

66th Annual Meeting of the North Central Weed Science Society 2011

(NCWSS 2011)

**Milwaukee, Wisconsin, USA
12-15 December 2011**

ISBN: 978-1-61839-474-3

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Red Hook, NY 12571



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Common Ragweed Dry Matter Allocation and Partitioning under Different Nitrogen and Density Levels. Avishek Datta*¹, Robert Leskovsek², Stevan Z. Knezevic¹; ¹University of Nebraska-Lincoln, Concord, NE, ²Agricultural Institute of Slovenia, Ljubljana, Slovenia (64)

Cattail Hybridization in the Midwest. Steven Travis*¹, Joy E. Marburger², Rachel Tamulonis¹; ¹University of New England, Biddeford, ME, ²National Park Service, Porter, IN (65)

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Developing Biological Control for Common and Glossy Buckthorn. Andre Gassmann¹, Laura Van Riper*², Luke Skinner², Roger Becker³; ¹CABI Europe - Switzerland, Delemont, Switzerland, ²Minnesota Department of Natural Resources, St. Paul, MN, ³Univ. of Minnesota, St. Paul, MN (67)

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Effect of Fall-Applied Soybean Herbicides on Spring Horseweed Populations. Bryan Reeb*¹, Mark M. Loux¹, Anthony F. Dobbels²; ¹The Ohio State University, Columbus, OH, ²The Ohio State University, South Charleston, OH (20)

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Weed Management Systems with Dicamba-Tolerant Soybean in Illinois. Douglas Maxwell*¹, Lisa Gonzini¹, Simone Seifert-Higgins², Christopher D. Kamienski², Michael J. Regan³; ¹University of Illinois, Urbana, IL, ²Monsanto Company, St. Louis, MO, ³Monsanto Company, Washington, IL (25)

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†A Survey of Weed Incidence and Severity in Response to Management Practices in Missouri Soybean Production Fields. Brock S. Waggoner*, Kevin W. Bradley; University of Missouri, Columbia, MO (80)

†**Effect of Flaming and Cultivation on Weed Control and Yield in Conventional Soybean.** Strahinja V. Stepanovic*¹, Brian D. Neilson², Avishek Datta³, Chris A. Bruening⁴, George Gogos², Stevan Z. Knezevic³; ¹University of Belgrade, Belgrade, Serbia, ²University of Nebraska-Lincoln, Lincoln, NE, ³University of Nebraska-Lincoln, Concord, NE, ⁴University of Nebraska, Lincoln, NE (81)

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†**Season Long Control of Waterhemp (*Amaranthus tuberculatus*) in No-till Soybeans.** Blake P. Patton*, William W. Witt; University of Kentucky, Lexington, KY (84)

†**Economic Considerations of Soil Residual Herbicides Versus Postemergence Glyphosate Tank Mixtures in Soybeans.** R. Joseph Wuerffel*¹, Bryan G. Young¹, Julie M. Young¹, Joseph L. Matthews¹, Douglas Maxwell²; ¹Southern Illinois University, Carbondale, IL, ²University of Illinois, Urbana, IL (85)

†**Influence of Application Timings and Glyphosate Tank-Mix Partners on the Control of Glyphosate-Resistant Giant Ragweed (*Ambrosia trifida*).** Eric B. Riley*¹, Doug J. Spaunhorst², Brett D. Craigmyle¹, Travis Legleiter¹, Jim D. Wait¹, Kevin W. Bradley¹; ¹University of Missouri, Columbia, MO, ²University of Missouri-Columbia, Columbia, MO (86)

†**Glyphosate-Resistant Giant Ragweed in Ontario: Survey and Control.** Joe P. Vink*¹, Peter H. Sikkema¹, Francois Tardif², Darren E. Robinson¹, Mark B. Lawton³; ¹University of Guelph, Ridgetown, ON, ²University of Guelph, Guelph, ON, ³Monsanto Canada, Guelph, ON (87)

†**Control of Glyphosate-Resistant Palmer Amaranth in Michigan.** David K. Powell*, Christy L. Sprague; Michigan State University, East Lansing, MI (88)

†**Response of Nebraska Waterhemp (*Amaranthus rudis*) Populations to 2,4-D and Dicamba.** Roberto J. Crespo*¹, Christopher J. Borman¹, Greg R. Kruger², Mark L. Bernards¹; ¹University of Nebraska-Lincoln, Lincoln, NE, ²University of Nebraska-Lincoln, North Platte, NE (89)

