PROGRAM

Sunday, March 23, 2003

Registration
Noon – 6:00 pm

NCB Executive Committee
Business Meeting
8:00 – noon, Conference Room II

Biological Control in Home Gardens Workshop
Organizer: Cliff Sadof
Senate Room

Insect Photo Salon
4:00 – 6:00 pm
Capitol Ballroom

Poster Set-Up
4:00 – 8:00 pm , University Room

Linnaean Games Opening Round
6:00 – 8:00 pm
Gamesmaster: Marlin Rice
Capitol Ballroom

Student Opportunities Mixer
8:00 – 10:00 pm
Madison/Wisconsin Ballrooms
March 24, 2003
Monday Morning

Registration
7:30 am – 5:00 pm

Continental Breakfast
7:00 – 8:30 am

NCA-15 Meeting
7:00 – 8:30 am
Conference Room II

Opening Session and Preliminary Business Meeting
8:30 – 10:00 am
Madison Ballroom

Welcome

Call to Order
Mike Gray, President
North Central Branch
Entomological Society of America

Local Arrangements Update
John Wedberg

Opening Remarks
Kevin L. Steffey
Vice-President
Entomological Society of America

ESA Governing Board Report
Scott Hutchins
NCB Representative to Governing Board

President’s Address
Mike Gray

Preliminary Business Meeting

March 24, 2003
Monday Morning
BS/MS Student Competition Papers
Sections A, Cd, D
10:30 am – 12:00 pm
Assembly Room
10:30  001  The Wisconsin distribution of the tiger beetle *Cicindela patruela* relates to glacial features.

**Mathew L. Brust**, University of Nebraska at Kearney, Kearney, NE 68847, and **Harold Willis**, Adams, WI.

10:42  002  A test of trapping methods for *Strigoderma arboricola* to establish phenology.

**Ben J. Zechmann**, W. W. Hoback and **Jesse Ziems**, 905 W. 25th St, University of Nebraska at Kearney, Kearney, NE 68849

10:54  003  The influence of riparian areas on Hymenoptera communities: possible impacts on biological control of pest insects.

**Johnathan G. White**, **Dianne L. Hall** and **Robert W. Sites**, 1-87 Ag Bldg., University of Missouri, Columbia, MO 65211

11:06  004  Mercury vapor and UV lights affect both diurnal and nocturnal carrion beetle species.

**Daniel G. Snethen**, **Jonathan Doyle** and **Louis Whirlwind Horse III**, RR 3, Box 67, Colome, SD 57528; and **William W. Hoback**, University of Nebraska Kearney, Kearney, NE 68849

11:18  005  How western corn rootworm, *Diabrotica virgifera virgifera* LeConte, behavior in soybean varieties is affected by soybean cyst nematode.*Heterodera glycines* Ichinohe, infestations.

**Erica K. Carlson**, **Michael E. Gray**, **Kevin L. Steffey** and **Gregory R. Noel**, AW-101 Turner Hall, 1102 S. Goodwin Ave., University of Illinois at Urbana-Champaign, Urbana, IL 61801; and **Joseph L. Spencer**, 1816 S Oak St, MC-652, Illinois Natural History Survey, Champaign, IL 61820

11:30  006  Effect of diet on female reproduction in the harvestman *Phalangium opilio* (Opiliones: Phalangiidae).

**Cora M. Allard** and **Kenneth V. Yeargan**, S-225 Ag Science North, University of Kentucky, Lexington, KY 40546

11:42  007  The effect of egg age on the infectivity of *Moniliformis moniliformis* to the intermediate host, *Periplaneta americana*.

**Terry R. Haverkost**, 905 W. 25th St. Bruner Hall, University of Nebraska-Kearney, Kearney, NE 68849
March 24, 2003
Monday Morning
BS/MS Student Competition Papers
Sections Cc, F, Fa
10:30 am – 12:00 pm
Senate A/B

10:30 008 Seasonal fluctuations in population densities of the corn flea beetle and their impact on the incidence of Stewart's wilt in sweet corn. **Kelly A. Cook**, Richard A. Weinzierl and Jerald K. Pataky, Turner Hall, 1102 South Goodwin, University of Illinois, Urbana, IL 61801; Paul D. Esker and Forrest W. Nutter, Jr., Plant Disease Epidemiology, 251 Bessey Hall, Iowa State University, Ames, IA 50011


10:54 010 Insect-Virus Complex of *Aphis glycines* and Alfalfa Mosaic Virus in Soybeans **Emily E. Mueller**, Craig R. Grau, and David B. Hogg, Department of Entomology, 1630 Linden Dr, University of Wisconsin, Madison, WI 53706

11:06 011 Within-field distribution of the soybean aphid, *Aphis glycines* (Homoptera: Aphididae) in North Dakota soybean. **Inderjit S. Saini** and Phillip A. Glogoza, 202, Hultz Hall, PO Box 5346, North Dakota State University, Fargo, ND 58105-5346

11:18 012 Resistance mechanisms of sunflower hybrids to sunflower midge, *Contarinia schulzi* (Diptera: Cecidomyiidae). **John A. Fajardo** and Gary J. Brewer, Department of Entomology, Hultz Hall, North Dakota State University, Fargo, ND 58102

11:30 013 Interactions between potato leafhoppers, glandular-haired alfalfa and insecticide timing. **Reid B. Durtschi**, David B. Hogg, John L. Wedberg and Dan J. Undersander, 353 Moore Hall, 1575 Linden Drive, University of Wisconsin-Madison, Madison, WI 53706

March 24, 2003
Monday Morning
Landscape-based threat index for the aphid vectored virus potato virus Y.
Matthew W. Carroll, Ian V. MacRae, Robert A. Suranyi, Edward B. Radcliffe and David Ragsdale, 219 Hodson Hall, 1980 Folwell Ave, University of Minnesota, St. Paul, MN 55108

Expression and characterization of a soluble form of tomato spotted wilt virus Gn glycoprotein.
Anna E. Whitfield and Thomas L. German, 1630 Linden Dr, University of Wisconsin, Madison, WI 53706

Dissemination of soybean mosaic virus by aphids is altered by insecticides and herbicides.
Mary E. Lee, Chris M. Boerboom and Craig R. Grau, 1630 Linden Drive, University of Wisconsin-Madison, Madison, WI 53706

Japanese beetle dispersal: a mark, release, and recapture study.
Randy M. Hamilton, Rick E. Foster, Timothy J. Gibb and Cliff S. Sadof, Department of Entomology, Purdue University, West Lafayette, IN 47907

Oil-soluble dyes in larval diet of southwestern corn borer (Lepidoptera:Crambidae) as adult markers for dispersal studies.
Jawwad A. Qureshi and Lawrent L. Buschman, Department of Entomology, Kansas State University, Manhattan, KS 66506; James E. Throne, USDA-ARS Grain Marketing and Production Research Center, Manhattan, KS 66502; Sonny B. Ramaswamy, Department of Entomology, Kansas State University, Manhattan, KS 66506

Summer alatae production of soybean aphid in Minnesota.
Erin W. Hodgson, Robert C. Venette and David W. Ragsdale, 219 Hodgson, 1980 Folwell Ave., University of Minnesota, St. Paul, MN 55108

March 24, 2003
Monday Morning
10:30  020  Corn rootworms in space and time. Yong-Lak Park and Jon J. Tollefson, 13 Insectary Bldg., Iowa State University, Ames, IA 50011

