

More than 1000 weed scientists listened to over a 150 papers during this year's meeting. Here, friends gather in informal discussion while others hurry to hear another paper.



First place graduate research paper award went to B. C. Troutman, University of Arkansas (1). It was presented by Dr. Dave N. Weaver of Texas A&M University. Troutman received \$50 in the competition.

Southern Weed Science Society Report

WITH the determination of General Grant's army sweeping toward the sea a battalion of more than 1000 weed scientists marched to Atlanta in January for the 27th annual meeting of the Southern Weed Science Society.

They came by the hundreds — extension weed specialists, research scientists, Federal and state workers, chemical manufacturers, and more until the Sheraton-Biltmore Hotel virtually jumped with activity. Few can say that their attendance at this meeting didn't spark enthusiasm to return home and do a better job. The Southern Weed Science Society continues to stimulate the young and old (or the experienced and the not so experienced) alike.

Theme for this year's meeting was "Weeds — Environmental Bandits." And, if in a small way, this theme noted the tremendous need of the environmental protection chemical industry to tell the American consumer the role chemicals have played in the production of quality food and fiber as well as in turfgrass care and industrial weed control.

Dr. Allen F. Wiese, president of SWSS, pointed to this need in his keynote address. Speaking on the subject "Are Herbicides Environmental Contaminates?" he said that weed scientists have done a good job of keeping each other informed. "On the other hand we have failed to tell people outside of agriculture that herbicides are not only valuable tools, but absolute necessities for modern day agricultural production," he said. "We have done a worse job when it comes to relating the environmental impact of herbicide usage."

The weed scientist later said that "We have neither a problem nor a



A panel on "How weeds affect the environment" was presented by five industry leaders. They are: (1-r) Dudley T. Smith, Texas Ag. Expt. Sat., College Station, Tex.; A. E. Smith, Ga. Ag. Expt. Sta., Experiment, Ga.; John H. Kirch, Amchem Products, Inc., Ambler, Pa.; and Dr. Robert D. Blackburn, ARA, USDA, Ft. Lauderdale, Fla. Not shown is John A. Long, O.M. Scott and Sons.



There was standing room only in this section on control of Weeds and woody plants on utility, railroad and highway rights-of-way and industrial sites. Papers were presented on three experimental compounds, Spike tebuthiuron, Krenite brush control agent, and Roundup glyphosate.

serious environmental pollution with herbicides."

"Our challenge is to set the record straight. We must be our own public relations people and tell the story that herbicide usage is not causing contamination of air, plants, soil, or water," he said. Dr. Wiese then reported on studies which supported his premise.

Anyone who has attended SWSS before, or a similar type meeting, is familiar with the groupings of speaker presentations in sections. In a sense sections at SWSS represent "environments of interest." Early in the meeting, program chairman Dr. Paul W. Santelmann combined the thoughts of these various "environments into a symposium "How Weeds Affect Specific Environments."

Speaking on the aquatic environment was Dr. Robert D. Blackburn, ARS, U. S. Dept. of Agriculture, Ft. Lauderdale. "Although aquatic weeds are of less importance when compared to terrestrial weeds, aquatic weeds can present the greatest health hazard," he said. "Aquatic weeds provide harborage for mosquitoes, and the snail, intermediate hosts for a variety of trematodes which adversely affect the health of man and animal." Attempts to con-



New officers of Southern Weed Science Society are: (back row 1-r) Dr. Donald E. Talbert, secretary-treasurer; M. M. Merkle; H. A. Greer; Dr. Gale Buchanan; (front row 1-r) Dr. Allen F. Wiese, past president; Dr. Paul W. Santlemann, president elect; Dr. William G. Westmoreland, president; and James Becton, vice president.

trol snails are often hindered by massive aquatic weeds.

Blackburn pointed out that aquatic weeds reduce shoreline property values, create odor and interfere with aquatic recreation sports. He challenged those present as to (continued on page 38)

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whether man will learn to manage aquatic weed problems for his continued welfare.

The industrial environment segment of the symposium centered around remarks made by John H. Kirch, Amchem Products, Inc. He said that the total land acreage encompassed by the industrial category amounted to 538 million acres or about 25 percent of the total land areas of the U.S. "By far the largest segment, approximately 500 million acres, is in commercial forest land," he said. "Pipelines account for 3 million acres, railroads 2-3 million acres, electric and telephone rightsof-way 7 million acres, roadsides 15 million acres and industrial plant sites 10 million acres."

Economics plays an important part in controlling vegetation within industry. The risk of fire, the hazard of loss of communications systems, the ability to maintain pipelines or railroads — all share economics as a partner in getting the job done. Unwanted vegetation in these areas must be controlled or the cost of doing business will necessarily increase.

Kirch cited specific cases where vegetation control is vitally important to industry. "If we are to at least maintain the status quo," he said looking to the future. "it is important that the programs that minimize the impact of this vegetation on our industrial environment be continued." He seconded the need for managers within this specific environment to tell the story of what more than 25 years of cost-conscious effort in vegetation management has done.

