
2025 Meeting

**WESTERN
SOCIETY
OF
WEED SCIENCE**

March 10 - 13, 2025

**The Westin Seattle
Seattle, Washington**



WESTERN SOCIETY OF WEED SCIENCE
OFFICERS AND BOARD OF DIRECTORS
2024-2025

PRESIDENT: Tim Prather

University of Idaho
tprather@uidaho.edu

PRESIDENT-ELECT: Carl Coburn

Bayer Crop Science
carl.coburn@bayer.com

SECRETARY: Brad Hanson

University of California Davis
bhanson@ucdavis.edu

CHAIR, RESEARCH SECTION: Dirk Baker

Campbell Scientific
dbaker@campbellsci.com

CHAIR, EDUCATION AND REGULATORY: Albert Adjesiwor

University of Idaho
aadjesiwor@uidaho.edu

WSSA REPRESENTATIVE: Alan Helm

Gowan Inc.
AHelm@gowanco.com

IMMEDIATE PAST PRESIDENT: Curtis Rainbolt

BASF Corporation
Curtis.rainbolt@basf.com

MEMBER-AT-LARGE PUBLIC SECTOR: Erik Lehnhoff

New Mexico State University
lehnhoff@nmsu.edu

MEMBER-AT-LARGE PRIVATE SECTOR: Derek Sebastian

Envu
Derek.sebastian@envu.com

TREASURER: Ryan Rapp

Bayer Crop Science.
Ryan.rapp@bayer.com

BUSINESS MANAGER: Eric Gustafson

WSWS
info@wsweedscience.org

CHAIR-ELECT RESEARCH SECTION: Beth Fowers

University of Wyoming
bfowers@uwyo.edu

CHAIR-ELECT EDUCATION & REGULATORY: Lovreet Shergill

Colorado State University
lovreet.shergill@colostate.edu

CAST REPRESENTATIVE: Gregory Dahl

Ret.
Gkdahl19@gmail.com

REPRESENTATIVE FOR CONSTITUTION AND OPERATING PROCEDURES: Sandra McDonald

Mountain West Pesticide Education & Safety Training
sandra@mountainwestpest.com

STUDENT LIASONS:

McKenzie Barth (Chair)
University of Wyoming
mbarth3@uwyo.edu

Wes Maughan
Washington State University
peter.maughan@wsu.edu



Welcome to Seattle!

Welcome to the 2025 annual WSWS meeting. The Program Committee and Local Arrangements Committee have worked to arrange what should be a great meeting. We hope you enjoy the meeting, and encourage you to catch up with old friends, make new friends, and come away with renewed energy and new ideas.

**LOCAL ARRANGEMENTS COMMITTEE
MEMBERS**

Rui Liu, Chair

PROGRAM COMMITTEE MEMBERS

**Carl Coburn, Chair
Dirk Baker
Albert Adjesiwor**



Student
Contest



Meal



Break



Reception

WSWS 2025 PROGRAM AT A GLANCE

Tuesday, March 11



Poster Session 7:45 – 9:15 am

Authors of Odd Numbered Posters Present Elliott Bay

General Session 9:30 – 11:00 am Cascade Ballroom

Diversity and Inclusion Committee Social Hour 11:15am-noon Pine

Student Luncheon 12:00 – 1:15 pm Puget Sound

Puget Sound	Pine	Pike	Mercer
Poster Room Open 7:30 am to 5:00 pm	Weeds of Agronomic Crops 1:30 pm to 5:00 pm	Weeds of Range, Forestry, and Natural Areas 1:30 pm to 5:00 pm	Basic Biology, Ecology, and Technology 1:30 pm to 3:00 pm
		Denny	Mercer
		Teaching and Outreach 3:30 pm to 4:30 pm	Weeds of Horticultural Crops 3:30 pm to 5:00 pm



BREAK – 3:00 pm to 3:30 pm Westlake Foyer



Student Reception 5:00 – 6:30 pm Puget Sound

Wednesday, March 12



Poster Session 7:45 - 9:15 am

Authors of Even Numbered Posters Present Elliott Bay

Puget Sound	Pine	Pike	Mercer	Denny
Poster Room Open 7:30 am to 5:00 pm	Weeds of Agronomic Crops 9:30 am to 11:30 am	Weeds of Range, Forestry and Natural Areas 9:30 am to 11:00 am	Basic Biology, Ecology, and Technology 9:30 am to 10:45 am	Weeds of Horticultural Crops 9:30 am to 11:30 am

WSWS Awards Luncheon 11:45 am - 1:30 pm

Cascade Ballroom

Pine	Pike	Denny	Mercer	Pike
Weeds of Agronomic Crops 1:30 pm to 3:00 pm	Weeds of Range, Forestry, and Natural Areas Discussion Session 1:35 pm to 2:20 pm	Basic Biology, Ecology, and Technology Discussion Session 1:45 pm to 2:30 pm	Weeds of Horticultural Crops Discussion Session 1:45 pm to 2:30 pm	Symposium: Innovative Approaches for Weed Science Education and Communication 2:30 pm to 5:00 pm

What's New in Industry? 5:00 pm - 6:00 pm Cascade Ballroom

Student Night Out 6:15 pm

Thursday, March 13



WSWS Business Meeting Breakfast and Student Awards

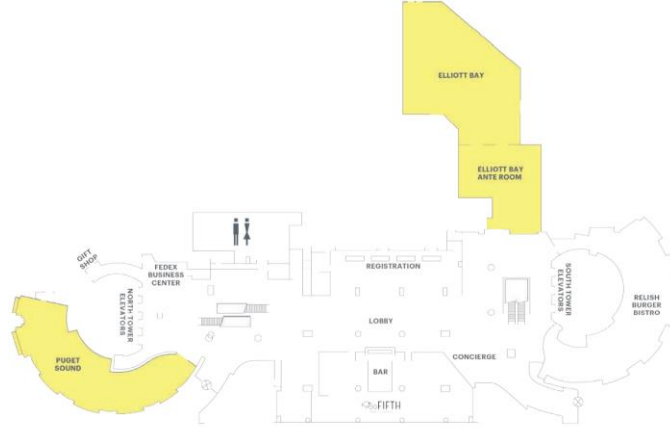
6:30 - 9:00 am Cascade Ballroom

Pine	Pine	Pike
Weeds of Agronomic Crops 9:15 am to 10:45 am	Weeds of Agronomic Crops Discussion Session 10:45 am to 11:30 am	Teaching and Outreach Discussion Session 9:15 am to 10:00 am

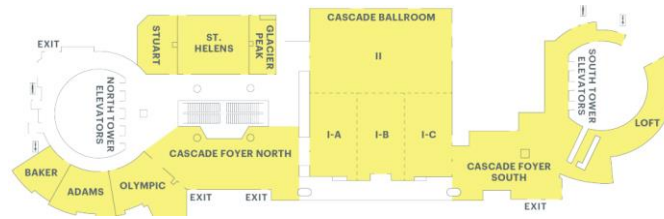
The Westin Seattle
1900 5th Avenue
Seattle, Washington, USA, 98101
206-728-1000

Floor Plan

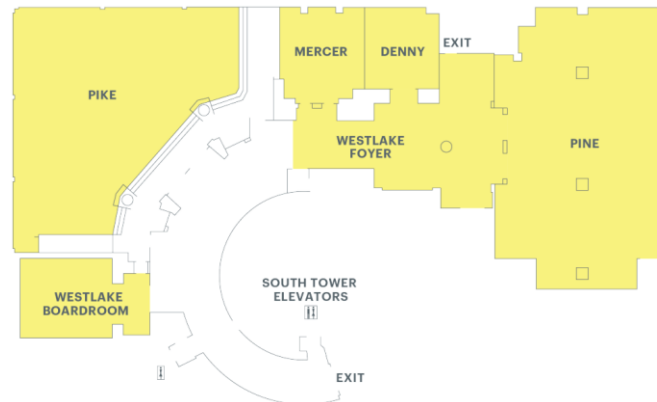
Lobby Level



Mezzanine Level



Westlake Level (Lower Level)






WSWS SPECIAL EVENTS – MONDAY MARCH 10

10:00 am to 2:00 pm	Board of Directors Meeting Puget Sound
3:00 pm to 5:00 pm	WERA-77 Meeting Mercer
4:00 pm to 6:00 pm	Registration Cascade Foyer South
5:00 pm to 11:00 pm	Poster Display Set-Up Elliott Bay
5:00 pm to 11:00 pm	Sustaining Members Displays Cascade Foyer South
5:00 pm to 11:00 pm	Presentation Practice Room St Helens
6:00 pm to 8:00 pm	WSWS Members Welcome Reception Cascade Ballroom <i>Y Sponsored by NuFarm</i>

WSWS SPECIAL EVENTS – TUESDAY MARCH 11

7:00 am to 4:00 pm	Registration Cascade Foyer South
7:30 am to 5:00 pm	Poster Displays Elliott Bay
7:30 am to 5:00 pm	Sustaining Members Displays Cascade Foyer South
7:45 am to 9:15 am	Poster Session – Authors of Odd Numbered Posters Present Puget Sound <i>■ Sponsored by Washington State University Weed Science</i>
9:30 am to 11:00 pm	Presentation Practice Room St Helens
9:30 am to 11:00 am	General Session Cascade Ballroom
11:15 am to Noon	Diversity and Inclusion Committee Social Hour Pine <i>■ Sponsored by Sandra McDonald</i>
Noon to 1:15 pm	Student Luncheon Puget Sound <i>Sponsored by Bayer Crop Science</i>
3:00 pm to 3:30 pm	<i>■ Break - Sponsored by Miller Research, Rohlf's and Adkins Research, Pratum Research, GDM Solutions, VARCO, Azlin Seed Service</i>
5:00 pm to 6:30 pm	Student Reception

WSWS SPECIAL EVENTS – WEDNESDAY MARCH 12

7:00 am to 4:00 pm	Registration Cascade Foyer South
7:00am to 11:00 pm	Presentation Practice Room St Helens
7:00 am to 8:00 am	WSWS New Officer Orientation – Eric Gustafson, WSWS- Business Manager Westlake Boardroom
7:30 am to 5:00 pm	Sustaining Members Displays Remove Between 5 and 7 pm Cascade Foyer South
7:45 am to 9:15 am	Poster Session – Authors of Even Numbered Posters Present Elliott Bay  <i>Sponsored by Gowan Company</i>
9:30 am to 5:00 pm	Poster Displays Remove Posters by 5:00 pm Elliott Bay
11:45 am to 1:30 pm	Awards Luncheon Cascade Ballroom  <i>Sponsored By Jemmett, UPL,</i> <i>Corteva Agriscience, R&D</i> <i>Sprayers, The Amalgamated Sugar</i> <i>Company</i>
2:30 pm to 5:00 pm	Symposium – Innovative Approaches for Weed Science Education and Communication Pike  <i>Sponsored by Hubbard Ag</i> <i>Sciences</i>
5:00 pm to 6:00 pm	What's New in Industry? Cascade Ballroom
6:15 pm	Student Night Out

WSWS SPECIAL EVENTS – THURSDAY MARCH 13

6:30 am to 9:00 am	WSWS Business Breakfast Cascade Ballroom  <i>Sponsored by BASF, Corteva</i> <i>Agriscience</i>
8:00 am to 10:00 am	Registration Cascade Foyer South
12:00 pm to 2:00 pm	Board of Directors Meeting

