

WEED SCIENCE

JOURNAL OF THE WEED SCIENCE SOCIETY OF AMERICA

CONTENTS

	Page
Looking Ahead in Weed Science. L. L. Danielson	483
The Role of Weeds in Human Affairs. Le Roy Holm	485
Response of Cucurbits to Certain Analogs of Chloramben. J. A. Ivany and R. D. Sweet	491
Introduction and Spread of Johnsongrass in the United States. C. G. McWhorter	496
Influence of Environment on Metabolism of Propanil in Rice. Richard H. Hodgson	501
Hydroxylation of 2,4-D in Several Weed Species. J. Fleeker and R. Steen	507
Absorption, Translocation, and Toxicity of 2,4,5-T in Creosotebush. Ervin M. Schmutz	510
Effect of Calcium Chloride on Prometryne and Fluometuron Adsorption in Soil. J. R. Abernathy and J. M. Davidson	517
Herbicidal Effects of Picloram on Bermudagrass. L. J. Reber, R. K. Miller, J. A. Tweedy, and J. D. Butler	521
Effect of Magnesium and Photoperiod on Atrazine Toxicity to Tomatoes. Ronald G. Brenchley and Arnold P. Appleby	524
Species Susceptibilities to 2,4-D on Mixed-Grass Prairie. D. N. Hyder	526
Mineral Nutrition and the Parasite-Host Relationship of Witchweed. G. H. Egley	528
Effect of Weeds on Soybean Yield and Harvesting Efficiency. W. R. Nave and L. M. Wax	533
Disappearance of Triallate from Field Soils. Allan E. Smith	536
Herbicidal Suppression of Bracken and Effects on Forage Production. W. C. Robocker	538
Adsorption of Deactivation of Atrazine and Diuron by Charcoals. P. D. Jordan and L. W. Smith	541
Topical Applications of DSMA and MSMA in Irrigated Cotton. H. F. Arle and K. C. Hamilton	545
Effects of Repeated Applications of Herbicides on Soybeans. B. J. Johnson	548
Dodder Control in Alfalfa with Dinoseb and D(-) (3-chlorophenylcarbamoyloxy)-2N-isopropyl-propionamide. J. H. Dawson	551
The Fate of Nitrofen in Rape, Redroot Pigweed, and Green Foxtail. D. Hawton and E. H. Stobbe	555
Comparative Phytotoxicity Among Four Arsenical Herbicides. R. M. Sachs and J. L. Michael	558
Protecting Corn from Herbicide Injury by Seed Treatment. O. C. Burnside, G. A. Wicks, and C. R. Fenster	565
Depression of Carbohydrate in Marine Algae by Urea Herbicides. Gerald E. Walsh and Thomas E. Grow	568
Effect of Temperature on Phytotoxicity and Root Uptake of Several Herbicides. Donald Penner	571
Weed Competition in Cotton. I. Sicklepod and Tall Morningglory. Gale A. Buchanan and Earl R. Burns	576
Weed Competition in Cotton. II. Cocklebur and Redroot Pigweed. Gale A. Buchanan and Earl R. Burns	580
Auger Soil Sampler for Herbicide Residues. T. O. Flynt, T. E. Riley, R. W. Bovey, and R. E. Meyer	583
Night Applications of Phenoxy Herbicides on Plains Pricklypear. Joseph L. Schuster	585
Effect of Environmental Factors on Pyrazon Action in Sugar Beets. Ephraim Koren and Floyd M. Ashton	587
Phytotoxicity of Fluometuron and Its Derivatives to Cotton and Weeds. B. Rubin and Y. Eshel	592
Herbicidal Inhibition of GA-Induced Synthesis of α -Amylase. D. W. Jones and C. L. Foy	595
Selectivity of Dicamba in Wheat and Wild Buckwheat. P. C. Quimby, Jr. and John D. Nalewaja	598
Control of Nutsedge with Organic Arsenical Herbicides. P. E. Keeley and R. J. Thullen	601
Minutes of the Business Meeting, Weed Science Society of America, February 9, 1971	607
Major Actions of the Executive Committee, Weed Science Society of America, February 1971	608
Changes in Manual of Operating Procedures, Weed Science Society of America	608
Committee Reports, Weed Science Society of America, February 1971—Officers, and Places and Dates of Meeting of the Weed Science Society of America and the Member Weed Organizations	625
WSSA Placement Service	626
News Notes	627
Sustaining Members	629
English-Metric Equivalents	630