10:42  021  Field distribution and effects of Bt-corn anthers on monarch butterfly larvae. Patricia L. Anderson, Insectary, Iowa State University, Ames, IA 50011; Richard L. Hellmich and Leslie C. Lewis, Genetics Laboratory, USDA-ARS Corn Insects and Crop Genetics Research Unit, Ames, IA 50011

10:54  022  Influence of gall wasps and their parasitoids on fitness of native prairie perennials (Asteraceae: Silphium). John F. Tooker and Lawrence M. Hanks, 320 Morrill Hall, 505 S. Goodwin Ave., University of Illinois at Urbana-Champaign, Urbana, IL 61801


11:18  024  Effects of popcorn refuge on Ostrinia nubilalis (Hübner) distribution and the timing of Diabrotica beetle emergence. Colothdian D. Tate, 118 Genetics Lab, Iowa State University, Ames, IA 50014; Richard L. Hellmich and Leslie C. Lewis, USDA-ARS, Iowa State University, Ames, IA 50011

11:30  025  (Z)-9-Pentacosene: contact pheromone of the longhorned beetle Megacyllene robiniae. Matthew D. Ginzel, Department of Entomology, University of Illinois, Urbana, IL 61801; Jocelyn G. Millar, Department of Entomology, University of California, Riverside, CA 91521; and Lawrence M. Hanks, Department of Entomology, University of Illinois, Urbana, IL 61801

March 24, 2003
Monday Afternoon
Award Luncheon
Capitol Ballroom
Michael Gray, Master of Ceremonies

March 24, 2003
Monday Afternoon
Symposium
Management Alternatives in Ornamental Entomology
1:30 – 5:00 pm
Madison Ballroom

Organizers and Moderators:
Clifford S. Sadof
Department of Entomology
Purdue University
West Lafayette, IN 47907

Lawrence M. Hanks
Department of Entomology
University of Illinois
Urbana, IL 61801

1:35 026 Introduction.
Clifford S. Sadof, Department of Entomology, Purdue University, West Lafayette, IN 47907

1:40 027 Compatibility of the citrus mealybug parasitoid, Leptomastix dactylopii, with low-risk insecticides.
Katharina B. Rothwangl, Department of Entomology, University of Illinois, Urbana, IL 61801; Raymond A. Cloyd, Department of Natural Resources and Environmental Sciences, University of Illinois, Urbana, IL 61801; and Robert N. Wiedenmann, Center for Economic Entomology, Illinois Natural History Survey, Champaign, IL 61820

2:00 028 Interactions between soil applications of insecticides and Tiphia vernalis, a biological control agent for Japanese beetle.
Michael E. Rogers and Daniel A. Potter, Department of Entomology, S-225 Agric. Sci. Bldg. N., University of Kentucky, Lexington, KY 40546-0091

2:20 029 Natural enemies of calico scale and effects of commonly used pesticides.
Jamee L. Hubbard and Daniel A. Potter, Department of Entomology, S-225 Agric. Sci. Bldg. N., University of Kentucky, Lexington, KY 40546-0091

2:40 030 Evaluation of lethal and sub-lethal effects of
greenhouse pesticides on the soil-dwelling predatory mite, *Hypoaspis miles*.

**Ana R. Cabrera** and Raymond A. Cloyd, Department of Natural Resources and Environmental Sciences, University of Illinois, Urbana, IL 61801; and Edmond R. Zaborski, Center for Economic Entomology, Illinois Natural History Survey, Champaign, IL 61820

3:00 **BREAK**

3:20 031 Comparison of *Beauveria bassiana*, Marathon, and Talstar on survivorship of black vine weevil adults, *Otiorhynchus sulcatus* (Coleoptera: Curculionidae).

**Vera A. Krischik** and Lina Flor, 219 Hodson Hall, 1980 Folwell Ave., University of Minnesota, St. Paul, MN 55108

3:40 032 Potential effects of geranium and other flower plantings to control Japanese beetles.

**David W. Held** and Daniel A. Potter, Department of Entomology, S-225 Agric. Sci. Bldg. N., University of Kentucky, Lexington, KY 40546-0091

4:00 033 Alternatives to pesticides for the control of black cutworm in golf courses.

**Steve Hong** and Chris Williamson, Department of Entomology, 246 Russell Labs, 1630 Linden Dr., University of Wisconsin, Madison, WI 53706

4:20 034 Use of conservation biological control to manage euonymus scale.

**Eric J. Rebek** and Clifford S. Sadof, Department of Entomology, Purdue University, West Lafayette, IN 47907

4:40 035 Conservation biological control of pine needle scale.

**Ashley Bennett**, Department of Entomology, 320 Morrill Hall, 505 S. Goodwin Ave., University of Illinois, Urbana, IL 61801; Clifford S. Sadof, Department of Entomology, Purdue University, West Lafayette, IN 47907; and Lawrence M. Hanks, Department of Entomology, 320 Morrill Hall, 505 S. Goodwin Ave., University of Illinois, Urbana, IL 61801

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**March 24, 2003**

**Monday Afternoon**
Symposium
Urban Entomology in the North Central Region
1:30 – 5:00 pm
Senate A/B

Organizers and Moderators:
Suresh K. Prabhakaran
Dow AgroSciences
5966 East Kitchen Lane
Mooresville, IN 46158

and

Shripat T. Kamble
Department of Entomology
University of Nebraska
Lincoln, NE 68583

1:30 036  Introduction.
Suresh Prabhakaran, Dow AgroSciences, 5966 E. Kitchen Ln., Mooresville, IN 46158

1:35 037  Tergal gland-related biology in the German cockroach.
Kurt D. Saltzmann, Kristin A. Saltzmann, Jonathan J. Neal and Gary W. Bennett, Department of Entomology, Purdue University, West Lafayette, IN 47907

1:50 038  As the crow flies: spread of West Nile Virus.
Phillip A. Glogoza, North Dakota State University, P O Box 5346, Fargo, ND 58105

2:05 040  Effects of environmental factors on arthropods associated with landscape mulches.
Kyle K. Jordan and Susan C. Jones, Department of Entomology, 1991 Kenny Road, The Ohio State University, Columbus, OH 43210

2:20 041  Stored-product insects in urban environments: observations from sampling and trapping.
Subramanyam Bhadriraju, 201 Shellenberger Hall, Kansas State University, Manhattan, KS 66506

Neil A. Spomer and Shripat T. Kamble, Department of Entomology, University of Nebraska-Lincoln, Lincoln, NE 68583

2:50 043  The annual ant invasion experience: control
strategies for a homeowner.

**Venkat Pedibhotla**, Casey McDonald, Rami Soufi and Bruce Augustin, The Scotts Company, 14111 ScottsLawn Rd., Marysville, OH 43041

3:05 **BREAK**

3:20 044 Termite activity and distribution on the University of Iowa campus.

**Robert R. Setter** and Kasey J. Hutchinson, Univ of Iowa, Iowa City, IA 52242

3:35 045 Research on molecular phylogeny and caste differentiation in Indiana *Reticulitermes* spp.

**Michael E. Scharf**, Jody M. Aleong, Gary W. Bennett and Jesse R. Hoteling, Department of Entomology, Purdue University, West Lafayette, IN 47907; Chow-Yang Lee, 11800 Penang, Universiti Sains Malaysia, Penang, Malaysia, 11800; and Barry R. Pittendrigh, Catina R. Ratliff, Dancia Wu-Scharf, Changlu Wang and Weimin Ye, Dept. of Entomology, Purdue University, West Lafayette, IN 47907

3:50 046 First record of *Microcerotermes* (Isoptera: Amitermitinae) from the Continental USA.