Puget Sound

PROGRAM

MONDAY AFTERNOON MARCH 10

WSWS Board of Directors Meeting

LOCATION: Puget Sound
TIME: 10:00 AM - 2:00 PM PT
CHAIR: Tim Prather
University of Idaho
Moscow, ID

MONDAY AFTERNOON MARCH 10

WERA-77 Meeting

LOCATION: Mercer
TIME: 3:00 PM - 5:00 PM PT

MONDAY AFTERNOON MARCH 10

Registration

LOCATION: Cascade Foyer South
TIME: 4:00 PM - 6:00 PM PT

MONDAY AFTERNOON MARCH 10

Poster Display Set Up

LOCATION: Elliott Bay
TIME: 5:00 PM - 11:00 PM PT

MONDAY AFTERNOON MARCH 10

WSWS Members Welcome Reception

LOCATION: Cascade Ballroom
TIME: 6:00 PM - 8:00 PM PT
CHAIR: Tim Prather
University of Idaho
Moscow, ID


TUESDAY MORNING MARCH 11

Registration

LOCATION: Cascade Foyer South
TIME: 7:00 AM - 4:00 PM PT

*POSTER SESSION: March 11, Odd Numbers
March 12, Even Numbers*

LOCATION: Elliott Bay
TIME: 7:45 AM - 9:15 AM

 *Sponsored by Washington State
University Weed Science (March 11) and
Gowan Company (March 12)*

POSTER – Weeds of Agronomic Crops

*PRESENTER † STUDENT CONTEST

**Weed Seedbank Management in Cereal Crop
Rotations.**

Chandra Montgomery, Albert Adjesiwor*; University of
Idaho, Kimberly, ID (1)

**†Herbicide Mixtures for Horsetail Control: Evaluating
Tolpyralate, Tiafenacil, Flazasulfuron, and
Florpyrauxifen-benzyl.**

Davi de Carvalho Fiedler*, Marcelo Moretti; Oregon State
University, Corvallis, OR (2)

**Herbicide Resistant Wild Oat (*Avena fatua*) Survey in
Northern Idaho and Eastern Washington.**

Traci Rauch*, Joan Campbell, Albert Adjesiwor; University
of Idaho, Moscow, ID (3)

A New Method for Analyzing Replacement Series Competition Studies.

Erik Lehnhoff*, Ciro Velasco-Cruz; New Mexico State University, Las Cruces, NM (4)

†Volunteer Winter Wheat as a Cover Crop for Weed Suppression in Sugar Beet.

Adam Kennedy*, Albert Adjesiwor; University of Idaho, Kimberly, ID (5)

†Herbicide Strategies to Control Waterhemp (Amaranthus tuberculatus) in Wheat.

Ethan Mewes*, Kirk Howatt; North Dakota State University, Fargo, ND (6)

Palmer Amaranth in the Pacific Northwest: Glyphosate Resistance Confirmation and Response to Selected Herbicides.

Laura Rodriguez*¹, Joel Felix², Clarke Alder³, Pamela Hutchinson⁴, Rui Liu⁵, Olivia Landau⁶, Albert Adjesiwor⁷; ¹University of Idaho, Moscow, ID. ²Oregon State University, Ontario, OR. ³Amalgamated Sugar, Boise, ID. ⁴University of Idaho, Aberdeen, ID. ⁵Washington State University, Prosser, WA. ⁶USDA Wheat Health, Genetics, and Quality Research Unit, Pullman, WA. ⁷University of Idaho, Kimberly, ID (7)

Effect of Soil Active Herbicides on the Critical Time of Weed Removal in Establishment Alfalfa.

Kaitlyn Hoberg*, Clint Beiermann. University of Wyoming, Laramie, WY (8)

Adjuvant Effects on Canola Desiccation with Diquat.

Jim Daniel*¹, Kirk Howatt², Joseph Mettler². ¹Daniel Ag Consulting, Keenesburg, CO. ²North Dakota State University, Fargo, ND (9)

Chemical Control of Panicle Willowweed (Epilobium brachycarpum) in Wheat Cropping Systems of the Pacific Northwest.

Jennifer Gourlie*, Judit Barroso. Oregon State University, Adams, OR (10)

Comparing Paraquat and Alternative Herbicides for Spring Weed Control in Established Alfalfa.

Sushmita Sharma*¹, Chandra Montgomery¹, McKenna Carnahan², Earl Creech¹, James Gomm¹, Albert Adjesiwor³; ¹University of Idaho, Moscow, ID. ²Utah State University, Logan, UT. ³University of Idaho, Kimberly, ID (11)

†Pre-Emergence Herbicide Activity on Volunteer Barley in Spring Wheat.

Jace Heiman*, Kirk Howatt, Joseph Mettler; North Dakota State University, Fargo, ND (12)

†Assessing Kochia (Bassia scoparia) Populations for Resistance to PPO-Inhibitors and Auxin-Mimic Herbicides in Northeast Montana.

Devanshi Het Desai*¹, Het Samir Desai¹, Lovreet Shergill², Tim Seipel¹; ¹Montana State University, Bozeman, MT. ²Colorado State University, Fort Collins, CO (13)

Lewis Flax (Linum lewisii) Injury Response from Grass and Broadleaf Herbicides.

Greta Gramig*¹, Brent Hulke², Waqas Ahmad¹; North Dakota State University, Fargo, ND. ²USDA-ARS, Fargo, ND (14)

Weed Management Options in Lupin in the Canadian Prairies.

Breanne Tidemann*¹, Robyne Davidson², Shaun Sharpe³; ¹Agriculture and Agri-Food Canada, Lacombe, AB. ²Lakeland College, Lacombe AB. Agriculture and Agri-Food Canada. Saskatoon, SK (15)

Identification of Orobanche Minor Parasitism Using Hyperspectral Remote Sensing in Red Clover Seed Production in the Willamette Valley, OR.

Iram Mujahid Iqbal*, Jing Zhou, Carol Mallory-Smith, Pete Berry; Oregon State University, Corvallis, OR (16)

†Inter-Row Electrocuting Improves Glyphosate-Resistant Kochia (Bassia scoparia) Control.

Waqas Ahmad*, Greta Gramig; North Dakota State University, Fargo, ND (17)

Timing of application and rate influence response of Rydri[®] MZ winter wheat to metribuzin.

Jessica Kalin*, Ian Burke; Washington State University, Pullman, WA (18)

†Spot Spraying Between Crop Rows to Minimize Application Volume and Maximize Herbicide Efficacy.

Prayusha Bhattarai*, Andy Branka, Pete Berry; Oregon State University, Corvallis, OR (19)

†Evaluating the Prevalence of Herbicide Resistance of Most Troublesome Grass Weeds in Oklahoma Wheat Fields.

Amna Dar*, Liberty Galvin, Swati Shrestha; Oklahoma State University, Stillwater OK (20)

†Effect of Deficit Irrigation on Herbicide Activity in Cotton Production System.

Jasleen Makkar*, Rupinder Saini, Sukhbir Singh, Lindsey Slaughter, Glen Ritchie; Texas Tech University, Lubbock, TX (21)

†Establishing the Maximum Control Height of Common Lambsquarters (*Chenopodium album*) in Glufosinate, Glyphosate, and Dicamba-Resistant Sugarbeet in the Western United States.

Abraham Akuoko*¹, Albert Adjesiwor², Joel Felix³, Andrew Kniss⁴, Nevin Lawrence¹; ¹University of Nebraska Lincoln, Lincoln, NE. ²University of Idaho, Kimberly, ID. ³Oregon State University, Ontario, OR. ⁴University of Wyoming, Laramie, WY (22)

First Report of Quizalofop-P Resistance in Cheatgrass (*Bromus tectorum*) in Washington.

Marija Savic*¹, Samuel Revolinski¹, Ian Burke²; ¹University of Kentucky, Lexington, KY. ²Washington State University, Pullman, WA (23)

Interseeding Annual and Perennial Forage Species with Corn.

Michael Atiemo*, Jenna Meeks, Andrew Kniss; University of Wyoming, Laramie, WY (24)

Dry Edible Bean Response to Metamitron Soil Residue.

Jenna Meeks*, Andrew Kniss; University of Wyoming, Laramie, WY (25)

Kochia (*Bassia scoparia*) Management with Dichlorprop-p Based Herbicide Mixtures in Fallow and Small Grains.

Daniel Beran*, Joe Vassios; Nufarm Americas, Inc. Eldora, IA (26)

Status of Kochia (*Bassia scoparia*) Herbicide Resistance in Utah.

Olanrewaju Adeyemi*, Eric Westra, Corey Ransom, Earl Creech, Mirella Ortiz; Utah State University, Logan, UT (27)

†Stale Seedbed for Weed Management in Sugar Beet.

Newman Teye-Doku*¹, Nevin Lawrence², Jenna Meeks¹, Ramawatar Yadav³, Andrew Kniss¹; ¹University of Wyoming, Laramie, WY. ²University of Nebraska, Lincoln, NE. ³Ohio State University, Columbus, OH (28)

Alberta Survey of Herbicide-Resistant Weeds in 2023.

Charles Geddes*¹, Mattea Pittman¹, Breanne Tidemann², Julia Leeson³; ¹Agriculture and Agri-Food Canada, Lethbridge, AB. ²Agriculture and Agri-Food Canada, Lacombe, AB. ³Agriculture and Agri-Food Canada, Saskatoon, SK (29)

Extent of Residual Activity of the HPPD Inhibiting Herbicides Bicyclopyrone, Pyrasulfotole, and Tolpyralate.

Jessica Kalin*, P Weston Maughan, Marija Savic, Ian Burke; Washington State University, Pullman, WA (30)

†Palmer amaranth Survey Reveals Widespread of Glyphosate Resistance in Colorado.

Lucas Soares Rosa*, Andre Araujo, Amber Pelon, Todd Gaines; Colorado State University, Fort Collins, CO (31)

†Potential of a Soil and Some Plant Adjuvants on the Efficacy of Pre- and Post-emergence Herbicides.

Bianey Medina*, Anil Shrestha; California State University, Fresno, CA (32)

Evaluation of Fall- and Spring-Applied Herbicides for Weed Control in Field Pea.

Caleb Dalley*, Daniel Guimaraes Abe; North Dakota State University, Hettinger, ND (33)

Agronomic and Economic Impacts of Integrating Fall-planted Cereal Cover Crops and Herbicides for Weed Control in Dry Beans.

Prayusha Bhattarai*¹, Albert Adjesiwor²; ¹Oregon State University, Corvallis, OR. ²University of Idaho, Kimberly, ID (34)

Evaluating the Impact of Seeding Rate, Nitrogen, and Disease Pressure on Bromus tectorum (cheatgrass; downy brome) and Winter Wheat Competition.

Laura Berrios*¹, Lovreet Shergill², Alan Dyer¹, Fabian Menalled¹; ¹Montana State University, Bozeman, MT. ²Colorado State University, Fort Collins, CO. (35)

Balancing Spray Deposition and Weed control Among Glufosinate Formulations.

Jeff Golus*, Adam Balic, Laura de Souza Viera, Vuk Stamenovic, Kasey Schroeder, Milos Zaric; University of Nebraska- Lincoln, North Platte, NE (36)

Regrowth Potential of Palmer Amaranth, Kochia, and Common Lambsquarters in Response to Glufosinate and Acifluorfen Applications.

Kasey Schroeder*, Jeffrey Golus, Milos Zaric; University of Nebraska-Lincoln, North Platte, NE (37)

POSTER - Basic Biology, Ecology, and Technology

†Germination Moisture and Temperature Requirements of Italian Ryegrass.

