## Fall Fertilization

By ALEX BINNIE, Greenkeeper

Shoreacres Golf Club, Lake Bluff, Ill., and Chairman of the Editorial Council of the National Greenkeeper



ALEX BINNIE
One of America's foremost
greenkeepers.

In My opinion, any budget that fails to provide for an annual appropriation for fairway fertilization is incomplete. It is essential for the proper maintenance of any golf course. The plan which we have adopted, our reasons and methods for the application of fertilizers, and the results which we have obtained are outlined below.

In the first place, I am a firm believer in fall fertilization. It has many advantages over spring fertilization or haphazard methods. I might enumerate a few:

FIRST—Maintenance work is at its lowest in the fall as compared with the spring or summer months and fertlizing can be done with labor that would otherwise represent idle time. From an economical standpoint the plan is ideal.

SECOND—More hardy growth is developed. Fall fertlizers will, as a rule, stimulate the root system without promoting abnormal growth, to the extent that there is less winter kill. The real benefit, however, comes when the frost and the rain dissolve the fertilizers and work them deeper into the soil, thereby encouraging a deeper and more hardy root system rather than a shallow turf which is an inevitable result when fertilizers are on top of the soil rather than in it.

THIRD—And last, bad spots on the fairways are apparent and are sure to receive attention in the



## GREENS with the... COLUMBIA PERFORATOR

Properly fed grass makes better and more substantial greens. Now, more than ever, your greens need the Columbia Perforator to keep the traffic lanes open for the transportation of the three vital elements — Air Water and Plant Food.

Turf may be perforated to a depth of 2½ inches without marring the surface, due to the exclusive vertical motion of the knives. Deepest cut means greatest penetration and best results. « « « For further information, write

PHILADELPHIA TORO COMPANY, 1532 Belfield Ave., Philadelphia, Pa.

fall, whereas, some are apt to be forgotten in the spring.

As I mentioned before, our plan contemplates an annual appropriation for fairway fertilization. We do not attempt to fertilize all fairways in any one year, but rather to cover a few each year, never overlooking any spot on the entire course that is not up to standard even though it is necessary to treat it each season.

And also we do not broadcast fertilizers with a prayer on our lips. The fairways are disced and redisced and the fertilizers worked well into the soil.

The results which we have obtained have been very satisfactory. We have good fairways—no winter kill—our turf has a splendid root system—and our grasses are hardy. Our fairways are cut three times each week. Why shouldn't I believe in fall fertilization?

## Fall in the Fertilizer Program

By M. E. FARNHAM, Secretary and Greenkeeper Philadelphia Country Club

To the relief of most of us concerned with the maintenance of turf at present-day golf course standards, Summer with its excesses will soon be past. The advent of Fall offers the opportunity to repair the ravages of the Summer and, perhaps to start a program which may help to minimize the probability of past troubles recurring.

It is becoming universally recognized that, on



## A Complete Fertilizer A Complete Humus..

Combined into one product at One Price!

Where most fertilizers use dirt and other useless waste to create their bulk, Driconure is pure, weed free, concentrated, cow manure—and peat moss humus. Every particle works to create increased fertility. Investigate! You'll find it both better and less expensive—a rare combination.

Atkins & Durbrow, Inc.
K-165 John St. NEW YORK, N. Y.



existing turf, reseeding is of doubtful value. The difficulty of preparing any suitable seed-bed and the fact that it is seldom practical to put golf turf out of play are factors which reseeded turf has to contend with. Logically then, practically the entire problem of turf improvement resolves itself into one of fertilization.

It is my opinion that the entire problem of turf fertilization is an open question at present. In fact it may and probably will continue as such. Each year sees more controlled experimental work being carried on. Some bemoan the seeming duplication of much of this work. However, we will never see the day when such work is being carried on under as diverse conditions of soil and climate as those represented by the golf courses of the country.

Nevertheless, it is essential to have some basic fertilizer program to insure the maintenance or improvement of turf as the case may be. This program may be varied as conditions, experience, or additional knowledge warrant.

At the Pennsylvania State College there are pasture fertilizer plots which are the oldest in the country. These plots were originally planted to a mixture of grasses and clovers including red top, Kentucky blue grass, and white clover. The fertilizer treatments have been the same during the life of the plots.

While it is granted that the conditions on these plots do not duplicate golf turf the results are very valuable. At this location, the plots which have received ground limestone, nitrogen, and an abundance of phosphoric acid now have fine stands of blue grass. As soon as potash is used, even in small