

be said, is due to observing two general rules which are of value in connection with any drainage improvement. These are: (1) specify a drain which does not have to be dug up at periodic intervals for repairs or to maintain its drainage efficiency; and (2) make provision for extension of the system, should early experience indicate that this is required. By observing these rules, any course can in time make itself noted for being the first in the neighborhood to become playable after rains.

Crab Grass Treatment

Crab grass, as you know, is an annual grass. Its seed is very strong and grows almost any place. This grass has been found mostly about 200 miles north of the Mason-Dixon line. It puts in its first appearance in a beautiful, light-green growth from the first of June until perhaps the first of July, depending upon the heat conditions of that spring in that particular location. Numerous inexperienced men are under the impression that they are getting a very wonderful putting green grass or the fairways are improving every day, but it is the annual crab grass seed germ which has been deposited the year before. About the middle of July this crab grass is at the point of turning into a brown texture, the seed is maturing very quickly, and toward September the seed has matured, falls from the crab grass into the ground to form the evil that you have had in previous years. In the putting greens and tees there are two practical ways of eliminating this grass; one is having a group weeding the green thoroughly, taking the crab grass out by the roots before seed time comes, but if the green is too

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heavy with crab grass and the club cannot afford the expense of weeding by hand, I have found a very satisfactory way. Get a Scotch chain harrow and by running it over the green a couple of times, make the crab grass runners stand up as much as possible. Get your putting green mowers with catchers and cut straight across the green, returning in the same track, picking up as much crab grass and seed as possible. Continue this operation until your green is fully cut, and then fertilize your green thoroughly. I would recommend a couple hundred pounds of cottonseed meal and lime mixed. Other people would advise nitrate of soda; some muriate of ammonia; still others would prepare sulphate of ammonia or some of those chemicals which produce plant life. After this is prepared properly and you have your soil in an active, healthy condition, spike roll your green four ways, getting your soil loose. Then top dress, seed whatever texture you prefer, such as creeping bent, chewings fescue, red top or blue grass, and I am quite sure the following year you will at least have eliminated 75 per cent and in many cases all of the crab grass.

Plantains and Dandelions

Plantains and dandelions have practically the same kind of tap roots. In putting greens, without doubt, the only way to remove them is by hand. Cut the roots low and in this way you will eventually exterminate them. Some clubs, in their larger areas, have been using a gun with an automatic stopper at the bottom, loaded with gasoline or other chemicals, putting the matter in the core of the dandelion and letting it die in the ground itself. With plantains you cannot do this on account of the plant being a little different at the surface.

QUACK GRASS

Quack grass is usually found where farm land has been neglected. The roots are large, ragged, uneven and difficult to eliminate, and if the ground is not properly prepared, especially for a seed bed, this grass will choke out the finer grasses.

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