Chandra Montgomery*, Albert Adjesiwor, Traci Rauch, Joan Campbell; University of Idaho, Moscow, ID (38)

Survey of Poa annua herbicide resistance in the Willamette Valley of Oregon.

Joshua Miranda*, Marcelo Moretti; Oregon State University, Corvallis, OR (39)

†Development of A Rapid Throughput Screen Bioassay for Quizalofop Tolerance to Experimental CoAxium Wheat Seed Lines.

Amber Pelon*, Franck Dayan, Todd Gaines; Colorado State University, Fort Collins, CO (40)

†Evaluating Glufosinate for Hop Spring Pruning.

Greeshmanth Alluri*, Marcelo Moretti. Oregon State University, Corvallis, OR (41)

Effect of Germination Time and Crop Competition on Biomass, Fecundity, and Seed Viability of Downy Brome (*Bromus tectorum* L.) in Spring Wheat.

Fernando Oreja*¹, Vhuthu Ndou², Jennifer Gourlie², Judit Barroso²; ¹Clemson University, Clemson, SC. ²Oregon State University, Adams, OR (42)

†Inheritance of Paraquat Resistance in Sumatran fleabane (*Conyza sumatrensis*): Genetic Analysis and Identification of a Major Quantitative Trait Locus.

Andre Araujo*¹, Ana Beatriz Amaral², Jessica Leal³, Camila Ferreira de Pinho³, Todd Gaines¹; ¹Colorado State University, Fort Collins, CO. ²Universidade Federal Rural do Rio de Janeiro. Seropedica, BR (43)

†Effect of Cover Crop Presence on Herbicide Efficacy.

Madison Wright*, Ramawatar Yadav, Andrew Kniss; University of Wyoming, Laramie, WY (44)

†Polyploidization Effects on Seed Dormancy and Herbicide Resistance in Common Lambsquarters (*Chenopodium album*).

Jonah Ziyaaba*¹, Ramawatar Yadav², Donna Harris¹, Andrew Kniss¹; ¹University of Wyoming, Laramie, WY. ²Ohio State University, Columbus, OH (45)

Soil Multivariate Analyses Reveal Signals of Rotational Crop Life History and Fertilizer Source in the Weed Seedbank.

Brendan Alexander*¹, Benjamin Ellert¹, Paul DeMaere, Charles Geddes; Agriculture and Agri-Food Canada, Lethbridge, AB. (46)

Optimized Robotic Workflow for DNA and RNA Extraction in Downy Brome (*Bromus tectorum*) Using the KingFisher System: From Germination to Quality Control.

Shahbaz Ahmed*, Marija Savic, Ian Burke; Washington State University, Pullman, WA (47)

POSTER – Teaching and Outreach

Strategic Messaging for Herbicide Resistance Management: Focusing on the Value of Product Stewardship.

Liberty Galvin*, Swati Shrestha; Oklahoma State University, Stillwater, OK (48)

Identifying Historical Knowledge Gaps in Wheat-Herbicide Resistance Reporting Across The US.

Connor Cox*, Swati Shrestha, Liberty Galvin; Oklahoma State University, Stillwater, OK (49)

Engaging the Public: King County's Dynamic Approach to Noxious Weed Education.

Rahel Stampfer*, Skye Pelliccia; King County Noxious Weed Control Program, Seattle, WA (50)

White Plum Farm Ag Learning Center Year 1 - Field of Weeds, Undergrad Interns, and Lessons Unlearned: An Extension Story.

Kat Caswell*¹, Erica Bassett²; ¹Colorado State University Extension, Greeley, CO. ²Colorado State University, Fort Collins, CO (51)

Priorities for Plant Protection Undergraduate Education.

Randa Jabbour*, Clint Beiermann; University of Wyoming, Laramie, WY (52)

Integrated Weed Control for Cereal Grain Cropping Systems.

Aaron Esser*; Washington State University, Ritzville, WA (53)

POSTER – Weeds of Horticultural Crops

†Exploring Pulse Electric Field for Weed Control in Nursery.

Pamela Medeiros dos Santos*, Tatiana Benedetti, Marcelo Moretti; Oregon State University, Corvallis, OR (54)

Evaluating Crop Safety and Weed Control Using Ethalfluralin in Highland Blueberries.

Marcelo Moretti*, David King; Oregon State University, Corvallis, OR (55)

Promising herbicides for use in perennial peanut, and emerging crop in the United States.

Chanz Robbins*. New Mexico State University, Las Cruces, NM (56)

†Electric Weed Management in Organic Blueberry Fields: Efficacy, Species Shifts, and Soil Health.

Luisa Baccin*, Marcelo Moretti; Oregon State University, Corvallis, OR (57)

Fewer Suckers, More Nuts: The Effect of Sucker Pruning Regime on Hazelnut (*Corylus avellana*) Growth and Yield.

Austin Frewert*, Marcelo Moretti; Oregon State University, Corvallis, OR (58)

Cost-Benefit Comparisons Between Cover Crop and Herbicide Methods for Controlling Early-Season Weeds in Chile Pepper.

Brian Schutte*, Ram Acharya; New Mexico State University, Las Cruces, NM (59)

Developing a Practical Guide to Grower Decision-Making in Herbicide Drift and Carryover Situations in Sugarbeet.

Clarke Alder*¹, Albert Adjesiwor²; ¹Amalgamated Sugar Company, Boise, ID. ²University of Idaho, Kimberly, ID (60)

Control of Silverleaf Nightshade (*Solanum elaeagnifolium*) in Olives (*Olea europaea*).
Jorge Angeles*, Elizabeth Fichtner; University of California Cooperative Extension Tulare, CA (61)

Herbicide Programs for Weed Control in Washington State Onion Production.
Rui Liu*¹, Timothy Waters²; ¹Washington State University, Prosser, WA. ²Washington State University, Pasco, WA (62)

POSTER – Weeds of Range, Forestry, and Natural Areas

Agroecological Importance of Smooth Brome (*Bromus inermis*) in Hosting Braconid Parasitoids Associated with the Insect Pest Wheat Stem Sawfly.
Jackson R. Strand*, Robert K.D. Peterson, Tracy M. Sterling, David K. Weaver; Montana State University, Bozeman, MT (63)

2024 Weed Survey: Common and Troublesome Weeds in Aquatic and Non-Crop Areas.
Joshua Miranda*¹, Sarah Chu², Lee Van Wychen³; ¹Oregon State University, Corvallis, OR. ²Texas A&M, College Station TX (64)

Kochia Control on Roadsides in Northern California, with Possible Herbicide Resistant Populations.
Thomas Getts*¹, Deniz Inci², Simarjeet Singh³, Kassim Al-Khatib²; ¹University of California Cooperative Extension, Susanville, CA. ²University of California Davis, Davis, CA. ³University of California Extension, Alturas, CA. (65)

†Understanding Challenges to Eurasian Watermilfoil (*Myriophyllum spicatum*) Control in Bear Lake.
Tia Lawrence*, Olanrewaju Adeyemi, Francielli Santos de Oliveira, Eric Westra, Mirella Ortiz. Utah State University, Logan, UT (66)

Fire Modeling of Techniques to Manage Linear Fuel Breaks Suggest Moderation of Fire Behavior.
Madeleine Touchette*, Timothy Prather, Eva Strand, Lisa Jones; University of Idaho, Moscow, ID (67)

TUESDAY MORNING MARCH 11

General Session

LOCATION: Cascade Ballroom
TIME: 9:30 AM - 11:00 AM PT
CHAIR: Tim Prather
University of Idaho
Moscow, ID

MODERATOR: Carl Coburn
Bayer Crop Science
St. Louis, MO

***SPEAKER**

09:30 AM Presidential Address.
Tim Prather*; University of Idaho, Moscow, ID

**09:50 AM From Nuisance to Nourishing: A Sea(weed) to
Soil Climate Solution for the Pacific
Northwest.**
Sarah M. Collier; University of Washington,
Seattle, WA

10:35 AM Washington D.C. Policy Update. Lee Van
Wyche*; Weed Science Society of America,
Alexandria, VA

TUESDAY MORNING MARCH 11

Diversity and Inclusion Committee Social Hour

LOCATION: Pine
TIME: 11:15 AM - 12:00 PM PT
CHAIR: Elizabeth Mosqueda
Madera Community College
Madera, CA

 *Sponsored by Sandra McDonald*


TUESDAY AFTERNOON MARCH 11

Student Luncheon

LOCATION: Puget Sound
TIME: 12:00 PM - 1:15 PM PT
CHAIR: Tim Prather
University of Idaho, Moscow,
ID

MODERATOR: McKenzie J. Barth
University of Wyoming
Laramie, WY

CO-MODERATOR: Wes Maughan
Washington State University
Pullman, WA

 *Sponsored by Bayer Crop
Science*

TUESDAY AFTERNOON MARCH 11

ORAL - Weeds of Agronomic Crops

LOCATION: Pine
TIME: 1:30 PM - 3:00 PM PT
CHAIR: Joseph Mettler
North Dakota State University
Fargo, ND
CO-MODERATOR: Kyle Roerig
Pratum Co-Op
Salem, OR

***SPEAKER † STUDENT CONTEST**

- 01:30 PM Effect of First Cutting Timing on Weed Competition in Establishment Alfalfa.**
Clint Beierman*; University of Wyoming, Laramie, WY (68)
- 01:45 PM †Evaluating Corn Herbicide Programs That Allow for Rotation to Dry Edible Bean and Sugarbeet.**
Abraham Akuoko*, Nevin Lawrence; University of Nebraska Lincoln, Lincoln, NE. (69)
- 02:00 PM Optimizing Glufosinate Efficacy: The Role of Humectant-Based Adjuvants and Time-of-Day Applications.**
Het Samir Desai*¹, Franck Dayan², Fabian Menalled¹, Lovreet Shergill²; ¹Montana State University, Bozeman, MT. ²Colorado State University, Fort Collins, CO (70)
- 02:15 PM †Enhancing Weed Control Using Light-Activated Sensors and Mapping in Chem-fallow.**
Devanshi Het Desai*¹, Paul Nugent¹, Tim Seipel¹, Lovreet Shergill²; ¹Montana State University, Bozeman, MT. ²Colorado State University, Fort Collins, CO (71)
- 02:30 PM Rapidicil(R), a Novel Non-Selective Herbicide for Burndown Weed Control - Summary of Tank-Mixture Efficacy when Applied with Burndown and Residual Herbicides.**
Pat Clay*; Valent U.S.A. LLC, Fresno, CA (72)

02:45 PM Evaluation of Adjuvants for use with Tolpyralate + Bromoxynil Premix Herbicide in Cereal Crops.
Joe Yenish*¹, Ryan Humann², Kevin Falk³, Rory Degenhardt⁴; ¹Corteva Agriscience, Billings, MT. ²Corteva Agriscience, Fargo, ND. ³Corteva Agriscience, Oak Bluff, MB. ⁴Corteva Agriscience, Edmonton, AB (73)

TUESDAY AFTERNOON MARCH 11

ORAL - Weeds of Range, Forestry, and Natural Areas

LOCATION: Pike
TIME: 1:30 PM - 3:00 PM PT
CHAIR: Jaycie Ardent
University of Wyoming
Extension
Sheridan, WY
MODERATOR: Jake Courkamp
Colorado State University
Fort Collins, CO

***SPEAKER † STUDENT CONTEST**

01:30 PM Evaluating Herbicides for Managing Invasive Annual Grass Infestation in Nevada's Mojave Desert.
Cody Beckley*, Mirella Ortiz, Eric Westra, Corey Ransom; Utah State University, Logan, UT (74)

