

WEED SCIENCE

JOURNAL OF THE WEED SCIENCE SOCIETY OF AMERICA



VOLUME 26

MAY 1978

NUMBER 3

Page

— CONTENTS —

- 209 Selecting Appropriate Weed Control Systems for Developing Countries. Douglas Young, Stanley Miller, Herbert Fisher, and Myron Shenk
- 213 Separating Seed by Species with CaCl_2 Solutions. S. K. Johnston, R. H. Crowley, and D. S. Murray
- 215 Canada Thistle (*Cirsium arvense*) Control in Timothy (*Phleum pratense*) and Red Clover (*Trifolium pratense*) Sward. S. C. Peterson and J. V. Parochetti
- 221 Germination of Wild Poinsettia (*Euphorbia heterophylla*). J. S. Bannon, J. B. Baker, and R. L. Rogers
- 226 Wheat (*Triticum aestivum*) and Barley (*Hordeum vulgare*) Response to Barban. S. D. Miller, S. K. Hudson, and J. D. Nalewaja
- 230 Germination and Viability of Weed Seeds After 2.5 Years in a 50-Year Buried Seed Study. G. H. Egley and J. M. Chandler
- 239 Influence of Placement of Charcoal on Protection of Cotton (*Gossypium hirsutum*) from Diuron. J. M. Chandler, O. B. Wooten, and F. E. Fulgham
- 245 Aspects of Germination, Emergence, and Seed Production of Three *Ipomoea* Taxa. L. F. Gomes, J. M. Chandler, and C. E. Vaughan
- 249 Glyphosate and Paraquat Effects on Weed Seed Germination and Seedling Emergence. G. H. Egley and R. D. Williams
- 252 Absorption, Translocation, and Metabolism of Fluridone in Selected Crop Species. D. F. Berard, D. P. Rainey, and C. C. Lin
- 255 Some Germination Characteristics in Common Lambsquarters (*Chenopodium album*). Chang-Chi Chu, R. D. Sweet, and J. L. Ozbun
- 258 Soil Persistence of Isopropalin, Nitralin, and Trifluralin. R. R. Romanowski and A. W. Libik
- 261 Influence of Temperature and Acid Scarification Duration on Scarlet Morningglory (*Ipomoea coccinea*) Seed Germination. W. S. Hardcastle
- 264 *Carduus* Thistle Seed Destruction by *Rhinocyllus conicus*. W. W. Surlis and L. T. Kok
- 270 The Effect of *Cyperus esculentus* Tuber Maturity on ^{14}C Accumulation. R. J. Thullen and P. E. Keeley
- 273 Differences in the Phytotoxic Response of Wild Oats (*Avena fatua*) to Triallate and Trifluralin. D. Billett and R. Ashford
- 277 Effects of Temperature and Light Variations on Seed Germination in Sunflower (*Helianthus*) Species. A. M. Olivieri and S. K. Jain
- 280 Yellow Nutsedge (*Cyperus esculentus*) Control in Kentucky Bluegrass (*Poa pratensis*) with Bentazon, Cyperquat, and Perfluidone. A. D. Kern, W. F. Meggitt, and Donald Penner
- 284 Herbicides and Activated Carbon for Weed Control in Direct-seeded Asparagus (*Asparagus officinalis*). A. G. Ogg, Jr.
- 286 Germination Response of Some Woody Plant Seeds to Electrical Treatment. S. O. Nelson, R. W. Bovey, and L. E. Stetson
- 292 Action of EMD-IT on Chloroplasts. K. J. Kunert and R. Böger
- 296 Uptake, Translocation, and Metabolism of Protham by Wheat (*Triticum aestivum*), Sugarbeet (*Beta vulgaris*), and Alfalfa (*Medicago sativa*). M. E. Burt and F. T. Corbin
- 303 Atrazine Adsorption on Soil as Influenced by Temperature, Moisture Content and Electrolyte Concentration. T. H. Dao and T. L. Lavy
- 309 Directions to Contributors of Weed Science
- 311 Sustaining Members

WEESA6 26(3) 209–312 (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