

A Journal of the Weed Science Society of America

JULY-SEPTEMBER 1989

NUMBER 3



ISSN 0890-037X

VOLUME 3

WETEE9 3(3) 439-542 (1989)



A Journal of the Weed Science Society of America

Weed Technology, published quarterly beginning each January, is included along with Weed Science and WSSA Newsletter to Weed Science Society of America (WSSA) members. Annual membership costs \$50 with \$20 student affiliate memberships on a calendar year basis only.

Weed Technology subscriptions are \$20 per year (four issues per volume). New subscriptions begin with the January issue. Subscribers, including libraries and institutions, can obtain both Weed Science (volume of six issues per year) and Weed Technology for \$80 annually.

Changes of mailing address, inquiries about copies lost in the mail, and requests for back issues and for information about placing advertisements and about receiving journals, membership and subscriptions should be sent to WSSA, **309 W.** Clark St., Champaign, IL 61820. Send dues by December 1 each year. Claims for copies lost in the mail must be received within 30 days (90 days foreign) of the issue date to insure replacement at no charge.

Send manuscripts to Calvin G. Messersmith, Editor, Weed Technology, Crop and Weed Sciences Dep., North Dakota State Univ., Fargo, ND 58105. Directions for contributors are published each January in *Weed Technology*. Authors are charged \$50 per page (nonmembers \$100) to cover a portion of publication costs. The Editor can exempt page charges in advance when justified.

Weed Technology (ISSN 0890-037X) is published by the Weed Science Society of America. Copyright 1989 by the Weed Science Society of America. Printed in USA. All rights reserved. Reproduction in part or whole is prohibited. Return POD Form 3579 to WSSA, 309 W. Clark St., Champaign, IL 61820 (AC/217-356-3182).

WSSA OFFICERS

H. M. LeBaron, President
L. W. Mitich, President Elect
J. R. Abernathy, Vice President
J. F. Ahrens, Past President
A. S. Hamill, Secretary
J. F. Ellis, Treasurer
B. Truelove, Editor-in-Chief



Sustaining Members August 14, 1989

ABC Laboratories, Inc. A & L Agricultural Laboratories ACRES Agric. Custom Research Agri-Growth Research Inc. Agrolinz Inc. Allen Machine Works American Cyanamid Company American Hoechst Corporation The Andersons **BASF** Corporation Chemalysis Inc. **Chevron Chemical Company CIBA-GEIGY** Corporation Conviron Deere & Company **Dow Chemical USA** E. I. DuPont de Nemours Company Eli Lilly & Company Fermenta ASC Corporation **FMC** Corporation Gandy Corporation Growmark Inc. Gylling Data Management, Inc. ICI Americas, Inc. W. R. Landis Associates LI-COR, Inc. Mandel Scientific Company Ltd. Marbicon Inc. Mobay Corp./Ag Chem. Div. Monsanto Company Mycogen Corporation NOR-AM Chemical Company Pan-Agricultural Labs., Inc. **PBI/Gordon Corporation Pioneer Overseas Corporation** R & D Sprayers Inc. Rhone Poulenc Inc. Rogers Engineering Inc. Rohm & Haas Company Sandoz Crop Protection O. M. Scott & Sons Company SSI Mobley Company, Inc. Stewart Agricultural Research Service Inc. Terra International Inc. Uniroyal Chemical Corporation Watson Consulting and Research Inc.

July-September 1989

Volume 3 Number 3

A Journal of the Weed Science Society of America

Table of Contents

Technology Notes

439 News Notes of General Weed Science Interest

• Research =

- 440 Response of Bermudagrass (Cynodon spp.) to Plant Growth Regulators. Billy J. Johnson
- 445 Naptalam as a Safener Against Chloramben in Cucumber (*Cucumis sativus*). Larry D. Knerr and Herbert J. Hopen