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†**Investigations of Weed Management Programs for Use in Soybeans Resistant to 2,4-D and Glufosinate.** Brett D. Craigmyle*¹, Jeff M. Ellis², Kevin W. Bradley¹; ¹University of Missouri, Columbia, MO, ²Dow AgroSciences, Smithville, MO (91)

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Update on Fierce Herbicide. Dawn Refsell*¹, Eric J. Ott², Trevor M. Dale³, John A. Pawlak⁴; ¹Valent USA Corporation, Lathrop, MO, ²Valent USA Corporation, Greenfield, IN, ³Valent USA Corporation, Sioux Falls, SD, ⁴Valent USA Corporation, Lansing, MI (140)

Efficacy of F9310 and Sulfentrazone Premixes in Soybean Weed Management Programs in 2011. Brent A. Neuberger*¹, Gail G. Stratman², Sam J. Lockhart³, Joseph Reed⁴, Sam J. Wilson⁵, Terry W. Mize⁶; ¹FMC Corporation, West Des Moines, IA, ²FMC Corporation, Stromsburg, NE, ³FMC Corporation, Grandin, ND, ⁴FMC, North Little Rock, AR, ⁵FMC Corporation, Cary, NC, ⁶FMC Corp, Olathe, KS (141)

Dicamba: A Highly Effective Weed Management Tool. John Frihauf*¹, Steven J. Bowe², Walter E. Thomas², Troy Klingaman³, Leo D. Charvat⁴; ¹BASF Corporation, RTP, NC, ²BASF Corporation, Research Triangle Park, NC, ³BASF Corporation, Seymour, IL, ⁴BASF Corporation, Lincoln, NE (142)

Stewardship of Dicamba in Dicamba-Tolerant Cropping Systems. Walter E. Thomas*¹, Steven J. Bowe¹, Luke L. Bozeman², Maarten Staal³, Terrance M. Cannan⁴; ¹BASF Corporation, Research Triangle Park, NC, ²BASF, Raleigh, NC, ³BASF Corporation, RTP, NC, ⁴BASF Corporation, Durham, NC (143)

Introducing a New Soybean Event with Glyphosate and HPPD Tolerance. Jayla Allen*¹, John Hinz², Russ Essner¹, Jon Fischer³, Sally Van Wert⁴; ¹Bayer CropScience, Research Triangle Park, NC, ²Bayer CropScience, Story City, IA, ³Bayer CropScience, Middleton, WI, ⁴Bayer CropScience, Monheim, Germany (144)

Selectivity of Glyphosate and HPPD-Inhibiting Herbicides in a New Herbicide-Tolerant Soybean Event. John Hinz*¹, Jayla Allen², Fred Arnold³, Jerry Hora⁴, Dave Doran⁵, William W. DeWeese⁶; ¹Bayer CropScience, Story City, IA, ²Bayer CropScience, Research Triangle Park, NC, ³Bayer CropScience, Champaign, IL, ⁴Bayer CropScience, Maquoketa, IA, ⁵Bayer CropScience, Brownsburg, IN, ⁶Bayer CropScience, Marshall, MI (145)

Enlist Soybean Crop Tolerance and Yield in Elite Soybean Germplasm. Eric F. Scherder*¹, Neil A. Spomer², John S. Richburg³, Ralph B. Lassiter⁴, Kevin D. Johnson⁵; ¹Dow AgroSciences, Huxley, IA, ²Dow AgroSciences, Brookings, SD, ³Dow AgroSciences, Headland, AL, ⁴Dow AgroSciences, Little Rock, AR, ⁵Dow AgroSciences, Barnesville, MN (146)

Enlist Soybean Weed Control. Jeff M. Ellis*¹, Bradley W. Hopkins², Jonathan A. Huff³, Ralph B. Lassiter⁴, Larry L. Walton⁵; ¹Dow AgroSciences, Smithville, MO, ²Dow AgroSciences, Westerville, OH, ³Dow AgroSciences, Herrin, IL, ⁴Dow AgroSciences, Little Rock, AR, ⁵Dow AgroSciences, Tupelo, MS (147)

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Historical Distribution of Giant Ragweed in the Midwest Based on Herbaria Records. Ramarao Venkatesh*, Robert A. Ford, Emilie E. Regnier, Steven K. Harrison, Robin A. Taylor, Christopher H. Holloman, Mesfin Tadesse, Jason Witkop, John R. Moser, Nicholas A. Read; The Ohio State University, Columbus, OH (46)

