

shod, easy style of farming, plowing every fall and growing spring grain crops in succession on the same fields, suits them exactly. The remedy is to drop spring grain as far as possible out of the rotation, growing fall wheat, clover and hoe crops instead.

The changed sentiment of farmers in regard to Canadian thistles is significant. Time was when they were thought to be the only really bad weed. Men, in all seriousness, would say that to kill them completely was utterly impossible. Who thinks so now? Who greatly fears them? Why this change? It has come because, not only have weeds much worse to subdue been introduced, but because the thistle plague itself has greatly lessened. They are not such a serious pest in the older sections of the country as they were thirty years ago. That fact, of itself, should give us hope in regard to the newer and more persistent weeds we have to fight. Thistles can be exterminated in one season by faithfully cultivating and hoeing a corn crop, followed up after cultivation has ceased by the cutting out, every two weeks or so, of odd plants that have vitality enough left to come to the surface. There are other successful methods, but none better. Perennial sow thistle is a weed much more difficult to eradicate than its cousin, the Canada thistle, and no one who has it should trifle with it. Similar treatment is the best we can recommend.

Quack or twitch grass, which in some sections of country was unknown a few years ago, is fast becoming one of the weeds that everybody knows and fears. Its presence is often unobserved until it has become pretty thoroughly established. Tell-tale patches of green show themselves in spring in plowed fields on farms which but lately were clear of this pest. A pest it certainly is—one which, in the opinion of some competent farmers, is likely to become so prevalent as to seriously lessen the selling value of many farms. A careful farmer of our acquaintance (Rowland Stephens) gives his experience in fighting this weed: "I have had small patches of twitch grass on my farm for some years, which, though dug and forked out once or twice a year, were scarcely kept from spreading. At length, on breaking up a sod field, I found so much of it that I was discouraged, but, acting upon the advice of an old Englishman, planted it with corn. The fall previous to planting, the ground was plowed and cultivated. The corn crop was carefully cultivated and hoed, though not oftener than seemed to be beneficial to the crop. After the corn was cut, cultivation between the rows of stubs was continued, though scarcely any twitch roots were left, and now, after more than a year has passed, the field is almost absolutely clean."

Bindweed, a deep-rooted perennial, spreads somewhat slowly, but that is its only merit, as it is the most difficult to completely conquer of any weed of which we have any knowledge at present. Where a patch is large and strong, it is wise to dispense with a crop entirely for at least one season, and to surface cultivate for two years in succession, which will finish it. Hoed crop may be grown the second year, providing the cultivation is thorough. Covering with manure to a depth of two or three feet, and leaving it for the whole season, has also been found to kill it. This treatment can be used if the patch is small enough for it to be practicable. Straw will not do, as many have found to their sorrow. If one is so fortunate as to have but a few plants in a place, there is nothing better than to dig out deeply three or four times in the season, which will prove effectual. A few general lines of procedure might be suggested:

First.—Watch for the first appearance of weeds. A few minutes spent in hand-pulling them may save weeks and months of work and heart-break in after years.

Second.—For the annual weeds, begin cultivation early. Don't wait till you see them. At no other time are they so easily and effectively killed as just before they appear above ground.

Third.—Have a hoed crop in the rotation, and keep it clean. A crop of hill corn is the best of any, as it gives the opportunity to horse cultivate almost the whole surface, and, after cultivation ceases, the single weeds which appear, and which would be sufficient, if undestroyed, to restock the field, can be seen and cut with the hoe.

Fourth.—Be persistent. Begin early. Keep at it; keep at it late. We commend very especially, as a good example to follow, that of the farmer with the quackgrass. He began the fall previous, kept at it through the season, and continued it among the corn stubs. He was successful, as he deserved to be.

Alfalfa experts claim that the proper time to cut alfalfa is when there is a new growth of one-half to one inch of young plants or "buds" around the crown. This growth appears about the stage when the crop commences to bloom. Usually, bloom may be found started by the time these buds show, but the buds are regarded as a safer guide than the bloom. If the crop is mown before these shoots start, there will be a delay in

the starting of the following growth until these buds have a chance to form. On the other hand, late cutting not only seriously deteriorates the quality of the hay, but detracts from the vigor of the aftermath. Watch for the right time.

ALSIKE SEED A PAYING CROP.

Editor "The Farmer's Advocate":

I have read with much interest the different methods of handling alsike seed, and, at your request, I will try to give my method as briefly as possible. In the first place, procure the very best seed possible; secondly, have the land in good heart, and free from weeds. Root land, kept well cultivated and free of weeds while in roots, makes an ideal spot for it, providing it is properly handled. Do not allow stock to trample the field after roots are off, if the weather is wet (this spoils land of any kind). Do not plow, for by doing so a fresh supply of weed seeds is brought to the surface, where they will show their colors in the following crop. When the land is dry enough to work well, we put on the spring-tooth cultivator, and cultivate both ways; then harrow when it is ready for seed. Barley (1½ bushels per acre) is sown as a nurse crop, and 4 pounds alsike. Some claim this too light, but I always appear to get a thick enough stand with 4 pounds, which should be sown in front of the drill hoes. By so doing, the seed is spread evenly all over the ground; the hoes shove it to the side a little, and the bulk is between the rows of barley, just where we want it. If sown behind, a certain amount falls into the hoe marks, and is buried beyond its power to germinate, more of it naturally works to the lowest ground, and by the time we are through, the bulk of the seed is in the drill with the grain, where it is badly crowded. This applies to seeding all kinds of small seeds when sown with a nurse crop.

After sowing, roll, then finish with harrow. Reasons for harrowing after rolling: If you examine land that is rolled in proper condition, you will find considerable fire dust on the surface, which is liable to blow if a gale should come before it

gets wet again; the moisture evaporates much quicker if left in this state. On the other hand, if the harrow is used last, this fine earth is worked down to the small seed and lies close, which causes more of it to germinate, raises the coarser material to the surface, and aids in arresting capillary action.

When cutting barley, if possible, leave a pretty good stubble, as it acts as a vent later during the winter, and prevents smothering. Do not pasture too closely in the fall, or allow stock to trample, if land is wet.

The following spring, roll, to make the surface level and crush down small stones. Before cutting, if any weeds appear, pull them; this is much more easily done than separating after threshing.

I cannot just agree with Mr. Corbett regarding the time to harvest, he claiming a great many cut too early. Perhaps so, but by waiting for all to ripen, we lose considerable of the first ripened, which is generally the best sample. The feed from the straw is another consideration; if cut early, it makes very good fodder. Neither can I agree with Mr. Lennox as to the table attachment, which he says is more bother than it is worth. I tried to make myself believe this, also, but thought best to give it a test. Having seven acres to harvest, I used table, and placed wagon at corner of field, and emptied table when full; kept chaff or heads separate till threshing time, and had over one-half bushel of seed per acre from that source, which I think pays well. Doubtless, it is hard work, and, as another writer put it, a man finds himself fully occupied who performs the operation; but this can be made a great deal easier if we go the right way about it. Take two pieces of 2 x 4 scantling, 2 feet long, and round the ends for runners; nail a piece or two of board across, and you have a sleigh. Fasten it behind the mower in a position to suit, and a man can stand on it and rake off the bundles quite easily. We always put in barn, and generally leave it till winter to thresh, which is done with a clover huller, if obtainable; if not, it can be done with grain thresher. Take a board that will reach half way across machine,



Potato-planting Time.