

This is a problem deserving of investigation. It may be that some of the new phosphate materials are superior in this respect.

It must be recognized that fairways differ from pastures and ordinary farm crops. Greens resemble these more closely than fairways for plant food is constantly removed in the clippings. On fairways the clippings remain and the mineral elements are restored to the soil and converted into forms which can be utilized. When need for phosphoric acid exists it may be better to use heavier applications at infrequent intervals, rather than use small quantities regularly. There is very little danger of loss from leaching, and the phosphorus may penetrate to greater depths. Some of the new ammonium phosphates deserve consideration. They contain at least 45 per cent phosphoric acid and 11 to 13 per cent ammonia in addition.

It is very doubtful if fairways on ordinary loam soil require potash if excessive nitrogen applications are avoided. These soils are normally high in this element, and all the potash contained in the clippings is returned to the soil. Furthermore, potash tends to accentuate clover growth. Placing grass on a high nitrogen feeding plane, undoubtedly, accentuates the need for mineral elements, but unduly encouraging vegetative growth is not good practice. It necessitates more frequent mowing and produces weak leaf structures and turf unable to withstand severe wear.

### Application Rates.

Rates of application depend upon turf and soil condition. Extremely poor soils require more fertilizer than those on which turf is just beginning to show need for plant food. Under such conditions, it is advisable to make both fall and spring applications, until the desired turf is obtained and then reduce the amount of fertilizer and confine applications to one a year.

Ordinarily fertilizers should be applied in spring and fall seasons, when rain is most abundant and turf grows best. In areas where crab grass is troublesome, late spring applications are detrimental. Fall applications have produced excellent results, for the effects of the fertilizer are largely dissipated before the crab grass season begins the following year.

It hardly seems necessary to call attention to the importance of uniform application, yet innumerable examples point to

carelessness on the part of workmen. Plant food does not move laterally in the soil, and spotty turf follows, good in fertilized areas and poor on the skipped areas. Any club will find the purchase of a good fertilizer distributor a worth while investment. Most satisfactory results are obtained with the two-wheel hopper type fertilizer and lime spreader. The hopper should never be filled on the fairway, and a man should ride the machine to close the outlet spouts when stopping. Failure to do so results in burned areas, especially if water soluble materials are used.

## Spalding Issues 1930 Golf Guide

**S**PALDING'S Golf Guide for 1930, edited by Grantland Rice, needs no review. The jury comes in unanimously every year, passing a 100 per cent O. K. verdict on this complete and valuable reference work. The results of a vast number of tournaments of even sectional importance, records of the game, roster of hole-in-one shooters and a fund of playing and gallery information is presented in such shape that the book should be in the hands of every golfer of any more than casual interest in the game.

A collection of weird golf news during 1929 is an interesting feature providing competition for the most talented golf liars.

The rules of golf are carried as a detachable feature of the book. The price is 35 cents and the book is on sale at all Spalding stores.

## Springfield (O.) Boasts Prize Public Course

**S**NYDER PARK course at Springfield, Ohio, continues its program of improving with the ambition of becoming recognized as one of the country's finest municipal golfing plants. The 1930 season finds the course with 14 new greens, an extensive watering system, and 54 well located sand-traps. J. W. Brandenburg, supervisor of the course, expects a record play this year. In 1929 the play increased from 12,000 to almost 24,000.

The course has a replacement value of \$50,000. In maintenance equipment the Snyder Park course has more than \$5,000 invested, making it possible to keep the course in good condition with a staff of seven men.