

## REPORT ON MALEIC HYDRAZIDE

A chemical, known as maleic hy-drazide, which slows the growth of grass and may slash millions of dollars annually from the cost of mowing the road-sides and center islands of local, state and national highways, was reported before the 37th annual meeting of the Association of State Highway Officials.

The unique property of the chemical was revealed by one of its developers, Dr. John W. Zukel, a scientist with the Naugatuck Chemical division, United States Rubber Company, in a report before the Associ-ation's committee on roadside development.

For the past year, Dr. Zukel, in cooperation with the Connecticut State Highway Department, has been conducting a series of experiments along the Wilbur Cross and Merritt Parkways to determine the effect-iveness of the Chemical for retarding the growth of grass along landscaped areas of the highways.

The objective of the experiments was to reduce the number of mechanical and hand mowings needed to keep the landscaped areas in proper trim.

A total of 55 different plots comprising 74 acres were sprayed with maleic hydrazide between August 1950 and October 1951, Dr. Zukel reported.

Most promising results were obtained on 12 one-acre plots in the center islands which were sprayed once with the chemical at the rate of 2 pounds per acre last May 2 and 3. Maleic hydrazide slowed down the growth of lawn grasses in these test strips to a point where only two mowings were needed throughout the spring and summer. Adjacent untreated sections had to be mowed 19 times throughout the season, Dr. Zukel said.

The cost of maleic hydrazide to spray the center island test plots was approximately \$10 per acre. Based on the total labor and equipment costs for mowing the adjacent untreated sections, maleic hydrazide saved approximately \$70 per acre for the season. The grass in the sprayed plots was equal in appearance to the mowed sections throughout the season, he said.

Tests also found that maleic hydrazide could be formulated with 2, 4-D weed-killer so that one spray would not only slow the growth of desired grasses but would kill off objectionable weeds such as wild carrot and plantain as well, he reported.

"Although it is still too early to draw any over-all conclusions, the results of this year's experiments have been highly gratifying," Dr. Zukel said. "We hope that our experiments will be extended to other states throughout the nation this year"

Dr. Zukel summarized the experiments as follows:

1. Maleic hydrazide should be applied at the rate of 2 lbs. per acre in the spring along center islands and 4 lbs. per acre along guard rails and road-sides.

2. Most pronounced response at a minimum dosage resulted when applications were made at start of the growing season in early May.

3. If weeds such as plantain and wild carrot are present, dosages of 2, 4-D weed-killer should be included with the maleic hydrazide spray.

4. Since the effects of retreatment have not been fully evaluated, maleic hydrazide should not be applied more than once during the same growing season.

5. Application of maleic hydrazide to grass which has not been cut is preferred in order to give a large absorption area of green foliage. One week should be allowed for the chemical to be absorbed and translocated to the roots of the plant before grass is mowed.

6. The center island of a highway should be sprayed with a 10-nozzle boom delivering 50 lbs. pressure and 40 gallons of spray per acre.

7. Roadside and guard rail areas should be sprayed with a single nozzle delivering a fan spray operating at 50 to 200 pounds pressure at 50 gallons per acre.

8. Factors which should be more fully evaluated are the effect of dosage on winter survival of various grasses, effect of retreatment during the same season and in successive seasons, optimum dosages, and the time of year for best effect on various species of grasses.

Editor's Note: Until more is learned about the chemical, it is advised that it not be used on fine turf on lawns, fairways, tees or greens.



## WISCONSIN NEWS

On Monday April 14, Frank Dinelli, Bill Saielli and Bill Stuppel made their annual spring pilgrimag· to Wisconsin to attend the April meeting of the Wis-consin Greenkeepers Association. The meeting was held at the Heidelberg Gardens in Milwaukee.

At the business meeting the officers for 1952 were elected. Results were as follows.

President.— Howard Gabbey, Johnson Park Golf Course, Racine, Wisconsin.

Vice-President.— Del Stollenwerk, Washington Park Golf Course, Kenosha Wisconsin.

Secretary-Treasurer.— Bob Howe, Milwaukee, Wisconsin.

Director.— Frank Bradt, Hartford Golf Course, Hartford, Wisconsin.

The dinner that evening was by courtesy of Dick Ryerson of the R. L. Ryerson Co. of Milwaukee. It was a swell feed and was enjoyed by all, especially the hungry pilgrims from Illinois.

We renewed acquaintances with a number of the Wisconsin old timers including Oney Williams, Jack Taylor, Frank Kress, Irv Bertram, Les Veerhalen, Paul Jensen, Bob Howe and saw Charley Shiley who formerly was at Tam with Ray Didier. Charley is now located at a course in Milwaukee and from all reports is doing an outstanding job.

The Wisconsin boys always seem to have an ex-ceptionally good time and Frank Dinelli remarked "I never heard anybody laugh as much as these fellows in Wisconsin.



## NEW MEMBERS

We wish to welcome the following new members into the Association.

Paul Prentiss, Associate member, Middle West representative William A. Cleary Corp.

Ray Erickson, Associate member Green chairman, Itasca Country Club, Itasca, Ill.

Lem Conn, Associate member, Representative Du-pont Corp.

Roland H. Bolte, Regular member, Superinten-dent Sportsman's C. C., Northbrook, Illinois.

A. J. Dorband, Regular member, Superintendent Mission Hills C. C. Northbrook, Illinois.



The fertilizer industry advisory committee reports that nitrogen supplies are up 7 per cent, phosphates down 6 per cent and potash up 5 per cent.