**Robert R. Setter**, 260 USB, University of Iowa, Iowa City, IA 52242; and Timothy G. Myles, 33 Willcocks St., Faculty of Forestry, Univ. of Toronto, Toronto, ON M5S 3B3

4:05 047 Nest evacuation behavior in *Reticulitermes flavipes* (Isoptera: Rhinotermitidae).

**Margaret A. Schwinghammer** and Richard M. Houseman, 1-87 Agriculture Bldg., University of Missouri - Columbia, Columbia, MO 65211


**Michelle S. Smith**, 1950 E. Greyhound Pass #18, Dow AgroSciences, Carmel, IN 46033; and Suresh Prabhakaran, Dow AgroSciences, 5966 East Kitchen Lane, Mooresville, IN 46158

4:35 049 Field performance of noviflumuron to control subterranean termites in Nebraska.

**Shripat T. Kamble**, 201 PI, Department of Entomology, University of Nebraska, Lincoln, NE 68583; and Suresh K. Prabhakaran, 5966 East Kitchen Lane, Dow AgroSciences, Mooresville, IN 4615

4:50 050 Targeting termites: placement considerations for bait stations.

**Susan C. Jones**, 1991 Kenny Rd., Extension
March 24, 2003
Monday Afternoon

Submitted Papers
Sections A, C, D, F
1:30 – 5:00 pm
Wisconsin Ballroom

1:40  052  Geographical differentiation and speciation in *Eurosta solidaginis*.
      **Timothy P. Craig** and Joanne K. Itami, 10 University Drive, University of Minnesota Duluth, Duluth, MN 55812

1:52  053  Application of Powdered Sugar to Adult Honey Bees (*Apis mellifera* L.) for Varroa Mite Control.
      **Nicholas P. Aliano** and Marion D. Ellis, 202 Plant Industry Bldg., Department of Entomology, University of Nebraska, Lincoln, NE, 68583

2:04  054  Biological Control of *Lygus lineolaris* by *Peristenus* spp. in Strawberry.
      **Kelley J. Tilmon**, 430 Lincoln Drive, Univ. of Wisconsin, Madison, WI 53706; Michael P. Hoffmann, Department of Entomology, Cornell University, Ithaca, NY, 14853

2:16  055  On-farm evaluation of a reduced-risk insect management program for blueberry.
      **Rufus Isaacs**, Keith S. Mason, Vicki Morrone and John C. Wise, Michigan State Univ., 202 CIPS, East Lansing, MI 48824

2:28  056  Resistance to diatomaceous earth by three stored-product insects.
      **Paul G. Fields**, 195 Dafoe Rd., Agriculture and Agri-Food Canada, Winnipeg, ME, R2M 2K2

2:40  057  Performance of *Ostrinia nubilalis* families on diet containing lyophilized *Bt* corn tissue.
      **Douglas V. Sumerford**, Genetics Bldg., Iowa State University, USDA-ARS, Ames, IA 50011; Craig A. Abel, USDA-ARS-SIMRU, Stoneville, MS 38776, Richard L.
Mate location by the longhorn beetle, *Neoclytus acuminatus*. Emerson S. Lacey and Lawrence M. Hanks, Department of Entomology, University of Illinois, Urbana, IL 61801; Jocelyn G. Millar, 102 Entomology, University of California, Riverside, CA 92521

Stable isotope evidence of restoration of arthropod food web interactions following invasive plant removal. Claudio Gratton, 444 Russell Labs, 1630 Linden Dr., University of Wisconsin, Madison, WI 53706; Robert F. Denno, Dept. of Entomology, 4112 Plant Science Bldg, Univ. of Maryland, College Park, MD 20742

Insect populations on four species of Solanaceae planted in covered and uncovered soil. Mark E. Headings, 1328 Dover Road, The 3:48Ohio State University Agric. Tech. Institute, Wooster, OH 44691

Refining regional monitoring of sugarbeet root maggot using historical data. Ian V. MacRae, University of Minnesota, UMN NWROC, 2900 University Ave, Dept. of Entomology, Crookston, MN 56716; Mark Boetel, Dept. of Entomology, North Dakota State University, Fargo, ND 58105

Assessment of tarnished plant bug (Heteroptera: Miridae) feeding injury and impacts on sugarbeet yield. Justin O. Knott, Mark A. Boetel and Phillip A. Glogoza, 202 Hultz Hall, Department of Entomology, North Dakota State University, Fargo, ND 58105

Evaluation of a potential stable fly repellent for horses and beef cattle. David J. Boxler and John B. Campbell, 461 West University Dr., University of Nebraska, WCRC, North Platte, NE 69101
D064 Impact of Cry3Bb1 transgenic and conventionally treated maize on coccinellids in South Dakota. **Bradley L. McManus** and **Billy W. Fuller**, Plant Science Department, South Dakota State University, Brookings, SD 57006; and **Mark Boetel**, 256 Hultz Hall, Dept. of Entomology, North Dakota State University, Fargo ND 58105

D065 Catnip, *Nepeta cataria* (Lamiales: Lamiaceae), a closer look: comparative repellents and seasonal ecology. **Gretchen E. Schultz**, Erica Simbro, Jason B. Belden, Junwei Zhu and Joel Coats, Department of Entomology, Iowa State University, Ames, IA 50011

D066 Development of fluorescence assay for receptor characterization. **Emily-Jean K. Gartrell**, Man-Yeon Choi and Russell A. Jurenka, Department of Entomology, 428 Science II, Iowa State University, Ames, IA 50011

D067 Additive effects of juvenile hormone homologues in *Heliothis virescens*. **Angela M. Tucker**, Department of Entomology, 123 West Waters Hall, Kansas State University, Manhattan, KS 66506-4004; **Anna Rachinsky**, Department of Biology, 10 University Drive, University of Minnesota at Duluth, Duluth, MN 55812-2496; and **Sonny B. Ramaswamy**, Department of Entomology, 123 West Waters Hall, Kansas State University, Manhattan, KS 66506-4004

D068 Garlic mustard population ecology in Indiana: opportunities for biological control. **Kimberly A. Rebek** and Robert J. O’Neil, Department of Entomology, Purdue University, West Lafayette, IN 47907

D069 Patch Effects on Coccinellidae (Coleoptera) in Alfalfa Fields in Eastern Nebraska, USA. **James C. Kriz** and Stephen D. Danielson, 211 Plant Industry Building, University of Nebraska - Lincoln, Lincoln, NE 68583; **Jim R. Brandle**, 3B Plant Industry Building, University of Nebraska - Lincoln, Lincoln, NE 68583; and **Erin Blankenship** and **Geoff**
Potential for biological control of chinch bug Blissus occiduus Barber, in buffalograss.

Jeffrey D. Carstens, Frederick P. Baxendale and Tiffany M. Heng-Moss, 202 Plant Industry Building, University of Nebraska-Lincoln, Lincoln, NE 68583

Who done it? Exploring forensic entomology with young detectives.

Timothy E. Huntington, William J. Allgeier, Frederick P. Baxendale and Leon G. Higley, Department of Entomology, 202 Plant Industry, University of Nebraska-Lincoln, Lincoln, NE 68583

The effect of corn phenology on establishment success of western corn rootworm larvae.

Yvonne M. Schweikert and Bruce E. Hibbard, 204 Curtis Hall, University of Missouri, Columbia, MO 65211

Influence of destruction of male corn plants on movement of Ostrinia nubilalis (Hübner) larvae in Zea mays L. hybrid seed production fields.

