throws the clay up some toward the rows, which is no objection. We do not find it necessary to hoe by hand if horse cultivation has been well attended to.

Now for the bug; he is worth watching from the time the potatoes come up. If the beetles are plenty they sometimes destroy the young plants if not looked after. We have not been troubled this way, but if we were we would spray them with Paris green, not making it too strong in case it injures the young plants. We never found trouble with the bug till the first brood was hatched. The vines will then be a pretty good size, and we find it best to apply Paris green of the strength of about one pound to fifty gallons of water, put on in as fine a spray as possible, taking care to thoroughly wet each vine. It will take about two pounds of the green to dress an acre, and one dressing sometimes does for the season, but it is often necessary to go over them again in two weeks' time. We have never used any preventive for rot, but will have to, as rot has been very prevalent during the last few years. With the cultivation we have outlined we have no trouble in getting from 250 to 300 bushels to an acre in good seasons. The kind that constitutes our main crop is a long blue and white potato, known here as "McIntyres" or "Prince Alberts," and known in the Boston market as Chenangoes. They are a very hardy variety and have been grown here for 30 or 40 years, and still are as good as ever.

Queen's Co., P. E. I.

W. S.

The farmer who thinks he can give up stock-growing is sure to find his mistake. The pastures must be utilized and the fertility of the farm maintained, and stock must be kept even if he sees no direct profit in it. The crops of grain, grass and fofage should all be fed on the farm where it is possible.