Ecosystem Based Weed Management: Giant Ragweed in the Corn Belt. Emilie E. Regnier*¹, Ramarao Venkatesh¹, Steven K. Harrison¹, Florian Diekmann¹, Christopher H. Holloman¹, Robin A. Taylor¹, Mark M. Loux¹, John Cardina², Joe E. Heimlich¹, Adam S. Davis³, Brian J. Schutte⁴, David E. Stoltenberg⁵, Kris J. Mahoney⁶, Bob G. Hartzler⁷, William G. Johnson⁸; ¹The Ohio State University, Columbus, OH, ²The Ohio State University, Wooster, OH, ³USDA-ARS, Urbana, IL, ⁴New Mexico State University, Las Cruces, NM, ⁵University of Wisconsin-Madison, Madison, WI, ⁶University of Wisconsin-Platteville, Platteville, WI, ⁷Iowa State University, Ames, IA, ⁸Purdue University, West Lafayette, IN (47)

Management of Giant Ragweed (*Ambrosia trifida*): A Systematic Review. Florian Diekmann*, Emilie E. Regnier, Ramarao Venkatesh, Steven K. Harrison; The Ohio State University, Columbus, OH (48)

Regional-Scale Variation in Giant Ragweed and Common Sunflower Demography. Sam E. Wortman¹, Adam S. Davis², Brian J. Schutte³, John Lindquist*⁴, John Cardina⁵, Joel Felix⁶, Christy L. Sprague⁷, Anita Dille⁸, Analiza Henedina M. Ramirez⁹, Sharon Clay¹⁰; ¹University of Nebraska-Lincoln, Lincoln, NE, ²USDA-ARS, Urbana, IL, ³New Mexico State University, Las Cruces, NM, ⁴University of Nebraska, Lincoln, NE, ⁵The Ohio State University, Wooster, OH, ⁶Oregon State University, Ontario, OR, ⁷Michigan State University, East Lansing, MI, ⁸Kansas State University, Manhattan, KS, ⁹University of Florida, Lake Alfred, FL, ¹⁰South Dakota State University, Brookings, SD (49)

Maximizing Cover Crop Productivity for Weed Suppression. Sam E. Wortman*¹, John Lindquist²; ¹University of Nebraska-Lincoln, Lincoln, NE, ²University of Nebraska, Lincoln, NE (50)

Effects of Increasing Weed Competition on Aboveground Switchgrass Biomass Allocation. Cassidy N. Yatso*, Catherine S. Tarasoff; Michigan Technological University, Houghton, MI (51)

Using Predicted Emergence for More Efficient Weed Management in Organic Processing Tomato. Andrew M. Glaser*, Doug Doohan; The Ohio State University, Wooster, OH (52)

Pollen Mediated Transfer of Fluazifop-P Resistance in Johnsongrass (*Sorghum halepense*). Tye C. Shauck*, Ashley A. Schlichenmayer, Reid J. Smeda; University of Missouri, Columbia, MO (53)

Investigations into Glyphosate-Resistant Common Ragweed. Jason T. Parrish*, Mark M. Loux; The Ohio State University, Columbus, OH (54)

Response of Ohio Horseweed Populations to Glyphosate, Cloransulam, and 2,4-D. Jason T. Parrish*, Mark M. Loux, Bruce Ackley; The Ohio State University, Columbus, OH (55)

Management of Glyphosate-Resistant Marehail in Dicamba-Tolerant Soybeans. Jenny A. Stebbing*¹, Mark L. Bernards², Mayank S. Malik³, Simone Seifert-Higgins⁴, Lowell D. Sandell²; ¹University of Nebraska, Lincoln, NE, ²University of Nebraska-Lincoln, Lincoln, NE, ³Monsanto Company, Lincoln, NE, ⁴Monsanto Company, St. Louis, MO (56)

Modeling the Emergence Pattern of Winter Annual Weed Species in Nebraska. Rodrigo Werle*¹, Mark L. Bernards², John Lindquist¹; ¹University of Nebraska, Lincoln, NE, ²University of Nebraska-Lincoln, Lincoln, NE (92)

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Nitrogen Mineralization from Weed Residues. Laura E. Bast*, Kurt Steinke, Darryl D. Warncke, Wesley J. Everman; Michigan State University, East Lansing, MI (93)

Smother Crop Mixtures for Canada Thistle Suppression during Organic Transition. Stephanie Wedryk*¹, John Cardina²; ¹The Ohio State University, Columbus, OH, ²The Ohio State University, Wooster, OH (94)

†Mulch Effects on Pumpkin and Pollinator (*Peponapis pruinosa*) Performance. Caitlin Splawski*, Emilie E. Regnier, Steven K. Harrison, Mark A. Bennett, James D. Metzger; The Ohio State University, Columbus, OH (95)