Kate T. Kronback, Iowa State University, Ames, IA 50011; and Richard L. Hellmich and Leslie C. Lewis, USDA-ARS Corn Insect and Crop Genetics Research Unit, Ames, IA 50011

Soil invertebrates as bioindicators of the effectiveness of wet meadow restoration.

John J. Riggins and Wyatt W. Hoback, Department of Biology, 905 W 25th Street, University of Nebraska at Kearney, Kearney, NE 68849; and Craig A. Davis, Department of Zoology, 430 Life Sciences West, Oklahoma State Univ., Stillwater, OK 74078

Host sequence for Red River Valley Lygus Bugs (Heteroptera: Miridae): a two-year investigation.

Justin O. Knott, Mark A. Boetel and Phillip A. Glogoza, Department of Entomology, 202 Hultz Hall, North Dakota State University, Fargo, ND 58105

Influence of Cry3Bb1 hybrid on lacewing and minute pirate bug predators in South Dakota.

Michelle L. Harland and Billy W. Fuller, Room 248 C NPB, Plant Science Department, South Dakota State University, Brookings, SD 57006

Resistance to multiple chinch bug species in buffalograss and sorghum.

Wyatt G. Anderson, Tiffany M. Heng-Moss and Frederick P. Baxendale, 202 Plant Industry Building, University of Nebraska-Lincoln, Lincoln, NE 68583
Baseline toxicity for sunflower-labeled insecticides to control sunflower moth *Homoeosoma electellum* (Hulst) (Lepidoptera: Pyralidae).

**Jared A. Hopper**, Gerald E. Wilde and Kun Yan Zhu, Department of Entomology, Kansas State Univ., Manhattan, KS 66506

Biology and control of the mint bud mite.

**Chris C. Perry** and Jeffrey A. Wyman, Department of Entomology, 537 Russell Labs, 1630 Linden Dr, UW-Madison, Madison, WI 53703

Generic limits in the Cenoceoliinae (Hymenoptera: Braconidae).

**Kevin M. Pitz** and Michael J. Sharkey, S-225 Agriculture Science Center North, Department of Entomology, University of Kentucky, Lexington, KY 40546

Comparison of Cry toxin binding to brush border membranes in *Bacillus thuringiensis*-resistant and -susceptible *Ostrinia nubilalis*.

**Huarong Li**, Department of Entomology, Kansas State University, Manhattan, KS 66506; Joel Gonzalez-Cabrera and Juan Ferré, Department of Genetics, University of Valencia, 46100-Burjassot(Valencia), Spain; Brenda Oppert, Grain Marketing and Production Research Center, USDA-ARS, Manhattan, KS 66502; Randall A. Higgins, Lawrent L. Buschman and Kun Yan Zhu, Department of Entomology, Kansas State University, Manhattan, KS 66506; and Fangneng Huang, Department of Grain Science and Industry, Kansas State University, Manhattan, KS 66506

The effect of snow cover on overwintering of *Aphthona* flea beetles.

**Ankush Joshi** and Denise L. Olson, Hulz Hall, Dept. of Entomolgy, North Dakota State University, Fargo, ND 58105

Comparing the effects of floral nectar and aphid honeydew on a parasitoid.

**Jana C. Lee** and George E. Heimpel, 219 Hodson Hall, 1980 Folwell Ave., University of Minnesota, St. Paul, MN 55108; and Gary L. Leibee, University of Florida, Apopka, FL 32703
Growth, development, and survival of *Nosema pyrausta*-infected European corn borers (Lepidoptera: Crambidae) reared on meridic diet and Cry1Ab.

**Brendon J. Reardon**, Iowa State University, Ames, IA 50011; and Richard L. Hellmich and Leslie C. Lewis, Genetics Laboratory, USDA-ARS, Iowa State University, Ames, IA 50011

**Ayanave Majumdar** and Mark A. Boetel, Department of Entomology, 202 Hultz Hall, North Dakota State University, Fargo, ND 58105; Stefan T. Jaronski, Northern Plains Agricultural Research Laboratory, USDA-ARS, 1500 North Central Avenue, Sidney, MT, 59270; and Robert J. Dregseth and Allen J. Schroeder, Department of Entomology, 202 Hultz Hall, North Dakota State University, Fargo, ND 58105

**Sasi Maliphan**, Steven R. Skoda, Jeff T. Krumm and John E. Foster, 202 Plant Industry Bldg., University of Nebraska - Lincoln, Lincoln, NE 68583-0816

**Jeffrey T. Krumm**, 013 Plant Industry Bldg., University of Nebraska – Lincoln, Lincoln, NE 68583-0816; Steven R. Skoda, 305A Plant Industry Bldg., USDA-ARS, Lincoln, NE 68583-0816; Sasi Maliphan and John E. Foster, 312F Plant Industry Bldg., University of Nebraska - Lincoln, Lincoln, NE 68583-0816

**Pete L. Clark**, Connie I. Reimers-Hild and John E. Foster, 312 F Plant Industry Building, University of Nebraska - Lincoln, Lincoln, NE 68583-0816

Efficacy of seed- and foliar-applied insecticides for bean leaf beetle and bean pod mottle virus management.

**Jeffrey D. Bradshaw** and Marlin E. Rice, Department of Entomology, Iowa State University, Ames, IA 50011; and John H. Hill, Department of Plant Pathology, Iowa State University, Ames, IA 50011
D090 Seasonal oviposition of the western corn rootworm: does crop phenology play a role? **Christopher M. Pierce** and Michael E. Gray, Department of Crop Sciences, 1102 S. Goodwin Avenue, University of Illinois, Urbana, IL 61801

D091 The effects of age on mating, egg laying patterns, fecundity and fertility of banded sunflower moth (Lepidoptera: Cochylidae). **Maboko S. Mphosi**, Stephen P. Foster and Bruce D. Morris, 202 Hultz Hall, North Dakota State University, Fargo, ND 58105

D092 Development of a simple heat accumulation model for predicting mortality of Tribolium castaneum (Herbst) life stages exposed to elevated temperatures. **Rizana M. Mahroof** and Bhadriraju Subramanyam, 201 Shellenberger Hall, Department of Grain Science and Industry, Kansas State University, Manhattan, KS 66506; and Paul W. Flinn, Grain Marketing and Production Research Center, USDA-ARS, Manhattan, KS 66502

D093 The efficacy of biorational versus chemical insecticides against the crucifer flea beetle, Phyllotreta cruciferae (Coleoptera: Chrysomelidae), on canola. **Frank B. Antwi**, Denise L. Olson and Donald R. Carey, 202 Hultz Hall, Department of Entomology, North Dakota State University, Fargo, ND 58105

D094 Influence of adjacent habitats and natural host on grape berry moth, Endopiza viteana Clemens (Lepidoptera: Tortricidae), impact on vineyards. **Natalia Botero-Garces** and Rufus Isaacs, 202 CIPS, Michigan State University, East Lansing, MI 48824

D095 Studies on the impact of alternate host phenology on the development and survivorship of western corn rootworm. **Peter G. Chege** and Thomas L. Clark, Department of Entomology, 1-87 Agriculture Building, University of Missouri, Columbia, MO 65211; and Bruce E. Hibbard, USDA-ARS, 204 Curtis Hall, University of Missouri, Columbia, MO 65211

D096 Economic injury levels for the European corn borer and corn leaf aphid in high-oil maize. **Scott E. Quinton**, G. C. Brown, D. W. Johnson and R. T. Bessin, 1167 Turkey Foot Rd. Unit 20, Univ. of Kentucky, Lexington, KY 40502
No adverse effect of coleopteran-specific Cry3Bb1 toxin released from root exudates and biomass of transgenic corn on earthworms. Aqeel Ahmad and Gerald E. Wilde, Department of Entomology, 123 West Water Hall, Kansas State University, Manhattan, KS 66506

