

WEED SCIENCE

JOURNAL OF THE WEED SCIENCE SOCIETY OF AMERICA

CONTENTS

	<i>Page</i>
Hormonal Control of Weed Seed Germination. R. E. Holm and M. R. Miller	209
Carbohydrate Reserves in Roots of Dalmatian Toadflax. W. C. Robocker, Roland Schirman, and B. A. Zamora	212
Direct Liquid Scintillation Radioassay of ¹⁴ C-Labeled Herbicides in Soil. T. L. Lavy, C. G. Messersmith, and H. W. Knoche	215
Effect of DCPA on Ultrastructure of Foxtail Millet Cells. C. T. Chang and Don Smith	220
Influence of Phenoxy Herbicides on Picloram Uptake and Phytotoxicity. A. S. Hamill, L. W. Smith, and C. M. Switzer	226
Leaching of Trifluralin and Oryzalin in Soil with Three Surfactants. Ephraim Koren	230
Anatomy of Wild Garlic Bulbs During and Subsequent to After-Ripening. J. F. Stritzke and E. J. Peters	233
Flooding for Johnsongrass Control. C. G. McWhorter	238
Cotton Oil Quality After Postemergence Herbicides in Oil. R. E. Wilkinson and W. S. Hardcastle	241
Effect of Dinitroanilines on Solanaceous Vegetables and Soil Fungi. Y. Eshel and J. Katan ..	243
Control of Yaupon and Associated Species. R. W. Bovey, H. L. Morton, R. E. Meyer, T. O. Flynt, and T. E. Riley	246
Adsorption and Desorption of Picloram, Trifluralin, and Paraquat by Ionic and Nonionic Exchange Resins. H. G. McCall, R. W. Bovey, M. G. McCully, and M. G. Merkle	250
Fate of Fluorodifen in Susceptible Cucumber Seedlings. E. F. Eastin	255
Weed Control Systems for Sunflowers. B. J. Johnson	261
Herbicide Concentrations in Honey Mesquite Phloem. F. S. Davis, R. E. Meyer, J. R. Baur, and R. W. Bovey	264
Effect of Trifluralin on Mitosis. E. M. Lignowski and E. G. Scott	267
Early Development of Johnsongrass. Menashe Horowitz	271
Growth Regulator-Like Activity of Atrazine and Ametryne. Leonard G. Copping, D. E. Davis, and C. G. P. Pillai	274
WSSA Placement Service	278
News Notes	281
Sustaining Members	283
Metric-English Equivalents	284

VOLUME 20
MAY 1972
NUMBER 3

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

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

ASSOCIATE EDITORS

D. E. DAVIS, Department of Botany
and Microbiology, School of Agricul-
ture, Auburn University, Au-
burn, Alabama 36830

C. L. FOY, Department of Plant Path-
ology and Physiology, Virginia Poly-
technic Institute, Blacksburg, Vir-
ginia 24061

T. J. MUZIK, Department of Agron-
omy and Soils, Washington State
University, Pullman, Washington
99163

R. A. PETERS, Plant Science Depart-
ment, University of Connecticut,
Storrs, Connecticut 06268

EDITORIAL COMMITTEE

ARNOLD P. APPLEBY, Department of
Farm Crops, Oregon State Univer-
sity, Corvallis, Oregon 97331

JOHN D. BANDEEN, Crop Science De-
partment, University of Guelph,
Guelph, Ontario, Canada

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

P. A. FRANK, Plant Science Research
Division, Room 240, South Build-
ing, Plant Industry Station, Belts-
ville, Maryland 20705

K. C. HAMILTON, Department of
Agronomy and Plant Genetics, Uni-
versity of Arizona, Tucson, Arizona
85721

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

R. H. HODGSON, Metabolism and Ra-
diation Research Laboratory, Plant
Science Research Division, ARS, U.
S. Department of Agriculture, Uni-
versity Station, Fargo, North Da-
kota 58102

L. S. JORDAN, Department of Horti-
cultural Science, University of Cal-
ifornia, Riverside, California 92502

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

R. E. MEYER, Plant Science Research
Division, ARS, USDA, Texas A&M
University, College Station, Texas
77843

A. J. RENNEY, Department of Plant
Science, University of British Co-
lumbia, Vancouver 8, British Co-
lumbia, Canada

H. D. SKIPPER, Monsanto Co., V.
Building, 800 N. Lindbergh Blvd.,
St. Louis, Missouri 63166

T. W. WALDREP, Eli Lilly and Co.,
Box 708, Greenfield, Indiana
46140

J. B. WEBER, Department of Crop Sci-
ence, North Carolina State Uni-
versity, Raleigh, North Carolina
27607

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 the Pesticide Residue Research Laboratory, North Carolina State University, Raleigh, North Carolina 27607. 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