

# WEED SCIENCE

## JOURNAL OF THE WEED SCIENCE SOCIETY OF AMERICA



VOLUME 31

MAY 1983

NUMBER 3

### —CONTENTS—

- 285 Promotion of Germination of Dormant Weed Seeds by Substituted Phthalimides and Gibberellic Acid. James D. Metzger
- 290 Fluridone for Annual Weed Control in Western Irrigated Cotton (*Gossypium hirsutum*). John H. Miller and Charles H. Carter
- 293 Plant Growth Response to Several Allelopathic Chemicals. Nancy L. Shettel and Nelson E. Balke
- 299 Effect of Field Application of Growth Regulators on Secondary Dormancy of Common Ragweed (*Ambrosia artemisiifolia*) Seeds. Cyrus Samimy and Anwar A. Khan
- 303 Yields of Three Cotton (*Gossypium hirsutum*) Cultivars as Influenced by Spurred Anoda (*Anoda cristata*) Competition. James M. Chandler and William R. Meredith, Jr.
- 308 A Comparison between Glyphosate and Assimilate Translocation Patterns in Tall Morningglory (*Ipomoea purpurea*). Steven A. Dewey and Arnold P. Appleby
- 315 Altitude Effects on Picloram Disappearance in Sunlight. Thomas N. Johnsen, Jr. and Richard D. Martin
- 318 Comparative Water Relations, Photosynthesis, and Growth of Soybean (*Glycine max*) and Seven Associated Weeds. David T. Patterson and Elizabeth P. Flint
- 324 Biology and Control of Tall Ironweed (*Vernonia altissima*). Richard K. Mann, Steven W. Rosser, and William W. Witt
- 329 Herbicide Effects on Liposome Leakage. David M. Talbert and N. Dwight Camper
- 333 Sodium Alginate for Production and Formulation of Mycoherbicides. H. Lynn Walker and William J. Connick, Jr.
- 338 Comparison of the Bleaching Activity of Norflurazon and Oxyfluorfen. Gerhard Sandmann and Peter Böger
- 342 Influence of Metolachlor on Sweet Corn (*Zea mays saccharata*) Growth and Nutrient Accumulation. Tamsey W. Ellis, Henry P. Wilson, Martin P. Mascianica, and Keith A. Janssen
- 347 Effect of Soil pH on Fluridone Activity and Persistence as Determined by Chlorophyll Measurements. Patrick J. Shea and Jerome B. Weber
- 351 Interactions of 2,4-DB, Acifluorfen, and Toxaphene Applied to Foliage of Sicklepod (*Cassia obtusifolia*). David D. Waldrop and Philip A. Banks
- 355 Response of Common Goldenweed (*Isocoma coronopifolia*) and Buffelgrass (*Cenchrus ciliaris*) to Fire and Soil-Applied Herbicides. H. S. Mayeux, Jr. and W. T. Hamilton
- 361 Determination of Herbicide Inhibition of Photosynthetic Electron Transport by Fluorescence. Edward P. Richard, Jr., John R. Goss, Charles J. Arntzen, and Fred W. Slife
- 368 Adsorption of Five Phenylurea Herbicides by Selected Soils of Czechoslovakia. Josef Kozak and Jerome B. Weber
- 373 Protection of Grain Sorghum (*Sorghum bicolor*) from Chloroacetanilide Herbicide Injury. Fred W. Roeth, Orvin C. Burnside, and Gail A. Wicks

Contents continued—inside front cover

Contents continued from front cover

- 380 Effects of Soil Texture and Seed Placement on Emergence of Four Subshrubs. H. S. Mayeux, Jr.
- 385 Response to Ethofumesate of Annual Bluegrass (*Poa annua*) and Overseeded Bermudagrass (*Cynodon dactylon*). B. J. Johnson
- 391 Fall and Spring Herbicide Treatment for Minimum-Tillage Seeding of Alfalfa (*Medicago sativa*). G. W. Mueller-Warrant and D. W. Koch
- 396 Enhanced Response of Bean (*Phaseolus vulgaris*) and Canada Thistle (*Cirsium arvense*) to Bentazon or Glyphosate by Gibberellin. John P. Sterrett and Richard H. Hodgson
- 401 Device for Collecting Uncontaminated Soil Samples in Plastic Tubing. Oscar E. Schubert, LeRoy P. Stevens, and Freddie L. Alt
- 404 Weed Seed and Seedling Reductions by Soil Solarization with Transparent Polyethylene Sheets. Grant H. Egley
- 410 Leaf Water Potential of Weeds and Rice (*Oryza sativa*). Rolando T. Cruz, John C. O'Toole, and Keith Moody
- 415 Tolerance of Bermudagrass (*Cynodon dactylon*) Putting Greens to Herbicide Treatments. B. J. Johnson
- 419 Yellow Nutsedge (*Cyperus esculentus*) Control, Regrowth, and Tuber Production as Affected by Herbicides. Philip A. Banks
- 423 Effect of Three Tillage Systems on the Persistence of Atrazine. Thomas T. Bauman and Merrill A. Ross
- 

WEESA6 31(3) 285-426 (1983)

