



THE 62ND ANNUAL MEETING OF THE SOCIETY OF NEMATOLOGISTS

SON 2023
Return to the Land-Grant



SUNDAY, JULY 9TH, 2023

Registration

12:00 - 5:00 PM

*Great Hall Art Gallery, Ohio Union, The Ohio State University (1739 N. High Street
Columbus, OH 43210)*

Executive Board Meeting

12:00 - 5:00 PM

Founders Room

Scavenger Hunt (Pick up Jeni's Ice Cream at Thompson Library)

12:00 - 5:00 PM

The Ohio State University

Welcome Reception and Opening Ceremony (Sponsored by the Department of Plant Pathology, The Ohio State University)

5:00 - 7:00 PM

Performance Hall and Potter Plaza

MONDAY, JULY 10TH, 2023

Breakfast (*Sponsored by the College of Food, Agricultural, and Environmental Sciences, The Ohio State University*)

8:00 AM - 8:45 AM

Great Hall Meeting Room

Plenary Session - Welcome to SON 2023

Inga Zasada and Horacio Lopez-Nicora, Session Chairs

8:45 AM - 10:30 AM

Great Hall Meeting Room

8:45 Welcome to SON 2023 – Dr. Cathann A. Kress, Vice President for Agricultural Administration and Dean of the College of Food, Agricultural, and Environmental Sciences (CFAES) at The Ohio State University

9:00 Nematology Faces of the Future – Meet many of the nematologists hired in the last five years into permanent University, Federal, and Industry positions. The format will be 5-min presentations and will highlight past and future scientific efforts of: Lesley Schumacher (USDA-ARS), Asia Kud (University of Arkansas), Sita Thapa (Corteva Agriscience), Benjamin Waldo (USDA-ARS), Horacio Lopez-Nicora (Ohio State University), Elizabeth Wlezien (FMC Corporation), Paulo Vieira (USDA-ARS), Amanda Hodson (University of California, Davis), Clemen Oliveira (Certis Biologicals), Mihail Kantor (Pennsylvania State University), Richard Baidoo (Corteva Agriscience), Adrienne Gorny (North Carolina State), Lei Zhang (Purdue University), Shahid Siddique (University of California, Davis), Initaz Chowdhury (University of Georgia), and Churamani Khanal (Clemson University).

Morning Coffee Break

10:30 AM - 11:00 AM

Founders Pre-Function

Symposium - Evolution of Nematode Resistance to Environmental Stress

William Rutter, Session Chair

11:00 AM - 12:30 PM

Senate Chamber

11:00 IS RESISTANCE IN PLANT-PARASITIC NEMATODES A CONCERN WITH NEW-GENERATION NEMATOCIDES? Crow, William T.

11:30 HOMEOSTATIC PLASTICITY: ONE OF THE MECHANISMS NEMATODES USE TO ADAPT TO ANTHELMINTIC STRESS. **Martin, Richard J.**

12:00 SELECTIVELY KILLING PARASITIC NEMATODES VIA P450 BIOACTIVATION OF SMALL MOLECULES. **Knox, Jessica, A. R. Burns, B. Cooke, S. R. Cammalleri, M. Kitner, J. M. P. Castelli, E. Puumala, J. Snider, I. Stagljar, L. E. Cowen, I. A. Zasada, and P. J. Roy.**

Contributed Paper Session - Nematode Management

Johan Desaegeer, Session Chair

11:00 AM - 12:30 PM

Traditions Room

11:00 THE POTENTIAL OF APPLYING PLASMA-WATER TREATMENT IN *MELOIDOGYNE ENTEROLOBII* MANAGEMENT. **Yang, Jiue-in, S-c. Huang, and J-r. Lai.**

11:15 EVALUATION OF NEMATICIDES FOR MANAGING PLANT-PARASITIC NEMATODES IN LOUISIANA SUGARCANE. **Aguilar, Iris M., and T. Watson.**

11:30 MANAGEMENT OF *MELOIDOGYNE ENTEROLOBII* IN SWEETPOTATO USING FUMIGANT AND NON-FUMIGANT NEMATICIDES. **Grabau, Zane, and C. Liu.**

11:45 BIOSOLARIZATION WITH RECYCLE OLIVE WASTE AS A NEW TOOL TO CONTROL PLANT PARASITIC NEMATODES. **Hodson, A.K., Jungo-Garcia, A., Simmons, C., and Fernandez-Bayo, J.**

12:00 REKLEMEL™ ACTIVE (FLUAZAINDOLIZINE, SALIBRO™) A NEW NEMATICIDE FOR THE MANAGEMENT OF KEY PLANT-PARASITIC NEMATODES IN MULTIPLE CROPS. **Tewari, Sunil, and T. Thoden.**