01:45 PM †From Grass to Grouse: Indaziflam Application Increases Greater Sage-Grouse (*Centrocercus urophasianus*) Habitat Use in Idaho Rangelands.
Kirby Lau*¹, Timothy Prather¹, Yvette Ortega², Tracey Johnson³; ¹University of Idaho, Moscow, ID. ²U.S. Forest Service Rocky Mountain Research Station, Missoula, MT. ³University of Idaho, Boise, ID (75)

02:00 PM Aerial Applications of Indaziflam Control Annual Grasses in Pasture and Rangeland.
Lisa Jones*¹, Christie Guetling², Kirk Davies², Timothy Prather¹; ¹University of Idaho, Moscow, ID. ²USDA ARS, Burns, OR (76)

02:15 PM †Balancing the Scales: Efficacy of Cheatgrass (*Bromus tectorum*) Management Versus Response of Native Plants.
Erin Teichroew*, Jane Mangold, Lilly Sencenbaugh, Lisa Rew; Montana State University, Bozeman, MT (77)

- 02:30 PM A Look at One Year After: Forb Response to Florpyrauxifen-benzyl, Aminopyralid, and Clopyralid in Natural Areas.**
Jodie Crose*; Corteva Agriscience, Indianapolis, IN (78)
- 02:45 PM Microtopography and Climate Interact Across Spatial Scales to Influence Invasive Annual Grass Control in Wyoming.**
Morgan Frost*¹, Jaycie Arndt², Brian Mealor², Kelsey Brock¹, Paige Copenhaver-Parry¹;
¹University of Wyoming, Laramie WY.
²University of Wyoming, Sheridan, WY (79)

TUESDAY AFTERNOON MARCH 11

ORAL - Basic Biology, Ecology, and Technology

LOCATION: Mercer
TIME: 1:30 PM - 3:00 PM PT
CHAIR: Breanne D. Tidemann
Agriculture and Agri-Food
Canada
Lacombe, AB, Canada
CO-MODERATOR: Albert Adjesiwor
University of Idaho
Kimberly, ID

*SPEAKER † STUDENT CONTEST

- 01:30 PM Utilizing the Phenospex TraitFinder to Phenotype Pre-emergence Herbicide Injury.**
Luigi Peracchi¹, Raissa Na-ah¹, Olivia Landau*²;
¹Washington State University, Pullman, WA.
²USDA-ARS, Pullman, WA (80)
- 01:45 PM †Kernza Intermediate Wheatgrass Tolerance to PRE and POST Herbicides.**
McKenzie Barth*, Jenna Meeks, Andrew Kniss;
University of Wyoming, Laramie, WY (81)
- 02:00 PM Harnessing Stress Memory: Transcriptomic Insights into Multigenerational Crop-Weed Interactions in Spring Wheat.**
Albert Kwarteng*, Albert Adjesiwor; University of Idaho, Kimberly, ID (82)
- 02:15 PM Understanding Indaziflam Resistance in *Poa annua*: Recent Findings and Future Directions.**
Joshua Miranda*, Marcelo Moretti; Oregon State University, Corvallis, OR (83)

02:30 PM †Does Climate Change Alter Weed Management Recommendations? Evaluating the Impact of Elevated CO₂ on Plant Growth and the Critical Period of Weed Control.

Emma Kubinski*, Kevin Sheridan, Fabian Menalled; Montana State University, Bozeman, MT (84)

02:45 PM Getting a Grip on False Cleavers (*Galium spurium*).

Breanne Tidemann*¹, Charles Geddes², Sara Martin³, Shaun Sharpe⁴; ¹Agriculture and Agri-Food Canada, Lacombe, AB. ²Agriculture and Agri-Food Canada, Lethbridge, AB. ³Agriculture and Agri-Food Canada, Ottawa, ON. ⁴Agriculture and Agri-Food Canada, Saskatoon, SK. (85)

TUESDAY AFTERNOON MARCH 11

Coffee Break

LOCATION: Westlake Foyer
TIME: 3:00 PM - 3:30 PM PT



*Sponsored by Miller
Research, Rohlf's and Adkins
Research, Pratum Research, GDM
Solutions, VARCO, Azlin Seed
Service*

TUESDAY AFTERNOON MARCH 11

ORAL - Weeds of Agronomic Crops

LOCATION: Pine
TIME: 3:30 PM - 5:00 PM PT
CHAIR: Joseph Mettler
North Dakota State University
Fargo, ND
CO-MODERATOR: Kyle Roerig
Pratum Co-Op
Salem, OR

***SPEAKER † STUDENT CONTEST**

03:30 PM †Fluroxypyr Control of Kochia (*Bassia scoparia*) With and Without MCPA.

Newman Teye-Doku*, Andrew Kniss; University of Wyoming, Laramie, WY (86)

- 03:45 PM** **Season-Wide Weed Management with Florpyrauxifen-benzyl in Water-Seeded Rice.**
Deniz Inci*, Kassim Al-Khatib; University of California Davis, Davis, CA (87)
- 04:00 PM** †**Exploring the Effects of Tillage and Environmental Conditions on Weed Emergence in the Inland Pacific Northwest.**
P Weston Maughan*, Jessica Kalin, Marija Savic, Ian Burke; Washington State University, Pullman, WA (88)
- 04:15 PM** **Introducing INTERLINE® MEGA Powered by L-tek™ for Optimized L-glufosinate Applications to Glufosinate-tolerant Row and Specialty Crops.**
Ryan Bryant-Schlobohm*¹, Ryan Henry², Cody Gray³, Carlos Antonio Koury d'Arce Junior⁴;
¹UPL NA, Inc. Amarillo, TX. ²UPL NA, Inc. Fort Wayne, IN. ³UPL NA, Inc. Peyton, CO. ⁴UPL NA, Inc. Raleigh, NC (89)
- 04:30 PM** **Tradeoffs in the Use of Glyphosate-resistant Canola for Italian Ryegrass Management.**
Mark Thorne*, Drew Lyon; Washington State University, Pullman, WA (90)
- 04:45 PM** **Control of Multiple Herbicide-Resistant Amaranthus Populations in Corn.**
Jose Nunes¹, Jesse Haarmann², Mark Kitt³, David Belles³, Tom Beckett³, Ben Westrich*⁴;
¹Syngenta Crop Protection, Madison, WI.
²Syngenta Crop Protection, Rochester, MN.
³Syngenta Crop Protection, Greensboro, NC.
⁴Syngenta Crop Protection, Loveland, CO (91)

TUESDAY AFTERNOON MARCH 11

ORAL - Weeds of Range, Forestry, and Natural Areas

LOCATION: Pike
 TIME: 3:30 PM - 5:00 PM PT
 CHAIR: Jaycie Arndt
 University of Wyoming
 Extension
 Sheridan, WY
 MODERATOR: Jake Courkamp
 Colorado State University
 Fort Collins, CO

*SPEAKER † STUDENT CONTEST

- 03:30 PM Evaluating Pyraflufen-ethyl on Leafy Spurge Management at Two Rangeland Sites.**
Evaluating Pyraflufen-ethyl on Leafy Spurge Management at Two Rangeland Sites.
Beth Fowers*¹, Jaycie Arndt, Brian Mealor, Jane Mangold²; ¹University of Wyoming, Sheridan, WY. ²Montana State University, Bozeman, MT (92)
- 03:45 PM Updated Colorado Front Range Research on Long-term Invasive Annual Grass Control with Rejuvra.**
Jim Sebastian*, Joe Swanson; Boulder County Parks and Open Space, Longmont, CO (93)
- 04:00 PM Indaziflam Treatment Effects on Live Fuel Moisture Content (LFMC) in Colorado Front Range Grasslands Invaded by Annual Grasses.**
Jacob Courkamp*, John Watson; Colorado State University, Fort Collins, CO (94)
- 04:15 PM Current Status of Noxious Weed Management in South Dakota.**
Eric Jones*¹, Krista Ehlert², Philip Rozeboom¹, Jill Alms¹, Dave Vos¹; ¹South Dakota State University, Brookings, SD. ²South Dakota State University, Rapid City, SD (95)
- 04:30 PM Leafy Spurge Management (Euphorbia esula) with Broadcast Applications of 2,4-D Followed by Wiper Applications of Glyphosate.**
Eric Jones*, Jill Alms, Dave Vos; South Dakota State University, Brookings, SD (96)
- 04:45 PM The Mullet Strategy: Using Short and Long Residual Herbicides to Improve Native Perennial Establishment.**
Jaycie Arndt*, Brian Mealor; University of Wyoming, Sheridan, WY (97)

TUESDAY AFTERNOON MARCH 11

ORAL - Weeds of Horticultural Crops

LOCATION: Mercer
 TIME: 3:30 PM - 5:00 PM PT
 CHAIR: Craig Alford
 Corteva Agriscience
 Indianapolis, IN

*SPEAKER † STUDENT CONTEST

- 03:30 PM Electric Weed Control — What Works, What Doesn't, and What We've Learned.**
Luisa Baccin*, Marcelo Moretti; Oregon State University, Corvallis, OR (98)
- 03:45 PM †A Multi-Year Study on the Effects of Electric Weed Control on Hazelnut (*Corylus avellana*) Growth and Yield.**
Juliano Ricardo Marchi Sulzback*, Marcelo Moretti; Oregon State University, Corvallis, OR (99)
- 04:00 PM Management of Yellow Nutsedge in Pacific Northwest Potato Production.**
Rui Liu*¹, Joel Felix², Timothy Waters³;
¹Washington State University, Prosser, WA.
²Oregon State University, Ontario, OR.
³Washington State University, Pasco, WA (100)
- 04:15 PM †Evaluation of Electrical Weed Control in California Orchards.**
Tong Zhen*, Bradley Hanson; University of California Davis, Davis CA (101)
- 04:30 PM Weed Control in Potatoes with the Anthem Flex PreMix - Do I Still Need to Tank Mix?**
Pamela Hutchinson*, Brent Beutler; University of Idaho, Aberdeen, ID (102)
- 04:45 PM †Two Applications of Post-Emergence Herbicides in Sorghum Maximize Reductions of Broadleaf Weeds in Chile Pepper Grown the Following Year.**
Ram Singh Insa*, Brian Schutte, Erik Lehnhoff; New Mexico State University, Las Cruces, NM (103)

TUESDAY AFTERNOON MARCH 11

ORAL - Teaching and Outreach

LOCATION: Denny
 TIME: 3:30 PM - 4:30 PM PT
 CHAIR: Harlene M. Hatterman-Valenti
 North Dakota State University
 Fargo, ND
 CO-MODERATOR: Sandra K. McDonald
 Mount West PEST
 Fort Collins, CO

