

**Dr. Peters:** Northeastern Weed Control Conference has a "symbiotic relationship with industry."



Williams: "Make sure your equipment is adequate, your pump large enough."

presentation of new chemicals from industry, and talks on forestry and public health weed control. As usual, there were a number of research reports on turf weed management.

Since the new chemicals presented were almost identical with those discussed at the North Central Weed Control Conference in December, readers may turn to page 10 for a resumé of the presentation.

### Watch Your Equipment!

A leadoff address during the first day's general sessions got down to brass tacks about how weed controllers should look after their application equipment. After all, the best herbicide known to man can fail if the spray rig or spreader is not working correctly, or is not operated with dexterity. This crucial topic was examined at length for the gathered weedmen by A. T. Williams, Chemical Sales Manager for Agway, of inverts, or chemically thickened materials.

News of the latter came in a paper prepared by J. W. Suggitt and J.E.F. Winter, both of the Hydro-Electric Power Commission of Ontario, Toronto.

For several reasons, standard invert emulsions were unsatisfactory for the kind of spray program the Commission desired. "Recently one manufacturer," the Canadians reported, "has promoted particulate sprays intended to allow little herbicide drift. Small particles of a water-swellable polymer, dispersed in an aqueous herbicide solution from which they imbibe liquid, swell to some limited final size determined by the polymer used. With the addition of particles in sufficient quantity, essentially all the herbicide solution is taken up, with formation of a very thick, coarse, granular liquid much like tapioca."

Success was achieved with

# Broadened Industrial Sessions Underscore Importance Of Nonfarm Weed Control at 19th Northeastern Weed Meet

In an urbanizing America, where fewer acres of farmlands now produce greater quantities of food, it's no surprise to find weed scientists increasingly concerned with urban/industrial vegetation control. This fact was brought out resoundingly again this year for a record 775 delegates to the 19th Annual Northeastern Weed Control Conference convention at the Hotel Astor, New York City, Jan. 6-8.

In his keynote address, outgoing president Dr. Robert A. Peters cited not only the growth in importance of weed control in general, but the phenomenal rise of nonfarm vegetation maintenance technology. Dr. Peters, of the Plant Science Department, University of Connecticut, Storrs, said the NWCC has from the outset maintained a "symbiotic relationship" with industry, and this year devoted more time than ever before to railway, highway, utility, and other forms of industrial weed science.

Other highlights of the 19th meeting included an expanded section on aquatics, a detailed Inc., giant supplier complex headquartered in Syracuse, N. Y.

Williams concluded with a summary of what the successful application program should have, and included closed tanks, long-wear nozzles, and sufficiently large pumps in his recommendations.

### Scan Helicopters/Spray Drift

More and more attention each year is being given to use of helicopters for herbicide application, and the development of thicker sprays, either as a result such a mixture, applied from a spray-boom-equipped helicopter, for the control of woody growth in transmission line rights-ofway. Spray drift is largely avoided, even with crosswinds of up to 7 mph, and adequate coverage of foliage is obtained at a substantially reduced cost, the researchers indicated.

One of the invert-emulsion application methods currently much in the news at weed conferences is the Rhap-Trol Spray System, a product of Hercules Powder Co. According to Dr.

New head of the Northeastern Weed Control Conference Dr. G. D. Hill (center) was congratulated by a visitor from Wilmington, Delaware, Dale E. Wolf (right). Wolf is president-elect of the Southern Weed Conference, and both Dr. Hill and he are duPont men. Dr. John Meade, NWCC secretary-treasurer, looked on happily.





New vice president of the Northeastern Weed Control Conference, Dr. Richard D. Ilnicki (left) was surprised by the camera while being congratulated by Lloyd Warner of Elanco Products.

Lyle Hill, in charge of the product for Hercules, the Rhap-Trol technique uses a bifluid nozzle to apply an invert emulsion of a very high yield point. With this high yield point, achieved in the nozzle chamber as the emulsion is formed and sprayed, the wind, be it from the speed of an aircraft or from a fan, will not cause the droplets to break up after they are formed until they reach the weed. Dr. Hill sees a growing range of applications for inverts in general.

#### What the Railways Need

As part of the expanded industrial sections of this year's conference, delegates heard railway vegetation maintenance and control expert Charles F. King tell what America's rail companies need in weed and brush service.

King is assistant engineer, Chesapeake and Ohio Railway, Huntington, W. Va.

There were three primary points in King's address: (1) railroads need more help from chemical suppliers and applicators in selling management on the need for a greater chemical expenditure to combat the loss of hand labor; (2) railways should have an active joint agency to keep tabs on pending state, county, and local vegetation control legislation; (3) the railway industry needs more active and objective information sources on vegetation control.

Highway executives, too, are faced with constantly increasing funds of knowledge about vegetation control. One interesting and somewhat offbeat concept was presented by E. F. Button, agronomist with the Connecticut State Highway Department.

