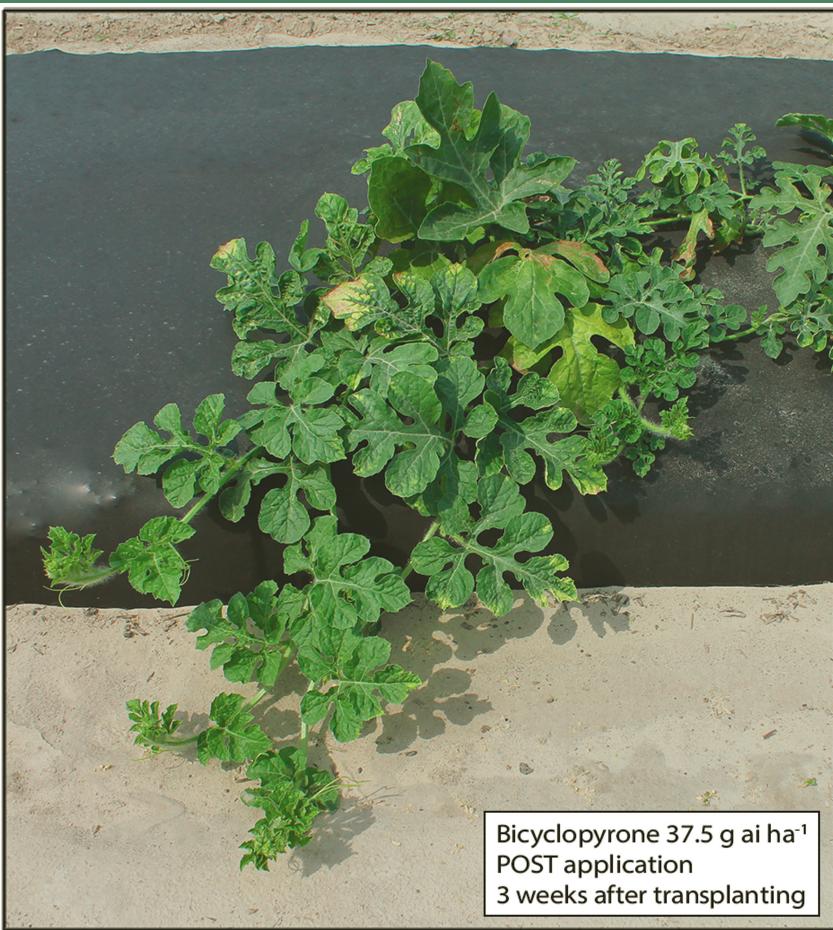


WEED TECHNOLOGY



Bicyclopyrone 37.5 g ai ha⁻¹
POST application
3 weeks after transplanting



Nontreated check
3 weeks after transplanting

WEED TECHNOLOGY

Published six times a year by the Weed Science Society of America

Jason K. Norsworthy, *Editor*

The Weed Science Society of America publishes original research and scholarship in the form of peer-reviewed articles in three international journals. *Weed Science* is focused on understanding “why” phenomena occur in agricultural crops. As such, it focuses on fundamental research directly related to all aspects of weed science in agricultural systems. *Weed Technology* focuses on understanding “how” weeds are managed. As such, it is focused on more applied aspects concerning the management of weeds in agricultural systems. *Invasive Plant Science and Management* is a broad-based journal that focuses not only on fundamental and applied research on invasive plant biology, ecology, management, and restoration of invaded non-crop areas, but also on the many other aspects relevant to invasive species, including educational activities, policy issues, and case study reports. Topics for *Weed Technology* include all aspects of weed management in agricultural, horticultural, ornamental, forestry, aquatic, turf, recreational, rights-of-ways, and other settings; weed resistance to herbicides; herbicide resistant crops; biological weed control agents; new weed management techniques; impacts of weed competition with crops; vegetation management with plant growth regulators; weed surveys; weed-related grower surveys; education; and extension. Symposia papers and reviews are accepted. Consult the editor for additional information.

