

### Twine to Keep the Crows Away.

In the "Farmer's Advocate," of April 27th, the article by S., of Huron Co., contains much valuable information. All the conditions of his county, however, do not obtain in the Province over. There is a difference in the soil of his locality and the soil of the farm where I find myself grappling with the corn problem. Our soil is clay loam or loam; the low lands, and not the high, produce more bountifully, and especially is this the case where the land is drained with tile. We prefer spring plowing, as it warms the soil, thus making the conditions more like those of the native land of corn to the south. There are, as yet, few silos here, the corn being allowed to mature, and in most cases is husked. Some people successfully feed the unhusked corn to cattle.

We plant in hills 42 inches each way. There is, perhaps, no one thing so injurious to success as uncertainty. The seed, therefore, should be tested for vitality before the planting season. In this way the percentage that will grow is readily ascertained before planting commences. The hand-planters are set to plant four grains of good vital seed in each hill; thus the vitality of the seed will cause the amount of seed per acre to vary. If vitality of seed proves to be 80%, then five grains per hill will be necessary. This requires about 18 lbs. per acre; 100% vitality would require only 15 lbs.

A string (binder twine) stretched around the field, where they can see it, will, in most cases, keep crows away; but crows seldom bother after cultivation starts. This is not true of blackbirds, which are not so suspicious, and must be treated more on the Japanese style (with shot and shell) during the preparation of the soil. In this way they are prevented from finding the corn until it has gained a considerable growth; but if allowed to follow the plow, to pick up worms, they become very bold, and when the corn grows they make themselves quite at home pulling it. It is a debatable question whether the blackbirds do more good in removing grubs and insects injurious to corn than they do harm in the amount of corn they pull.

One of the major elements in successful corn culture is preparation previous to planting. The soil should be thoroughly prepared; the ground should be marked straight, and care should be taken to have the planting done accurately. On the straightness of the marking and the accuracy of planting depends, to a great degree, the ease with which the subsequent cultivation may be done. The practice we follow is to place the corn, not in the hollow where marks meet, but in the corner just at one side. This leaves the young plant on level land, and the early cultivation does not cause the loosened earth to roll on the leaves of the young plants, as it would were the corn planted in the hollow.

It is a good practice to harrow with light harrow a few days before the corn breaks through the ground, and once after—the last time crosswise of the way it was planted. As soon as the rows can be followed, we commence cultivation with the one-horse scuffer. In early cultivation we cut very close to the young plants, so that when we have gone both ways there is no earth, except that on which the plants grow, that has not been stirred. The young plants, therefore, as they grow, are continually moving out into clean soil.

In the early part of season we cultivate deeply, and gradually get shallower, till merely the surface of the soil is stirred. We continue cultivating till the horse breaks off so many ears that the loss in grain is greater than the gain from stirring the soil. A piece of fly net fastened over the horse's nose prevents him from reaching for the leaves as he walks down the rows.

Deep, early cultivation loosens the soil, aids oxidation, allows deep rooting, increases capacity for holding moisture, makes plant food more easily available, and cleans soil of weeds. By cultivating once each week (and especially after rains) the crust is broken and a mulch formed which prevents rapid evaporation.

By shallow cultivation later in season this same end is gained, with the advantages of allowing the tiny root fibers to spread near the surface of the soil, while still destroying any germinating weed seeds.

It is not necessary to hand-hoe the corn to keep it clean—at least we find it so. Late in the summer it may be wise to run through field with the hoe and cut any straggling weed that has got too big for the cultivator to manage, but to hoe hill by hill seems wasteful labor. If the marking is straight and each hill is in its proper place, it can be kept very clean with the cultivator alone.

In regard to the amount of gain in the value of the crop for each day's cultivation, I have always considered it rather too costly an experiment to allow part of the field to go uncultivated to learn the actual value per day of the labor put on a corn crop. But, judging from some poorly-cultivated fields that have come under my notice, I conclude that the loss from lack of cultivation is considerable. The weeds and foul seeds in such a crop would make it unprofitable to take as a gift.

Three ends, at least, should be looked for in growing a corn crop: The production of a good crop; cleaning the field of weeds; and leaving the soil well stored with available plant food for the following crop. How shall we reach these ends? I know of no better method than by a systematic cultivation, such as the one outlined above. J. P. JOHNSTON.

Elgin Co., Ont.