Ecological assessment of arthropod populations in relation to different tillage and Roundup-Ready cropping systems. Michal Roberts and Gerald E. Wilde, Department of Entomology, 123 West Waters Hall, Kansas State University, Manhattan, KS 66506

March 24, 2003
Monday Evening
6:00 – 8:00 pm.
Capitol Ballroom

Photo Salon

March 24, 2003
Monday Evening
8:00 – 10:00 pm.
Capitol Ballroom

Linnaean Games Semi-Final and Final Rounds

Moderator:
Marlin Rice, Gamesmaster
Iowa State University
March 25, 2003  
Tuesday Morning  
Registration  
7:30 am – 5:00 pm

March 25, 2003  
Tuesday Morning  
Continental Breakfast  
7:00 – 8:00 am  
Sponsored by Bayer Crop Sciences

March 25, 2003  
Tuesday Morning  
BCE Symposium  
Enhancing Entomology through Digital Technology  
8:00 – 11:30 am  
Capitol B

Organizer and Moderator:  
Shripat T. Kamble  
Department of Entomology  
University of Nebraska  
Lincoln, NE 68583

8:00  099  Introduction: Enhancing Entomology through digital technology.  
Shripat T. Kamble, 201 Plant Industry, Department of Entomology, University of Nebraska, Lincoln, NE 68583-0816

8:05  100  Educating with 3D graphics  
Vishal M. Singh, 002 ACB, University of Nebraska - Lincoln, Lincoln, NE 68583

8:35  101  Tricks and techniques in enhancing digital images.  
James A. Kalisch, Department of Entomology, 210 Plant Industry Bldg., University of Nebraska, Lincoln, NE 68583

9:05  102  Using microscopy in digital imaging of insects.  
Scott A. Payne and Thomas Freeman, 1307 North 18th Street - NCSL, North Dakota State University, Fargo, ND 58105

9:35  BREAK

9:55  103  Selecting digital cameras and accessories.  
Roy E. Larimer, Microptics, Inc, 133 Sagamore Rd #B-8, Tuckahoe, NY 10707
10:25
Roy E. Larimer, Microptics, Inc, 133 Sagamore Rd #B-8, Tuckahoe, NY 10707

10:55
Practical digital videography in entomology.
Vishal M. Singh and Bradley A. Mills, East Campus 0918, University of Nebraska - Lincoln, Lincoln, NE 68583

March 25, 2003
Tuesday Morning

Symposium
Gene-for-Gene Interactions in the Wheat-Hessian Fly System
8:00 – 11:30 am
Assembly Room

Organizer and Moderator:
Christie E. Williams
Department of Entomology
USDA/ARS
Purdue University
West Lafayette, IN 47907

8:00
Introduction.
Christie E. Williams, USDA-ARS, Department of Entomology, Purdue University, West Lafayette, IN 47907-0535

8:05
What is in a biotype? The tug of war between the Hessian fly and resistant wheat.
Roger H. Ratcliffe, USDA-ARS, Lafayette, IN, 47909; Nilsa A. Bosque-Perez, Dept. of Plant, Soil & Entomological Sciences, Univ. of Idaho, Moscow, ID 83844; and Herbert W. Ohm, Department of Agronomy, Purdue University, West Lafayette, IN 47905

8:40
Hessian fly resistance and management in the Southeastern United States.
G. David Buntin and Jerry Johnson, Georgia Station, 1109 Experiment Street, University of Georgia, Griffin, GA 30223

9:10
Fitness costs of major gene resistance to the Hessian fly.
Kirk M. Anderson and Marion O. Harris, Department of Entomology, 202 Hultz Hall, North Dakota State University, Fargo, ND
March 25, 2003
Tuesday Morning

NCR-125 Symposium
Risk Assessment in Biological Control
8:00 – 11:30 am
Senate A/B

Organizers and Moderators:
David J. Horn
Department of Entomology
Ohio State University
Columbus, OH 43210

J. Steven Yaninek
Department of Entomology
Purdue University
West Lafayette, IN 47907

8:00  113  Introduction.
       J. S. Yaninek. Department of Entomology, Purdue Univ., West Lafayette, IN 47907
From safe to sorry? Changing perceptions of biological control from the 1960s to the present.

David J. Horn, Department of Entomology, 1735 Neil Ave., Ohio State University, Columbus, OH 43210

The power of a paradigm: risk assessment and biological control.

Robert K. Peterson, 333 Leon Johnson Hall, Montana State University, Bozeman, MT 59717; and Sharlene E. Sing, USDA Forest Service, Forestry Sciences Laboratory, Montana State University, Bozeman, MT 59717

Risk assessment in classical biological control: are non-target effects the only concern?

J.P. Michaud, 1232 240th Ave, Kansas State University, Hays, KS 67601

The costs and benefits of qualitative risk assessments for biocontrol agents.

Robert C. Venette and George E. Heimpel, 1980 Folwell Ave., 219 Hodson Hall, Department of Entomology, University of Minnesota, St. Paul, MN, 55108; and Deborah McCullough, 243 Natural Science Bldg., Dept. of Entomology, Michigan State University, East Lansing, MI 48824

The multicolored Asian lady beetle, Harmonia axyridis: friend or foe?

Joseph Kovach, Margaret Huelsman and Todd Steiner, 1689 Madison Ave., Ohio State University, Wooster, OH 44691

Federal regulatory requirements - plant pest, environmental and legal assessments for biological control agents of invertebrates.

Robert V. Flanders, USDA APHIS PPQ, 4700 River Rd. Unit 133, Riverdale, MD 20737

Conclusions and discussion.

David J. Horn, Department of Entomology, 1735 Neil Ave., Ohio State University, Columbus, OH 43210
March 25, 2003
Tuesday Morning

Submitted Papers
Sections C & F
8:30 – 11:30 am
Capitol A

8:30  121  *Chrysomela confluens* performance is affected by tannins and nutrients but not phenolic glycosides.
Brian J. Rehill, Russell Laboratories, 1630 Linden Drive, University of Wisconsin, Madison, WI 53706; Jen Schweitzer, Biology Department, Northern Arizona University, Flagstaff, AZ 86011; Richard L. Lindroth, Russell Laboratories, 1630 Linden Drive, University of Wisconsin, Madison, WI 53706; Gregory Martinsen and Thomas G. Whitham, Biology Department, Northern Arizona University, Flagstaff, AZ 86011

8:42  122  Western bean cutworm behavior in a corn/dry beans rotation in western Nebraska.
Gary L. Hein, 512 E. 35th St, Univ. Nebraska, Scottsbluff, NE, 69361

8:54  123  Influence of potassium availability on soybean aphid population dynamics.
Scott W. Myers and John L. Wedberg, 536 Russell Labs, UW, Madison, WI, 53706

9:06  124  Redistribution of *Aphelinus albipodus* for biological control of soybean aphid.
Bob A. Ellingson and David B. Hogg, Department of Entomology, University of Wisconsin-Madison 1630 Linden Dr., Madison, WI 53706

9:18  125  Efficacy of Cruiser 5FS for control of bean leaf beetle and soybean aphid in soybean.
Christopher Clemens, Syngenta Crop Protection, Northern Region Technical Center, 495 County Rd. 1300N, Champaign, IL 61822; and Cliff Watrin, Syngenta Crop Protection, 21315 Viking Blvd, Wyoming, MN 55092
Efficacy of Cruiser 5FSÒ for control of secondary corn insects.

