

WEED SCIENCE

JOURNAL OF THE WEED SCIENCE SOCIETY OF AMERICA



VOLUME 28

MARCH 1980

NUMBER 2

Page

—CONTENTS—

- 131 Temperature Influences on Uptake, Translocation, and Metabolism of Alachlor in Snap Beans (*Phaseolus vulgaris*). Robert P. Rice, Jr. and A. R. Putnam
- 134 A Technique for Estimating Weed Seed Populations in Cultivated Soil. Leon C. Standifer
- 139 Canopy and Chemistry of Pasture Weeds. R. J. Carlisle, V. H. Watson, and A. W. Cole
- 142 Differential Atrazine Tolerance Within Cucumber (*Cucumis sativus*). G. M. Werner and A. R. Putnam
- 149 Effect of Lanolin or Lanolin + Starch Rings on Absorption and Translocation of 2,4-D or Glyphosate in Hemp Dogbane (*Apocynum cannabinum*). M. E. Schultz and O. C. Burnside
- 152 Herbicides Applied Sequentially for Economical Control of Annual Weeds in Sugarbeets (*Beta vulgaris*). E. E. Schweizer
- 159 Yellow Foxtail (*Setaria lutescens*) Biotype Studies: Dormancy and Germination. R. F. Norris and C. A. Schoner, Jr.
- 164 Chemical Control of Dandelion (*Taraxacum officinale*) and Perennial Sowthistle (*Sonchus arvensis*) in Alfalfa (*Medicago sativa*) Grown for Seed. J. Waddington
- 168 An Analysis of the Growth Inhibitory Characteristics of Alachlor and Metolachlor. Luanne M. Deal and F. D. Hess
- 176 Environmental Influences on the Selectivity of Diphenamid in Seeded Tomato (*Lycopersicon esculentum*). Robert P. Rice, Jr. and Alan R. Putnam
- 180 Reduced Transpiration and Increased Water Efficiency by Diuron in Corn (*Zea mays*). Shabir Ahmed and R. A. Fletcher
- 186 Effect of Light on the Response of Tomato (*Lycopersicon esculentum*) and Two Weed Species to Metribuzin. M. K. Pritchard and G. F. Warren
- 190 Germination Response of Weed Seeds to Soil Nitrate and Ammonium With and Without Simulated Overwintering. David J. Schimpf and Ivan G. Palmblad
- 194 Siduron Effects on Tall Fescue (*Festuca arundinacea*) Emergence, Growth, and High Temperature Injury. R. C. Shearman, E. J. Kinbacher, and K. A. Reiersen
- 197 Chlorflurenol Effects on Absorption and Translocation of Dicamba in Canada Thistle (*Cirsium arvense*). M. R. Baradari, L. C. Haderlie, and R. G. Wilson
- 201 A Sprinkler System for Research on Applying Herbicides in Irrigation Water. A. G. Ogg, Jr.
- 204 Control of Whitebrush (*Aloisia lycioides*) and Associated Species with Soil-Applied Herbicides. R. E. Meyer and R. W. Bovey
- 212 Performance of Six Substituted Dinitrobenzamine Herbicides Applied at Layby of Cotton (*Gossypium hirsutum*). J. H. Miller and C. H. Carter
- 216 Effects of Shading on the Anatomy and Ultrastructure of the Leaf Mesophyll and Vascular Bundles of Itchgrass (*Rottboellia exaltata*). Rex N. Paul and David T. Patterson
- 224 Volatility of Trifluralin from Field Soil. E. B. Hollingsworth
- 228 News Notes
- 229 The Allelopathic Effect of Yellow Nutsedge (*Cyperus esculentus*) on Corn (*Zea mays*) and Soybeans (*Glycine max*). Dirk C. Drost and Jerry D. Doll
- 234 Sustaining Members

WEESA6 28(2) 131–233 (1980)

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, Weed Physiology and Growth Regulator Research Center,
Frederick, MD 21701

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

P. J. Bartels
M. A. Cole
J. H. Dawson
W. B. Duke
F. D. Hess

A. E. Hiltbold
B. J. Johnson
T. N. Jordan
W. O. Lee

C. G. McWhorter
R. M. Menges
R. E. Meyer
D. P. Penner

A. R. Putnam
D. N. Riemer
R. B. Taylorson
B. Truelove
W. H. Vanden Born

Officers of the Weed Science Society of America

J. R. Hay, President

W. D. Carpenter, President-Elect

D. E. Davis, Vice-President

P. W. Santelmann, Past-President

J. D. Nalewaja, Secretary

J. L. Hilton, Editor-in-Chief

AC/301-344-3029

G. H. Bayer, Treasurer

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. 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, 309 West Clark Street, Champaign, IL 61820 not later than December 1 of each year. Membership in the society is on a calendar basis only.

Subscriptions (institutions, libraries, etc.) are \$25 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, Charles R. Swanson, 219 Valley View Drive, Kerrville, TX 78028. 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 1980 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