***SPEAKER † STUDENT CONTEST**

- 03:30 PM †MulcH2O: A Sprayable Biodegradable, Mulch Technology for Certified Organic Growers.**
Ben Weiss*¹, Lisa DeVetter¹, Greta Gramig², Sharon Weyers³, Dilpreet Bajwa⁴, Alice Formiga⁵, Suzette Gallinato⁶, Waqas Ahmad²;
¹Washington State University: Northwestern Research and Extension Center, Mount Vernon, WA. ²North Dakota State University, Fargo, ND. ³USDA-ARS, Morris, MN. ⁴Montana State University, Bozeman, MT. ⁵Oregon State University, Corvallis, OR. ⁶Washington State University, Pullman, WA (104)
- 03:45 PM Ask Artificial Intelligence (AI): How Good are AI Chatbots in Answering Pest Management Questions?**
Albert Adjesiwor*¹, Randa Jabbour²; ¹University of Idaho, Kimberly, ID. ²University of Wyoming, Laramie, WY (105)
- 04:00 PM Does Dual-Boom Application Alleviate 2,4-D Antagonism of Quizalofop-P?**
Kirk Howatt*¹, Joseph Mettler¹, Rich Zollinger²;
¹North Dakota State University, Fargo, ND. ²AMVAC Chemical Company, Spokane, WA (106)
- 04:15 PM Be Out Standing in the Field!! The Critical Role of Field Research Scientists in Developing, Launching, and Supporting Crop Protection Products.**
Byron Sleugh*, Rory Degenhardt, David Simpson, Craig Alford, Norbert Satchivi, Kelly Bakscheider, John Wiles, Andrew Leader; Corteva Agriscience, Indianapolis, IN. (107)

TUESDAY AFTERNOON MARCH 11

Student Reception

LOCATION: Puget Sound
TIME: 5:00 PM - 6:30 PM PT

 *Sponsored by Syngenta*

TUESDAY AFTERNOON MARCH 11

**Rita Beard Endowment
Foundation Board of Trustees Meeting**

LOCATION: Olympic
TIME: 5:00 PM - 6:00 PM PT

WEDNESDAY MORNING MARCH 12

Registration

LOCATION: Cascade Foyer South
TIME: 7:00 AM - 4:00 PM PT

WEDNESDAY MORNING MARCH 12

Finance Committee Meeting

LOCATION: Puget Sound
TIME: 7:00 AM - 8:00 AM PT

WEDNESDAY MORNING MARCH 12

New Officer Orientation

LOCATION: Westlake Boardroom
TIME: 7:00 AM - 8:00 AM PT

WEDNESDAY MORNING MARCH 12

ORAL – Weeds of Agronomic Crops

LOCATION: Pine
TIME: 9:30 AM - 11:30 AM PT

CHAIR: Joseph Mettler
North Dakota State University
Fargo, ND

CO-MODERATOR: Kyle Roerig
Pratum Co-Op
Salem, OR

*SPEAKER † STUDENT CONTEST

- 09:30 AM Do AMS Replacement Adjuvants Replace AMS?**
Rich Zollinger*¹, Kirk Howatt², Albert Adjesiwor³; ¹AMVAC Chemical Company, Spokane, WA. ²North Dakota State University, Fargo, ND. Idaho State University, Kimberly, ID (108)
- 09:45 AM Intercropping of Dryland Wheat Cropping Systems Affects Crop Establishment and Weed Suppression.**
Vhuthu Ndou*¹, Hero Gollany², Wayne Polumsky², Fernando Oreja³, Jennifer Gourlie⁴, Judit Barroso¹; ¹Oregon State University, Adams, OR. ²USDA-ARS, Adams, OR. ³Clemson University, Clemson, SC. (109)
- 10:00 AM Statewide Survey of Herbicide Resistance in Kochia (Bassia scoparia) and Pigweed (Amaranthus spp.) Populations Using Molecular Diagnostics and Volunteer-Based Collections.**
Zack Bateson*¹, Lindsey Fransen¹, Brian Jenks², Michael Christoffers³, Megan O'Neil¹, Joseph Ikley³; ¹National Agriculture Genotyping Center, Fargo, ND. ²North Dakota State University North Central Research Extension Center, Minot, ND. ³North Dakota State University, Fargo, ND. (110)
- 10:15 AM Influence of Rainfall Timing on the Efficacy of PRE-Herbicides.**
Karina Beneton*¹, Liberty Galvin¹, Todd Baughman²; ¹Oklahoma State University, Stillwater, OK. ²Texas A&M University, Lubbock, TX (112)
- 10:30 AM Spectral Discrimination of Weed Species in Grass Seed Production in the Willamette Valley, OR.**
Iram Mujahid Iqbal*, Jing Zhou, Carol Mallory-Smith, Pete Berry; Oregon State University, Corvallis, OR. (113)
- 10:45 AM Identifying Weed Species in Mint Using Aerial Imagery and Artificial Intelligence.**
Pete Berry, Andy Branka*, Jing Zhou; Oregon State University, Corvallis, OR (114)
- 11:00 AM Community-Based Herbicide Resistance Management: A Participatory Action Research Approach to Improving Weed Management in North Central Washington.**
Nick Bergmann*¹, Ian Burke¹, Garrett Heineck², Chloe Wardropper³; ¹Washington State University, Pullman, WA. ²USDA-ARS, Prosser, WA. ³University of Illinois, Champaign, IL (115)

WEDNESDAY MORNING MARCH 12

**ORAL - Weeds of Range, Forestry, and Natural
Areas**

LOCATION: Pike
TIME: 9:30 AM - 11:00 AM PT
CHAIR: Jaycie Arndt
University of Wyoming
Extension
Sheridan, WY
MODERATOR: Jake Courkamp
Colorado State University
Fort Collins, CO

***SPEAKER † STUDENT CONTEST**

- 09:30 AM Longer-term responses of cheatgrass and desired species to integrated weed management in southwest Montana.**
Lisa Rew*, Christian Larson; Montana State University, Bozeman, MT (116)
- 09:45 AM Remote Sensing for Mapping Invasive Annual Grasses and Sagebrush in Carbon County, Wyoming.**
Chloe Mattilio*, Brian Mealor, Jaycie Arndt; University of Wyoming, Sheridan, WY (117)
- 10:00 AM Working Toward Thresholds: Rush Skeletonweed (*Chondrilla juncea*) Control After Aerial Herbicide Treatment Improves as Perennial Herbaceous Foliar Cover Increases.**
Timothy Prather*, Lisa Jones; University of Idaho, Moscow, ID (118)
- 10:15 AM Evaluating Herbicide Impacts In A Greenhouse Setting: Native Seedling Emergence, Biomass, And Injury Responses.**
Ian McRyhew*¹, Virgil Dupuis, Jane Mangold², Tim Seipel²; ¹Salish Kootenai College, Pablo, MT. ²Montana State University, Bozeman, MT (119)
- 10:30 AM Maintaining Effective Weed Management, in the Wildland Urban Interface.**
Joe Swanson*, James Sebastian; Boulder County Parks and Open Space, Longmont, CO (120)

10:45 AM Where Does the Woad End?: Population Dynamics During Dyer's Woad (*Isatis tinctoria*) Management.

Maloree McDonald*¹, Erin Hettinger², Mirella Ortiz¹, Eric Westra¹, Tom Monaco¹, Corey Ransom¹; ¹Utah State University, Logan, UT. ²U.S. Fish and Wildlife Services, Ibapah, UT (121)

WEDNESDAY MORNING MARCH 12

ORAL - Basic Biology, Ecology, and Technology

LOCATION: Mercer
TIME: 9:30 AM – 11:00 AM PT
CHAIR: Breanne D. Tidemann
Agriculture and Agri-Food
Canada
Lacombe, AB, Canada
CO-MODERATOR: Albert Adjesiwor
University of Idaho
Kimberly, ID

* SPEAKER † STUDENT CONTEST

09:30 AM Friend or Foe: Exploring Competition Between Cheatgrass (*Bromus tectorum*) and Ventenata (*Ventenata dubia*) in an Addition Series Study.

Lilly Sencenbaugh*, Lisa Rew; Montana State University, Bozeman, MT (122)

09:45 AM †Parrotfeather (*Myriophyllum aquaticum*) Biology and Management Options in Utah.

Francielli Santos de Oliveira*, Tia Lawrence, Eric Westra, Mirella Ortiz; Utah State University, Logan, UT (123)

10:00 AM Germinability of Annual Bluegrass (*Poa annua*) in Western Oregon.

Clint Mattox*; USDA-ARS FSCRU, Corvallis, OR (124)

10:15 AM †Impact of Different Herbicides on Microbial Activities in Cotton Production Systems.

Jasleen Makkar*, Rupinder Saini, Lindsey Slaughter, Sukhbir Singh, Glen Ritchie; Texas Tech University, Lubbock, TX (125)

10:30 AM Palmer Amaranth (*Amaranthus palmeri*), Kochia (*Bassia scoparia*), and Russian Thistle (*Salsola tragus*) Applied and Basic Research Updates from Colorado.
Philip Westra*; Colorado State University, Fort Collins, CO (126)

10:45 AM †Dose Response of Tolpyralate & Bromoxynil on Weedy Grasses and Green Foxtail (*Setaria viridis*) Resistance Management.
Hayden Lee*, Kirk Howatt; North Dakota State University, Fargo, ND (127)

WEDNESDAY MORNING MARCH 12

ORAL - Weeds of Horticultural Crops

LOCATION: Denny
TIME: 9:30 AM - 11:00 AM PT
CHAIR: Craig Alford
Corteva AgriScience
Indianapolis, IN

***SPEAKER † STUDENT CONTEST**

09:30 AM Evaluating Herbicide Combinations and Sequences for Season-long Weed Control in Onion.
Harlene Hatterman-Valenti*, Collin Auwarter;
North Dakota State University, Fargo, ND (128)

09:45 AM †Hydromulches Reduce Weed Pressure in Organic Broccoli Production.
Waqas Ahmad*¹, Greta Gramig¹, Ben Weiss², Sharon Weyers³, Lisa DeVetter², Alice Formiga⁴, Suzette Galinato⁵, Dilpreet Bajwa⁶; ¹North Dakota State University, Fargo, ND.
²Washington State University Northwestern Washington Research and Extension Center, Mount Vernon, WA. ³USDA-ARS North Central Soil Conservation Research Laboratory, Morris, MN. ⁴Oregon State University, Corvallis, OR. ⁵Washington State University, Pullman, WA. ⁶Montana State University, Bozeman, MT (129)

10:00 AM Weed Control and Response of Onion Cultivar 'Vaquero' to Post-emergence Applied Pyraflufen-Ethyl Herbicide.
Joel Felix*¹, Rui Liu²; ¹Oregon State University, Ontario, OR. ²Washington State University, Prosser, WA (130)

- 10:15 AM †Differential Circulifer tenellus Acceptance of Allelopathic Barley and Brown Mustard Cover Crops.**
Caroline Toth*, Brian Schutte; New Mexico State University, Las Cruces, NM (131)
- 10:30 AM Refining Use of Chemigated Rimsulfuron for Branched Broomrape (Phelipanche ramosa) Management in California Processing Tomato.**
Matthew Fatino*, Bradley Hanson; University of California, Davis, Davis, CA (132)
- 10:45 AM †Interseeding Cover Crops to Manage Weeds in Organic Vegetables.**
Sophia Lattes*, Reilly Stack, Fabian Menalled, Mac Burgess; Montana State University, Bozeman, MT (133)

WEDNESDAY MORNING MARCH 12

WSWS Awards Luncheon

LOCATION: Cascade Ballroom
TIME: 11:45 AM - 1:30 PM PT
CHAIR: Timothy S. Prather
University of Idaho
Moscow, ID
MODERATOR: Carl Coburn
Bayer Crop Science
St. Louis, MO

 *Sponsored by Jemmett, UPL, Corteva, R&D Sprayers, The Amalgamated Sugar Company*

WEDNESDAY AFTERNOON MARCH 12

ORAL – Weeds of Agronomic Crops

LOCATION: Pine
TIME: 1:30 PM - 3:00 PM PT
CHAIR: Joseph Mettler
North Dakota State University
Fargo, ND
CO-MODERATOR: Kyle Roerig
Pratum Co-Op
Salem, OR

