We have seen how these newer pesticides differ from older ones in their safety to plants and in their specific action. Now let us consider their longer residual action. Most of the newer fungicides and insecticides are organic compounds that are relatively insoluble in water. This insolubility permits longer activity. They are formulated as wettable powders. The length of their action depends largely on the rate used, weathering conditions, and how rapid is the breakdown of the chemical in the soil. This breakdown may vary from a few weeks, as in the case of Thiram, to a number of years, as is true of DDT. Cadmium fungicides have held back the development of dollar spot for some weeks after applications were stopped. DDT at the rate of 25 pounds per acre is effective in the control of Japanese Beetle for at least five years, due to its residual action.

The last consideration is that of poisonous action. If we go by some of the news items that appear today, we might think we are developing more hazardous pesticides. I doubt that this is so. I think the important fact is that we are becoming more conscious of this important consideration for any pesticide. We have only to look at the old mercurials and arsenicals to know where we stand. Thiram may be irritating, but it certainly can't be classed as a poison. The cadmium fungicides are not even irritating. The greatest criticism in regard to toxicity has been directed toward the newer insecticides, but since these are effective in such small amounts, it is possible to use them safely. With the old weed killing arsenicals, livestock had it rough. Today, 2,4-D may be used without any thought of toxicity to man, livestock, or fish. The same may be said of "Ammate" Weed Killer which can be used to control brush and poison ivy without fear of killing someone's goat. It would be remiss not to mention maleic hydrazide, a chemical newcomer which shows the peculiar physiological action of suppressing plant growth. It has been suggested that this compound could be used as a substitute for mowing.

To summarize, the newer chemicals that the greenkeeper has today for his war on pests are different weapons from those he had formerly. Today it is possible for him to control diseases, insects and weeds without risk of damaging his green. He has pesticides that are more efficient, while also more specific in their action, exhibit longer residual action, and are less hazardous to use.

It is the responsibility of the greenkeeper to learn what these new products are, which ones are most suitable to his purposes, and when to apply them.

Midwest Park Executives at Chicago, March 14-15

The Midwest Institute of Park Executives will hold its Tenth annual educational conference March 14-15 at the Chicago Park District Administration Building, 424 East 14th Boulevard, Chicago, Ill. The sessions will start at 8:30 A.M. and run to 5:00 P.M. on both days.

The registration fee of $3.00 includes a copy of the entire proceedings.

ANNUAL TURF CONFERENCES

Feb. 12-14—Texas Turf Conference, Texas Turf Association, College Station.

Feb. 26-Mar. 1—20th Annual Turf Conference, Pennsylvania State College, State College, Pa.

Mar. 5-8—Annual Turf Conference, Midwest Regional Turf Foundation, Purdue Univ., Layfayette, Ind.

Mar. 6, 7—Fourth Annual Turf Conference, Cornell University, Ithaca, N. Y.

Mar. 21, 22 — Fourth Annual Turf Conference, State College of Washington, Pullman.

Mar. 8, 9—Annual Turf Conference (Concluding 10-Weeks Winter School), Univ. of Mass., Amherst.

Mar. 12-14—17th Annual Turf Conference, Iowa Greenkeepers Association, Iowa State College, Ames.

Mar. 7-9—Annual Turf Conference and Short Course, Minnesota Greenkeepers Association.

April 16-17 — Annual Turf Conference, Montana-Wyoming Turf Assn., Butte, Mont.

May 10-11—Southern Turf Conference, Tifton, Ga.

June 12—Central Turf Foundation Field Day, Manhattan, Kans. CC.

Oct. 24-26—Central Plains Turf Conference, Kansas State College.