VOLUME 19
SEPT. 1971
NUMBER 5

WEED SCIENCE

Issued six times a year by the Weed Science Society of America

**FRED W. SLIFE, Treasurer-Business Manager, Department of Agronomy,
University of Illinois, Urbana, Illinois 61801**

**EARL G. RODGERS, Editor, 2183 McCarty Hall, University of Florida,
Gainesville, Florida 32601**

ASSOCIATE EDITORS

**D. E. DAVIS, Department of Botany
and Microbiology, School of Agriculture,
Auburn University, Auburn, Alabama 36830**

C. L. FOY, Department of Plant Pathology and Physiology, Virginia Polytechnic Institute, Blacksburg, Virginia 24061

T. J. SHEETS, Pesticide Residue Research Laboratory, North Carolina State University, Box 5215, Raleigh, North Carolina 27607

DR. C. R. SWANSON, Plant Science Research Division, Crops Protection Research Branch, Southern Weed Science Laboratory, Stoneville, Mississippi 38776

EDITORIAL COMMITTEE

ARNOLD P. APPLEY, Department of Farm Crops, Oregon State University, Corvallis, Oregon 97331

JOHN D. BANDEEN, Crop Science Department, University of Guelph, Guelph, Ontario, Canada

D. E. BAYER, Department of Botany, University of California, Davis, California 95616

GALE A. BUCHANAN, Department of Agronomy and Soils, School of Agriculture, Auburn University, Auburn, Alabama 36830

O. C. BURNSIDE, Department of Agronomy, University of Nebraska, Lincoln, Nebraska 68503

W. R. BYRNES, Department of Forestry and Conservation, Purdue University, Lafayette, Indiana 47907

P. A. FRANK, Plant Science Research Division, Room 240, South Building, Plant Industry Station, Beltsville, Maryland 20705

A. D. WORSHAM, Department of Crop Science, North Carolina State University, Raleigh, North Carolina 27607

K. C. HAMILTON, Department of Agronomy and Plant Genetics, University of Arizona, Tucson, Arizona 85721

J. L. HILTON, Plant Science Research Division, ARS, USDA, Beltsville, Maryland 20705

R. H. HODGSON, Metabolism and Radiation Research Laboratory, Plant Science Research Division, ARS, U. S. Department of Agriculture, University Station, Fargo, North Dakota 58102

R. D. ILNICKI, Department of Soils and Crops, Rutgers University, New Brunswick, New Jersey 08903

L. S. JORDAN, Department of Horticultural Science, University of California, Riverside, California 92502

C. G. McWHORTER, Plant Science Research Division, Crops Protection Research Branch, Southern Weed Science Laboratory, Stoneville, Mississippi 38776

WEED SCIENCE is a journal published by the Weed Science Society of America. The subscription price is \$20.00 yearly for six issues; single copies \$4.00.

Address all communications regarding subscriptions and reprints to F. W. Slife, Department of Agronomy, University of Illinois, Urbana, Illinois 61801. All checks, money orders, and other remittances should be made payable to the Weed Science Society of America.

The editorial office is located at 2183 McCarthy Hall, University of Florida, Gainesville, Florida 32601. Inquiries concerning manuscripts and other materials for publication should be addressed to the editorial office.

Printing is by the W. F. Humphrey Press, Inc., Geneva, New York.

To join the Weed Science Society of America, send remittance of \$15.00, payable to the Weed Science Society of America, to Dr. F. W. Slife, Department of Agronomy, University of Illinois, Urbana, Illinois 61801. Give name, official position (if any), and complete address. Dues are for the calendar year only.

Entered as second-class matter at the post office at Urbana, Illinois,
with additional entry at Geneva, New York