***SPEAKER † STUDENT CONTEST**

- 01:30 PM Evaluation of Acifluorfen and Lactofen for Management of Herbicide-Resistant Palmer Amaranth (*Amaranthus palmeri*) in Dry Edible Bean: Weed Control Efficacy and Crop Safety.**
Nevin Lawrence*; University of Nebraska
Lincoln, Lincoln, NE (134)
- 01:45 PM Diflufenican: A New Preemergent Broadleaf Herbicide in Pacific Northwest Winter Wheat.**
Monte Anderson*; Bayer Crop Science, Spangle, WA (135)
- 02:00 PM Mapping Resistant Weed Populations Across the Pacific Northwest; A Collaborative Approach.**
Pete Berry*¹, Albert Adjesiwor², Judit Barroso¹, Joan Campbell³, Doug Finkelnburg³, Olivia Landau⁴, Drew Lyon⁵, Victor Ribeiro¹, Ian Burke⁵; ¹Oregon State University, Corvallis, OR. ²University of Idaho, Kimberly, ID. ³University of Idaho, Moscow, ID. ⁴USDA-ARS, Pullman, WA. ⁵Washington State University, Pullman, WA. (136)
- 02:15 PM Herbicide-Resistant Common Chickweed [*Stellaria media* (L.) Vill.] Populations and Yield Losses in San Joaquin Valley Small Grain Dairy Crops.**
Jennifer Valdez-Herrera*, Anil Shrestha, Katherine Waselkov, Nicholas Clark; California State University, Fresno, CA (137)
- 02:30 PM Development of Convintro™ Brand Herbicides for Managing *Amaranthus* Species in Corn and Soybean: Field Performance Update.**
Charles Hicks*, Jody Gander, Katilyn Price, Carl Coburn, Richard Leitz, Zewei Miao, Emily Scholting; Bayer Crop Science, St. Louis, MO (138)
- 02:45 PM Does Tank Mixing Palisade with Axial Bold Reduce Wild Oat and Control Lodging in Wheat?**
Hafiz Haider Ali*¹, Jared Spackman¹, Tom Jacobsen², Macy Rankin², Pamela Hutchinson¹; ¹University of Idaho, Aberdeen Research and Extension Center, Aberdeen, ID. ²University of Idaho, St. Anthony, ID (139)

WEDNESDAY AFTERNOON MARCH 12

**DISCUSSION – Basic Biology, Ecology,
Technology**

LOCATION: Denny
TIME: 1:45 PM - 2:30 PM PT

One of These Things is Not Like the Other... or is it? Crop Mimicry, Hybridization, and Taxonomic Challenges

WEDNESDAY AFTERNOON MARCH 12

DISCUSSION – Weeds of Range, Forestry, and Natural Areas

LOCATION: Pike
TIME: 1:35 PM - 2:20 PM PT

Recent Changes in Weed Science and How to Adapt Management

WEDNESDAY AFTERNOON MARCH 12

DISCUSSION – Weeds Horticultural Crops

LOCATION: Mercer
TIME: 1:45 PM - 2:30 PM PT


Building Synergy Through Weed Science Collaborations in the West

WEDNESDAY AFTERNOON MARCH 12

SYMPOSIUM - Innovative Approaches for Weed Science Education and Communication

LOCATION: Pike
TIME: 2:30 PM - 5:00 PM PT

CHAIR: Emma Kubinski
Montana State University
Bozeman, MT

 *Sponsored by Hubbard Ag Sciences*

***SPEAKER**

- 02:30 PM Innovative Approaches for Weed Science Education and Communication Introduction.**
Fabian Menalled* Montana State University,
Bozeman, MT (140)
- 02:45 PM Rethinking the Extension Weed Science Paradigm.**
Jane Mangold* Montana State University,
Bozeman, MT (141)
- 03:00 PM Breaking the Cycle: Educating for Effective Herbicide Resistance Management.**
Pete Berry*¹, Albert Adjesiwor², Judit Barroso¹,
Joan Campbell³, Doug Finkelnburg³, Olivia
Landau⁴, Drew Lyon⁵, Victor Ribeiro¹, Ian
Burke⁵; ¹Oregon State University, Corvallis, OR.
²University of Idaho, Kimberly, ID. ³University
of Idaho, Moscow, ID. ⁴USDA-ARS, Pullman,
WA. ⁵Washington State University, Pullman,
WA.(142)
- 03:15 PM Putting Weed Research to Work: Farmers Leading the Way.**
Sophia Lattes* Montana State University,
Bozeman, MT (143)
- 03:30 PM Weed Science is Boring: Innovative Ways to Engage Undergraduates.**
Fabian Menalled* Montana State University,
Bozeman, MT (144)
- 03:45 PM Teaching Ecological Weed Management: A Laboratory Exercise on Weed Community Assembly.**
Emma Kubinski* Montana State University,
Bozeman, MT. (145)
- 04:00 PM Lessons Learned from Teaching Herbicide Physiology Collaboratively and Online.**
Tracy M. Sterling* Montana State University,
Bozeman, MT (146)
- 04:15 PM Frequent Low-Stakes Assignments to Teach Quantitative Skills in an Undergraduate Weed Science Course.**
Brian Schutte* New Mexico State University,
Las Cruces, NM (147)
- 04:30 PM Edible Weeds – Experiential Learning in Sustainable Food Systems and Weed Science.**
Roland Ebel* Montana State University,
Bozeman, MT (148)

WEDNESDAY EVENING MARCH 12

What's New in Industry?

LOCATION: Cascade Ballroom
TIME: 5:00 PM - 6:00 PM PT
CHAIR: Charlie Hicks
Bayer Crop Science
Fort Collins, CO

WEDNESDAY EVENING MARCH 12


Student Night Out

TIME: 6:15 PM - 8:15 PM PT

THURSDAY MORNING MARCH 13

WSWS Business Meeting and Student Awards

LOCATION: Cascade Ballroom
TIME: 6:30 AM - 9:00 AM PT
CHAIR: Tim Prather
University of Idaho
Moscow, ID
MODERATOR: Tim Prather
University of Idaho
Moscow, ID
CO-MODERATOR: Carl Coburn
Bayer Crop Science
St. Louis, MO

 *Sponsored by BASF, Corteva*

THURSDAY MORNING MARCH 13

ORAL - Weeds of Agronomic Crops

LOCATION: Pine
TIME: 9:15 AM - 10:45 AM PT
CHAIR: Joseph Mettler

North Dakota State University
Fargo, ND
CO-MODERATOR: Kyle Roerig
Pratum Co-Op
Salem, OR

***SPEAKER † STUDENT CONTEST**

- 09:15 AM Dry Bean Development as Influenced by Soil Nitrogen and Neighboring Plants.**
Andrew Kniss*¹, Ram Yadav²; ¹University of Wyoming, Laramie, WY. ²Ohio State University, Columbus, OH (149)
- 09:30 AM Increasing Droplet Size Reduces Spray Droplet Adsorption.**
Cody Creech*¹, Amanda Easterly²; ¹University of Nebraska Lincoln, Scottsbluff, NE.
²University of Nebraska Lincoln, Sidney, NE (150)
- 09:45 AM Confirmation and Current Understanding of New Herbicide-Resistant Weeds in Western Canada.**
Charles Geddes*, Gaganpreet Dhariwal, Austin Jaster, Laura Kennedy, Mattea Pittman;
Agriculture and Agri-Food Canada, Lethbridge Research and Development Centre, Lethbridge, AB (151)
- 10:00 AM Impact of Desiccants on Crop Dry Down and Weed Management in Garbanzo and Lentils.**
Fabian Menalled*¹, Laura Berrios¹, Het Samir Desai¹, Lovreet Shergill²; ¹Montana State University, Bozeman, MT. ²Colorado State University, Fort Collins, CO (152)
- 10:15 AM Potential of Cover Crop Use, Termination with a Roller-crimper, and Weed Suppression in a Strip-Till Silage Corn Production System in the Central Valley of California.**
Robert Willmott¹, Jennifer Valdez-Herrera¹, Jeffrey Mitchell², Anil Shrestha*¹; ¹California State University, Fresno, CA. ²University of California Davis, Davis, California (153)
- 10:30 AM Lentil Tolerance and Weed Control with POST-Applied Pyridate and Metribuzin.**
Brian Jenks*¹, Ginger Rowsey²; ¹North Dakota State University, Fargo, ND. ²DDS Research, Bozeman, MT (154)

THURSDAY MORNING MARCH 13

DISCUSSION- Teaching and Outreach

LOCATION: Pike
TIME: 9:15 AM - 10:00 AM PT

Read and Follow the Label – Sounds Easy, but is it?

THURSDAY MORNING MARCH 13

DISCUSSION- Weeds of Agronomic Crops

LOCATION: Pine
TIME: 10:45 AM – 11:30 AM PT

Greenhouse Research Standards and Methods

THURSDAY AFTERNOON MARCH 13

WSWS Board of Directors Meeting

LOCATION: Elliott Bay
TIME: 12:00 PM - 2:00 PM PT
CHAIR: Carl Coburn
Bayer Crop Science
St. Louis, MO

AUTHOR INDEX

Acharya, Ram	59
Adeyemi, Olanrewaju	27, 66
Adjesiwor, Albert	1, 3, 5, 7, 11, 22, 34, 38, 60, 82, 105, 108, 136, 142
Ahmad, Waqas	14, 17, 104, 129
Ahmed, Shahbaz	47
Akuoko, Abraham	22, 69
Alder, Clarke	7, 60
Alexander, Brendan	46
Alford, Craig	107
Al-Khatib, Kassim	65, 87
Alluri, Greeshmanth	41
Alms, Jill	95
Anderson, Monte	135
Angeles, Jorge	61
Antonio Koury d'Arce Junior, Carlos	89
Araujo, Andre	31, 43
Arndt, Jaycie	79, 92, 97, 117
Atiemo, Michael	24
Auwarter, Collin	128
Baccin, Luisa	57, 98
Backscheider, Kelly	107
Bajwa, Dilpreet	104, 129
Barroso, Judit	10, 42, 109, 136, 142
Barth, McKenzie	81
Bassett, Erica	51
Bateson, Zack	51
Baughman, Todd	112
BeatrizAmaral, Ana	43
Beckett, Tom	91
Beckley, Cody	74
Beiermann, Clint	8, 52, 68
Belles, David	91
Benedetti, Tatiana	54
Beneton, Karina	112
Beran, Daniel	26
Bergmann, Nick	115
Berrios, Laura	35, 145, 148, 152
Berry, Pete	16, 19, 113, 114, 136 142
Beutler, Brent	102
Bhattarai, Prayusha	19, 34

Branka, Andy	19, 114
Brock, Kelsey	79
Bryant-Schlobohm, Ryan	89
Burgess, Mac	133
Burke, Ian	18, 23, 30, 47, 88, 115, 136, 142
Campbell, Joan	3, 14, 38, 136, 142
Carnahan, McKenna	11
Caswell, Kat	51
Christoffers, Michael	110
Chu, Sarah	64
Clark, Nicholas	137
Clay, Pat	72
Coburn, Carl	138
Copenhaver-Parry, Paige	79
Courkamp, Jacob	94
Cox, Connor	49
Creech, Cody	150
Creech, Earl	11,27
Cröse, Jodie	78
Dalley, Caleb	33
Daniel, Jim	9
Dar, Amna	20
Davidson, Robyne	15
Davies, Kirk	76
Dayan, Franck	40, 70
deCarvalhoFiedler, Davi	2
Degenhardt, Rory	73, 107
DeMaere, Paul	46
DeVetter, Lisa	104
Dhariwal, Gaganpreet	151
Drewitz, Nathan	72
Dupuis, Virgil	119
Dyer, Alan	35
Easterly, Amanda	150
Ehlert, Krista	95
Ellert, Benjamin	46
Esser, Aaron	53
Falk, Kevin	73
Fatino, Matthew	132
Felix, Joel	7, 22, 100, 130
FerreiradePinho, Camila	43
Fichtner, Elizabeth	61
Finkelburg, Doug	136, 142
Formiga, Alice	104, 129
Fowers, Beth	92
Fransen, Lindsey	110

