

ations. The study was replicated three times. The treatments were made in late fall only. Effectiveness of the various chemicals and carriers were measured by recording the actual number of snowmold spots which developed during late winter and early spring. Color ratings were also recorded during this period. Two or three thaws and subsequent snows occurred, thus providing excellent conditions for evaluating longevity and persistence of the various chemicals and carriers.

Two Years' Results

Two years' results have shown: (1) Both rates of Calo Clor and the 3 oz. rate of PMAS effective, irrespective of carrier; (2) The 1½ oz. of PMAS effective when Milorganite was used as the carrier; (3) Milorganite and topdressing produce greening up 10 to 14 days earlier than sand or spray; (4) Effectiveness of topdressing is not persistent; however, plots receiving Milorganite (at rate of 200 lbs. per 1000 sq. ft.) as carrier display superiority in density, vigor and color throughout most of the growing season — this even though the entire green is fertilized routinely.

As expected, untreated (check plots) were heavily infested with snowmold. Adequate rates of either fungicide produced satisfactory control without retreatment in the spring.

The results to date seem to indicate that the use of sewage sludge (Milorganite) and possibly topdressing improve the effectiveness of the low rates of phenyl mercury (soluble). The amorphous nature of the partially decomposed materials apparently hold the vapors of the mercury in place for a longer period, hence prolonging the effectiveness of the chemical.

The early greening of plots receiving Milorganite and topdressing may be partially explained by the thermal effects produced. The dark material absorbs more heat; hence, raises the temperature of the micro-climate enough to permit early metabolic (growth) activity.

The prolonged superiority (from a quality standpoint) of the Milorganite plots seems to be directly related to additional nitrogen received by the plots. The rate of material used was equivalent to approximately 12 lbs. of actual nitrogen per 1000 sq. ft. The results obtained (superior quality) are contrary to what may be expected from the application of this quantity of nitrogen over and above that supplied through the regular fertilization program. The failure to develop succulence and resultant damage associated with this condi-

tion may be partially explained by the slow breakdown of the sewage sludge. The application was made very late in the fall; low temperature at that time, as well as during winter, prevented complete breakdown.

Slow Decomposition

Subsequent spring temperatures were such that decomposition proceeded rather slowly, with no apparent ill effects. Quite possibly the grass is able to utilize some of the early products of decomposition (amino acids) for its very reduced metabolic activity during its period of dormancy.

Certainly this entire phase of the study requires further, more detailed investigation. Studies on the effectiveness and retention of mercury vapors by humus and related materials are likewise indicated.

This study was revised slightly in 1955, and now includes lower, more practical rates of Milorganite, as well as comparative plots of soluble nitrogen (ammonium sulfate) as a carrier for the fungicide. The test also includes plots of carrier alone — without fungicide. Results obtained in late winter — early spring of 1956, may permit a recommendation for snowmold control which will result in earlier greening of the turf, as well as control of snowmold.

Changes Made in National Open Qualifying Sites

TWENTY-SIX sections, instead of 25 as last year, will have qualifying rounds of 36 holes for the USGA Open at Oak Hills CC, East course, Rochester, N. Y., June 14 thru 16. Qualifying in Honolulu will be May 28; other qualifying rounds will be played June 4.

Entries must be in by 5 p. m. May 18 at USGA New York headquarters, 40 E. 38th.

Qualifying rounds in Long Island, Westchester County and northern New Jersey give the NY Met district three qualifying sites instead of one as last year. The PGA National course at Dunedin, Fla. gets the qualifying rounds formerly played at West Palm Beach, Fla. Other switches are from Birmingham, Ala., to Atlanta, Ga.; Baltimore instead of Washington, Falmouth instead of Manchester, Mass., Morganton instead of Fayetteville, N. C., and Dallas instead of Ft. Worth.

Phoenix, Portland, Ore., and Salt Lake City have been eliminated as qualifying round cities.

Number of qualifiers and exempt players will be 162.