12:15 NEMATODE MANAGEMENT IN FLORIDA ORGANIC STRAWBERRIES – A MOUNTAIN TO CLIMB. **Desaegeer Johan, H. Bui, D. Moreira, C. Oliveira, J. Carter, and W. Elwakil.**

Contributed Paper Session – Nematode Issues in Soybean (*Sponsored by Ohio Soybean Council*)

Deepak Haarith, Session Chair

11:00 AM – 12:30 PM

Students Alumni Council Room

- 11:00** INVESTIGATING FITNESS COSTS ASSOCIATED WITH VIRULENCE OF HETERODERA GLYCINES ON RESISTANT SOYBEAN. **Mekidani Salu, Jacob and M. G. Mitchum.**
- 11:15** DOES MIXING DIFFERENT SOYBEAN VARIETIES IMPROVE YIELD AND REDUCE SOYBEAN CYST NEMATODE IN NO-TILL FIELDS? **Schumacher, Lesley.**
- 11:30** INTERACTIONS BETWEEN HG TYPES OF THE SOYBEAN CYST NEMATODE AND THE DIFFERENT α -SNAPS OF THE RHG1 RESISTANCE. **Haarith, Deepak, and A. Bent.**
- 11:45** IMPACT OF SOYBEAN (PI 437654) AFTER WHEAT HARVEST ON SOYBEAN YIELD IN CYST NEMATODE-INFESTED FIELDS IN MICHIGAN. **Bird, George.**
- 12:00** ADVANCING SOYBEAN NEMATODE, SUDDEN DEATH SYNDROME, FROGEYE LEAF SPOT AND TARGET SPOT MANAGEMENT EMPLOYING A NOVEL SEED-APPLIED TECHNOLOGY. **Ireland, D. S. and A. Simon Simmons.**

Lunch

12:30 PM - 1:30 PM

Great Hall Meeting Room

Committee Meetings – Entomophilic Nematology, Extension, Finance Advisory, Biological Control of Nematodes, Systematic Resources, Ecology, Education (find the table with the committee's name and join the group – all are welcome)

12:30 PM - 1:30 PM

Great Hall Meeting Room

Honors and Awards Committee Meeting

12:30 PM - 1:30 PM

Founders Room

Symposium - Beech Leaf Disease

Billy Crow, Session Chair

1:30 PM - 3:30 PM

Traditions Room

- 1:30** NOVEL CELLULAR INSIGHTS OF BEECH LEAF DISEASE. **Vieira, Paulo.**
- 1:55** BIOLOGY AND GENOME OF THE BEECH LEAF DISEASE NEMATODE, *LITYLENCHUS CRENATAE* SUBSP. *MCCANNII*. **Taylor, Christopher G., K. Scott, T. Ross, C. Chagas de Freitas, J. Slot, P. Bonello, and M. Roth.**
- 2:20** STRUGGLES, FRUSTRATIONS, AND A GLIMMER OF HOPE: TALES FROM BEECH LEAF DISEASE MANAGEMENT TRIALS. **Loyd, Andrew, M. Borden, J. LaMondia, and R. Cowles.**
- 2:50** PHOSPHONATE SOIL TREATMENTS IMPROVE TREE HEALTH AND SUPPRESS FOLIAR NEMATODE POPULATIONS IN AMERICAN BEECH WITH BEECH LEAF DISEASE. **Herms, Daniel A., D. R. Volk, C. E. Hausman, A. Persad, and B. L. Holko.**
- 3:15** BEECH LEAF DISEASE: FUTURE RESEARCH DIRECTIONS. **Mitkowski, Nathaniel A.**

Contributed Paper Session - Plant Resistance to Nematodes

Sapinder Bali, Session Chair

1:30 PM - 2:45 PM

Senate Chamber

- 1:30** GREENHOUSE EVALUATION OF ROOT KNOT NEMATODE RESISTANT PEPPER LINES AGAINST *MELOIDOGYNE FLORIDENSIS*. **Khanal, Churamani, W. Rutter, M. Alam, I. Alarcon, and D. Harshman.**
- 1:45** AUTOMATED COUNTING OF ROOT-KNOT NEMATODE EGGS USING PLANTCV. **Wram, Catherine, T. Wiesner-Hanks, X. Tang, M. Lin, B. Waldo, P. A. Wadl, T. Slonecki, C. Beil, M. Sheehan, and W. Rutter.**
- 2:00** USING MARKER-ASSISTED SELECTION TO TRANSFER *MELOIDOGYNE INCOGNITA* RESISTANCE IN SORGHUM. **Davis, Richard F., K. R. Harris-Shultz, J. E. Knol, and H. Wang.**