[Note.—Ordinary white twine may be used instead of binder twine, and if strung up in time all around near

the outside of the field, and across in two or three places, the poles being further ornamented with pieces of shining tins from a tinsmith shop, will prove pretty effective in keeping crows away. Be sure to put it up as soon as the corn is planted, for once the birds get a taste of the softened kernels the game is up.—Ed.]

### Corn Cultivation on Spring-plowed Sod.

Our soil is a heavy clay loam, with the exception of a gravel ridge. We prefer clover sod plowed early in the spring, if possible, for corn. We never plant on fall plowing. The land plowed in the spring does not seem so sad underneath as the other, a condition which is detrimental to a corn crop. By plowing early in the spring a nice, fine mould can be obtained, with a moderately firm but porous bottom. The land seems warmer than fall plowing, and heat is necessary if a good strong plant is to be had. On the gravel it is best to plow early in May. This gives the weeds a chance to start, but the land does not get too solid. We disk our land if needed, but not too deep, because if too deep the mould will be light and dry; if the season is dry the corn will not germinate, and if wet this will seem to run together, forming a solid mass, preventing the corn from coming up. Our corn is all planted in hills, 8 ft. 8 in. square, planting four to five kernels per hill, which means one bushel on between five to six acres, depending on size of the kernels. We never count on cultivating corn until it is up, unless a crust is formed, and then it is gone over with a light set of harrows; care should be taken that no sods are left on the hills. As a rule, once over is all that is needed; if the land has been worked properly before planting, the weeds will not have made headway. Just as soon as the corn is well through, we commence cultivating with a double cultivator, going about 3 to 3½ inches deep, and as close to the corn as possible without cutting it up. If not cultivated close the first time a small bunch of weeds will be found at every hill, which afterwards cannot be cut or covered. It is cultivated like this, once each way, before haying, and often a third time. After haying we cultivate twice again, but only about two inches deep, and farther away from the corn. Often the last cultivating is done when the corn is tasselling out. By this mode of cultivation a good mulch is formed, preventing crusts, loss of moisture or growth of weeds. Hoeing is not necessary if the cultivator is used properly; we never hoe. As to the value of a day's cultivating, it is hard to estimate. The last couple of times we cultivate, I believe, an increase of one-third can be made between cultivating and not, at the lowest calculation. Placing the crop at 90 bushels of ears per acre, this makes the gain at 30 bushels of ears, or 15 bushels of shelled corn; valuing this at 40 cents, the gain on one acre is \$6.00. In one day one man will easily cultivate three acres twice, thus placing the day's work at \$18.

Kent Co., Ont.

CORN-GROWER.

### Rotation and Cultivation to Clean the Land.

I value the corn crop highly, not only for the grain and the stalks in feeding, but for the effect of the necessary cultivation in cleaning the soil; for eradicating thistles or other weeds, and especially for the persistent couch grass. I have found the following rotation most effective, provided the cultivation is thorough: First year, corn; second, beans; then wheat or other cereal, seeding down with clover.

For the double purpose above indicated, the hill system of planting is preferable to drills; the cultivation both ways reducing greatly the labor of hoeing.

In ordinary years, and in this County, the Dent varieties ripen well, but the last two summers were so cool that in many cases they failed to mature. Upon the whole, as I have not a silo, I prefer the flints; the yield of shelled grain is quite as much, and the stalks, if less in quantity, are eaten by cattle with less waste.

The stable manure may well be taken out as it is made in the winter, and spread at once, or as early in the spring as possible, and plowed under. The more the ground is worked before planting the better. Three feet six inches apart is sufficient for flint corn, and my choice of varieties is the King Philip, though Smut Nose and Compton's Early are good, and more common in this township.

I believe harrowing the ground once or twice after planting serves a good purpose in aerating the soil and killing weeds, but to do so after the plants are several inches high seems to be too hercule a process; at least for this loamy soil. Frequent cultivation is of great importance in weed destruction and conservation of moisture, but should become shallower and narrower as the plants grow and send out their roots. Hand-hoeing should be done twice if possible, and the sooner after the first cultivation the easier.

To estimate how much a day one can earn in increased yield by cultivation and hoeing the corn crop is not easy, but I should think four dollars a day for a man and team's work would be a moderate computation. Doubling the yield is a probable result of thorough work, while the benefits to future crops, the destruction of weeds and their seeds and the improvement in the seed for the next corn crop are additional rewards. A. C.