Frewert, Austin	58
Frost, Morgan	79
Gaines, Todd	31, 40, 43
Galinato, Suzette	104,129
Galvin, Liberty	20, 48, 112
Gander, Jody	138
Geddes, Charles	29, 46, 85, 151
Getts, Thomas	65
Goblirsch, Chris	72
Gollany, Hero	109
Gomm , James	11
Gourlie, Jennifer	10, 42, 109
Gramig, Greta	14, 17, 104, 129
Gray, Cody	89
Guetling, Christie	76
Guimarae Abe, Daniel	33
Gundy, Garrison	72
Haarmann, Jesse	91
HaiderAli, Hafiz	139
Hanson, Bradley	101, 132
Harris, Donna	45
Hatterman-Valenti, Harlene	128
Heiman, Jace	12
Heineck, Garrett	115
Henry, Ryan	89
Het, Devanshi	13
Het Desai, Devanshi	13, 71, 152
Hettinger, Erin	121
Hicks, Charles	138
Hoberg, Kaitlyn	8
Howatt, Kirk	6, 9, 12, 106, 108, 127
Hulke, Brent	14
Humann, Ryan	73
Hutchinson, Pamela	7, 102, 139
Ikley, Joseph	110
Inci, Deniz	65, 87
Jabbour, Randa	52, 105
Jacobsen, Tom	139
Jaster, Austin	151
Jenks, Brian	110, 154
Johnson, Tracey	75
Jones, Eric	95, 96
Jones, Lisa	67, 76, 228
Kalin, Jessica	18, 30, 88
Kennedy, Adam	5
Kennedy, Laura	151
King, David	55

Kitt, Mark	91
Kniss, Andrew	22, 24, 25, 44, 45, 81, 86, 149
Kubinski , Emma	84, 140
Kwarteng, Albert	82
Landau , Olivia	7, 80, 136, 142
Larson, Christian	116
Lattes, Sophia	133, 143, 145, 148
Lau, Kirby	75
Lawrence, Nevin	22, 28, 69, 134
Lawrence, Tia	66, 123
Leader, Andrew	107
Leal, Jessica	43
Lee, Hayden	127
Leeson, Julia	29
Lehnhoff, Erik	4, 103
Leitz, Richard	138
Liu , Riu	7, 62, 100, 130
Lyon, Drew	90, 136, 142
Makkar, Jasleen	21, 125
Mallory-Smith, Carol	16, 113
Mangold, Jane	77, 92, 119, 141
Martin, Sara	85
Mattilio, Chloe	117
Mattox, Clint	124
Maughan, P. Weston	30, 88
McDonald, Maloree	121
McRyhew, Ian	119
Mealor, Brian	79, 92, 97, 117
Medeiros dos Santos, Pamela	54
Medina, Bianey	32
Meeks, Jenna	24, 28, 81
Menalled, Fabian	30, 70, 84, 133, 140, 143, 145, 148, 152
Mettler, Joseph	9, 12, 106
Mewes, Ethan	6
Miao, Zewei	38
Miranda, Joshua	39, 64, 83
Mitchell, Jeffrey	153
Monaco, Tom	121
Montgomery, Chandra	1, 11, 38
Moretti, Marcelo	2, 39, 41, 54, 55, 57, 58, 83, 98, 99
MujahidIqbal, Iram	16
Na-ah, Raissa	80
Ndou, Vhuthu	42, 109
Nugent, Paul	71

Nunes, Jose	91
O'Neil, Megan	110
Oreja, Fernando	42, 109
Ortega, Yvette	75
Ortiz, Mirella	27, 66, 74, 121, 123
Pelliccia, Skye	50
Pelon, Amber	31, 409
Peracchi, Luigi	80
Peterson, RobertK.D.	63
Pittman, Mattea	29, 151
Polumsky, Wayne	109
Prather, Timothy	67, 75, 76, 118
Price, Katilyn	138
Rankin, Macy	139
Ransom, Corey	27, 74, 121
Rauch, Traci	3, 38
Revolinski, Samuel	23
Rew, Lisa	77, 116, 122
Ribeiro, Victor	116, 136
Ricardo Marchi Sulzback, Juliano	99
Ritchie, Glen	21, 125
Robbins, Chanz	56
Rodriguez, Laura	7
Rodstrom, Andrew	72
Rowsey, Ginger	154
Rozeboom, Philip	95
Saini, Rupinder	21, 125
Samir Desai, Het	70, 152
Santos de Oliveira, Francielli	66, 123
Satchivi, Norbert	107
Savic, Marija	23, 30, 47, 88
Scholting, Emily	138
Schutte, Brian	59, 103, 131,147
Sebastian, James	93, 120
Seipel, Tim	13, 71, 119
Sencenbaugh, Lilly	77, 122
Sharma, Sushmita	11
Sharpe, Shaun	15, 85
Shergill, Lovreet	13, 35,70, 152
Sheridan, Kevin	84
Shrestha, Anil	32, 137, 152
Shrestha, Swati	20, 48
Simpson, David	107
Singh, Ram	103
Singh, Simarjeet	65
Singh, Sukhbir	21, 125

Slaughter, Lindsey	21, 125
Sleugh, Byron	107
Soares Rosa, Lucas	31
Spackman, Jared	139
Stack, Reilly	133
Stampfer, Rahel	50
Sterling, Tracy	63, 146
Strand, Eva	67
Strand, Jackson	63
Swanson, Joe	93, 120
Teichroew, Erin	77
Teye-Doku, Newman	28, 86
Thorne, Mark	90
Tidemann, Breanne	15, 29, 85
Toth, Caroline	131
Touchette, Madeleine	67
Valdez-Herrera, Jennifer	137, 153
Van Wychen, Lee	64
Vassios, Joe	26
Velasco-Cruz, Ciro	4
Vos, Dave	95, 96
Wardropper, Chloe	115
Waselkov, Katherine	137
Waters, Timothy	62, 100
Watson, John	94
Weaver, David	63
Weiss, Ben	104, 129
Westra, Eric	27, 66, 74, 121
Westra, Philip	126
Westrich, Ben	91
Weyers, Sharon	104, 129
Wiles, John	107
Willmott, Robert	153
Wright, Madison	44
Yadav, Ramawatar	28, 44, 45, 149
Yenish, Joe	73
Zhen, Tong	101
Zhou, Jing	113
Ziyaaba, Jonah	45
Zollinger, Rich	106

WSWS PAST PRESIDENTS

1938	H. L. Spence, Jr.	1985	E. Stanley Heathman
1940	G. R. Hyslop	1986	Harvey D. Tripple
1941	C. L. Corkins	1987	John O. Evans
1942	W. W. Robbins	1988	Larry W. Mitich
1944	E. Hutchings	1989	Donn C. Thill
1945	Lee M. Burge	1990	Sheldon E. Blank
1946	B. E. Kuhns	1991	Peter K. Fay
1947	H. E. Morris	1992	Paul J. Ogg
1948	Virgil H. Freed	1993	Stephen D. Miller
1949	Bruce J. Thornton	1994	Doug K. Ryerson
1950	E. W. Whitman	1995	Tom D. Whitson
1952	W. W. Robbins	1996	Gus Foster
1954	Clarence I. Seely	1997	Charlotte V. Eberlein
1956	Walter S. Ball	1998	Barbra Mullin
1958	H. Wolfe	1999	Rodney G. Lym
1960	Richard A. Fosse	2000	Jeffrey M. Tichota
1962	William R. Furtick	2001	Don Morishita
1963	P. Eugene Heikes	2002	Robert Parker
1965	Jesse M. Hodgson	2003	Jill Schroeder
1967	Louis A. Jensen	2004	Gilbert Cook
1968	S. Strew	2005	Phil Stahlman
1969	K. C. Hamilton	2006	Phil Banks
1970	Harold P. Alley	2007	Kassim Al-Khatib
1971	Kenneth W. Dunster	2008	Ron Crockett
1972	Arnold P. Appleby	2009	Dan Ball
1973	David E. Bayer	2010	Jesse Richardson
1974	D. Burgoyne	2011	Joe DiTomaso
1975	Gary A. Lee	2012	Vanelle Peterson
1976	William L. Anliker	2013	Kai Umeda
1977	Clyde L. Elmore	2014	Roger Gast
1978	Lowell S. Jordon	2015	Drew Lyon
1979	Richard D. Comes	2016	Joe Yenish
1980	Larry C. Burrill	2017	Kirk Howatt
1981	L.E. "Jack" Warren	2018	Monte Anderson
1982	Alex G. Ogg, Jr.	2019	Andrew Kniss
1983	J. Wayne Whitworth	2020	Pat Clay
1984	Gary Massey	2021	Corey Ransom
		2022	Sandra McDonald
		2023	Joel Felix
		2024	Curtis Rainbolt

HONORARY MEMBERS

1976	Dick Beeler
1978	Dale W. Bohmont
19821	R. Phillip Upchurch
1983	Virgil H. Freed
1984	Warren C. Shaw
1987	Norman B. Akesson
1988	Logan A. Norris
1989	Gary A. Lee
1990	Earl Spurrier
1992	Bruce Ames
1993	Jerry Caulder
1994	Will D. Carpenter
1995	K. James Fornstrom
1997	F. Dan Hess
2001	Darrell Hanavan
2002	Senator Larry Craig - Idaho
2003	Roy Nishimoto
2004	Doug Schmale
2006	Wanda Graves
2007	Rob Hedberg
2008	Robert Zemetra
2009	Tom Brokaw
2010	Harry Cline
2011	A. G. Kawamura
2014	David Armstrong
2020	William Price
2021	Michael Walsh
2022	Hugh Beckie
2023	Daniel Kunkel

