

demonstration of the marked role played by moisture. Infrequent, heavy watering on fairways and lawns will maintain good, strong, green bluegrass turf in Iowa throughout the season.

Disease: Kentucky bluegrass in Iowa has some infection nearly every year, of leaf spot (*Helminthosporium*). Seldom does leaf spot do extensive damage. Other diseases such as rust, curvularia, and brownpatch have not been a problem in bluegrass.

Weed Problem Diminishing

Weeds: Before the introduction of 2,4-D in 1945, dandelions, broadleaf plantain, and narrow leaf plantain were a real problem. Thanks to 2,4-D all turfgrass areas may be kept relatively free from the broadleaved weeds.

With crabgrass it is another story. Once established and permitted to seed, crabgrass becomes a serious competitor of bluegrass and does more to ruin good turf than any other weed. Progress in the control of crabgrass is being made. Phenyl mercuries have demonstrated value, as has potassium cyanate. Last year plots treated with Crag 1 were outstanding. These were

premerge treatments, and will be further investigated in 1955.

Fertilizers: There are fairways in Iowa which have had no fertilizer applications for 20 or more years, and are still producing excellent tight turf. Many fairways on thinner soils are greatly benefited by annual applications of 40 to 60 pounds of actual nitrogen per acre.

Management: Nothing is more important than skillful management. The informed superintendent will as a rule have soil tests run particularly on those fairways where the grass lacks vigor, is weedy and off color, and then will apply the needed plant food materials, and lime, to feed the grass and induce better growth. He will also in so far as is possible destroy weeds and thus make available to the grass the soil moisture and plant food materials required to grow weeds.

Compaction Problems

Aerification: Fairways are terrifically compacted. It is true that freezing and thawing have a beneficial effect on the soil during the winter. But during the wet spring and early summer months, grass



Louisville Courier-Journal photo

CADDY SUNDAY SCHOOL AT LOUISVILLE CC 9TH GREEN

Shown in session is the caddy Sunday School at the 9th green of the Louisville (Ky.) CC. It's the only one of its kind in the world. It began when the club's professional, Eddie Williams, a genuinely religious man, was bawling out a caddy for stealing balls, and Williams' friend, Rev. Edward Perry, pastor of the Broadway Baptist church heard the performance. After Williams and Rev. Perry had discussed the situation plans were made for holding Sunday School between the time the lads had been brought to the club by the club bus and before they started their caddy-ing rounds. At first Southern Baptist Theological Seminary students conducted the school. Then Bernie Alwes, a 38-year-old sign painter, an ex-caddy, born in the neighborhood from which many of the lads come, took over with Sunday School lessons based on his own experience and illustrated by chalk talks. That scored with the caddies and Alwes now is the regular teacher. Ora Spaid, religious editor of the Louisville Courier-Journal, recently wrote a highly interesting newspaper feature on the caddies' Sunday school.