



Restoring Moisture to Localized Dry Spots

By O. J. NOER

Localized dry spots are becoming more common on golf greens. Damage to the turf does not occur during spring and fall when the weather is cool, but frequently happens in mid-summer when the weather is hot.

The grass on these spots wilts during the day because water is evaporated by the leaves faster than it is absorbed by the roots. Wilting is less severe and temporary in spring and fall when weather is moderate. Some wilt may occur during mid-day but grass recovers toward evening when it becomes cooler. Revival is helped by heavy dews. On hot days wilting is so severe and permanent that the grass may die. Death occurs within several hours after wilting starts unless water is applied promptly. Only a small quantity of water is needed to check wilting and will usually carry the grass through the balance of the day.

After grass dies from permanent wilting the leaf blades wither, turn brown and become so shriveled that the soil surface is exposed. Then algae may appear as a green or greenish black skin-like covering. It seals the soil and prevents recovery of the grass.

Shallow-rooted grass wilts more quickly and more severely than one with deep roots because the surface soil dries rapidly. Greens with shallow-rooted grass cannot go over a mid-summer week-end without water. In fact, the grass can't survive a single hot day without receiving supplementary water one or more times. Light sprinkling by hand, several times daily, seven days a week may be necessary to prevent loss of grass.

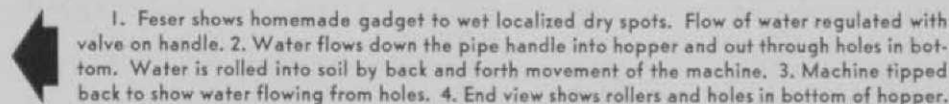
Wilting grass can be spotted by the color and behavior of the grass. It is darker in color with a bluish cast and a metallic luster. Footprints show plainly for a long time because wilted leaves are limp, and do not have the turgidity of normal ones which enables them to resume an erect posture. The soil underneath the wilting grass is sure to be dry when the surface feels hard underfoot.

No one thing is responsible for the development of dry spots and nobody has

given a sound reason for their localized distribution over the green. An excessive mat or sole of turf is the cause in some greens. Extreme acidity tends to make the soil more compact, lessens its ability to hold water, and restricts root development. Failure to keep enough moisture in the slopes and aprons around the green encourages the development of dry spots along the edge of the putting area. Pockets of sand or layers of it near the surface cause trouble unless the areas or greens are watched and watered whenever grass starts to wilt. Roots from nearby trees are frequent offenders. They rob the soil and sub-soil of moisture. Then surfaces become hard and refuse to hold a pitched ball because the soil underneath is dry and hard. Such greens refuse to accept water from rains or sprinklers.

Soil particles have a waxy coating. They resist wetting when dry. The soil in a hard dry green or in localized dry spots does not absorb rain or water applied to the surface. The water does not penetrate beyond $\frac{1}{2}$ to 1 inch no matter how long the same spot is watered. Even the correct amount of water becomes too much because it stays on the surface instead of being absorbed to a depth of 8 to 10 inches or more, and the green or spot becomes too wet because it was too dry. Algae and scald make their appearance due to the water-logged condition at the surface. There is only one way to keep the grass alive until normal soil moisture is restored and to avoid algae. Frequent light sprinkling by hand is the secret. It is the only way to keep the surface moist and not wet.

Once soil moisture is restored to a depth of 5 to 8 inches or more greens will again absorb water in a normal manner. Several methods have been employed to introduce water and moisten soil below the surface. Deep forking followed by several drenchings with water is a common one. Water collects in the fork holes and gradually seeps into the soil until the entire mass becomes moist. A tree subirrigator is used also. It consists of a long pointed tube with three small holes at the bottom. A valve



1. Feser shows homemade gadget to wet localized dry spots. Flow of water regulated with valve on handle. 2. Water flows down the pipe handle into hopper and out through holes in bottom. Water is rolled into soil by back and forth movement of the machine. 3. Machine tipped back to show water flowing from holes. 4. End view shows rollers and holes in bottom of hopper.

to control the flow of water and a hose coupling are attached to the other end. The valve is cracked so water drips out of the holes in the point. Then the tube can be inserted to a depth of 2 to 3 feet or more. A little water is allowed to flow through the holes until the soil in the surrounding area becomes moist. Then the irrigator is moved to another spot. It is important to open the valve slowly, and part way only, otherwise the force of the water may wash-out soil and turf in an irregular area around the tube.

