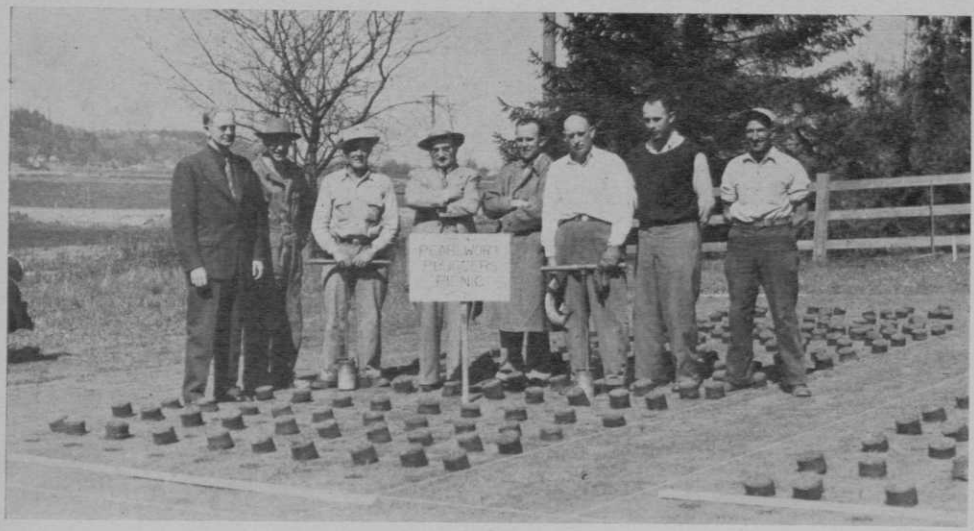

"PEARLWORT PLUGGERS' PICNIC"

Members of Northwest Golf Course Supts'. Assn. brought 1120 plugs of pearlwort to experimental station at Puyallup, Wash., and plugged into a station plot the weedy infestation everybody would like to eliminate. The experiment was launched by the group shown above. (L to R) Ivan W. Lee of Ivan W. Lee Equipment Co., Seattle, and pres., Northwest Turf Assn.; Dr. Maynard Grunder, agronomist of Western Washington Experimental station at Puyallup; Louis Smith, asst. supt., Tacoma (Wash.) C&GC; Charles G. Wilson, USGA Green Section; Henry Land, supt., Tacoma (Wash.) C&GC; Glen Proctor, supt., Rainier G&CC, Seattle, Wash., and pres., Northwestern Golf Course Supts. Assn.; and Joe Greco, supt., Brookdale GC, Tacoma, Wash. While Charley Wilson was in the area the Northwest Turf Assn. and the Northwest GCSA held a joint meeting at the Seattle G&CC. The Northwest GCSA now has 35 members and having a busy year with two USGA championships

tines make openings from the surface downward, but the slicked, impervious walls prevent horizontal movement of air and water. The Aerifier spoons are moved forward at the same time they go down into the soil. This provides a "cultivating action" beneath the surface. The open spoons scoop out the soil cores, leaving loose-walled, easily-penetrated openings.

The difference in these types of treatment was shown with wax casts. Openings into soil were made with (1) a drill, (2) a hollow tube and (3) an Aerifier spoon. Melted wax was poured into the openings. Wax in the drilled and punched openings was confined within the slick walls of the cavities. Wax spread out into the loosened soil surrounding the Aerifier cavity.

The practical significance of this is demonstrated by the difference in root growth. One such demonstration was conducted on a putting green at a golf course. Half the green was cultivated by hollow tining. The other half was aerified with the Aerifier. Root growth on the hollow tined side was limited to a slender column of roots confined within the walls of the openings. Extensive roots grew in the Aerifier holes and spread out fanwise in the surrounding soil.

Aerification isn't a cure-all. Naturally, there are many causes of poor turf. Unadapted grasses, low fertility, too much water, disease and insects, poor air drainage — any of these may cause poor turf. But often poor turf is the result of poor physical soil conditions. These are the conditions that can be corrected through aerification.

Samples of the soil profile will reveal whether aerification is the answer. If the soil profile sample reveals heavy soil, compacted at the surface with root growth confined to the surface layer, aerification is needed. A blue color in the soil beneath the surface is caused by poor aeration. In the presence of adequate oxygen, iron in the soil is in the ferric state and gives a red color to the soil. In the absence of adequate oxygen, iron is in the ferrous state, which gives the characteristic blue color to the soil. Again, aerification will make openings to allow oxygen to move into the soil beneath the surface.

A soil profile sample will show if improper mixing of soil is a factor in causing poor turf. In the past, topdressing of plain sand or humus often was used on golf courses and athletic fields. These materials, applied without being worked into the soil,