Steve Mroczkiewicz and Cliff Watrin, 21315 Viking Blvd, Syngenta Crop Protection, Wyoming, MN 55092

9:42 BREAK

Thinking outside the insecticide box: Predicting the agronomic, economic and environmental benefits of transgenic rootworm corn.

Marlin E. Rice, 103 Insectary, Iowa State University, Ames, IA 50011

10:12 YieldGard® Rootworm - A new technology for the control of western and northern corn rootworm (Diabrotica spp.).

Robert J. Starke, Todd DeGooyer and Wilmar Morjan, 800 N Lindbergh, Monsanto Company, St. Louis, MO 63167

10:24 Using Bt's to achieve economic levels of hostplant non-preference: Herculexä vs. black cutworm.

Steve A. Lefko, Bryon Van Ballegooyen and Marc Harper, 7250 NW 62nd Ave., Pioneer Hi-Bred Int'l Inc., Johnston, IA 50131

10:36 An overview of the performance of Mustang Max from FMC.

Kathy A. Leiferman, Keith Evans, Howard Guscar, Brent Neuberger, Robert Perry and Samuel Tutt, 1735 Market Street, FMC Corporation, Philadelphia, PA 19103

10:48 Introduction of Mustang Max and efficacy studies on Cerotoma trifurcata.

Brent A. Neuberger, FMC, 500 31st Street, West Des Moines, IA 50265; Marlin E. Rice and Jeffrey D. Bradshaw, Department of Entomology, Iowa State University, Ames, IA, 50011

11:00 Effects of soil insecticides on field corn tolerance to postemergence applications of Mesotrione.

Scott C. Ditmarsen, 9376 Braun Rd., Cross Plains, WI 53528; Steven Nolting and Mark Peterson, 9330 Zionsville Rd., Indianapolis, IN 46268; Sarah Taylor-Lovell, 1217 E. Windwood Lane, Mahomet, IL 61853; Larry G. Thompson, 21390 S. Oakleaf Dr., Bucyrus, KS 66013; and Jon Babcock,
March 25, 2003  
Tuesday Morning and Afternoon  

Submitted Posters  
All Sections  
8:00 am – 5:00 pm  
University Room  
(Authors present 4:00 – 5:00 pm)  

D133 Stage-specific expression of actin genes in the Yellow Fever mosquito, *Aedes aegypti*.  
Irina Vyazunova and Que Lan, 1630 Linden Drive, University of Wisconsin, Madison, WI 53706  

D134 Suppression of soybean aphid by the minute pirate bug.  
Claire E. Rutledge and Robert J. O’Neil, Department of Entomology, Purdue University, West Lafayette, IN 47907-2089  

D135 Biological control of purple loosestrife in Illinois.  
Robert N. Wiedenmann, Susan L. Post, Charles G. Helm, David J. Voegtlin, Michael R. Jeffords and Dylan Maddox, Center for Economic Entomology, Illinois Natural History Survey, Champaign, IL 61820  

D136 Impact of fire ants on soybean arthropods.  
Michael P. Seagraves, S-225 Ag. Sci. North, Department of Entomology, Univ. of Kentucky, Lexington, KY 40546  

D137 Effects of flowering strips on Lepidoptera and their natural natural enemies in an organic apple orchard.  
Paul M. Whitaker, 518 South Seventh Ave., University of Wisconsin-Marathon County, Wausau, WI 54401; and Daniel L. Mahr, Department of Entomology, 1630 Linden Drive, University of Wisconsin-Madison, Madison, WI 53706  

D138 Imperfect spatio-temporal synchrony of corn leaf aphids and lady beetles in cornfields.  
Yong-Lak Park, Dept. of Entomology, Iowa State University, Ames, IA 50011  

D139 Pea protein combined with parasitoids to control stored-product insects.  
Xingwei Hou and Paul G. Fields, 195 Dafoe Rd., Agriculture and Agri-Food Canada, Winnipeg, MB R2M 2K2; and Paul Flinn, Joel Perez-Mendoza and Jim Baker, U.S.
D140 Using GIS to analyze spatial interactions between landscape attributes and adult corn rootworm population dynamics at the South Dakota areawide management site from 1997-2001.

Amber A. Beckler and Bryan W. French, USDA/ARS-Northern Grain Insects Research Lab, 2923 Medary Avenue, Brookings, SD 57006; Laurence D. Chandler, USDA/ARS-Northern Crop Science Lab, 1307 18th Street, Fargo, ND 58105; and Dave A. Beck, USDA/ARS-Northern Grain Insects Research Lab, 2923 Medary Avenue, Brookings, SD 57006

D141 Transition to organic: Implications for pest management and soil biology.

Catherine E. Eastman, Edmond R. Zaborski and John T. Shaw, Center for Economic Entomology, Illinois Natural History Survey, Champaign, IL 61820; Michelle Wander, John Masiunas and Daniel Anderson, University of Illinois, Urbana, IL 61801; and Leslie Cooperband, University of Wisconsin, Madison, WI 53706

D142 Predicting the spread of West Nile Virus in the U.S. using ecological niche modeling of infected mosquitoes.

Rodney S. Hanley and Grant M. Casady, Box 9007, Earth Systems Science Institute, University of North Dakota, Grand Forks, ND, 58202-9007

D143 The effect of stable flies, Stomoxys calcitrans L., in the U.S. on weight gains of both confined beef cattle and on steers grazing on rangeland.

John B. Campbell, 461 West University Drive, University of Nebraska-WCREC, North Platte, NE 69101

D144 Research on the management of the soybean stem borer in Kansas.

Phillip E. Sloderbeck, Lawrent L. Buschman and Randall A. Higgins, 123 Umberger Hall, Kansas State University, Manhattan, KS 66506

D145 Educating the public about exotic species through an interactive website.

William W. Hoback and Kerri M. Skinner, 904 S. 25th Street, University of Nebraska-Kearney, Kearney, NE 68849

D146 Community outreach through a local children’s museum.

Shelly K. Kellogg, Blake Newton and Lynne Rieske-Kinney, S-225 Agricultural

**Lowell Sandell** and **Douglas Johnson**, S-225
Ag. Science Center North, University of Kentucky, Lexington, KY 40546-0091

Insecticide seed treatment effect on the severity of the corn (*Zea mays*) virus complex transmitted by the black-faced leafhopper (*Graminella nigrifrons*).

**Lowell Sandell** and **Ricardo Bessin**, S-225
Ag. Science Center North, University of Kentucky, Lexington, KY 40546-0091

“Soybean” stem borer: an outbreak in Kentucky during the 2002 season.

**Douglas W. Johnson**, P.O. Box 469, 1205 Hopkinsville St., University of Kentucky, Princeton, KY 42445-0469

Corn response to mesotrione as affected by soil-applied organophosphate insecticides.

**James J. Kells**, Christina D. DiFonzo, Michael R. Jewett and Corey J. Guza,
Entomology and Crop & Soil Sciences Departments, Michigan State University, East Lansing, MI 48824

Insecticide seed treatments for managing secondary insect pests in corn.

**Murdick J. McLeod**, 3850 N. 100 E.,
Pioneer Hi-Bred International, Windfall, IN 46076

Transcription profiling of wheat defense responses: Hessian fly versus microbial pathogens.

