Turf Roundup of 1947

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The 1947 season was a tough one in turf management. The season offered the greatest extremes of rainfall, temperature and humidity experienced for many years. In general, turf got a poor start with a long, cold, wet spring which was just right for Poa annua and weeds but just wrong for many turf grasses. Nature's overwatering in the spring developed shallow root systems just the same as when it is done accidentally or on purpose with the hose and Drought periods and high sprinkler. temperatures with high humidity, came along and a lot of turf simply "cooked" and gave up the ghost. As a result there have been endless reports of clover and crabgrass everywhere with few exceptionsand the exceptions are extremely interesting and highly significant.

This has been a year when many turf grasses displayed inherent weaknesses which often are hidden behind a screen of skillful management. This year many of those weaknesses came out of hiding where they could be recognized for what they are. Likewise, the trouble that was built into the course as part of the original design rattles the bones of the skeleton in the closet until finally the door swings open and the "secret" is out.

PUTTING GREENS

The "secret" of putting greens that came through August and September with flying colors is **drainage**. Drainage is not a simple thing but consists of at least three distinct phases.

1. Surface drainage. Excess surface water must be removed rapidly in at least two directions. Scald develops where all the surface water from a 6,000 square foot green is taken to one outlet—usually the approach. Water moves slowly through a dense turf increasing the necessity of making it travel the shortest distance to get off the green.

2. Internal drainage. This is by far the most important phase of the drainage problem. Where nature, or inexperienced or careless help, consistently keep the turf overwatered and the soil saturated, it is highly important to carry the excess soil water downward and away from the roots of the grass. To accomplish internal drainage there must be (1) tile under the green to carry the water away or (2) a porous bed of sand or gravel to serve the same purpose. In heavy clay soils tile is absolutely necessary. Where the subsoil is sand or gravel, tile is not necessary. As soil water is carried downward, air moves into the soil to fill the pore spaces. It is the air that gives grass roots a new lease on life.

3. Air drainage. Most greenkeepers are conscious of the need for air drainage. A putting green set into a "hotspot" or "pocket" three-quarters surrounded by trees and brush usually does a fade-out in



Diagonal view of Quonset building at Maple Lane GC, Detroit, which provides Clarence Wolfram, grnkpr., with spacious work shed and ample storage facilities.

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