2:15 PTI-BASED CALLOSE DEPOSITION PLAYS A ROLE IN HOST-NEMATODE INTERACTIONS. **Bali, Sapinder, P. Vieira, and C. Gleason.**

2:30 GENETIC RESISTANCE TO MELOIDOGYNE JAVANICA IN CUCUMBER IS CONFERRED BY MUTATIONS UPSTREAM OF A HOST TRANSCRIPTION FACTOR THAT POSITIVELY REGULATES DEFENSES. **Rutter, William, A. Hajihassani, Y. Wang, and Y. Weng.**

Contributed Paper Session - Nematode Taxonomy

Danny, Humphreys-Pereira, Session Chair

1:30 PM - 2:30 PM

Student Alumni Council Room

1:30 SEEKING ORDER OUT OF CHAOS — *THELASTOMA* SPP. (OXYURIDOMORPHA), COMMENSALS IN ARTHROPOD INTESTINES. **Bernard, Ernest C., G. J. Phillips, C. T. McAllister, J. K. Moulton, J. Turner, and J. Kolape.**

1:45 COMPARATIVE MITOCHONDRIAL GENOMICS IN NEMATODA: ASTONISHING VARIATION IN COMPOSITIONAL STRAND BIASES AND MUTATION RATES DRIVEN MORE BY LIFE TRAITS THAN PHYLOGENY. **Gendron, Eli. M., Q. Xue, J. L. Sevigny, H. Li, Z. Liu, E. King, M. Blaxter, T. O. Powers, W. K. Thomas, and D. L. Porazinska.**

2:00 GENETIC DATA REVEALS TWO NEW HAPLOTYPE GROUPS OF THE XIPHINEMA AMERICUM-GROUP FROM NATIVE TALL PRAIRIES OF NEBRASKA AND KANSAS. **Sirengo, David, T. Harris, K. Powers, B. Higgins, P. Mullin, and T. Power.**

2:15 CYST-FORMING NEMATODES IN COSTA RICA: SPECIES, VARIABILITY, AND BIOLOGY. **Humphreys-Pereira, Danny, L. Núñez-Rodríguez, R. Sandoval-Ruiz, and L. Flores-Chaves.**

Symposium - How Will Regenerative Agricultural Practices Affect Parasitic Nematode Populations?

Tom Forge, Session Chair

2:30 PM - 5:00 PM

Student Alumni Council Room

2:30 Introduction

2:35 NEMATODE LINKAGE TO REGENERATIVE AGRICULTURE IN THE TROPICS/SUBTROPICS. **Wang, Koon-Hui1, R. Paudel, J. Marquez, and P. Waisen.**

3:00 INFLUENCE OF SUBTROPICAL REGENERATIVE CROPPING SYSTEMS ON PLANT-PARASITIC NEMATODES ARE SPECIES-SPECIFIC. **Grabau, Zane.**

(30 MINUTE COFFEE BREAK FROM 3:30 - 4:00 PM)

4:00 THE DUAL EFFECTS OF WINTER COVER CROPS ON ABUNDANCE OF MELOIDOGYNE INCOGNITA AND BIOLOGICAL CONTROL. **Timper, Patricia.**

4:25 SOIL BIOLOGICAL RESPONSES AT THE WEST VIRGINIA UNIVERSITY LONG-TERM ORGANIC FIELD CROP/LIVESTOCK SYSTEMS TRIAL. **Kotcon, James.**

4:45 IS THE ADOPTION OF REGENERATIVE SOIL MANAGEMENT PRACTICES TO INCREASE SOIL ORGANIC MATTER ALWAYS GOOD FOR SUSTAINABILITY OF TEMPERATE ORCHARDS AND VINEYARDS? A NEMATOLOGICAL PERSPECTIVE. **Forge, Tom.**

Afternoon Coffee Break

3:30 PM - 4:00 PM

Founders Pre-Function

Workshop - Attending Scientific Society Conferences is as Fun as Informative: A Guide to Getting the Most out of Attending 2023 SON Conference

Intiaz Amin Chowdhury and Adrienne Gorney, Session Chairs

4:00 PM - 5:00 PM

Traditions Room

Often new students and first-time attendees do not yet know how to take full advantage of attending a scientific conference and all the amazing opportunities such conferences bring to attendees. In this session, we will discuss how to succeed in networking with researchers, faculty, industry professionals, and other students. We will elaborate on navigating session schedules and locations, poster and presentation etiquettes, committee signup and meeting attendance, and how to make life-long friends. We will also share advice on networking with and learning from diverse meeting participants from a variety of different backgrounds. All are welcome.

