WEED SCIENCE

JOURNAL OF THE WEED SCIENCE SOCIETY OF AMERICA

CONTENTS

| Fred W. Slife Fred W. Slife | 281 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Phytotoxicity of Demethylated Analogs of Diphenamid, W. A. Gentner | 284 |
| Response of Tropical Vegetation to Herbicides. R. W. Bovey, C. C. Dowler, and J. C. Diaz-Colon | 285 |
| Accurately Predicting a Herbicide's Potential. J. W. Whitworth and W. P. Anderson | 29 0 |
| Influence of Picloram Granules and Sprays on Whitebrush, R. E. Meyer and T. E. Riley | 293 |
| Longevity of Dodder Control by Soil-Applied Herbicides in the Greenhouse. J. H. Dawson | 295 |
| Effects of Growth Regulators and Herbicides on Germination of Hydrilla Turions. Kerry K. Steward | 29 9 |
| A Device for Threshing Mesquite Seed. T. O. Flynt and H. L. Morton | 302 |
| Effect of Soil Water Stress and Soil Temperature on Translocation of Diuron. R. H. Sedgley and L. Boersma | 304 |
| Antagonistic Responses with Combinations of Carbamate and Growth Regulator Herbicides. G. N. Prendeville, C. S. James, G. F. Warren, and M. M. Schreiber | 307 |
| A Cucumber Bioassay Test for the Soil Residues of Certain Herbicides. Clyde C. Dowler | 309 |
| Absorption and Penetration of Picloram in Potato Tuber Discs. C. R. Swanson and J. R. Baur | 311 |
| Translocation of Assimilates and Dalapon in Established Johnsongrass. Richard J. Hull | 314 |
| Light Intensity and the Absorption and Translocation of 2,4,5-T by Woody Plants. Homer A. Brady | 320 |
| Behavior of Pyrazon in Soil. R. Frank and C. M. Switzer | 323 |
| Metabolism of Pyrazon in Sugar Beets and Soil. G. R. Stephenson and S. K. Ries | 327 |
| Influence of Weed Competition on Sorghum Growth. O. C. Burnside and G. A. Wicks | 332 |
| EPTC Effects on Sicklepod Petiolar Fatty Acids. R. E. Wilkinson and W. S. Hardcastle | 335 |
| Biochemical Basis for Plant Competition. C. C. Black, T. M. Chen, and R. H. Brown | 338 |
| Effects of Pyrazon on Growth, Photosynthesis, and Respiration. R. Frank and C. M. Switzer | 344 |
| Frifluralin Persistence as Affected by Depth of Soil Incorporation. K. E. Savage and W. L. Barrentine | 349 |
| Chemical Stimulation of Ethylene Evolution and Bud Growth. Page W. Morgan, Robert E. Meyer, and Morris G. Merkle | 3 53 |
| The Response of Fumitory to Various Herbicides. Larry S. Jeffery and John D. Nalewaja | 35 5 |
| Seed Dormancy and Germination in Ecotypes of Johnsongrass. R. B. Taylorson and C. G. McWhorter | 359 |
| Effects of Ammonium Thiocyanate on Carbohydrate Metabolism in the Cotton Plant. Yih-fen Wu and Eddie Basler | 362 |
| Absorption and Translocation of Pyrazon by Plants. R. Frank and C. M. Switzer | 36 5 |
| Control of Johnsongrass on Drainage Ditchbanks in Sugarcane. Rex W. Millhollon | 370 |
| Control of Live Oak by Herbicides Applied at Various Rates and Dates. R. W. Bovey, H. L. Morton, and J. R. Baur | 37 3 |
| Emergence of Medusahead and Other Grasses from Four Seeding Depths. James A. Young, Raymond A. Evans, and Richard E. Eckert, Jr. | 376 |
| Competition Between Flax and Wild Buckwheat. R. D. Gruenhagen and John D. Nalewaja | 380 |
| Reaction of Flax to Dicamba Applied at Several Stages. John D. Nalewaja | 385 |
| Response of Soybeans to 2,4-D, Dicamba, and Picloram. L. M. Wax, L. A. Knuth, and F. W. Slife | 388 |
| WSSA Placement Service | 394 |
| News Notes | 396 |
| Sustaining Members | 398 |
| The Marin Contain | 900 |

VOLUME 17

JULY 1969

NUMBER 3

WEED SCIENCE

Issued Quarterly by the Weed Science Society of America

EARL G. RODGERS, Editor, 209 McCarty Hall, University of Florida, Gainesville, Florida 32601

FRED W. SLIFE, Treasurer-Business Manager, Department of Agronomy, University of Illinois, Urbana, Illinois 61801

EDITORIAL COMMITTEE

- N. B. Akesson, Department of Agricultural Engineering, University of California, Davis, California 95616
- Ross Ashford, Department of Crop Science, University of Saskatchewan, Saskatoon, Canada
- W. R. Byrnes, Department of Forestry and Conservation, Purdue University, Lafayette, Indiana 47907
- D. E. Davis, Department of Botany and Plant Pathology, Auburn University, Auburn, Alabama 36830
- C. L. Foy, Department of Plant Pathology and Physiology, Virginia Polytechnic Institute, Blacksburg, Virginia 24061
- PETER A. FRANK, Crops Protection Research Branch, ARS, U.S. Department 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 Division, ARS, USDA, Beltsville, Maryland 20705
- R. D. Ilnicki, Department of Soils and Crops, Rutgers University, New Brunswick, New Jersey 08903
- STANLEY J. PARKA, Eli Lilly and Company, P. O. Box 708, Greenfield, Indiana 46140
- T. J. Sheets, Pesticide Residue Research Laboratory, North Carolina State University, Box 5215, Raleigh, North Carolina 27607
- C. R. Swanson, Southern Weed Science Laboratory, Crops Research Division, ARS, USDA, Stoneville, Mississippi 38776
- R. P. UPCHURCH, Monsanto Company, V Building, 800 N. Lindbergh Blvd., St. Louis, Missouri 63166
- A. D. Worsham, Department of Crop Science, North Carolina State University, Raleigh, North Carolina 27607

WEED SCIENCE is a quarterly journal published by the Weed Science Society of America. The subscription price is \$12.00 yearly for four issues; single copies \$3.00.

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 209 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 \$10.00, 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