a combination of PC blended with activated sludge from the Milwaukee Sewerage Commission. In addition, many cooperators throughout the country including home owners, country clubs, commercial agencies and state and federal workers, made PC-activated sludge combination trials at various timings and rates. Dr. O. J. Noer, Agronomist with the Milwaukee Sewerage Commission, deserves most of the credit for organizing this series of tests. His cooperation was outstanding.

It was suggested that an 8 lb. rate of PC spray solution be compared with 8, 16 and 32 pounds per acre of PC, applied with the sludge. The sludge-blend was 5% PC, 5% fine sludge and 90% regular commercial activated sludge, applied 15 lbs. to 1000 sq. ft. of area with a fertilizer spreader. The various rates of PC were obtained by adding sludge to make up the 15 lb. rate per 1000 sq. ft.

The majority of the cooperators in this trial reported favorably and want to continue this experiment again in the 1952

season.

Treatments as high as 32 lbs. of PC, applied as many as five times at weekly intervals, did not injure the turf. Many cooperators reported the turf in better condition at the end of the treatment period than it was when the tests began.

It appears that 12 to 16 pounds of PC applied with activated sludge several times during the latter part of the growing season, gives excellent crabgrass control. From experience in 1949, one pound of the amine form of 2,4-D per acre added to the mixture in the first treatment, controls not only crabgrass but knotweed, some clover, goosegrass and several other common turf weeds. The success of the PC-sludge combination presents new promise in turf weed control.

Other Dry Applications

Work by Dr. B. P. Robinson at the Tifton Research Center indicates PC at 8 lbs. per acre can be applied with a dry sandy soil for topdressing and crabgrass control on Georgia putting greens without turf injury. Laboratories indicate there are other dry materials that can be combined with PC for application with shaker type applicators and fertilizer spreaders, and these will be available for testing in 1952.

## DELBERT DEWEY HEADS FINGER LAKES SUPTS.

Delbert Dewey, supt., Canandaigua (N. Y.) CC, was elected pres., Finger Lakes Greenkeepers' Assn. at the organization's May 13 meeting. Carl A. Lawer, Durand Eastman GC, Rochester, N. Y., was elected vp., and Lester L. Bixler, Seneca Lake CC, Geneva, N. Y., was elected sectreas.

## Renovate Fairways to Eliminate Poa Annua

By FRANK P. DUNLAP
Supt., The Country Club, Cleveland District
(GCSA Paper)

We are still groping for the right answer to this problem of poa and what is best to do about it.

We are of course carrying on an adequate fertilizer program to give our permanent grasses as much chance to compete with the poa as possible during the poa's off seasons. The permanent grasses in our fairways are predominantly Seaside and Astoria bent. Soil tests are made regularly and the program is carried out in accordance with the needs as shown by these tests. Agrico of various analyses, Milorganite and lime have been used. The fertility of our soil is now good.

We are doing some experimenting with light application spraying of sodium arsenite to prevent seeding. The rate of application was 1 lb. of sodium arsenite in 5 gals. of water. This amount of spray has no noticeable effect on the bents. What effect it will have in controlling poa I am not at this time prepared to say, as there are several factors that I feel have a direct bearing on the results of this treatment such as old seed lying dormant in the soil waiting for an opportunity to germinate and produce a plant. Weather and time of application I am sure are very important in the results of this type of treatment.

We are, however, enough convinced that this method has merit to go on with the experiment for the next three or four years if necessary to see if we can come up with something worth while. We are and will continue to keep our records and if anything does come of it we will be glad to report our findings. My personal feeling about this treatment is that it is not the answer if you have a heavy infestation of poa at present but will be of great value in preventing a recurrence of the spread of this grass once the fairways have been renovated and as nearly as possible cleared of poa.

## Fairway Renovation Plan

We have done a complete renovation on our No. 1 fairway and if it looks as good in the late summer of this coming season as it does at present we are prepared to close the first nine this fall and do the remaining eight holes, then in 1953 close the other nine and repeat the process.

We do not feel that it would be advisable to close the whole course at one time so that the members have no place to play at all. The same line of reasoning was why we did just one fairway this year, so that the members could see what can be accomplished by a complete renovation and be more willing to go along with the