†Effects of Annual Grass Competition on Establishment of Switchgrass. Ariel Larson*¹, Mark J. Renz², David E. Stoltenberg¹; ¹University of Wisconsin-Madison, Madison, WI, ²University of Wisconsin Madison, Madison, WI (96)

†Dairy Compost Influence on Weed Competition and Potato Yield. Alexander J. Lindsey*, Karen A. Renner, Wesley J. Everman; Michigan State University, East Lansing, MI (97)

†Synchrony of Flowering in Grain Sorghum and Shattercane. Jared J. Schmidt*¹, Jeff F. Pedersen², Mark L. Bernards¹, John Lindquist³, Aaron J. Lorenz¹; ¹University of Nebraska-Lincoln, Lincoln, NE, ²USDA-ARS, Lincoln, NE, ³University of Nebraska, Lincoln, NE (98)

†Influence of Sterilized and Non-Sterilized Missouri Soil Collections on Glyphosate Resistance in Waterhemp. Kristin K. Rosenbaum*, Travis Legleiter, Jim D. Wait, Kevin W. Bradley; University of Missouri, Columbia, MO (99)

†Phenotypic Expression of Glyphosate Resistance in *Amaranthus* as Influenced by Application Time of Day. Jonathon R. Kohrt*, Joseph L. Matthews, Julie M. Young, Bryan G. Young; Southern Illinois University, Carbondale, IL (100)

A Waterhemp (*Amaranthus tuberculatus*) Population Resistant to 2,4-D. Mark L. Bernards*¹, Roberto J. Crespo¹, Greg R. Kruger², Roch E. Gaussoin¹, Patrick J. Tranel³; ¹University of Nebraska-Lincoln, Lincoln, NE, ²University of Nebraska-Lincoln, North Platte, NE, ³University of Illinois, Urbana, IL (101)

Glyphosate Resistant Canada Fleabane in Ontario. Peter H. Sikkema*¹, Nader Soltani¹, Francois Tardif²; ¹University of Guelph, Ridgetown, ON, ²University of Guelph, Guelph, ON (102)

Confirmation and Management of Glyphosate-Resistant Goosegrass in Tennessee. Lawrence E. Steckel*¹, Kelly A. Barnett¹, James Brosnan²; ¹University of Tennessee, Jackson, TN, ²University of Tennessee, Knoxville, TN (103)

†Differential Response of Common Lambsquarters, Powell Amaranth and Sugarbeet to Nitrogen. Alicia J. Spangler*, Christy L. Sprague; Michigan State University, East Lansing, MI (118)

†Plant Residues and Newspaper Mulch Effects on Weed Emergence and Crop Performance. Nicholas A. Read*, Emilie E. Regnier, Steven K. Harrison, James D. Metzger, Mark A. Bennett; The Ohio State University, Columbus, OH (119)

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Ecology and Ethnobotany of Giant Ragweed in the Prehistoric Midwest. Kristen J. Gremillion*; The Ohio State University, Columbus, OH (155)

Breeding System and Ecological Genetics of Common and Giant Ragweed. Dean S. Volenberg*; University of Wisconsin-Extension, Sturgeon Bay, WI (156)

Giant Ragweed Seed Biology and Germination Ecology. Brian J. Schutte*; New Mexico State University, Las Cruces, NM (157)

Trophic Interactions and Their Potential Impacts on Giant Ragweed. Steven K. Harrison*, Emilie E. Regnier; The Ohio State University, Columbus, OH (158)

Regional-Scale Variation in Giant Ragweed and Common Sunflower Demography in the Mid-West. John Lindquist*; University of Nebraska, Lincoln, NE (159)

Common Ragweed Growth and Seed Production as Influenced by Nitrogen and Plant Density. Avishek Datta*¹, Robert Leskovsek², Stevan Z. Knezevic¹; ¹University of Nebraska-Lincoln, Concord, NE, ²Agricultural Institute of Slovenia, Ljubljana, Slovenia (160)

Contributions of Plant-Soil Feedback in Giant Ragweed Invasion. Analiza Henedina M. Ramirez*¹, Anita Dille², Sharon Clay³, Adam S. Davis⁴, Joel Felix⁵, Fabian Menalled⁶, Richard Smith⁷, Christy L. Sprague⁸; ¹University of Florida, Lake Alfred, FL, ²Kansas State University, Manhattan, KS, ³South Dakota State University, Brookings, SD, ⁴USDA-ARS, Urbana, IL, ⁵Oregon State University, Ontario, OR, ⁶Montana State University, Bozeman, MT, ⁷University of New Hampshire, Durham, NH, ⁸Michigan State University, East Lansing, MI (161)

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