# Sydney E. Everhart, Ph.D.

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# **EDUCATION**

Ph.D. in Plant Pathology, Department of Plant Pathology, University of Georgia (UGA), 2012M.S. in Biology, Department of Biology and Earth Science, University of Central Missouri (UCM), 2007B.S. in Biology, Department of Biology, University of Iowa, 2005

#### **PROFESSIONAL POSITIONS**

2019 - present	Associate Professor, Department of Plant Pathology, University of Nebraska (UNL), Lincoln, NE
2016 – present	Adjunct Faculty, Department of Plant and Environmental Science, University of Clemson, Clemson, SC
2014 - 2019	Assistant Professor, Department of Plant Pathology, University of Nebraska, Lincoln, NE
2012 - 2014	USDA-AFRI-NIFA Postdoctoral Fellow, Department of Botany & Plant Pathology, Oregon State University, and USDA Horticultural Crops Research Unit, Corvallis, OR

### **AWARDS / RECOGNITIONS**

- Nominated for the Susan J. Rosowski Professorship at UNL, 2021 (pending)
- Nominated for the Dinsdale Family Faculty Award, UNL, 2017
- Awarded "Top 5 Most Viewed Articles of 2017" in PeerJ's section on Agriculture Science, Genetics, and Mycology for Kamvar et al. 2017
- Figure selected as the cover image of *Phytopathology* from Grünwald *et al.* 2017
- Received "Editor's Pick" in Plant Health Progress for Dugan and Everhart 2017
- Awarded *Schroth Faces of the Future Award in Epidemiology* from the American Phytopathological Society (APS) in 2016
- K.E. Papa Outstanding Ph.D. Student, Department of Plant Pathology, UGA, 2012
- Second Place Oral Presentation, Broadus Browne Competition, UGA, 2012
- 11<sup>th</sup> I.E. Melhus Graduate Student Symposium Award, APS, 2011
- Grants-in-Aid-of-Research Award, Sigma Xi, 2011
- R.J. Tarleton Fellowship, awarded to one student nationally per year, APS, 2011
- Outstanding Graduate Teaching Assistant, Department of Plant Pathology, UGA, 2010
- C. Lee Campbell Student Travel Award, APS, 2009
- First Place Student Presentation, Georgia Association of Plant Pathologists, 2009
- First Place Graduate Thesis Award, one thesis selected per year, UCM, 2008
- Microbiology Research Award, Association of Southeastern Biologists, 2007
- Outstanding Graduate Student, Department of Biology, UCM, 2007
- Quarterman-Keever Poster Award, Southeastern Ecological Society of America, 2007
- Willard North Graduate Award for Research, UCM, 2006
- Dan Cooper Memorial Scholarship, Iowa State Horticulture Society, 2005
- Midwest Aquatic Plant Management Society, 2004
- "Iowa's Promise...Our Youth" Grant to create wildflower garden, 2000

# SELECTED ADMINISTRATIVE ACCOMPLISHMENTS / ACTIVITIES

One of the most significant contributions made was to initiate and lead a team of faculty in writing a proposal to establish a new graduate program for M.S. and Ph.D. degrees in Plant Pathology. For nearly 100 years our department routed graduate students through other departments. As one of 13 remaining Departments of Plant Pathology in the U.S., ours was the only one that did not offer graduate degrees in the discipline. After initiating several discussions with our faculty, I was appointed to lead a committee to propose the new degree program. My responsibilities included organizing our materials, leading meetings, and coordinating our writing efforts. Being the lead member of this group also meant that I spoke on behalf of our department to obtain support from the head / chair of both the Department of Agronomy & Horticulture and the School of Biological Sciences. I also represented our department at meetings when the proposal was reviewed for approval by college- and university-level committees and before members of the Nebraska's Coordinating Commission for Postsecondary Education. Creation of this program gave our department greater unity, allowed us to create a student-centric curriculum, and streamlined our administration process.