- 450 Effects of Ammonium Fertilizers and BCH 81508 S on Antagonism with Sethoxydim plus Bentazon Mixtures. David L. Jordan and Alan C. York
- 455 Johnsongrass (Sorghum halpense) Control in Soybeans (Glycine max) with Postemergence Herbicides. Paul R. Vidrine
- 459 Soybean (Glycine max) Tolerance to Preemergence and Postemergence Herbicides. James L. Griffin and Robert J. Habetz
- 463 Response of Early-Maturing Cabbage (*Brassica oleracea* var. *capitata*) to Metolachlor. R. R. Bellinder, D. Wilcox-Lee, A. Senesac, and D. T. Warholic
- 467 Postemergence Weed Control in Onions (Allium cepa) with Air-assisted, Flat Fan, and Rotary Nozzles. Bernard H. Zandstra and Thomas F. Wallace, Jr.
- 472 A Surface-Roller Herbicide Applicator for Weed Control in Turf. William V. Welker, Jr., and Donald L. Peterson
- 475 Response of Sweet Corn (Zea mays) Endosperm Mutants to Chloracetamide and Thiocarbamate Herbicides. Mark A. Bennett and Stanley F. Gorski
- 479 Control of Leafy Spurge (Euphorbia esula) With Growth Regulator-Herbicide Combinations. Mark A. Ferrell, Thomas D. Whitson, and Harold P. Alley
- 485 Herbicides for Killing Tall Fescue (Festuca arundinacea) Infected With Fescue Endophyte (Acremonium coenophialum). Albert E. Smith
- 490 Weed Control in Winter Wheat (*Triticum aestivum*) With Chlorsulfuron and CGA 131036 and Comparison of Modes of Action. Tracy E. Klingaman and Thomas F. Peeper

· Peer reviewed papers.

(continued)

Cover

Flowers of tall morningglory [*Ipomoea purpurea* (L.) Roth]. This photograph was awarded first place in the 1989 WSSA Photography Contest, Dallas, TX, and was taken by Michael S. DeFelice, University of Missouri, Columbia, MO 65211.

- 497 Response of Yellow Starthistle (Centaurea solstitialis) and Grass Biomass to Grass, Picloram, and Fertilizer Combinations. Larry L. Larson and Michael L. McInnis
- 501 Cotton (Gossypium hirsutum) Development and Yield Following Fluometuron Postemergence Applied. David S. Guthrie and Alan C. York
- 505 Effect of Herbicide Mixtures and Seeding Rate on Soft Red Winter Wheat (*Triticum aestivum*) Yield. S. Kent Harrison and James E. Beuerlein
- 509 Sulfometuron for Eliminating Bahiagrass (Paspalum notatum) From Centipedegrass (Eremochloa ophiuroides) and Bermudagrass (Cynodon dactylon). Wayne W. Hanna, Charles W. Swann, Jill Schroeder, and Phil R. Utley
- 513 Rice (Oryza sativa) Response to Imazaquin Residues in a Soybean (Glycine max) and Rice Rotation. Ronnie S. Helms, Timothy N. Tripp, Roy J. Smith, Jr., Ford L. Baldwin, and Max Hackworth
- 518 Cowpea (Vigna unguiculata) Control in Soybean (Glycine max) With Acifluorfen, Chlorimuron, and Thiameturon. James D. Jones, Billy J. Gossett, James R. Harris, and Joe E. Toler
- 523 New Herbicides for Weed Control in Established Alfalfa (Medicago sativa). Robert G. Wilson
- 527 Response of Cotton (Gossypium hirsutum) to Repeated Applications of Dinitroaniline Herbicides. J. Wayne Keeling and John R. Abernathy

WSSA Communications

531 Presidential Address: Meeting the Challenge. J. F. Ahrens

Intriguing World of Weeds

537 Common Dandelion - the Lion's Tooth. Larry W. Mitich

Helpful Hints for Technical Writing

540 Jargon in Technical Writing. J. H. Dawson

Book Review

541 Weeds and Words. Reviewed by Robert Frans

EDITOR Calvin G. Messersmith

TECHNICAL EDITOR Charlene E. Lucken

ASSOCIATE EDITORS

William L. Barrentine Jon P. Chernicky Lloyd Darwent Clyde C. Dowler Joan Dusky Russell R. Hahn Robert Hayes

Larry W. Mitich Tim Obrigawitch Thomas F. Peeper Edward W. Stoller John R. Teasdale Don C. Thill Robert G. Wilson