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 sectress.

## 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.

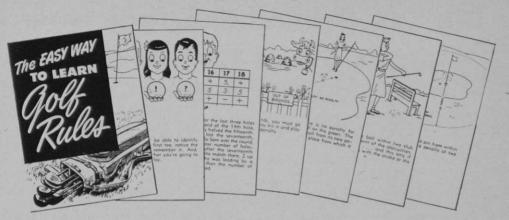
We are doing some experimenting with light application spraying of sodium arsenite to prevent seeding. The rate of application was 1 lb. of sodium arsenite in 5 gals. of water. This amount of spray has no noticeable effect on the bents. What effect it will have in controlling poa I am not at this time 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



## GOLFERS TAKE TO RULES THIS EASY WAY

More than 60,000 "Easy Way to Learn Golf Rules" books have been distributed to golf clubs, leagues, schools and individuals since the beginning of the year, according to Rex McMorris, dir. of the National Golf Foundation. The book containing 80 pages presents the rules in an entertaining way made more easily understood by 60 cartoons and illustrations. Major changes made in the Official Rules of Golf effective Jan. 1, 1952 are included. The book is published with the permission of the USGA by the Foundation as an aid to the beginner and the uninitiated and has become popular with the more experienced. Special discounts are made on quantity lots.

inconvenience of closing part of the course while the work is being done.

The renovation of No. 1 fairway was entirely based on the well established fact that poa is an annual. This fairway went very thin in July and remained so the rest of the summer. Treatment of any kind was held off until this year's crop of poa seed had germinated and reached a height of about ¼ in. We then on September 8 sprayed the entire fairway with sodium arsenite at 3 lbs. per acre. This application was allowed to burn until September 13 when the treatment was repeated at 4 lbs. per acre. Again on September 18 another application at the 3 lb. rate was put on. I think it is needless to tell you that virtually nothing remained alive on this fairway by September 21.

We were now ready to start in the other direction. September 22 was a fine day and the tractors went to work; two tractors with fairway aerifiers, one with a Dunham spike disc and one with the drag mat. The tractors with the aerifiers ran one behind the other and each made three trips over the same area, which means the fairway got six aerifyings to a depth of 2 in. The main purpose of the spike disc was to tear up the mat of dead grass and as it also made six trips I need not tell you that the old grass was well torn up. We then went over the fairway with the drag mat until all cores were well pulverized.

The fairway was then fertilized and seeded. We used equal parts of Seaside, Colonial and Highland bent with 25 lbs. of B27 to make a total of 175 lbs. of seed.

The seed was applied at the rate of 75 lbs. per acre. After the seed was on it was dragged in and rolled in three directions. The sprinklers were then turned on and the fairway thoroughly watered. It was never allowed to dry out from then on until it was ready to cut.

The seed was germinated and showing by September 29 and was cut at ¾ of an inch for the first time October 22.

The catch of grass was very good and I am quite sure will be a fine fairway this year.

# Jaycees Expect 25,000 to Enter Junior Championship

Extensive pre-tournament activity being conducted by local organizations throughout the country have led U. S. Junior Chamber of Commerce Sports and Recreation director Don Neer to believe the 1952 National Jaycee Junior Amateur Golf Championship will be the biggest yet held.

Tournament is to be held August 11-16 at the Eugene (Ore.) CC. Byron Nelson will conduct the pre-tourney clinic for more than 200 boys gathered for championship play.

With many more local Jaycee organizations scheduling local Jaycee Junior golf events, Neer believes that more than 25,000 boys will play in regional qualifying rounds for the event, exceeding by 5000 the number of boys 18 or under who battled for the 1951 title won by Doug Sanders, Cedartown, Ga.