### **Chair of the Graduate Program**

- Lead author to propose a new graduate program, establishing the M.S. and Ph.D. degrees in Plant Pathology. Our proposal was submitted in 2018, approved by the Nebraska Coordinating Commission for Postsecondary Education in early 2020, and program launched in Fall 2020.
- Established a department-level recruitment strategy that tripled the average number of applications per year from 25 to 75.
- Initiated and responsible for publishing graduation announcements in the American Phytopathological Society national newsletter, *Phytopathology News*, with 7 announcements published in 2020.
- Developed a 50-page graduate handbook that was adopted by the faculty in Fall 2020 that established program admission / administration procedures, expectations for faculty and students, professional development resources, and opportunities for students.
- Conducted a curricular assessment survey for the department to identify learning outcomes for the program and determine how courses aligned with each of the learning outcomes. Results of this effort identified areas of strength and weakness for the department curriculum, and are now used as points of pride and justification for new hires.

# **Capital Equipment Procurement for the Department**

- Obtained internal funding (\$17,399) in 2020 to purchase a molecular diagnostic platform (Solas 8) for use within the Department of Plant Pathology.
- Identified department needs, obtained bids, and coordinated delivery, computer upgrades, installation, and training for approximately \$20,000 in lab equipment (ChemiDoc Gel System, QuBit Fluorometer) purchased for the Department in 2016.

# **Department Communications**

- Restructured / updated the UNL Department of Plant Pathology website (<u>plantpathology.unl.edu</u>), which required migrating or creating a total of 145 pages of news, history, jobs, and faculty, staff, and student profiles from HTML into a Drupal framework. This also involved working with university communications to obtain professional photos. After I hired, trained, and supervised a department staff person as a content editor in the fall of 2017, the website gained an additional 95 pages.
- Expanded our department's communications delivery tools to include use of the UNL Events Calendar (events.unl.edu/plantpath), broadcasting of our departmental seminars online via Adobe Connect / Zoom, and creating a Twitter account (@UNL\_PlantPath) that was established in January 2018 and now has 637 followers and 214 Tweets.

### **RESEARCH ACTIVITIES**

Over the course of my career, my research interests have evolved from broad investigation into the spatial patterns of microbial communities on native trees and vines to current work that is focused on the application of molecular tools for elucidating the biology, epidemiology, and origins of fungal plant pathogens causing disease within cultivated crops. Goals of my research are to improve our understanding of disease epidemics and population dynamics over space and time, with the long-term goal to better understand the underlying processes that shape pathogen populations and the pattern of disease. A major underlying process is the emergence and evolution of fungicide resistance.

Fungicide resistance is an economically important phenotype that, when present in pathogen populations, can be an underlying driver of disease outbreaks when fungicides applied are no longer effective. There are already 203 species of fungal plant pathogens reported to have fungicide resistance and it is an increasing concern. Although use of genetically modified crop plants decreases the need for chemical intervention, integration of resistance to necrotrophic pathogens is limited. This is due to the need for identification and integration of multiple minor genes, many of which may not yet be described and may be challenging to simultaneously integrate. Nationally, fungicides account for a 50% yield increase for 22 major crops in the U.S., which accounts for 97 billion pounds of food and fiber, valued at \$12.8B<sup>1</sup>. Among the 45 active ingredients on the market, there exist only 10 modes of action<sup>1,2</sup>, which is the fundamental unit to which resistance develops. New modes of action are sought and rarely discovered, so relying on this option to replace modes of action that are no longer effective is not realistic. Moreover, to develop a new product, it is estimated to take about 10 years and cost \$200M. There is a pressing need to ensure that existing modes of action remain effective and that there are tools (rapid detection and resistant plant cultivars) available to reduce fungicide use; this is the mission of my research.

Research in my lab is focused on understanding mechanisms of fungicide resistance emergence, evaluation of new plant breeding lines for pathogen resistance, and concomitant investigations into the pathogen genetic and phenotypic variability. The long-term goal of my research is to reduce reliance on chemical intervention and increase health and environmental sustainability of plant production systems. The following research projects are actively underway at UNL:

1. *Sclerotinia sclerotiorum*, causal agent of white mold disease of dry bean and soybean in the United States. My research group has improved our understanding of the biology, epidemiology, evolution, and management of white mold disease. This disease results in an annual loss of ~\$252M on sunflower, soybeans, dry edible beans, canola, and pulse crops. Because *S. sclerotiorum* is a necrotrophic pathogen and able to infect over 450 plants, breeding is limited and management relies heavily on well-timed fungicides. One of the most significant projects completed by my research group was a landscape-level population genetic analysis of *S. sclerotiorum* collected from dry bean fields across the United States (Kamvar *et al.* 2017 *PeerJ*). Our research showed greater connectivity across widely separated geographic locations than expected, which underscored the importance of multi-site screening nurseries for plant breeding and need to investigate the roles of seed-borne dissemination and climate-driven diversification. Although published December 7<sup>th</sup>, it was awarded one of the "Top 5 Most Viewed Articles of 2017" in *PeerJ*'s sections on Agriculture Science, Genetics, and Mycology. This project is currently focused on characterizing fungicide resistance and development of AmpSeq approach for further population and evolutionary studies. This project is funded by the USDA National Sclerotinia Initiative program.