**Christie E. Williams**, Stephen B. Goodwin, Herbert W. Ohm, Joseph M. Anderson, Charles F. Crane, Stephen R. Scofield, Timothy A. Lohret and Oswald R. Crasta,
USDA-ARS, Purdue University, West Lafayette, IN 47907

Control of black cutworm in Herculex I hybrid corn.

**Jon Babcock**, Dow AgroSciences, 13668 Magic Stallion Dr., Carmel IN 46032; **James Bing**, Mycogen Seeds, 301 Campus Dr., Huxley, IA 50124; **Sarah Taylor-Lovell**, 1217 E. Windwood Lane, Mahomet, IL 61853; **Brian Olson**, Dow AgroSciences, 22 Delancy Dr., Geneva, NY 14456; **Scott Ditmarsen**, Dow AgroSciences, 9376 Braun Rd., Cross Plains, WI 53528; **Larry Thompson**, 21390 S. Oakleaf Dr., Bucyrus, KS 66013; **Terry
Wright, Dow AgroSciences, 9330 Zionsville Rd., Indianapolis, IN 46268; Randy Huckaba, Dow AgroSciences, 300 Frying Pan Hollow, Ferrum, VA 24088; and Ralph Lassiter, Dow AgroSciences, 10 Cherry Creek Cove, Little Rock, AR 72212

D154 Proaxis: Midwest crop efficacy and commercialization update. 

Jon Babcock, Dow AgroSciences, 13668 Magic Stallion Dr., Carmel, IN, 46032; Mark Hertlein, Dow AgroSciences, 9330 Zionsville Rd., Indianapolis, IN 46268; Sarah Taylor-Lovell, 1217 E. Windwood Lane, Mahomet, IL 61853; Brian Olson, Dow AgroSciences, 22 Delancy Dr., Geneva, NY 14456; Scott Ditmarsen, Dow AgroSciences, Cross Plains, WI 53528; and Larry Thompson, 21390 S. Oakleaf Dr., Bucyrus, KS 66013

D155 The YieldGard® corn borer Bt corn insect resistance management (IRM) plan. 

Todd A. DeGooeyer and Robert J. Starke, Monsanto Company, 800 N. Lindbergh, St. Louis, MO 63167

D156 An introduction to the YieldGard® rootworm Bt corn insect resistance management (IRM) plan. 

Todd A. DeGooeyer and Robert J. Starke, 800 N. Lindbergh, Monsanto Company, St. Louis, MO 63167

D157 Effect of Bt corn expressing Cry3Bb1 protein for corn rootworm control on nontarget organisms. 

Mohammad A. Al-Deeb and Gerald E. Wilde, 123 Waters Hall, Kansas State University, Manhattan, KS 66506

D158 Quantifying western corn rootworm (Coleoptera: Chrysomelidae) intrafield movement with a rubidium marking technique. 

Timothy M. Nowatzki, Blair D. Siegfried and Lance J. Meinke, 202 Plant Industry Bldg., Dept. of Entomology, University of Nebraska-Lincoln, Lincoln, NE 68583-0816

D159 Corn rootworms, resistant transgenic corn, and weedy grasses: A recipe for resistance evolution?
March 25, 2003
Tuesday Afternoon

Student Affairs Symposium
The effects of crop plants on the third trophic level
1:15 – 5:00 pm
Senate A/B

Organizers and Moderators:
Jonathan G. Lundgren
Department of Entomology
University of Illinois
Urbana, IL 61801

Robert Ellingson
Department of Entomology
University of Wisconsin
Madison, WI 53706

1:15  161  Introduction.
  Jonathan G. Lundgren, Department of Entomology, 320 Morrill Hall, University of Illinois, Urbana, IL

1:20  162  Host-mediated changes in parasitoid impact on Bemisia tabaci biodemography in comparative agroecosystems in Arizona.
  Luis A. Canas, 37860 W Smith-Enke Rd, University of Arizona, Maricopa, AZ 85239; Steven E. Naranjo, 4135 E Broadway Rd, USDA-ARS Western Cotton Research Lab, Phoenix, AZ 85040; and Peter C. Ellsworth, 37860 W Smith-Enke Rd, University of Arizona, Maricopa, AZ 85239

1:40  163  Determining the impact of predators on a new invasive species: plant influences on predator-prey dynamics.
Robert J. O’Neil and Claire E. Rutledge, Department of Entomology, Purdue University, West Lafayette, IN 47907

2:00 164 Risk associated with predation on prey fed crops with insecticidal properties.
Jonathan G. Lundgren, Department of Entomology, 320 Morrill Hall, University of Illinois, Urbana, IL 61801; and Robert N. Wiedenmann, Center for Economic Entomology, Illinois Natural History Survey, Champaign, IL 61820

2:20 165 Beauveria bassiana, an endophyte of corn, Zea mays.
Leslie C. Lewis, USDA-ARS, Iowa State University, Ames, IA 50011

2:40 166 The impact of rootworm-resistant maize on the abundance of selected non-target insects in Nebraska.
Pete L. Clark, Department of Entomology, 13 Plant Industry Building, University of Nebraska - Lincoln, Lincoln, NE 68583

3:00 BREAK

3:20 167 Biological control in interior plantscapes: does plant size affect natural enemy success?
Raymond A. Cloyd, 384 National Soybean Research Laboratory, 1101 West Peabody Drive, University of Illinois, Urbana, IL 61801

3:40 168 Out of sight, out of mind: Anagrus, potato leafhopper, and glandular trichomes.
William O. Lamp, Aaron Lovinger and David Liewehr, Department of Entomology, 4112 Plant Sciences Bldg, University of Maryland, College Park, MD 20742

4:00 169 Interactions between natural enemies and transgenic insecticidal crops.
John J. Obrycki, Department of Entomology, Iowa State University, Ames, IA 50011; and John R. Ruberson, Department of Entomology, University of Georgia, Tifton, GA 31794

4:20 170 Can we manipulate pest-induced plant volatiles to enhance biological control?
David C. Margolies, Department of Entomology, Waters Hall, Kansas State University, Manhattan, KS 66506-4004

4:40 171 Discussion and wrap-up.
Bob Ellingson, Department of Entomology, University of Wisconsin, Madison WI 53706
March 25, 2003  
Tuesday Afternoon

Joint ESA-ASA Symposium  
Areawide Management of Corn Rootworm  
1:15 – 5:00 pm  
Capitol Ballroom

Organizers and Moderators:  
Gerald Wilde  
Department of Entomology  
Kansas State University  
Manhattan, KS 66056

Andy Seibert  
John Deere Seeding Group  
Moline, IL

1:15  172  Introduction.  
G. Wilde, Department of Entomology,  
Kansas State University, Manhattan, KS 66056

1:20  173  Corn rootworm areawide management: what was the real impact of the program?  
Laurence D. Chandler, USDA-ARS, Red River Valley Agricultural Research Center,  
Fargo, ND 58105

1:40  174  Corn rootworm area-wide management: an experiment in how to do a program in a different way.  
Eldon E. Ortman, Department of Entomology, Purdue University, West Lafayette, IN 47907

2:00  175  Deliverable products from the Iowa area-wide corn rootworm management project.  
Jon Tollefson and Ed Berry, Department of Entomology, Iowa State University, Ames, IA 50011

2:20  176  Corn rootworm areawide management using semiochemical bait insecticides in Kansas: what we learned.  
Gerald E. Wilde and Jeff Whitworth, Department of Entomology, 123 West Waters Hall, Kansas State University,  
Manhattan, KS 66502; Phil Sloderbeck, 4500 E. Mary, Bldg 924, Kansas State University Extension, Garden City, KS 67846; and Randall A. Higgins, Department of Entomology, 123 West Waters Hall, Kansas State University, Manhattan, KS
2:40 177 Managing the western corn rootworm variant in the eastern corn belt: an economic assessment of areawide pest management. Amelia A. West and Marshall A. Martin, 403 W State St, Purdue University, West Lafayette, IN 47906

