# WEED SCIENCE

## JOURNAL OF THE WEED SCIENCE SOCIETY OF AMERICA



**VOLUME 26** 

**JULY 1978** 

**NUMBER 4** 

Page	— CONTENTS —
313	Response of Processing Peas (Pisum sativum) and Annual Weeds to Acetanilide Herbicides. G. L. Jordan and R. G. Harvey
318	Comparative Triazine Effects Upon System II Photochemistry in Chloroplasts of Two Common Lambsquarters (Chenopodium album) Biotypes. V. Souza Machado, C. J. Arntzen, J. D. Bandeen, and G. R. Stephenson
323	Stimulating Germination of Dormant Wild Oat (Avena fatua) Seed with Sodium Azide, P. K. Fay and R. S. Gorecki
327	Interaction of Metribuzin and Trifluralin with Soil Type on Soybean (Glycine max) Growth. R. S. Moomaw and A. R. Martin
331	The Metabolism of Atrazine, Chloramben, and Dicamba in Earthworms (Lumbricus terrestris) from Treated and Untreated Plots. Hang Chio and J. R. Sanborn
336	Longevity of Certain Weed and Crop Seeds in Fresh Water. R. D. Comes, V. F. Bruns, and A. D. Kelley
344	Barban-Aqueous Nitrogen Combinations for Wild Oat (Avena fatua) Control. S. D. Miller, J. D. Nalewaja, and J. Pudelko
349	Enzyme Activities in Prickly Sida (Sida spinosa) Seeds of Different Developmental Stages. E. W. Smith, B. J. Reger, and G. H. Egley
352	Selectivity and Site of Action in Relation to Field Performance of Diclofop, P. N. P. Chow
358	Translocation of Dipropetryn and Prometryn in Seedlings and Excised Leaves of Oats (Avena sativa) and Corn (Zea mays). E. Basler, D. S. Murray, and P. W. Santelmann
362	Mechanical, Cultural, and Chemical Control of Weeds in a Sorghum-Soybean (Sorghum bicolor)—(Glycine max) Rotation. O. C. Burnside
370	Arsenic Levels in Crops Irrigated with Water Containing MSMA. L. W. J. Anderson, J. C. Pringle, and R. W. Raines
374	Differential Varietal Tolerance of Peach (Prunus persica) Seedlings to Glyphosate. P. B. Marriage and S. U. Khan
378	Absorption and Distribution of Terbutryn and Fluometuron by Germinating Seeds of Cotton (Gossypium hirsutum) and Snapbean (Phaseolus vulgaris). B. Rubin and Y. Eshel
382	Factors Affecting the Translocation of <sup>14</sup> C-Mefluidide in Soybeans (Glycine max), Common Cocklebur (Xanthium pensylvanicum), and Johnsongrass (Sorghum halepense). C. G. McWhorter and G. D. Wills
389	Root Uptake, Translocation, and Metabolism of Nitrofluorfen and Oxyfluorfen by Fababeans (Vicia faba) and Green Foxtail (Setaria viridis). D. E. Vanstone and E. H. Stobbe
393	Response of Velvetleaf (Abutilon theoprasti) to Bentazon as Affected by Leaf Orientation, R. N. Andersen and W. L. Koukkari
395	Milk Thistle (Silybum marianum) Seed Germination. J. A. Young, R. A. Evans, and R. B. Hawkes
399	Control of Yellow Nutsedge (Cyperus esculentus) and Other Weeds Before Summer Planting of Alfalfa (Medicago sativa). D. L. Linscott, R. D. Hagin, and T. Tharawanich
403	Weed Science Society of America, Manual of Operating Procedures
420	Sustaining Members

WEESA6 26(4) 313-420 (1978)

## WEED SCIENCE

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

L. L. Danielson, Editor
University of North Carolina at Charlotte
Department of Biology, UNCC Station, Charlotte, NC 28223

### Associate Editors

A. P. Appleby, Agronomy and Crop Science Department, Oregon State University, Corvallis, OR 97331

D. E. Bayer, Botany Department, University of California, Davis, CA 95616

R. H. Hodgson, USDA, Metabolism and Radiation Laboratory, State University Station, Fargo, ND 58102

D. L. Klingman, USDA, Beltsville Agricultural Research Center, Beltsville, MD 20705

E. E. Schweizer, USDA, Crops Research Laboratory, Colorado State University, Fort Collins, CO 80523

G. D. Wills, Delta Branch Experiment Station, Stoneville, MS 38776

#### Editorial Committee

J. L. Anderson	B. J. Johnson	R. E. Meyer	A. R. Putnam
W. L. Barrentine	T. N. Jordan	J. A. Norton	D. N. Riemer
M. A. Cole	W. O. Lee	J. V. Parochetti	R. B. Taylorson
W. B. Duke	C. G. McWhorter	D. P. Penner	B. Truelove
A. E. Hiltbold			W. H. Vanden Born

### Officers of the Weed Science Society of America

P. W. Santelmann, President
J. R. Hay, President-Elect
W. D. Carpenter, Vice-President
D. E. Bayer, Secretary
J. L. Hilton, Editor-in-Chief
G. H. Bayer, Treasurer
C. J. Cruse, Executive Secretary

Weed Science is the official publication of the Weed Science Society of America, 113 North Neil Street, Champaign, IL 61820. It is published bi-monthly, one volume per year, six issues per year beginning in January.

Membership is \$15 per year, student affiliate membership \$7.50, which includes receipt of the Weed Science, Weeds Today, and WSSA Newsletter. Dues should be sent to WSSA, 113 North Neil 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 \$25 per year, one volume per year of six issues beginning January. New subscriptions and renewals begin with the first issue of the current volume and should be sent to WSSA, 113 North Neil 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, 113 North Neil 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 office of the Editor located in the Department of Biology, University of North Carolina at Charlotte, UNCC Station, Charlotte, NC 28223. 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 1978 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, 113 North Neil Street, Champaign, IL 61820