

# 2024 SOYBEAN BREEDERS' WORKSHOP

## ENTOMOLOGY AND BREEDING INNOVATION

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**February 12-14, 2024**

Sheraton Westport Chalet Hotel, 191 Westport Plaza Dr., St. Louis, MO

### Registration

Monday, Feb 12      10:30 a.m. – 5:00 p.m.

Tuesday, Feb 13      7:00 a.m. – 5:00 p.m.

### Monday, February 12, 2024 | Room: Versailles 1

- 1:00 pm**      Welcome and opening remarks: Brittney Jones, Bayer Crop Science, and Aaron Lorenz, University of Minnesota
- 1:10 pm**      **Keynote speech:** Michael Smith, University Distinguished Professor Emeritus, Kansas State University, "A century of insect resistant soybeans: Bussin' or busted?"

### SESSION 1: Market needs and research opportunities | Chair: Aaron Lorenz, University of Minnesota

- 1:40 pm**      Tom Slunecka, CEO, AG Management Solutions, "Inspiring innovation: Ag Innovation Campus provides bridge to success"
- 2:10 pm**      Donnell Rehagen, CEO, Clean Fuels Alliance America, "Accelerating to New Heights - The expanding role soybean oil plays in the major growth of clean fuels production"
- 2:40 pm**      Lisa Weaver, Research Director, SmithBucklin, "USB Updates"

2:50 pm Coffee Break-Foyer

## **SESSION 2: Breeding Innovation | Chair: Aaron Lorenz, University of Minnesota**

- 3:20 pm** Diego Jarquin, Assistant Professor, Univ. of Florida, “Sparse testing designs at the industrial level: An application in soybeans”
- 3:50 pm** Lucia Gutierrez, Associate Professor, Univ. of Wisconsin, “Optimizing resources for genotypic evaluation: Sparse testing for genotype-by-environment interaction modeling”
- 4:20 pm** Scott Jackson, North America Varietal Breeding Lead, Bayer Crop Science, “Genomics and breeding at scale”
- 4:50 pm** Housekeeping announcements
- 5:00-6:30 pm** Graduate Student and Postdoc Professional Development Event

**Tuesday, February 13, 2024 | Room: Versailles 1**

7:00 am Breakfast, Foyer

## **SESSION 3: Updates in Soybean Entomology | Chair: Robert Koch, Univ. of Minnesota**

- 8:00 am** Robert Koch, Professor, Univ. of Minnesota, Introduction
- 8:05 am** Justin McMechan, Assistant Professor, Univ. of Nebraska, “Soybean gall midge: Understanding a new and emerging pest of soybean in the Midwest”
- 8:30 am** Robert Koch, Professor, Univ. of Minnesota, “Biology and management of the soybean tentiform leafminer, a new pest of soybean”

- 8:55 am** Jeff Davis, Professor, Louisiana State University, "Biology and management of stink bugs in soybean"
- 9:20 am** Silvana Paula-Moraes, Associate Professor, Univ. of Florida, "Biology and management of caterpillar pests of soybean"
- 9:45 am** Coffee Break-Foyer
- 10:10 am** Maria Cramer, Graduate Research Assistant, Univ. of Maryland, "Slugs as pests and prey: Growing practices that impact slugs in soybeans"
- 10:35 am** Raul Villanueva, Assistant Professor, Univ. of Kentucky, "Comprehensive review of the management of *Dectes texanus* in soybeans"
- 11:00 am** Ivair Valmorbidia, Assistant Professor, Univ. of Missouri, "Soybean aphid management: Is it becoming more complicated?"
- 11:25 am** Lunch, On your own

#### **SESSION 4: Genetics of host plant resistance | Chair: Jaimie O'Rourke, USDA-ARS (Iowa State)**

- 1:00 pm** Wayne Parrot, Professor, Univ. of Georgia, "Identifying resistance QTL"
- 1:25 pm** Dave Hyten, Associate Professor, Univ. of Nebraska, "Stemborer resistance"
- 1:50 pm** Jeff Davis, Professor, Louisiana State University, "Host plant resistance to a complex of stink bugs: Protecting yield and quality in southern soybean"
- 2:15 pm** Gustavo MacIntosh, Professor, Iowa State University, "Understanding the molecular mechanisms of plant defense suppression deployed by soybean aphids"
- 2:40 pm** Coffee Break-Foyer

## **SESSION 5: Breeding for host plant resistance | Chair: Ben Fallen, USDA-ARS (NC State)**

- 3:05 pm** George Graef, Professor, Univ. of Nebraska, “Genetics of soybean host plant reaction to soybean gall midge infestation”
- 3:30 pm** Zenglu Li, Professor, Univ. of Georgia, “Breeding for insect resistance in soybean”
- 3:55 pm** Molly Ryan, Title, Corteva, “Corteva insect native traits”
- 4:20-6:00 pm** Poster Session & Social Hour | Foyer & Versailles II

**Wednesday, February 14, 2024 | Room: Versailles 1**

- 7:00 am** Breakfast, Foyer

## **SESSION 6: Reports and Announcements | Chair: Aaron Lorenz, University of Minnesota**

- 8:00 am** Cleiton Wartha, Corteva, Announcement of poster winners
- 8:10 am** Jamie O’Rourke, USDA-ARS, Soybean Genomics Executive Committee Report
- 8:25 am** Elroy Cober, AAFC, Soybean Genetics Committee Report and SoyBase.org update
- 8:40 am** Ben Fallen, USDA-ARS, Soybean Germplasm Committee Report
- 8:55 am** From the floor: Recognitions, retirements, and announcements

## **SESSION 7: Lightning presentations | Chair: Aaron Lorenz, University of Minnesota**

- 9:00 am** Volunteered lightning presentations
- ~10:30 am** Adjourn

# Special Meetings

**Monday, February 12, 2024**

<b>Date &amp; Time</b>	<b>Meeting</b>	<b>Contact person</b>	<b>Room</b>
8:00 am - 12:00 pm	Genomic prediction of GxE workshop	Aaron Lorenz	St. Moritz-Bern Separate pre-registration required
8:30 am - 10:00 am	Soybean Germplasm Committee Meeting	Ben Fallen	Alpine I
9:00 am - 10:30 am	SoyBase Workshop Meeting	Rex Nelson	Alpine II
10:00 am - 12:00 pm	Soybean Genomics Executive Committee Meeting	Jamie O'Rourke	Alpine I
1:00 pm - 5:00 pm	Technicians' Workshop	Brian Little & Benjamin Bartlett	St. Moritz
7:00 pm - 8:00 pm	Soybean Genetics Committee	Elroy Cober	Alpine II

## Tuesday, February 13, 2024

<b>Date &amp; Time</b>	<b>Meeting</b>	<b>Contact person</b>	<b>Room</b>
8:00 am - 12:00 pm	Technicians' Workshop	Brian Little & Benjamin Bartlett	St. Moritz
7:00 pm - 7:30 pm	Uniform Regional Testing North	Adam Brock	Alpine II
7:00 pm - 8:00 pm	Uniform Regional Testing South	Anne Gillen	Alpine I
7:30 pm - 8:00 pm	SCN Regional Testing	Troy Cary / Adam Brock	Alpine II

## Wednesday, February 14, 2024

<b>Date &amp; Time</b>	<b>Meeting</b>	<b>Contact person</b>	<b>Room</b>
12:00 pm - 4:00 pm	Missouri Soybean Merchandising Council	Bryan Stobaugh	Alpine I Invite only
10:30 pm - 12:00 pm	Soybean Breeders' Workshop Planning Committee	Brittney Jones	St. Moritz- Bern