Associate Editors (Assignment Year)

Jason Bond, *Stoneville, MS* (2010)

Kevin Bradley, *Columbia, MO* (2012)

Barry Brecke, *Jay, FL* (2013)

Ian Burke, *Pullman, WA* (2007)

Peter Dittmar, *Gainesville, FL* (2016)

Steve Fennimore, *Salinas, CA* (2004)

Aaron Hager, *Urbana, IL* (2012)

Brad Hanson, *Davis, CA* (2013)

Prashant Jha, *Huntley, MT* (2016)

Amit Jhala, *Lincoln, NE* (2018)

William Johnson, *West Lafayette, IN* (2007)

Andrew Kniss, *Laramie, WY* (2016)

Drew Lyon, *Pullman, WA* (2018)

Patrick McCullough, *Griffin, GA* (2016)

Scott McElroy, *Auburn, AL* (2012)

Robert Nurse, *Guelph, ON* (2016)

Darren Robinson, *Ridgeway, ON* (2008)

Larry Steckel, *Jackson, TN* (2007)

Daniel Stephenson, *Alexandria, LA* (2013)

Mark VanGessel, *Georgetown, DE* (2013)

Michael Walsh, *Crawley, Australia* (2016)

Eric Webster, *Baton Rouge, LA* (2018)

Cammy Willett, *Fayetteville, AR* (2017)

Tracy Candelaria, *Managing Editor*

Officers of the Weed Science Society of America

<http://wssa.net/society/bod/>

Weed Technology (ISSN 0890-037X) is published by the Weed Science Society of America, 12011 Tejon Street, Suite 700, Westminster, CO 80234. It is published bimonthly, one volume per year, six issues per year beginning in February.

Membership includes online access to *Weed Technology*, *Weed Science*, *Invasive Plant Science and Management*, and the online *WSSA Newsletter*. Dues should be sent to WSSA, 12011 Tejon Street, Suite 700, Westminster, CO 80234 no later than December 1 of each year. Membership in the society is on a calendar-year basis only.

New subscriptions and renewals begin with the first issue of the current volume. Please visit the *Weed Technology* subscription page at <https://www.cambridge.org/core/journals/weed-technology/subscribe>; Email: subscriptions_newyork@cambridge.org in USA, journals@cambridge.org outside USA.

Weed Technology publishes six times a year in February, April, June, August, October, and December. Annual institutional electronic subscription rates: US \$369.00; UK £257.00.

Please use Editorial Manager to access manuscript submissions (<http://www.editorialmanager.com/wt>). Authors are asked to pay \$85 for the first page and \$65 per page thereafter as a portion of the cost of publication, plus an additional processing charge of \$55 per manuscript if none of the authors are WSSA members. The Editor can make exceptions in advance when justified.

The Weed Science Society of America fully subscribes to the belief that progress in science depends upon the sharing of ideas, information, and materials among qualified investigators. Authors of papers published in *Weed Technology* are therefore encouraged, whenever practicable and when state and federal laws permit, to share genotypically unique propagative materials they might possess with other workers in that area who request such materials for the purpose of scientific research.

Weed Technology published by the Weed Science Society of America.

Copyright 2018 by the Weed Science Society of America.

All rights reserved. Reproduction in part or whole prohibited.

Cover

Preemergence and postemergence treatments with bicyclopyrone produced minor bleaching and stunting symptoms on watermelon early in the season, but symptoms were ephemeral and not detected late in the season. Watermelon yields and fruit number were consistent among all treatments, indicating that bicyclopyrone is safe for use in watermelon under the tested conditions.

WEED TECHNOLOGY

VOLUME 32

JULY–AUGUST 2018

NUMBER 4

• WEED MANAGEMENT-MAJOR CROPS

Physiological Basis for Tall Fescue (<i>Festuca arundinacea</i>) Tolerance to Florasulam. Jialin Yu, Patrick E. McCullough, and Mark A. Czarnota	353
Rush Skeletonweed (<i>Chondrilla juncea</i>) Control in Pacific Northwest Winter Wheat. John F. Spring, Mark E. Thorne, Ian C. Burke, and Drew J. Lyon	360
Residual Activity of ACCase-Inhibiting Herbicides on Monocot Crops and Weeds. Zachary D. Lancaster, Jason K. Norsworthy, and Robert C. Scott	364

• RESEARCH ARTICLE

Benzobicyclon as a Post-Flood Option for Weedy Rice Control. Mason L. Young, Jason K. Norsworthy, Robert C. Scott, Jason A. Bond, and James Heiser	371
---	-----

• WEED MANAGEMENT-MAJOR CROPS

Effect of Formulations and Spray Nozzles on 2,4-D Spray Drift under Field Conditions. Augusto Kalsing, Caio V. S. Rossi, Felipe R. Lucio, Luiz H. S. Zobole, Luis C. V. da Cunha, and Guilherme B. Minozzi	379
---	-----

• WEED MANAGEMENT-OTHER CROPS/AREAS

Managing Cool-Season Weeds in Sugarbeet Grown for Biofuel in the Southeastern United States. W. Carroll Johnson, III, Theodore M. Webster, Timothy L. Grey, and Xuelin Luo	385
Evaluation of Verticutting and Herbicides for Tropical Signalgrass (<i>Urochloa subquadripara</i>) Control in Turf. David G. Pearsaul, Ramon G. Leon, Brent A. Sellers, Maria L. Silveira, and D. Calvin Odero	392

