

There was marked response to the use of phosphate at Pickwick but no response at Evanston. The Truog and Purdue methods were in accord with field practice. This was not true of the Spurway method.

Similar results were obtained with potassium tests. The Truog and Purdue methods were in accord with field practice. The Spurway method was not.

These results show the necessity for using a good method, one which distinguishes between a soil of low and one of high potassium content.

For simplicity and convenience, most laboratories report results as very high, high, medium, low, or very low. Although these terms appeal to the layman, they can be misleading. The fertilizer level in greens should be higher than fairways because clippings are removed and growth is maintained at a higher level.

By reporting amounts as pounds per acre, it is possible to establish one level for greens and another for fairways. For example, with the Truog method fairways should contain a minimum of 75 to 100 lbs. phosphorus and 175 to 200 lbs. potassium. The corresponding levels for greens should be 200 to 300 lbs. phosphorus and 300 to 400 lbs. potassium per acre.

The tests are no better than the samples submitted to the laboratory. Improper sampling is responsible for erratic results and is another cause for questioning the value of soil testing.

Depth of sampling is very important. The amounts of phosphorus and potassium decrease sharply with depth on grassland areas because the soil is not disturbed after turf coverage is obtained. Failure to realize this fact has been responsible for misleading results even with the better soil testing methods.

Three samples were taken at the same spot on one of the check strips on fairway fertilizer plots at Blue Mound CC, Milwaukee, Wis. The Truog method was used with the following results:

Depth of Soil	Lbs. Phosphorus Per Acre
1½ inches	65
3 inches	35
4 inches	25

Phosphorus is reasonably good in the 1½ in. plugs. It would be considered very low in the other two. Yet the response to applied superphosphate was insignificant.

Trips To The Top



A cable car complete with ball washer (right front railing) flattens out a steep hill at Jackson Municipal GC, Seattle, Wash. for footsore golfers. Among the first to test the new lift were (l to r): Kermit Rosen, city park board; Pat Lesser, National and Western Women's amateur champion; Dick Masterson, city amateur champ; and Dr. Phil Smith, also of the city park board.

To obtain consistent results and to show and follow trends, it is necessary to take samples to *exactly the same depth at all times*. A sampling depth of exactly 2 in. has proven very satisfactory. All plugs should be uniform in diameter from top to bottom. A good sampling tool can be made from a discarded steel golf shaft as illustrated in the accompanying diagram.

The samples should be representative, composite samples. Each composite should consist of six to ten cores. The cores should be left intact in the bag. This will permit the laboratory to spot matting, presence of sand or peat layer, etc.

Variations in soil, topography, and turf determine the number of composite samples to collect from fairways. On level areas of uniform soil from four to six taken from widely separated fairways should do.

When sampling a localized area of poor turf, be sure to collect another sample from a nearby spot of good grass.

In the letter of transmittal be sure to include information about drainage, kind of grass, watering and fertilizing.

Each composite sample should be placed in a clean, new container. Small manila paper bags, obtainable at a nearby grocery store, are excellent. Label the outside of each sample plainly with a *soft lead pencil*.

Yearly testing is seldom necessary. A test every two to four years is usually enough.