Contributed Paper Session - Plant-Nematode Interaction

Mihail Kantor, Session Chair

4:00 PM - 5:00 PM

Senate Chamber

- 4:00** DORSAL GLAND RNA SEQUENCING REVEALS NOVEL EFFECTOR CANDIDATES IN MELOIDOGYNE INCOGNITA ADULT FEMALES. **Rocha, Raquel, R. S. Hussey, L. E. Pepi, P. Azadi, and M. G. Mitchum.**
- 4:15** MICROBIOME DIVERSITY ASSOCIATED WITH BEECH LEAF DISEASE IN AMERICAN BEECH. **Kantor, Mihail and J. D. Eisenback.**
- 4:30** AI AND BIG DATA APPLICATIONS IN NEMATODOLOGY. **DiGennaro, Peter, and S. Mishra, S.**
- 4:45** POTATO NEMATODES OF NORTH AMERICA: WITH SPECIAL REFERENCE TO SOIL HEALTH DYNAMICS. **Bird, George.**

President's Reception (by invitation only)

6:00 - 8:00 PM

Jesse Owens Room and Terrace, Graduate Hotel (750 N High St, Columbus, OH 43215)

Industry Social (Sponsored by Corteva Agriscience)

6:00 - 10:00 PM

Ethyl and Tank (19 E 13th Ave, Columbus, OH 43201)

TUESDAY, JULY 11TH, 2023

Breakfast

8:00 AM - 9:00 AM

Great Hall Meeting Room

N.A Cobb Foundation Meeting

8:00 AM - 9:00 AM

Founders Room

Student Paper Competition - 12-Minute Competition

Nathan Schroeder, Session Chair

9:00 AM - 10:35 AM

Great Hall Meeting Room

- 9:00** EFFECTS OF SUMMER AND FALL COVER CROP COMBINATIONS ON STING NEMATODE, STUBBY ROOT NEMATODES, AND FREELIVING NEMATODES IN POTATO. **Budhathoki, Sabina and Z. J. Grabau.**

- 9:12** EVALUATING ALTERNATIVE MANAGEMENT STRATEGIES FOR THE ROOT LESION NEMATODE, PRATYLENCHUS PENETRANS, AND THE ROOT-KNOT NEMATODE, MELOIDOGYNE HAPLA, IN SPECIALTY ROOT CROPPING SYSTEMS. **Darling, Elisabeth, S. Thapa, L. Parrado, K. Poley, H. Chung, and M. Quintanilla-Tornel.**

- 9:24** EFFICACY OF BIONEMATOCIDES AGAINST MELOIDOGYNE INCOGNITA UNDER GREENHOUSE AND FIELD CONDITIONS. **Gitonga, Denis, and A. Hajihassani.**

- 9:36** STRATEGIC ROTATIONS OF RESISTANCE GENES TO COMBAT SOYBEAN CYST NEMATODE VIRULENCE. **Pennewitt, Monica G. and G. L. Tylka.**

- 9:48** SURVIVAL AND INFECTIVITY OF ENTOMOPATHOGENIC NEMATODES FROM DESICCATED LIVING BOMBS. **Silvester, N. P. and B. S. Sipes.**

- 10:00** FOLIAR NEMATODE DISTRIBUTION AND CHARACTERIZATION IN ORNAMENTAL PLANTS IN FLORIDA. **Demseyeux, Lynhe, A. Habteweld, and W. T. Crow.**

10:12 MOLECULAR CHARACTERIZATION OF LANCE NEMATODES ON CREEPING BENTGRASS PUTTING GREENS IN MISSOURI AND INDIANA. **McCurdy, Asa, J. Barizon, and G. L. Miller.**

10:24 POPULATION DYNAMICS OF *HETERODERA HUMULI* AND OCCURRENCE OF PLANT-PARASITIC NEMATODES ASSOCIATED WITH HOP IN THE PACIFIC NORTHWEST. **Núñez-Rodríguez, Lester A., K. Altendorf, A. Tawril, D. Gent, and I. A. Zasada.**

Morning Coffee Break

10:35 AM - 11:00 AM

Great Hall Art Gallery

Student Paper Competition – 12-Minute Presentations (cont.)

