

PRETTY AS A PICTURE



A picture window in the Belmont Hills CC, St. Clairsville, O., clubhouse shows what can be done in remodeling an old clubhouse and using glass to get the value of charming vistas often shut out by the old style "baronial castle" clubhouse architecture. Newer clubhouses all are taking advantage of best possible site locations and a lot of big windows.

order of 0.5, 0.0 and 0.5 per square foot of turf. On September 25 there were no grubs in the chlordane treated plots and 117 average per sq. ft. in the untreated.

Egg deposition in the experimental plots did not indicate inhibition to reproduction by the insecticide. Large numbers of dead adult beetles were seen on the turf in the treated plots indicating high mortality as they attempted to enter the soil for egg laying.

On August 13 a one acre plot in the center of a fairway having an average Japanese beetle grub population of 30 per square foot was treated with 100 lbs. of 10 per cent dust, thus providing actually 10 lbs. of technical chlordane. Fourteen days later the grub count was down to 2.2 per sq. ft. or a reduction of 93.2 per cent in two weeks. On September 14 or four weeks from date of treatment there were 0.7 per sq. ft. in the experimental plot and 87.2 in the untreated. The 0.7 grubs per square foot in the chlordane plot represented mature grubs of the over-wintering 1946 generation. They were at a depth of 3 to 4 inches below the surface of the ground and not in immediate danger from the toxicant. At a later date it was seen that the chlordane had penetrated the soil to a depth great enough to seriously affect these individuals.

The municipal football stadium at New Haven, Conn. was found to be heavily infested with Japanese beetle grubs on September 16, 1947. A population count disclosed the fact that the insects were in the order of 80 per sq. ft. At the time the

better color has been seen. It is not known at present what residual toxic action chlordane examination was made the grass displayed some discoloration resulting from grub feeding. Chlordane treatment was made the following day, September 17, using the insecticide as a 5 per cent dust and at the rate of 200 lbs. to the acre. Eight large turf sprinklers were spaced in each of the twelve 10-yard zones at hourly intervals for a period of 48 hours thus providing four hours of actual drenching for each 10-yard zone. The turf was then firmed by a tractor drawn water roller. Heavy rain fell two days after the treatment was applied.

The watering and rolling treatment was designed to provide maximum penetration of the insecticide in minimum time and to assist the turf in recovering before the injured root system dried out completely. Remarkable results were obtained. The grub population was inactivated by chlordane in about 24 hours and reduced to 3 grubs per sq. ft. in 7 days or about 96 per cent control. Although considerable damage was done to the already injured turf by the cleats of football players shoes complete destruction of the playing field was prevented through the timely use of chlordane.

Not only will chlordane act much faster than DDT for control of Japanese beetle grubs but it is also more thorough in ridding turf of its injurious tenants. No injury to grass has been observed where chlordane has been used at stated dosage levels, in fact stimulation of growth and

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