

kept in the consistently good playing condition desired. The surface of the turf assumes a muddy discoloration, obstructions to accurate putting develop, and the game of golf is materially interfered with. This means costly maintenance.

An exception to the usual pattern of casting prevailed during latter part of the spring and first half of the fall of 1949. Despite unseasonable high temperatures and humidity plus periodical watering of greens, extended droughts during these two seasons prevented surfacing or casting by the stinkworm. Although infested greens are watered for a short time each day during periods of lessening precipitation, abundant casting on the surface of the green will not take place unless moderate to heavy rainfall occurs. Light rain of short duration or drizzle appear to have no greater influence on compelling the animal to surface than artificial watering. Excessive watering of an infested turf area during periods of high temperature and humidity will encourage more casting activity than may be expected when moderate watering is done.

Beginning with the sod of initial level diggings varying in depth from 22 to 41 inches examinations were made during the summer in fairways, roughs and greens to provide information relative to the abundance and location of the stinkworm. In soil "bone dry" to a depth of 20 inches, it could not be found. However, at sub-

sequent moisture laden levels it was present. Native earthworms (*Allobophora caliginosa* vars. pallid and dark, *A. chlorotica*, *A. longa*, *Eisenia rosea*, *Lumbricus terrestris*) were taken from the dry soil at virtually all depths from the sod to the 20 inch level inclusive.

Control

A number of chemicals were used experimentally to reduce the worm population in greens, mostly at Pelham CC. They were applied as dusts, wettable powders and emulsions. The latter group gave best results. When used as 2.5 and 5 per cent dusts, the materials were mixed with Milorganite as a diluent to facilitate distribution. The wettable powders were applied in 15 to 50 gallons of water per 5,000 sq. ft. of turf and the emulsions in 50 gallons of water per 5,000 sq. ft. A sprayer mounted with two 50 gallon tanks was used to make the treatment. Pressure at the pump was maintained at 400 pounds. Immediately following all treatments the turf was soaked with fresh water. This was also done on the two succeeding days.

PARATHION: On May 13, 1948, subsequent to heavy rain on the previous day, a 5,000 sq. ft. putting green infested with stinkworm estimated to be 20 per sq. ft.) at Woodway CC, was treated with 10 pounds of 25 per cent wettable Parathion at the rate of 21.50 pounds of tech-

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LIGHTNING ON OFFENSE AT NOTRE DAME

Chet Keeley, pro at University of Notre Dame's Burke course at South Bend, Ind., sent us this picture of his eighth green to prove that lightning strikes with the same force as the university's charging football linemen. There was no pole in the cup when lightning struck. The cup was 1 1/4 in. below the surface and sod was blown out at the same depth. Sod was replaced and no signs of the damage now are evident.