Nathan Schroeder, Session Chair

11:00 AM - 12:30 PM

Great Hall Meeting Room

11:00 EVALUATING SOIL HEALTH BENEFITS OF FOUR TROPICAL COVER CROPS IN THE TROPIC. **Pitiki, Melanie, B. Wiseman, and K. -H. Wang.**

11:12 SCREENING COMMERCIAL SOYBEAN CULTIVARS FOR RESISTANCE TO SOYBEAN CYST NEMATODE. **Johnson, Conner, L. Lindsey, and H. Lopez-Nicora.**

11:24 MORTALITY OF THE SWEET POTATO WEEVIL (*CYLAS FORMICARIUS*) LARVAE CAUSED BY *STEINERNEMA FELTIAE*. **Wong, L., K. -H. Wang, and B. S. Sipes.**

11:36 ELUCIDATING THE ROLE OF MIGPSY PEPTIDES IN INTERACTION BETWEEN PLANTS AND ROOT-KNOT NEMATODE. **Lin, Ching-Jung, H. Z. Yimer, D. D. Luu, A. C. Blundell, M. F. Ercoli, P. Vieira, V. M. Williamson, P. C. Ronald, and S. Siddique.**

11:48 INVESTIGATING PATHOGENICITY AND COMPETITION IN CO-INFESTATIONS OF *GLOBODERA ELLINGTONAE* AND *GLOBODERA PALLIDA* ON RUSSET POTATO. **Hickman, Paige, and L. M. Dandurand.**

12:00 THE EFFECTS OF NICKEL ON MELOIDOGYNE *ENTEROLOBII* EMBRYOGENESIS AND EGG HATCHING. **Kuo, Hao-yu, and J. Yang.**

12:12 HOW LONG DOES IT TAKE FOR A LOW-TILL SORGHUM/SORGHUM-SUDANGRASS COVER CROPPING TO IMPROVE SOIL HEALTH IN A DEGRADED TROPICAL OXISOL?
Paudel, Roshan and K. -H. Wang.

Lunch (*Sponsored by BASF*)

12:30 PM - 1:30 PM

Great Hall Meeting Room

Committee Meetings – Graduate Student, Industry, Long-Range Planning, Meeting Site Selection, Membership, Plant Resistance to Nematodes, Regulatory (find the table with the committee's name and join the group – all are welcome)

12:30 PM - 1:30 PM

Great Hall Meeting Room

Journal of Nematology Editorial Board Meeting

12:30 PM - 1:30 PM

Founders Room

Contributed Paper Session - Nematode Genomics

Shahid Siddique, Session Chair

1:30 PM - 2:15 PM

Traditions Room

1:30 FIRST DRAFT GENOME ASSEMBLY OF THE ROOT-LESION NEMATODE PRATYLENCHUS SCRIBNERI GENERATED USING LONG-READ SEQUENCING. **Yan, Guiping, and D. Arora.**

1:45 SINGLE WORM LONG READ SEQUENCING REVEALS GENOME DIVERSITY IN FREE-LIVING NEMATODES. **Lee, Yi-Chien, H. -H. Lee, H. -M. Ke, Y. -C. Liu, M. -C. Wang, Y. -C. Tseng, T. Kikuchi, and I. J. Tsai.**

2:00 UNRAVELING THE VIRULENCE MECHANISM OF MELOIDOGYNE HAPLA THROUGH GENOMICS AND FUNCTIONAL GENETICS. **Shakya Pallavi, A. Coomer, S. van de Ruitenbeek, M. Maulana, V. M. Williamson, M. Sterken, and S. Siddique.**

Contributed Paper Session - Integrated Nematode Management

Abolfazl Hajihassani, Session Chair

1:30 PM - 2:45 PM

Student Alumni Council Room

- 1:30** SYSTEMS APPROACH TO CONTROLLING NEMATODES IN U.S. POTATO PRODUCTION. **Dandurand, Louise-Marie, I. Zasada, C. Gleason, J. Kuhl, W. S. DeJong, and P. Watson.**
- 1:45** GRAFTING TOMATO TO MANAGE ROOT-KNOT NEMATODE AND SOUTHERN BLIGHT DISEASE. **Hajihassani, Abolfazl and A. P. Keinath.**
- 2:00** CONTROL OF VIRULENT GLOBODERA PALLIDA POPULATIONS USING NEW SOURCES OF PLANT RESISTANCE. **Kiewnick, Sebastian.**
- 2:15** ANAEROBIC SOIL DISINFESTATION AS A NON-CHEMICAL TOOL FOR THE MANAGEMENT OF NEMATODES AND WEEDS IN SWEETPOTATO. **Singh, Simardeep, M. Cutulle, C. Khanal, W. Rutter, and P. Wadl.**
- 2:30** DO MELOIDOGYNE ARENARIA AND PEANUT LEAF SPOT PATHOGENS HAVE SYNERGISTIC EFFECTS IN PEANUT PRODUCTION? **Grabau, Zane, R. Barocco, R. Sandoval-Ruiz, N. Dufault, and I. Small.**