Button wanted to test soil sterilant-tar mixtures, used for spraying under guide rails. He found that a liquid-formulated soil sterilant (Urox from General Chemical) can be mixed with a tar for application under guide rails for effective weed control, eliminating the traditional spray crew. Further-more, either the sterilant, or more probably the "oil-carrier" of the liquid-formulated soil sterilant, appears to be beneficial in extending the "elastic" life of tar applied over a heterogeneous soil surface under conditions where there is no vehicular traffic to "knead" the tar.

"One might speculate," Button concluded, "that additions of this type of sterilant to tars and possibly asphalts for shoulder work, or for parking lots, might provide the benefits of weed control and extended pavement life."

### "Flow Developer" Clears Ponds

Many authorities consider aquatic weed control to be the most challenging of all weed problems. Certainly the concept of chemically controlling aquatic plants has just come into its own in the last few years. With this growth in importance comes the development of revolutionary techniques for controlling water weeds. One such device is the "flow developer," which was explained to conference delegates by Jason M. Cortell, a consultant biologist and aquatic weed expert from Brookline, Mass.

Faced with growing contamination of Crystal Lake in Newton, Mass., researchers were able to determine that stagnation and lack of circulation contribute to a buildup in aquatic vegetation, algae, and bacterial contamination.

Cortell said discovery of this fact led to the invention of a mechanical flow developer. It consists of a 10-horsepower, submersible, electric motor with a propeller to generate water movement and create a current through the bathing area. Mounted on a floatable wooden platform, the flow developer is capable of displacing 2,000,000 gallons of water per hour.

Chemical treatments were later applied through the flow developer to control aquatic weeds; then copper sulfate was similarly introduced for algae control.

Also probing the subject of aquatic weed control were sev-



Pensive study of notes prepared these two speakers for their addresses. National Park Service official E. D. McClanahan (left) talked about weed control and turf management in the nation's recreation spots, while VPI researcher Dr. T. O. Evrard told of his experiments with invert emulsions of 2,4-D on highway weeds.

eral papers on current research using today's herbicides. At Virginia Polytechnic Institute's Agricultural Experiment Station, for example, researchers David L. Sutton, T. O. Evrard, and W. E. Chappell recently completed a series of tests with promising chemicals and those already standard to determine effectiveness of weed control chemicals in farm ponds. The research team established four major points:

(1) Simazine concentration of 0.5-4.0 ppm was effective in the control of *Potamogetons*, *Chara*, *Spirogyra*, and *Oedogonium*.

(2) White waterlilies were controlled by 2,4-D and 2,4,5-T at 15 lb./acre.

(3) Endothal plus silvex at 2 ppm controlled *Potamogetons*.

(4) Combinations of 2,4,5-T and amitrol, and 2,4,5-T and dalapon, were effective in the control of ditchbank plants, the VPI report concluded.

### New Turf Herbicides Bow

In sessions on control of unwanted weeds in turf, several papers, mostly hinging on experimental testing with established and new compounds, were presented.

At the Connecticut Agricultural Experiment Station in Windsor, associate plant pathologist J. F. Ahrens tested the following preemergence crabgrass killers: Dacthal (Diamond Alkali); Zytron (Dow); Bandane (Velsicol); trifluralin with diphenatrile (Eli Lilly); Benefin (Eli Lilly); Betasan (Stauffer); Azak (Hercules); Tok (Rohm &

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### Northeastern Conference

(from page 28)

Haas); and duPont's new Tupersan.

Betasan was very effective in 1963, but was less so in 1964 when the interval between treatments and rainfall was greater, Dr. Ahrens said.

Azak at 10 and 10.5 lbs. per acre controlled crabgrass effectively in 1963 and 1964, with slight-to-moderate injury to red fescue from the 1963 treatment. Benefin and Tupersan appeared safe and very effective on the established turf in 1964. Tupersan also seems promising for use on newly seeded bluegrass.

In similar tests at the New Jersey Agricultural Experiment Station, delegates learned, turf investigators Ralph E. Engel and Richard D. Ilnicki checked an almost identical group of chemicals. Materials these New Jersey experts favor are Azak, Betasan, and Tupersan.

As usual, the fabric of the Northeastern Weed Control Conference was too varied and richly textured to report on in full on these pages. But readers can get a copy of the Proceedings, which contains all the talks, for \$4.50 from Dr. John A. Meade, secretary-treasurer, Northeast-ern Weed Control Conference, Department of Agronomy, Uni-

-Auvernisers
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Elected to head the weed profession's organization next year was Dr. G. D. Hill, of the E. I. duPont de Nemours experiment station, who was named president. Dr. Richard Ilnicki is the new vice president. He's from the New Jersey Agricultural Experiment Station in New Brunswick.



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