WSWS FELLOWS

1968	Robert B. Balcom Walter S. Ball Alden S. Crafts F.L. Timmons D.C. Tingey	1996	Don Colbert Robert Parker
1969	Lambert C. Erickson Jesse M. Hodgson	1997	Steven A. Dewey Mike Newton
1970	Lee M. Burge Bruce Thornton	1998	Doug K. Ryerson Tom D. Whitson
1971	Virgil H. Freed W.A. Harvey	1999	Charlotte V. Eberlein John E. Orr
1972	H. Fred Arle Boysie E. Day	2000	Rodney G. Lym Frank L. Young
1973	Harold P. Alley K.C. Hamilton	2001	Barbra Mullin Jill Schroeder
1974	William R. Furtick Oliver A. Leonard	2002	Jeff Tichota Philip Westra
1975	Richard A. Fosse Clarence I. Seely	2003	Vanelle Peterson Carol Mallory-Smith
1976	Arnold P. Appleby	2004	Don Morishita Phil Banks
1977	J. LaMar Anderson Arthur H. Lange	2005	Nelroy Jackson Roland Shirman
1978	David E. Bayer Kenneth W. Dunster	2006	Celestine Duncan Joan Campbell
1979	Louis A. Jensen Gary A. Lee	2007	Bill Cobb Phil Stahlman
1980	W.L. Anliker	2008	K. George Beck Rick Boydston
1981	P. Eugene Heikes J. Wayne Whitworth	2009	Kassim Al-Khatib Scott Nissen
1982	Bert L. Bohmont Lowell S. Jordan	2010	Tracy Sterling Rick Arnold
1983	Richard D. Comes Clyde L. Elmore	2011	Daniel A. Ball Roger Gast
1984	Larry C. Burrill	2012	Jodie Holt Lars Anderson
1985	L.E. "Jack" Warren	2013	Tim Miller Tom Lanini
1986	Dwight V. Peabody Robert L. Zimdahl	2014	Robert Stougaard Robert Norris
1987	Alex G. Ogg, Jr. Jean H. Dawson	2015	Pete Forster Gilbert Cook
1988	Harvey D. Tripple E. Stan Heathman	2016	Jesse Richardson Joseph DiTomaso
1989	John O. Evans W.B. "Jim" McHenry	2017	Ralph Whitesides Ed Peachey
1990	Harry S. Agamalian Bart A. Brinkman	2018	Phillip Munger Kai Umeda
1991	Larry W. Mitich Edward E. Schweizer	2019	Joe Yenish Drew Lyon
1992	Donald C. Thill Harold M. Kempen	2020	Traci Rauch Monte Anderson
1993	Paul J. Ogg Peter K. Fay	2021	Carl Libbey Charlie Hicks
1994	Sheldon E. Blank Gus J. Foster	2022	Andrew Kniss Richard Zollinger
1995	Stephen D. Miller		

John T. Schlesselman	2023	Bradley D. Hanson
		Corey V. Ransom
	2024	Sandra McDonald
		Stott Howard

OUTSTANDING WEED SCIENTISTS

1989	Jean H. Dawson	2008	Robert G. Wilson
1990	Arnold P. Appleby		Leo Charvat
1991	Stephen D. Miller		Pat Clay [‡]
	Harvey D. Tripple	2009	Carol Mallory-Smith
1992	Alex G. Ogg, Jr.		Pete Forster
	Kenneth W. Dunster		Alan Helm [‡]
1993	Edward E. Schweizer	2010	Drew Lyon
	Sheldon E. Blank		Ian Burke [‡]
1994	Larry C. Burrill	2011	Monte D. Anderson
1995	Larry W. Mitich		Bradley D. Hanson [‡]
	Paul J. Ogg	2012	Brett Oemichen
1996	Donald C. Thill		Andrew Kniss [‡]
	Neal R. Hageman	2013	Mary Halstvedt
1997	Jeff Tichota		Jane Mangold [‡]
	Harry S. Agamalian	2014	Charlie Hicks
1998	Donald R. Colbert	2015	Brian Mealor [‡]
	Clyde L. Elmore	2016	Prashant Jha [‡]
1999	Gus J. Foster	2017	Erik Lehnhoff [‡]
	Philip Westra	2018	Rick Boydston
2000	Bart Brinkman		Brian Schutte [‡]
	K. George Beck	2019	Don Morishita
2001	John E. Orr		Bill Cobb
	Phillip W. Stahlman		Todd Gaines [‡]
2002	Doug Ryerson	2020	Tim Harrington
	Tom Whitson		Marty Schraer
2003	Frank Young		Vipan Kumar [‡]
2004	Ron P. Crockett	2021	Prashant Jha
	Joe DiTomaso		Nevin Lawrence [‡]
	Jim Vandecoevering [‡]	2022	Charles Geddes [‡]
2005	Kassim Al-Khatib	2023	Breanne Tideman
	Kelly Luff		Byron Sleugh
2006	Rick Arnold	2024	Albert Adjesiwor [‡]
2007	John Fenderson		Derek Sebastian [‡]
	Rod Lym		Andrew Kniss
			Greg Dahl

[‡]Early Career

OUTSTANDING ACHIEVEMENT AWARDS

2003	Bill Brewster	Professional Staff
2005	Guy Kyser	Professional Staff
	Eric Lane	Weed Manager
2006	Ed Peachy	Professional Staff
2007	Jim Freeman	Weed Manager
	Carl Libbey	Professional Staff
2008	Lars Baker	Weed Manager
	Lori Howlett	Professional Staff
2009	April Fletcher	Weed Manager
	Gary Willoughby	Professional Staff
2010	Cheryl Fiore	Professional Staff
2011	Robert Higgins	Professional Staff
2012	James Sebastian	Professional Staff
	Jerry Asher	Weed Manager
2013	Joan Campbell	Professional Staff
	Tim D'Amato	Weed Manager
2014	Ed Davis	Professional Staff
	Rita Beard	Weed Manager
2015	Brent Beutler	Professional Staff
2020	Steve Sauer	Weed Manager
2022	Julie Kraft	Weed Manager
2023	Beth Fowers	Weed Manager
2024	Cody Beckley	Professional Staff
2024	Joe Swanson	Weed Manager

PRESIDENTIAL AWARD OF MERIT

1994	Rodney G. Lym
1995	John E. Orr
1996	Steven A. Dewey
1997	Jill Schroeder
1999	Celestine Duncan
2000	Gus Foster
2001	Jack Schlesselman
2002	Tom Whitson
2003	Nelroy Jackson
2004	Joan Campbell
2005	Tony White
2006	Janet Clark
2007	Tim Miller
2009	Mike Edwards
2010	Phil Motooka
2011	Kai Umeda
2012	Tim Miller
2013	Phil Banks
2014	Carl Libbey
2015	Carol Mallory-Smith
2016	Roland Schirman
2017	Phil Stahlman
2018	Roger Gast
2019	Sandra K. McDonald
2020	Marty Schraer
2021	Elizabeth Mosqueda
2022	Vanelle Peterson
	Mithila Jugulam
	Todd Neel
	Dennis Scott
	Mirella Ortiz
2023	Charlie Hicks
2024	Tracy Rauch

PROCEEDINGS EDITORS 1990-2021

1990 - 1997	Rodney Lym
1998 - 2000	Kathy Christianson
2001	Joan Campbell & Donn Thill
2002 - 2003	Joan Campbell
2004 - 2010	Joan Campbell & Traci Rauch
2011 - 2017	Bill McCloskey
2018 - current	Carl Libby

NEWSLETTER EDITORS 2002-2021

2002 - 2003	Don Morishita
2004 - 2006	Pat Clay
2007 - 2011	Cheryl Fiore
2011 - 2013	Cheryl Fiore and Carl Libby
2013 to present	Carl Libby

BUSINESS MANAGERS AND TREASURERS

1939-1953	Walter Ball	Secretary/ Treasurer
1954-1955	W.A. Harvey	Secretary/ Treasurer
1956-1957	W.C. Robocker	Secretary/ Treasurer
1958-1959	W.R. Furtick	Secretary/ Treasurer
1960-1961	Eugene Heikes	Secretary/ Treasurer
1962-1963	Edward Boles	Secretary/ Treasurer
1964-1966	Edward Boles	Business Manager
1967-1989	LaMar Anderson	Treasurer/ Business Manager
1990-2006	Wanda Graves	Treasurer / Business Manager
2007-2017	Phil Banks	Treasurer / Business Manager
2017-2018	Tara Steinke	Treasurer / Business Manager
2018-2019	Kala Travis	Treasurer / Business Manager
2019-current	Eric Gustafson	Business Manager*
2020-2022	Phil Banks	Treasurer
2023-current	Ryan Rapp	Treasurer

* A separate position for Treasurer on the Board of Directors was created in 2020

WSWS Committees 2024-25

Board contact *italicized*. (Year to rotate off committee in parenthesis)

<p>Awards <i>President</i> Harry Quicke (2025) Drew Lyon Chair (2026) Nevin Lawrence (2027) Adeyemi Olanrewaju, Student Rep (2025)</p>	<p>Legislative <i>WSSA Representative</i> Ryan Edwards (2025) Lisa Rew (2026) Lee Van Wychen, Ex-officio</p>
<p>Fellows and Honorary Membership <i>Past President</i> Rich Zollinger (2025) Carol Mallory Smith Chair (2026) Andrew Kniss (2027)</p>	<p>Local Arrangements <i>President-Elect</i> Eric Westra (2024) Rui Liu (2025) Kai Umeda (2026)</p>
<p>Finance <i>Member-at-Large Public</i> Ryan Rapp, Chair (2026) (Treasurer) Scott Cook (2025) Cody Creech (2026)</p>	<p>Necrology <i>Secretary</i> Lesley Beckworth (2025) Earl Creech (2026) Aaron Becerra-Alvarez (2027)</p>
<p>Herbicide Resistant Plants <i>Member-at-Large Private</i> Stephen Valenti (2025) Rui Lui Chair(2026) Frank Dayan (2027) Sachin Dhanda, Student</p>	<p>Nominations <i>Past President</i> Pat Clay (2025) Caleb Dalley (2026) Breanne Tideman (2027)</p>
<p>Program <i>President-Elect</i> Carl Coburn, Chair (2025) Dirk Baker (2025) Albert Adjesiwor (2025)</p>	<p>Poster <i>President-Elect</i> Lovreet Shergill (2025) Shannon Clark (2026) Marcelo Moretti (2027)</p>
<p>Publications <i>President-Elect</i> Carl Libbey, Proceedings & Newsletter Eric Gustafson, Website Editor</p>	<p>Public Relations <i>Ed. & Reg. Section Chair</i> Mirella Ortiz (2025) Gino Graziano (2026) Thomas Getts (2027) Joshua Miranda, Student Rep (2024)</p>
<p>Student Paper Judging <i>President-Elect</i> Alix Whitener (2025) Jake Courcamp (2026) Judit Barroso (2027) Tong Zhen, Student</p>	<p>Site Selection <i>Past President</i> Kyle Roerig (2025) Craig Alford (2026) Jesse Richardson (2027)</p>
<p>Sustaining Membership <i>Past President</i> Carl Coburn (2025) Ben Westrich (2026)</p>	<p>Ad-Hoc Committees <i>President</i> Diversity and Inclusion; Elizabeth Mosqueda, Invasive Species; Mirella Ortiz, Lisa Jones, Jane Mangold, Chloe Mattilio, Will Hatler, Tanner Hart</p>

THANK YOU!

The WSWS members thank the Sustaining Members of the WSWS for their support. We would also like to thank the industry sponsors listed below for providing refreshments for the retiree reception and meeting breaks and for hosting the graduate student, and business breakfasts. Please thank the sustaining members and sponsors for their generosity and support of the society. The Program and Local Arrangements Committees would like to **thank Marty Schraer** for making the arrangements for the sponsored activities.

BASF Corporation	NuFarm
Bayer CropScience	Rohlf's & Adkins Research
Corteva AgriScience	SePRO Corporation
FMC Corporation	Syngenta Crop Protection
Gowan Company	The Amalgamated Sugar Company
Hubbard Ag Science	UPL LTD
Jemmett Cons. & Research	Valent USA
Miller Research	VARCO
Mountain West PEST	Winfield United

2025 WSWS Sustaining Members

AMVAC Chemical Corporation
BASF Corporation
Bayer CropScience
Corteva Agriscience
FMC Corporation
Gowan Company
Miller Research
Nufarm
Pratam Research
R&D Sprayers
Rohlf's and Adkins Research
Syngenta Crop Protection
TeeJet
UPL AgroSolutions Canda Inc
Valent
Winfield United/Land O'Lakes
Washington State University



FUTURE MEETING DATES AND SITES

2026 Tucson Arizona