Contributed Paper Session - Regulatory Aspects of Nematology

Cristian Olaya, Session Chair

2:15 PM - 3:15 PM

Traditions Room

- 2:15** DETECTION AND DISTRIBUTION OF MELOIDOGYNE SPECIES INFECTING SUBTROPICAL CROPS IN FLORIDA. **Riva, Gabrieli, H. X. Bui, M. Gu, and J. A. Desaeger.**
- 2:30** QUARANTINE ACTIONS AND GROWING REQUIREMENTS TO PROTECT THE FLORIDA CITRUS INDUSTRY FROM BURROWING NEMATODE AND CITRUS GREENING HAS RESULTED IN A REDUCTION IN NEMATODE PESTS OF CITRUS AND CITRUS NURSERIES. **Vau, Silvia, and J. Stanley.**

- 2:45** AN UPDATE OF REGULATED AND RECENT DISCOVERIES OF INVASIVE ALIEN PLANT-PARASITIC NEMATODES SPECIES IN CANADA. **Yu, Qing, and F. Sun.**
- 3:00** STRATEGIES TO DEVELOP AND APPLY A TEST FOR DETECTION OF RINGSPOT VIRUSES IN DAGGER NEMATODES IN SMALL FRUITS AND GRAPEVINES. **Olaya, Cristian, L. Reinhold, D. Molloy, and I. A. Zasada.**

Afternoon Coffee Break

3:15 PM - 3:45 PM

Great Hall Art Gallery

Student Paper Competition – 3-Minute Competition

Nathan Schroeder, Session Chair

3:45 PM - 4:35 PM

Great Hall Meeting Room

- 3:45** TOXIC EFFECTS OF THE TRAP CROP, SOLANUM SISYMBRIIFOLIUM, ON THE PALE CYST NEMATODE, GLOBODERA PALLIDA. **Schulz, Lindsay, L. M. Dandurand, and I. Popova.**
- 3:50** TRADE OFFS BETWEEN RESISTANCE BREAKING AND FITNESS COST IN ROOT-KNOT NEMATODES. **Coomer, Alison, P. Shakya, M. Winter, D. Lunt, V. M. Williamson, and S. Siddique.**
- 3:55** EARLY DETECTION OF SOYBEAN CYST NEMATODE (SCN)-INFECTED SOYBEAN PLANTS USING NEAR-INFARED (NIR) REFLECTANCE SPECTROSCOPY AND MACHINE LEARNING. **Peart, Alison, T. Ralston, C. Fearer, A. O. Conrad, P. Bonello, and H. D. Lopez-Nicora.**
- 4:00** ASSESSMENT OF SOYBEAN CYST NEMATODE SUPPRESSIVE SOIL FROM SOYBEAN FIELDS IN NORTH DAKOTA. **Dhakal, Roshan, A. Plaisance, and G. Yan.**
- 4:05** HETERODERA GLYCINES IS ASSOCIATED WITH SHIFTS IN FUNGAL COMMUNITY COMPOSITION IN OHIO AGRICULTURAL SOILS. **Medina López, Melanie, T. Ralston, H. D. Lopez-Nicora, and S. Benitez Ponce.**

- 4:10** MANURE-BASED AMENDMENTS INFLUENCE ON SOIL BIOLOGICAL PARAMETERS AND ITS CORRELATION WITH PRATYLENCHUS PENETRANS INFECTION IN POTATO PLANTS. **Parrado, Luisa, E. Darling, and M. Quintanilla.**
- 4:15** PARATYLENCHUS SPP. MANAGEMENT AND IMPACT IN DAYLILY (HEMEROCALLIS SPP.) ORNAMENTAL PLANTS IN MICHIGAN. **Howland, Amanda D., and M. Quintanilla.**
- 4:20** COMPARING A TRADITIONAL SOIL SAMPLING TO AN AUTOMATED PRECISION SOIL SAMPLER (APSS) TO EFFICIENTLY COLLECT AND QUANTIFY SOYBEAN CYST NEMATODE. **González, Richard, and H. D. Lopez-Nicora.**
- 4:25** WINTER COVER CROPS AND BIOLOGICAL PRODUCTS TO MANAGE MELOIDOGYNE INCOGNITA AND PROMOTE SOIL HEALTH IN SWEETPOTATO. **Schloemer, Claire, K. S. Lawrence, S. H. Graham, K. -H. Wang, and B. Sipes.**
- 4:30** ROOT PENETRATION AND REPRODUCTIVE ABILITIES OF ROOT-LESION NEMATODE, PRATYLENCHUS PENETRANS IN COVER CROPS. **John, Matthew, A. Plaisance, and G. Yan.**

