elements most likely needed in Southeastern soils.

The pH Test

"Measurements of soil reaction (whether acid or basic) are made with a pH meter. It is an accurate measurement, and when the soil type and turf grass are known liming recommendations can be made based on pH. Soils high in clay and organic matter require more lime to raise to a given pH level than light sandy soils.

Available Plant Nutrients

"NITRATE NITROGEN. Nitrates may vary in soil from day to day, as they are readily subject to leaching and plant use. Chemical soil tests indicate the general level of nitrates and may be of some help in indicating the need for nitrogen.

"PHOSPHATE. Some heavily fertilized putting greens are building up a reserve of phosphorous. An excess of phosphorous may be detrimental to plant growth. Most soils, however, are low in phosphorous except those that have been fertilized with phosphorous fertilizers for several years. A soil test will indicate the phosphorous level.

"POTASH. The amount of potash in Southeastern soils varies considerably. A soil test is very helpful in indicating potash needs of a soil.

"CALCIUM. Soil pH, in most cases, indicates the level of available calcium in soils. A low pH coupled with low available calcium indicates need for high liming rate. Some soils such as those with high organic matter and clay may have low pH with fairly high available calcium. This indicates lime is still needed for some grasses. Such soils have a high capacity to hold and exchange nutrients. High pH and high available calcium indicate no lime is needed.

"MAGNESIUM. In general, soils that are high in calcium contain ample magnesium. Putting greens may, however, have a good supply of calcium and still be low in magnesium content. Magnesium deficiencies may be corrected by the use of soluble magnesium salts in fertilizers or by applying finely ground limestone containing magnesium (dolomitic limestone). A soil test will indicate if this element is needed."

The Haig and Ed Rankin, gen. mgr., Walter Hagen div. of Wilson’s, perch on the Baltusrol clubhouse and relax while the laboring lads on the course are needing some of the great shots Walter used to play when he was a contestant in National Open championships. Walter looks better than he’s looked for years and finds the strain of opening the mail containing royalty checks much easier to take than his routine in the glamorous days.