John A. Long, director, biochemical research, O. M. Scott & Sons told delegates that the urban environment consisted of an industry valued at nearly \$3.7 billion. Home lawn care alone accounts for \$3 billion, he said. Golf course maintenance costs are estimated at \$237 million annually, while cemetery maintenance amounts to \$360 million per year.

Weeds affect the urban environment in numerous ways. Long said that the most obvious was in aesthetic values. "The less obvious, but perhaps of greater magnitude, are in terms of impact on utilization, economic returns, effects on health of man and animals, and effectiveness of land stabilization," he declared. "Chemicals utilized for weed control in the urban environment rank next to fertilizers in terms of quantities and value."

Other environments discussed in this symposium included pastures and agricultural crops.

In the daily section sessions, more interest was centered around aquatic weed control and industrial vegetation management than in past years. One only has to recall that as little as four years ago speakers in these sections were talking to nearly bare rooms. This year quite the opposite was true. It was standing room only most of the time. It reflects the change in interests of delegates. To a larger degree, however, it reflects an attitude change about vegetation management being only agricultural. The Green Industry with its arm wrapped around aquatic weed control is becoming better known. Opportunities are available. The future is exciting.

Take the sections on aquatic weeds, for example. Speakers presented topics ranging from tests on new compounds to how an aquatic weed problem was solved. R. Alt reported

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on the restoration program accomplished in Lake Eola located in the heart of metropolitan Orlando, Fla. He said that restoration consisted of partial lake drawdown, elimination of pollution sources and treatment with algaecide.

Dr. A. D. Worsham, North Carolina State University, reported on the use of herbicides to manage vegetation on dredge islands along coastal waterways. He said that these islands had become a habitat for birds, yet the encroachment of unwanted vegetation was not conducive to nesting. Applications of various bareground herbicides in tests resulted in the control of several undesirable weeds and promoted favorable nesting habitats.

Wayne Thomaston, Georgia department of natural resources, discussed "Methods and Herbicides Uses For Aquatic Weed Control In Small Impoundments In Georgia." Some of his observations were: 1. gravity flow applications of herbicides are recommended when possible. He thinks this is superior to spraying. 2. one gallon per surface acre of herbicide usually varies very little in parts per million in acid equivalent in Georgia ponds. 3. few farm pond owners understand parts per million or acid equivalent. Recommendations in gallons per surface acre are simpler to understand.

Bill Mixon of Pennwalt Corporation told the group that the liquid formulation of Hydrothal 191 is effectively used in most areas of the country for broad spectrum aquatic weed species. However, in Florida, the slow release pellet formulation proves superior.

Robert J. Gates, director of field operations, Southwest Florida Water Management District, presented an interesting discussion on control of submerged weeds by use of the bifluid-invert system. His contention is that it provides a high degree of safety, placing the material on the target with precision.

In the area of industrial weed control, a variety of papers were presented which drew keen interest among a capacity audience. Dr. Robert E. Eplee, agronomist, Animal and Plant Health Inspection Service, said that maintaining constant nozzle pressure is of prime importance in chemical application. It reduces the risk of drift and insures a more uniform application. He described a system employing a flow control valve.

V. David Perron, phenoxy products manager, Chipman Division of Rhodia, Inc., reported on developments in the Visko-Rhap system of drift control. He said that the Minnesota Wanner Company has developed an auxiliary kit which permits the operator to inject a particular chemical in a system which will control a specific weed. He cited the example where an applicator is primarily spraying for broadleaved weeds but encounters Johnsongrass.

Dick Fields of Velsicol Chemical Corporation spoke on a modified cane-low oil application of Banvel, Accutrol Adjuvant and water. He pointed out the economics of this system in view of the current shortage of fuel oil.

Along this same line, W. E. Chappell of Virginia Tech reported on the brush control studies conducted on rights-of-way. Noting the trend toward lower volumes of more concentrated sprays for woody plant control, he said that in order to lower the volume it was necessary to lower the pressure and increase droplet size. He tested many commercially available nozzles. The one most satisfactory in his tests was Spraying Systems flatjet P 13500. He said that with this nozzle, it was possible to get uniform coverage and little drive with volumes of around 30 gallons per acre and pressure 75-100 psi.

Also on the program were reports of new compounds still in the experimental stage of development. Dr. Aaron W. Welch of Du Pont discussed Krenite brush control agent. O. N. Andrews of Monsanto reported on Roundup glyphosate in the control of vegetation on railroad rightsof-ways. And D. H. Lade, Eli Lilly and Co., talked about Spike tebuthiuron as a new experimental herbicide for total vegetation control.

New officers of SWSS for 1974 are: Dr. William G. Westmoreland, Ciba-Geigy Corp., president; Dr. Paul W. Santelmann, department of agronomy, Oklahoma State University, president-elect; James Becton, Ciba-Geigy Corp., vice president; Dr. Ronald E. Talbert, weed science and physiology lab, University of Arkansas, secretary-treasurer; and Dr. James F. Miller, extension agronomist, weed control, University of Georgia, editor.

The 1975 meeting of the Southern Weed Science Society will be held in the Sheraton-Peabody Hotel, Memphis, Tenn., Jan. 20-23.

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