Wine and Cheese Poster Session (*Sponsored by Velum / Bayer*)

4:30 - 7:00 PM

Performance Hall

WEDNESDAY, JULY 12TH, 2023

Breakfast

8:00 AM - 9:00 AM

Great Hall Meeting Room

Workshop - Diagnostic Resources for Nematode Systematics

Jonathan Eisenback, Session Chair

9:00 AM - 10:30 AM

Traditions Room

- 9:00** PROJECT NEMATODA. **Kantor, Mihail and J. D. Eisenback.**
- 9:20** MAKING DIGITAL MOSAIC MICROGRAPHS OF NEMATODES.
Eisenback, Jonathan D.
- 9:40** DIGITAL DRAWINGS OF NEMATODES – FROM CAMERA LUCIDA
TO ADOBE ILLUSTRATOR. **Bernard, Ernest C., and B. Im, B.**
- 10:00** STRATEGIES FOR A DIGITAL NEMATODE ANATOMY
DATABASE. **Schroeder, Nathan E., H. Imker, A. Kenfield, S. Luke,
and D. H. Hall.**
- 10:20** MODELING AND PRINTING 3D MODELS OF NEMATODES.
Eisenback, Jonathan D.

Contributed Paper Session - Entomopathogenic Nematodes / Biological Control

Adler Dillman, Session Chair

9:00 AM - 10:15 AM

Student Alumni Council Room

- 9:00** ENTOMOPATHOGENIC NEMATODES AS BIOCONTROL FOR
FLATHEADED APPLETREE BORER (CHRYSOBOTHRIS
FEMORATA). **Wong, Colin, and D. Shapiro.**
- 9:15** PERSISTENCE OF ENTOMOPATHOGENIC NEMATODES IN A
NOVEL CAPSULE FORMULATION. **Wu, Shaohui, M. D. Toews, S.
Arthurs, and D. I. Shapiro-Ilan.**
- 9:30** ENTOMOPATHOGENIC NEMATODE PROTEINS MODULATE HOST
IMMUNITY DURING INFECTIONS. **Dillman, Adler R., O. K. Okakpu,
S. C. Parks, A. K. Lima, S. Martinez-Beltran, and P. Azizpor.**

9:45 A SUSTAINABLE GROWER-BASED METHOD FOR ENTOMOPATHOGENIC NEMATODE PRODUCTION. **Shapiro-Ilan, David, C. Oliveira-Hofman, and S. Steffan.**

10:00 SEARCHING FOR NATURAL ENEMIES OF PLANT-PARASITIC NEMATODES IN CALIFORNIA. **Casey, Veronica.**

Morning Coffee Break (*Sponsored by North Central SARE*)

10:30 AM - 11:00 AM

Founders Pre-Function

Workshop - Where to Next?: A Look Into Different Career Tracks Within Research and How to Land Your Ideal Job

Lauren Braley, Session Chair

11:00 AM - 12:00 PM

Traditions Room

Join selected speakers [Cynthia Gleason (Washington State University), Billy Crow (University of Florida), Amy Agi (Corteva), and Richard Davis (USDA-ARS)] from research career tracks in government, industry, academia, and extension to learn more about a day in the life of each career type and ways in which you can prepare yourself to be an appealing candidate in each field. Speakers will share their tips for what to include in CV/resume building, good networking practices, desired experience and skills, and the overall application and hiring processes. Time will be provided for a Q&A panel style discussion, so come prepared with questions that burning to be answered! (Sponsored by the Graduate Student Committee)

Workshop - Nematode Community Analysis with NINJA

Roshan Paudel, Session Chair

11:00 AM - 12:00 PM

Student Alumni Council Room

Soil is a complex and dynamic environment in which millions of microscopic organisms interact with each other to accomplish vital ecosystem services such as nutrient cycling and carbon sequestration. Our understanding of belowground ecosystem processes is enhanced by the study of nematodes. Over the years, nematologists have proposed different metrics to quantify the soil food web structure and functioning. An online Nematode Indicator Joint Analysis (NINJA) developed by Sieriebriennikov, Ferris and de Goede is a free tool that provides the calculation of 40 metrics used in nematode-based biological monitoring. The use of NINJA for nematode community analysis provides an opportunity for novice users to analyze their data to create quick summaries and graphs. Many had been promoting the use of NINJA and would be most appropriate to share this again as a workshop in this SON meeting. This workshop will focus on demonstrating how to format the data file to run the analysis and interpret the results in NINJA. Graduate students are encouraged to bring their own data to the workshop for practice. Additionally, a similar Excel-based interactive tool will be introduced during the workshop.