• WEED MANAGEMENT-MAJOR CROPS

Row Crop Sensitivity to Low Rates of Foliar-Applied Florpyrauxifen-benzyl. M. Ryan Miller and Jason K. Norsworthy	398
--	-----

• RESEARCH ARTICLES

Assessment of Florpyrauxifen-benzyl Potential to Carryover to Subsequent Crops. M. Ryan Miller and Jason K. Norsworthy	404
Response of Walnuts to Simulated Drift Rates of Bispyribac-Sodium, Bensulfuron-Methyl, and Propanil. Mariano F. Galla, Kassim Al-Khatib, and Bradley D. Hanson	410
Enlist E3™ Soybean Sensitivity and Enlist™ Herbicide-Based Program Control of Sumatran Fleabane (<i>Conyza sumatrensis</i>). Rafael L. Frene, David M. Simpson, Marcos Baez Buchanan, Ernesto Teran Vega, Maximiliano E. Ravotti, and Pablo P. Valverde	416
Weed Control and Tolerance of Sulfonylurea Herbicides in Caladium. Jialin Yu and Nathan S. Boyd	424
Evaluation of Cotton Responses to Fomesafen-Based Treatments Applied Preemergence. Xiao Li, Timothy Grey, William Vencill, James Freeman, Katelyn Price, George Cutts III, and Andrew Price	431
Effect of Bicycloprone on Triploid Watermelon in Plasticulture. Matthew B. Bertucci, Katherine M. Jennings, David W. Monks, David L. Jordan, Jonathan R. Schultheis, Frank J. Louws, and Matthew D. Waldschmidt	439
Soybean Flower and Pod Response to Fomesafen, Acifluorfen, and Lactofen. Shawn C. Beam, Michael L. Flessner, and Kara B. Pittman	444
Influence of Plant Growth Stage and Temperature on Glyphosate Efficacy in Common Lambsquarters (<i>Chenopodium album</i>). Randy D. DeGreeff, Aruna V. Varanasi, J. Anita Dille, Dallas E. Peterson, and Mithila Jugulam	448

• WEED BIOLOGY AND COMPETITION

Residual Herbicide Effect on Interseeded Annual Clover in Southern Forage Systems. Jennifer J. Tucker, M. Kimberly Mullenix, Stephen F. Enloe, and Pat L. Burch	454
Vegetation Control and Soil Moisture Depletion Related to Herbicide Treatments on Forest Plantations in Northeastern Oregon. Elizabeth Cole, Amanda Lindsay, Michael Newton, and John D. Bailey	461

• EDUCATION/EXTENSION

Managing Wicked Herbicide-Resistance: Lessons from the Field. **Jill Schroeder, Michael Barrett, David R. Shaw, Amy B. Asmus, Harold Coble, David Ervin, Raymond A. Jussaume Jr., Micheal D. K. Owen, Ian Burke, Cody F. Creech, A. Stanley Culpepper, William S. Curran, Darrin M. Dodds, Todd A. Gaines, Jeffrey L. Gunsolus, Bradley D. Hanson, Prashant Jha, Annie E. Klodd, Andrew R. Kniss, Ramon G. Leon, Sandra McDonald, Don W. Morishita, Brian J. Schutte, Christy L. Sprague, Phillip W. Stahlman, Larry E. Steckel, and Mark J. VanGessel** 475

Managing Herbicide Resistance: Listening to the Perspectives of Practitioners. Procedures for Conducting Listening Sessions and an Evaluation of the Process. **Jill Schroeder, Michael Barrett, David R. Shaw, Amy B. Asmus, Harold Coble, David Ervin, Raymond A. Jussaume Jr., Micheal D. K. Owen, Ian Burke, Cody F. Creech, A. Stanley Culpepper, William S. Curran, Darrin M. Dodds, Todd A. Gaines, Jeffrey L. Gunsolus, Bradley D. Hanson, Prashant Jha, Annie E. Klodd, Andrew R. Kniss, Ramon G. Leon, Sandra McDonald, Don W. Morishita, Brian J. Schutte, Christy L. Sprague, Phillip W. Stahlman, Larry E. Steckel, and Mark J. VanGessel** 489

• NOTE

Safety of Bicyclopyrone on Several Vegetable Crops and Efficacy of Weed Control. **Yin Chen, Chengsong Hu, and Douglas Doohan** 498