

Drainage Pointers That Have Helped Me

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GOLF courses should be drained so as to permit play immediately after a heavy rainfall. Sometimes one may see pools of water standing on the fairways for two or three days after a heavy rainfall. This, in addition to annoying the players, has a bad effect on the turf. It is sometimes a tough problem to get rid of this surface water, especially when the soil is heavy.

As a rule drains are laid in the low lying ground. When I see hollows where water is likely to stand in pools I fill the trench up to within six inches of the top with rock, cinders, etc. To hollows that are not in line with drain I run laterals, filling up the trench in the hollow with rock and have a tile built end-up in the center. As tractors pack the earth over those rock pits it is necessary to send men after the first heavy rain to loosen up the earth so as the water will get away quickly.

The above method will help to eliminate water standing in pools.

Tile laid at a regulated depth on many courses would be a waste of money. On this course, as on many others, we have hardpan. As the surplus water flows on the hardpan it stands to reason that the tile must be laid there to get at the root of the trouble. If this is not done the water will flow underneath the tile. When one has to cut into the hardpan to get a grade it is essential to fill up the trench to the top of the hardpan with porous material to prevent water from flowing over top of the tile.

Laterals in my idea should never run straight into the main, but at the same angle as the main is running. Connections should be made as near the top of the tile in the main as possible. If this is not done one sometimes finds that the flow of water in the main backs up the water in the laterals and makes them useless, at least for the time being.

Seepage on greens I take care of by draining on the high side just off the green, laying the tile on the hardpan and filling up the trench to within six inches of the top with rock, etc.

I have never had any trouble with seepage on greens that have been drained as above.

When open ditches run into tile I like to have two pits cribbed with small cedar

logs; this checks the rush of water and allows gravel, etc., to sink before reaching tile. The second pit is a safety first idea; one can't depend on the weather, especially in this part of the world when it rains for weeks on end.

I never use less than four inch tile and always leave at least a quarter of an inch between joints, covering joints with any porous material.

Open ditches should be cleaned early in the fall. When one is troubled with leaves those ditches may have to be looked at at least once a week. Special attention should be given to outlets so the water will get a good run away from the tile.

My comments, of course, are not written with any intention of teaching anything about drainage to the experienced greenkeeper, but may interest, and help those who have not had much work in this important phase of maintenance.

Gas Ground Pests from Courses

By L. T. PARKER

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UP until two years ago we fought the gophers and ground squirrels with poisoned raisins, poisoned carrots and traps without diminishing their numbers.

At this time we commenced using cyanogas. In four weeks we had made a 100% kill on the ground squirrels. We haven't seen one on the course since. It took us about six weeks to rid the course of the gophers to a point where they were very little trouble. We found that all that was necessary was to place a spoonful of the cyanogas well down in the burrow, taking care not to disturb the gopher more than was necessary, leaving the hole open, as the gas is heavier than air and will penetrate farther back in the burrow. Then, too, the gopher's natural tendency is to come back to close the hole and is immediately killed by the poisonous gas. Sometimes the opening in the burrow will be plugged. In this case remove the plug before placing the cyanogas. We also found that the work done in the early morning shortly after daybreak was more effective than that done later in the day when the gopher is not so active.

We have entirely exterminated both squirrels and gophers from our course, and now it is only necessary to treat an occasional working where the rodent comes in from adjacent territory.