Lunch (grab your lunch boxes)

12:00 PM - 1:00 PM

Great Hall Art Gallery

Free Afternoon (no scientific programs)

Hocking Hills Tour (*Sponsored by Syngenta*)

(Separate registration and ticket required)

1:00 PM - 5:30 PM

Meet at the *Great Hall Art Gallery* and head to buses.

Dinner at Outerbelt Brewing (*Sponsored by Syngenta*)

5:30 PM - 8:00 PM

Expected to be back in Columbus around 8:30 PM

THURSDAY, JULY 13TH, 2023

Breakfast

8:00 AM - 9:00 AM

Great Hall Meeting Room

Symposium - Where are the Webster Winners?

Lesley Schumacher, Session Chair

9:00 AM - 10:30AM

Traditions Room

Here about where the N.A. Cobb Foundation Webster Award winners are now and their current professional endeavors. The session will highlight past award winners including: T.J. Bliss (virtual presentation, pre-recorded), Paulo Vieira, Adler Dillman, Samantha Lewis (virtual presentation, pre-recorded), Horacio Lopez-Nicora, Abolfazl Hajihassani, Catherine Wram, and Clemen De Oliveira

Contributed Paper Session - Nematode Ecology

Benjamin Waldo, Session Chair

9:00 AM - 10:30 AM

Student Alumni Council Room

- 9:00** CHARACTERIZING INDICATOR MICROBIAL COMMUNITIES ASSOCIATED WITH THE NORTHERN ROOT-KNOT NEMATODE (MELOIDOGYNE HAPLA) OCCURRENCE AND SOIL HEALTH CONDITIONS. **Lartey, Isaac, G. M. N. Benucci, T. Marsh, G. Bonito, and H. Melakeberhan.**

- 9:15** EXPLORING DISTRIBUTION OF NEMATODES IN AN URBAN ECOSYSTEM: BELOWGROUND LIFE AT THE OHIO STATE UNIVERSITY. **Mondal, Sandip, T. Burgos-Hernandez, and H. D. Lopez-Nicora.**

- 9:30** AFTERMATH OF AN ENVIRONMENTAL DISASTER: CAN NEMATODES PROVIDE INSIGHT? **Powers, Thomas, P. Mullin, R. Higgins, T. Harris, N. Gonzalez, M. Rawlings, and K. Powers.**

- 9:45** SUGAR BEET MEDIATED BELOWGROUND INTERACTIONS BETWEEN ROOT-KNOT AND ROOT-LESION NEMATODES. **Sadic, Busra and E. Lewis.**

10:00 RESPONSE OF THE NEMATODE COMMUNITY TO REDUCED-RISK NEMATOCIDES IN LOW DESERT VEGETABLE CROPPING SYSTEMS. **Waisen, Philip.**

10:15 LONG-TERM FERTILIZATION AND CULTIVATION IMPACTS ON NEMATODE ABUNDANCE AND COMMUNITY STRUCTURE IN TALL FESCUE TURFGRASS. **Waldo, Benjamin, F. Shahoveisi, and M. Carroll.**

Morning Coffee Break (*Sponsored by Corteva Agriscience*)

10:30 AM - 11:00 am

Great Hall Art Gallery

N.A. Cobb Foundation Webster Award

Tom Forge, Session Chair

11:00 AM - 12:00 PM

Great Hall Meeting Room

11:00 HARNESSING THE POWER OF SORGHUM-SUDANGRASS HYBRIDS TO TRANSFORM SOIL HEALTH IN ANNUAL ROW CROP SYSTEMS: A NARRATIVE ON NEMATODES AND BEYOND. **Paudel, Roshan.**

Lunch (*Sponsored by Corteva Agriscience*)

12:00 PM - 1:00 PM

Great Hall Meeting Room

Cobb Bowl

Jonathan Eisenback, Session Chair

1:00 PM - 2:00 PM

Great Hall Meeting Room

SON Annual Business Meeting

Axel Elling, President

2:00 PM - 3:30 PM

Great Hall Meeting Room

Afternoon Coffee Break

3:30 PM - 4:00 PM

Great Hall Art Gallery

Reception

6:00 PM - 7:00 PM

Performance Hall and Potter Plaza

Awards Banquet (*Sponsored by the Ohio Soybean Council*)

7:00 PM - 10:00 PM

Performance Hall and Potter Plaza

FRIDAY, JULY 14TH, 2023

Executive Board Meeting

8:00 - 10:00 AM

Founders Room