3:00 BREAK

3:20 178 Adult movement within an areawide site. Bryan W. French, 2923 Medary Ave., USDA-ARS, NGIRL, Brookings, SD 57006

3:40 179 Area-wide management using semiochemical baits: effects on non-target organisms. Corey Gerber, C. R. Edwards and Larry Bledsoe, Purdue University, Department of Entomology, West Lafayette, IN, 47907; and Michael E. Gray and Kevin L. Steffey, University of Illinois, Department of Crop Sciences, Urbana, IL 61801

4:00 180 Potential resistance issues related to corn rootworm areawide management. Lance J. Meinke and Srinivas Parimi, Department of Entomology, University of Nebraska, Lincoln, NE 68583; Michael E. Scharf, Department of Entomology, Purdue University, West Lafayette, IN 47907; Laurence D. Chandler, Red River Valley Experiment Station, USDA-ARS, Fargo, ND 58105; and Blair D. Siegfried, Department of Entomology, University of Nebraska, Lincoln, NE 68583

4:20 181 Understanding and managing the rotation-resistant western corn rootworm: simulated analysis. David W. Crowder, David W. Onstad and Charles Guse, 1201 S. Dorner Dr., University of Illinois, Urbana, IL 61801; and Paul Mitchell, Texas A&M University, College Station, TX 77843

4:40 Discussion and Wrap-up
March 25, 2003
Tuesday Afternoon

Joint ESA-ASA Symposium
Arthropods as Vectors of Plant Diseases
1:15 – 5:00 pm

Organizers and Moderators:
David J. Voegtlin
Center for Economic Entomology
Illinois Natural History Survey
Champaign, IL, 61820

Joseph G. Lauer
Department of Entomology
University of Wisconsin
Madison, WI 53706

1:15  182  Introduction.
David J. Voegtlin, 607 E. Peabody, Illinois
Natural History Survey, Champaign, IL
61820

1:20  183  Bug spit: the ideal way to get around.
Stewart M. Gray, USDA-ARS, Dept. of
Plant Pathology, 334 Plant Science, Cornell
University, Ithaca, NY 14853

2:00  184  Thrips as vectors of tospoviruses.
Thomas L. German and Anna Whitfield,
1630 Linden Drive, Department of
Entomology, University of Wisconsin,
Madison, WI, 53706

2:20  185  Predicting the risk of current season spread
of the aphid-transmitted viruses, potato
leafroll virus and potato virus Y, in seed
potatoes.
Edward B. Radcliffe, Robert A. Suranyi
and David W. Ragsdale, 219 Hodson Hall,
1980 Folwell Ave., University of Minnesota,
St. Paul, MN, 55108

2:40  186  Migration, local dispersal and colonization
behavior of green peach aphid, Myzus
persicae.
Matthew W. Carroll, Min Zhu, Edward B.
Radcliffe, Ian V. MacRae, David W. Ragsdale and Robert A. Suranyi, 219 Hodson Hall, 1980 Folwell Ave., University of Minnesota, St. Paul, MN, 55108

3:00 BREAK

3:20 187 Control of bean pod mottle virus through vector management.

John H. Hill, Department of Plant Pathology, Iowa State University, Ames, IA 50011; Rayda Krell, Department of Entomology, University of California, Riverside, CA; Marlin Rice and Larry Pedigo, Department of Entomology, Iowa State University, Ames, IA 50011

3:40 188 Transmission of CMV to snap beans by soybean aphid.

Jeffrey A. Wyman, Dept. of Entomology, Univ. of Wisconsin, Madison, WI 53706

4:00 189 Leafhoppers as vectors of mollicutes.

Saskia A. Hogenhout, 1680 Madison Avenue, Ohio State University-OARDC, Wooster, OH 44691


David J. Voegtlin, 607 E. Peabody, Illinois Natural History Survey, Champaign, IL 61820

4:40 191 Aster leafhopper transmission of aster yellows phytoplasm to wheat.

Ian V. MacRae, Department of Entomology, University of Minnesota, St. Paul, MN 55108; and Charla Hollingsworth, Department of Plant Pathology, University of Minnesota, St Paul, MN 55108

4:50 192 Discussion and wrap-up.

David J. Voegtlin, 607 E. Peabody, Illinois Natural History Survey, Champaign, IL 61820

March 25, 2003
Tuesday Afternoon
6:00 – 8:00 pm.
ESA-NCB Executive Committee Meeting
Conference Room II

March 25, 2003
Tuesday Evening
6:00 – 8:00 pm.
Madison/Wisconsin Ballroom

Joint ESA-ASA Mixer
Linnaean Games Champion vs. Old Masters
Capitol Ballroom
Moderator:
Marlin Rice, Gamesmaster
Iowa State University

ESA Student Award Ceremony
Capitol Ballroom
Moderator:
Billy W. Fuller, Chair
South Dakota State University
March 26, 2003
Wednesday Morning
7:30 – 9:30 am
Continental Breakfast

March 26, 2003
Wednesday Morning
8:00 – 9:00 am
Capitol Ballroom

Final ESA Business Meeting
Mike Gray
ESA-NCB President

Wednesday Morning
8:00 – 9:00 am
Wisconsin Ballroom

Final ASA Business Meeting
Joe Lauer
ASA-NCB President

March 26, 2003
Wednesday Morning

Joint ESA-ASA Symposium
Transgenic Corn Product Stewardship: Pathways to Compliance
9:25 am – 12:00 pm
Capitol Ballroom
Organizers and Moderators:
Von J. Kaster
Garst Seed Co.
Slater, IA 50224

Clinton D. Pilcher
Corn States Hybrid Service L.L.C.
Des Moines, IA 50321

Andrew Seibert
John Deere Seeding Group
Moline, IL

March 26, 2003
Wednesday Morning
Joint ESA-ASA Symposium
Emerging Issues in Crop Pest Management
9:25 am – 12:00 pm
Wisconsin Ballroom

Organizers and Moderators:
John Sawyer
Department of Agronomy
Iowa State University
Ames, IA 50011

Robert N. Wiedenmann
Center for Economic Entomology
Illinois Natural History Survey
Champaign, IL 61820

9:25 200 Introduction.
John Sawyer, Department of Agronomy,
Iowa State University, Ames, IA 50011

9:30 201 Risk assessment and plant-based pharmaceuticals.
Robert K. Peterson, 333 Leon Johnson Hall, Montana State University, Bozeman, MT 59717

9:55 202 Considerations of in-season sensing corn for nitrogen management.
Dennis Francis, Department of Agronomy,
University of Nebraska, Lincoln, NE 68583

Michael Ellsbury, 2923 Medary Avenue, USDA Agricultural Research Service, Brookings, SD 57006

10:45 204 Genetically modified crop and weed management issues.
Micheal D. Owen, 2104 Agronomy Hall, Iowa State University, Ames, IA 50011

11:10 205 Insect resistance management for transgenic corn hybrids: lessons learned and future options.
Richard L. Hellmich, Genetics Laboratory c/o Insectary, Iowa State University, USDA-ARS Corn Insects & Crop Genetics Research Unit, Ames, IA 50011

11:35 206 Discussion and wrap-up.
John Sawyer, Department of Agronomy,
Iowa State University, Ames, IA 50011