

WEED SCIENCE

JOURNAL OF THE WEED SCIENCE SOCIETY OF AMERICA

CONTENTS

The Contribution of Weed Science to Food Production in Great Britain. J. G. Elliott	681
Herbicides in Irrigation Water Following Canal-Bank Treatment for Weed Control. P. A. Frank, R. J. Demint, and R. D. Comes	687
Uptake, Translocation, and Herbicidal Effect of Diphenamid. J. Deli and G. F. Warren	692
Plant Litter and Establishment of Alien Annual Weed Species in Rangeland Communities. Raymond A. Evans and James A. Young	697
Effect of Diquat on Uptake of Copper in Aquatic Plants. David L. Sutton, L. W. Weldon, and R. D. Blackburn	703
Effects of Weed Control Methods on Sweet Corn. L. L. Danielson	707
Effects of DCPA on Winter Injury of Recently-Established Bermudagrass. T. M. Fullerton, C. L. Murdoch, A. E. Spooner, and R. E. Frans	711
A Technique to Assay Herbicide Translocation and Effect on Root Growth. W. A. Gentner	715
An Improved Mixing Chamber for Variable-Dosage Sprayers. Lyle M. Carter and John H. Miller	717
Seed Characteristics and Seedling Emergence of Dalmatian Toadflax. W. R. Robocker	720
Selectivity of Bromoxynil in a Resistant and a Susceptible Species. D. E. Schafer and D. O. Chilcote	725
Translocation and Degradation of Bromoxynil in a Resistant and a Susceptible Species. D. E. Schafer and D. O. Chilcote	729
Toxicity, Absorption, Translocation, and Metabolism of 2,4-D in Yellow Nutsedge. V. M. Bhan, E. W. Stoller, and F. W. Slife	733
Effects of Herbicides on Water and Its Inhabitants. W. R. Mullison	738
Herbicides Applied as Liquid Sprays and Granules for Weed Control in Cotton. E. L. Robinson, O. B. Wooten, and J. R. Williford	751
Selective Action of Trifluralin for Control of Green Foxtail in Wheat. A. Rahman and R. Ashford	754
WSSA Placement Service	760
News Notes	762
Membership List, Weed Science Society of America, 1970	763
Author Index to Volume 18, WEED SCIENCE	776
Subject Index to Volume 18, WEED SCIENCE	778
Sustaining Members, Weed Science Society of America, 1970	785
The Metric System	786

VOLUME 18
NOV. 1970
NUMBER 6

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

EARL G. RODGERS, *Editor*, 2183 McCarty Hall, University of Florida,
Gainesville, Florida 32601

ASSOCIATE EDITORS

D. E. DAVIS, Department of Botany
and Plant Pathology, Auburn Uni-
versity, Auburn, Alabama 36830

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

T. J. SHEETS, Pesticide Residue Re-
search Laboratory, North Carolina
State University, Box 5215, Raleigh,
North Carolina 27607

C. R. SWANSON, Southern Weed Sci-
ence Laboratory, Crops Research
Division, ARS, USDA, Stoneville,
Mississippi 38776

EDITORIAL COMMITTEE

ROSS ASHFORD, Department of Crop
Science, University of Saskatchewan,
Saskatoon, Canada

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

GALE A. BUCHANAN, Department of
Agronomy and Soils, School of
Agriculture, Auburn University,
Auburn, Alabama 36830

O. C. BURNSIDE, Department of Agron-
omy, University of Nebraska, Lin-
coln, Nebraska 68503

W. R. BYRNES, Department of Forestry
and Conservation, Purdue Universi-
ty, Lafayette, Indiana 47907

PETER A. FRANK, Crops Protection
Research Branch, ARS, U.S. Depart-
ment of Agriculture, Room 26,
Building 56, Denver Federal Center,
Denver, Colorado 80225

K. C. HAMILTON, Department of
Agronomy, University of Arizona,
Tucson, Arizona 85721

J. L. HILTON, Crops Research Divi-
sion, ARS, USDA, Beltsville, Mary-
land 20705

R. H. HODGSON, Metabolism and
Radiation Research Laboratory,
Crops Research Division, ARS, U. S.
Department of Agriculture, Univer-
sity Station, Fargo, North Dakota
58102

L. G. HOLM, Department of Horti-
culture, College of Agricultural and
Life Sciences, University of Wiscon-
sin, Madison, Wisconsin 53706

R. D. ILNICKI, Department of Soils
and Crops, Rutgers University, New
Brunswick, New Jersey 08903

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

C. G. MCWHORTER, Crops Research
Division, ARS, U. S. Department
of Agriculture, Delta Branch Ex-
periment Station, Stoneville, Mis-
sissippi 38776

STANLEY J. PARKA, Eli Lilly and Com-
pany, P. O. Box 708, Greenfield,
Indiana 46140

A. D. WORSHAM, Department of Crop
Science, 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 \$15.00 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 2183 McCarty Hall, University of Florida, Gainesville, Florida 32601. 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 \$12.00, 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