Elgin Co., Ont.

### Cultivates Three to Four Inches Deep.

For corn we prefer a sandy loam, for two reasons: It is warmer, and corn undoubtedly requires a warm soil; it is also much more easily cultivated, and while it is, perhaps, a drier soil than the clay loam, corn will, with regular and frequent cultivation, withstand a dry season better than a wet one.

We have always planted in drills thirty-six inches apart. We have never tried hills, as we have had excellent returns from the other method, and consider it much more convenient, both for planting and harvesting.

We have tried all manner of scarecrows—old cartridges which smelled of powder, flags, etc.—but the only thing of this kind which we have found to be of any use is the live man with the gun. After the crows have been fired at a few times, a man working anywhere within shouting distance of the field can keep all crows away from it. We have also tried scattering whole corn, and corn strung onto a string in the field, but neither saved the crop much, as the crows prefer the soft sprouted grain. We always hang up the dead crows, but I have seen crows repeatedly light within twenty feet of the stake on which two dead crows were hanging. Tarring the seed we have found to be fairly effective, but great care must be taken to see that the seed feeds evenly when tarred, and allowance must be made for the fact that it does not feed quite so fast. When tarring, we warm ordinary coal tar, and use just sufficient to darken every grain of seed, then dust it with land plaster. So far as I have seen the crows will not eat the tarred grain, and only pull up samples here and there over the field; but there is considerable inconvenience with it, and, as the crow season only lasts about two weeks, a little stalking with the gun in the early morning and at noon, with an occasional yell or clap of the hands during the day, is probably the best precaution.

Our only cultivation before the plants appear is a rolling and a stroke of the light harrows, immediately after seeding. After the plants appear, cultivation consists of scuffling with the ordinary scuffer twice a week until the plants are a foot high, and afterward once a week, continued until the stalks are five to seven feet high. We always scuffle as soon as possible after a shower, before the surface becomes baked, and consider three to four inches the proper depth to cultivate. Our objects in cultivation are to keep down weeds and to keep a loose mulch-like surface to conserve soil moisture. We have used the Breed weeder, but found it to be of very little use on a soil which is naturally loose and mellow. We have also used a spring-tooth cultivator for early cultivation, but prefer a scuffer, as you can get closer to the plants, and a cultivator is only better in that it is faster.

We only hand-hoe our corn when the soil is grassy, or a year when the stand is poor and we are anxious to make the very most of what we have. We have never hand hoed a crop more than twice, and usually only once. Considering the cost of labor, we think it more profitable to grow a slightly larger acreage and use only horse cultivation, as, with ordinary conditions, the advantage of hand-hoeing is only slight.

It is very difficult to place a definite estimate on the earnings from regular cultivation, but I would think it wise to pay any reasonable price for several cultivations with the scuffer. I am quite sure that at least fifty per cent. of the yield depends on cultivation; that is, as between regular cultivation and no cultivation, and I would not hesitate to pay a man two dollars a day for at least three cultivations of the crop.

Halton Co., Ont.

PERCY E. REED.

### The Crop Prospect.

In Western Ontario, Manitoba, and the Territories soon to be Provinces, spring opened early, the land worked uncommonly well, and seeding of grain was finished in many places in April or early in May. In the sections named, however, there had been comparatively little rain, and but little warm weather up to the middle of May, but there was sufficient moisture in the land to effect full germination of seeds, and, owing to absence of heavy rains, there was no packing of the soil or crusting of the surface, consequently the stand of plants is very even, while frequent showers lately have made the prospects for good crops exceedingly encouraging. Pastures and meadows are making excellent progress in growth. Corn, in districts where it is grown, has been planted in good condition, and many farmers have sown their mangels under very favorable conditions. In Northern and some Eastern sections of Ontario seeding was two to three weeks later than in the West, and heavy rains have delayed the work so that the grain seeding is not yet completed. In the Province of Quebec the spring has been favorable for farming operations, and cattle had generally gone to pasture before the middle of May. The Maritime Provinces, owing to an uncommonly severe winter with heavy snowfalls, are experiencing a late seeding, but there is encouragement to expect a better summer season than last year, when drouth rendered the crops light and the year rather discouraging. Reports from British Columbia indicate a satisfactory outlook for the farmers, fruit-growers and dairymen. On the whole, the prospect for the year is roseate throughout the Dominion, and with the large immigration of