Feser Devises Novel Method

Leo Feser devised a novel method for eliminating dry spots which he claims is easier, quicker, and more effective. Necessity was the mother of invention. A daily fee course located on his home property is operated by a son and daughter to earn part of their college education. When localized dry spots developed last summer forking of the greens was out of the question for the two of them. The task of routine maintenance kept them more than busy. Leo recalled a unique method that was tried successfully on some dry greens in Superior, Wis. They were flooded with water and it was promptly rolled into the green with a light-weight roller. He built the contraption illustrated in the accompanying pictures. Mrs. Feser's clothes wringer supplied the two rubber rollers and the handle was made from $\frac{3}{4}$ inch pipe with a hose coupling at the top end. Water from the outlet along side the green flows through the hose into the hopper and out through small holes along the bottom edge. The water is rolled into the greens as the machine moves back and forth over the dry spot. Feser claims one man can cover all the greens in a day or less without hurrying. Other greenkeepers may find the Feser roller-sprinkler the solution of a perplexing problem.

Minnesota PGA Clinic at U. of Minn., April 5-6

Minnesota PGA golf business clinic held annually in cooperation with the physical education and athletic department of the University of Minnesota will be held at the university, Minneapolis, April 5 and 6.

The Minnesota PGA program is rated by those who've seen the national and sectional pro business clinics as the most practical of the lot. Close association between the Minnesota pros and the state university P.E. and athletic department and other members of the faculty results in a program well balanced in business methods, instruction techniques, candid and expert appraisals of present methods and research into possibilities of pro business development. Sessions are well attended and are invariably valuable.

Peoria Stages "Best Little Tournament in the Midwest"

The 1948 Peoria (Ill.) Open will be another \$5,000 two-day event tentatively scheduled for June 26-27 over the Newman CC course. Sponsors indicate they may follow in the footsteps of other cities who have staged tournaments of this caliber year after year and enter the "big circuit" by putting up \$10,000 in prize money. However, the rapid rise in popularity and acceptance by participants in the four years the Peoria Open has been held in growing from a \$400 event to the present \$5,000 affair prompts the Board of Governors to take stock of this rapid growth and adopt a long range policy of applying time, money and energy toward continually improving an established tourney and thus avoid the danger of failure in expanding too rapidly.

Much credit for the successful staging of the Peoria event goes to genial Fred Sprenger, Newman professional who is affectionately referred to as "the daddy of the Peoria Open" by the civic and sports minded men and women who have aided and abetted in the sponsorship of the tourney.

Abe Espinosa became the first champion. In 1945 Peorians offered \$2500 prize money for the 54 hole medal play and saw Detroit's own Ed Furgol cop top honors. The third year the popular Peoria Open rose to \$3000.00 in War Bond prizes and found its course record shattered by Australian born big "Jim" Ferrier. Ferrier shot 3 sub par rounds of 69-68-65 for 202 total. The fourth annual tourney held last year experienced the greatest field of all time bolstered by the defending champion copping the National PGA crown prior to his defense at Newman July 12-13. As the entry deadline closed, such names as E. J. "Dutch" Harrison, Dick Metz, Ky Laffoon, Tommy Wright, Leonard Dodson, Bob Hamilton, and "Skip" Alexander graced the pairing roster.

Fred Haas, Jr., New Orleans, grabbed the early lead with a course record round of 64, one stroke better than Ferrier's brilliant 65 the year before. However, with Haas almost certain of victory, Carolinian Skip Alexander scored the most exciting and par shattering finish any Peorian has ever seen. When the smoke cleared Alexander had posted rounds of 67-67-65 . . . 17 under par for a 199 total against Haas' even 200.

The results of the 1947 Peoria Open has only fostered higher contributions by Peorians at large who gratefully accept the acknowledgement of their invitations to professional and amateur golfers throughout the country for bringing to this mid-western city of some 120,000 people "the best little tournament in the midwest."