# WEED SCIENCE

*Published six times a year by the Weed Science Society of America*

D. E. Davis, *Editor*

Department of Botany & Microbiology

Auburn University

Auburn, AL 36830

AC/205-826-4830

*Associate Editors*

J. H. Dawson, USDA, Irrigated Agriculture Research and Extension Center, Prosser, WA 99350

S. O. Duke, USDA, Southern Weed Science Laboratory, P.O. Box 225, Stoneville, MS 38776

L. S. Jordan, Plant Science Department, University of California, Riverside, CA 92521

T. J. Monaco, Department of Horticultural Science, North Carolina State University, Raleigh, NC 27650

R. F. Norris, Botany Department, University of California, Davis, CA 95616

B. Truelove, Botany and Microbiology Department, Auburn University, Auburn, AL 36849

W. H. Vanden Born, Department of Plant Science, University of Alberta, Edmonton, Alberta, Canada T6G 2E3

## *Editorial Committee*

P. G. Bartels

R. D. Comes

F. D. Hess

R. E. Hoagland

D. L. Linscott

H. S. Mayeux, Jr.

R. M. Menges

I. Morrison

J. D. Nalewaja

A. G. Ogg, Jr.

L. R. Oliver

D. T. Patterson

A. E. Smith, Jr.

R. B. Taylorson

J. R. Teasdale

R. D. Wauchope

H. P. Wilson

J. A. Young

R. L. Zimdahl

## *Officers of the Weed Science Society of America*

C. G. McWhorter, President

J. D. Nalewaja, President-Elect

J. D. Riggleman, Vice-President

T. J. Sheets, Past-President

D. L. Linscott, Secretary

G. R. Miller, Treasurer

J. L. Hilton, Editor-in-Chief

AC/301-344-3030

C. J. Cruse, Executive Secretary

AC/217-356-3182

*Weed Science* (ISSN 0043-1745) is the official publication of the Weed Science Society of America, 309 West Clark Street, Champaign, IL 61820 (AC/217-356-3182). It is published bi-monthly, one volume per year, six issues per year beginning in January.

Membership is \$25 per year, student affiliate membership \$10, which includes receipt of the *Weed Science*, *Weeds Today*, and *WSSA Newsletter*. Dues should be sent to WSSA, 309 West Clark Street, Champaign, IL 61820 not later than December 1 of each year. Membership in the society is on a calendar-year basis only.

Subscriptions (institutions, libraries, etc.) are \$35 per year, one volume per year of six issues beginning in January. New subscriptions and renewals begin with the first issue of the current volume and should be sent to WSSA, 309 West Clark Street, Champaign, IL 61820.

Change of address affecting the mailing list for members, students, and subscribers, inquiries about copies lost in the mail, requests for back issues, and all matters pertaining to the receipt of the Journal, membership and subscription information should be sent to WSSA, 309 West Clark Street, Champaign, IL 61820. Claims for copies lost in the mails must be received within 30 days (90 days foreign) of the date of issue to insure replacement at no charge.

Manuscripts must be sent to the Editor, D. E. Davis, Department of Botany, Plant Pathology and Microbiology, Auburn University, Auburn, AL 36849. Directions for contributors are published annually in the January issue of *Weed Science*.

*Weed Science* published by the Weed Science Society of America.

Second class postage paid at Champaign, IL and at additional mailing offices.

Copyright 1983 by the Weed Science Society of America. Printed in USA.

All rights reserved. Reproduction in part or whole prohibited.

Return POD form 3579 to WSSA, 309 West Clark Street, Champaign, IL 61820.

**Sustaining Members**  
**WEED SCIENCE SOCIETY OF AMERICA**  
**April 15, 1983**

Aceto Agricultural Corp.	Great Western Sugar Company
Agri-Growth Research Inc.	Griffin Corp.
Agway, Inc.	Growmark, Inc.
A & L Agricultural Laboratories	Hopkins Agric. Chemical Library
Alabama Farmers Coop	ICI Americas, Inc.
American Cyanamid Company	Indiana Farm Bureau Co-Op Assoc. Inc.
American Hoechst Corporation	M&M Air Service of Beaumont, Inc.
Amoco Oil Company	3M Company
The Andersons	Mobay Chemical Corporation
Atchison, Topeka & Santa Fe Railway Company	Mobley Company
Balcom Chemicals, Inc.	Monsanto Company
BASF Corporation	Nalco Chemical Company
B F C Chemicals, Inc.	Nor-Am Agr. Products, Inc.
R. H. Bogle Company	PBI Gordon Corp.
Cenex, Inc.	Pennwalt Corp.
Chevron Chemical Corp.	PPG Industries, Inc.
CIBA-GEIGY Corporation	Puregro Co.
Deere & Company	Rhone-Poulenc Chemical Co.
DeKalb Agric. Research Inc.	Rohm & Haas Co.
Delavan Corp.	Sandoz, Inc.
Delta Distributors, Inc.	O. M. Scott & Sons Company
Diamond Shamrock Corp.	Shell Development Company
Dow Chemical USA	Spraying Systems Company
Ehrlich Chemical Co., Inc.	Stauffer Chemical Company
Electro General Corporation	Stewart Agricultural Research Service Inc.
Eli Lilly & Company	Tex-Ag Co.
Farm Press Publications	Tide Products, Inc.
Farmland Industries	Union Carbide Ag. Products Co.
FMC Corporation	Uniroyal Chemical Co.
Gandy Corp.	The Upjohn Co.
Garst & Thomas Hybrid Corn	Valley Chemical Co.
W. R. Grace & Co.	Velsicol Chemical Corporation
	Virginia Chemicals Inc.