<sup>&</sup>lt;sup>1</sup> Gianessi, L.P. & N. Reigner. 2005. The value of fungicides in U.S. Crop Production. *Crop Protection Research Institute, CropLife Foundation,* Washington D.C. pp. 243.

<sup>&</sup>lt;sup>2</sup> FRAC. 2018. FRAC Code List 2018: Fungicides sorted by mode of action (including FRAC Code numbering). Fungicide Resistance Action Committee, *CropLife Foundation, Washington D.C. pp. 14.* 

- 2. Alternaria brassicicola, causal agent of Alternaria blight and head rot of broccoli on the East Coast of the United States. Alternaria blight in broccoli can severely impact yields and increase production costs in the absence of effective control options thus threatening the long-term viability and profitability of the industry. Management of Alternaria blight requires an integrated approach involving both cultural and chemical control tactics. Use of disease-resistant brassica cultivars, if available, and a preventive fungicide program are essential. Among chemical fungicides, brassica growers have traditionally been reliant on the quinone-outside inhibitor (QoI) (FRAC Group 11) fungicides such as azoxystrobin. However, over the last 3 years a noticeable reduction in disease suppression has been observed in QoI fungicides across brassica growing regions in eastern U.S. and recent severe outbreaks on broccoli have been observed in NY, VA and GA. As part of a coordinated, multi-state effort, research in my lab is focused on characterization of the pathogen populations using comparative genomics, population biology and fungicide resistance profiles to identify population structure and develop diagnostic tools for identifying *Alternaria* sp. causing disease. This project is supported by a grant from the USDA Small Crops Research Initiative.
- 3. *Cercospora sojina*, causal agent of frogeye leaf blight of soybean in Nebraska. This is a new project that is in collaboration with Extension specialists to investigate the loss of fungicide efficacy reported in 2019 for soybean production in the state. Under favorable conditions, frogeye leaf spot can cause up to 35% yield loss. This disease is severe when soybean is grown continuously in the same field, particularly in fields where tillage is reduced because it is a residue- and seed-borne pathogen. In 2019, resistance to QoI fungicides was confirmed in 10 counties in Nebraska. Fungicide resistance is a serious concern because it threatens the ability to use QoI fungicides, which are some of the most effective and widely used fungicides for managing this disease. The proposed study is aimed at developing a DNA-based method to provide rapid diagnostics to identify fungicide-resistance and development of educational materials and outreach programs on resistance management practices. This project is supported by a grant from the Nebraska Soybean Board.
- 4. *Gemmamyces piceae*, causal agent of spruce bud blight in Alaska. This fungal pathogen causes bud blight of several spruce species (*Picea spp.*) and serious losses have been attributed to this pathogen in the Czech Republic and more recently in Alaska. It is unknown whether this pathogen emerged in Alaska due to climate change or if it was introduced from Europe, where it is more well-known. Our project has focused on developing a comparative genomics and population genetics approach to address this question. This project is supported by a contract from the USDA Forest Service.

# **TEACHING ACTIVITIES**

# **Formal Instruction**

My annual teaching responsibilities include being the lead instructor for a team-taught course in Ecology and Management of Plant Pathogens (EMPP) and teaching a professional development course that I created called *Success in the Sciences*. These courses were designed or re-designed using contemporary pedagogical approaches in backward design and active learning. In 2016, I redesigned the EMPP course using backward design to achieve learning outcomes and integrate active learning techniques. The course now has six modules with specific learning outcomes. Several new exercises were integrated to stimulate active learning and help students tackle difficult topics. For example, to help students better understand complex disease models, I applied the Jigsaw method, which is an approach that divides the task and requires students work together to complete the exercise. By working in groups, students were better able to break down complex ideas and understand the topic. They also gained experience in communication and interpersonal skills. I believe my students also appreciated this format, with one commenting, "[This was] probably the first course where everything was applicable to the course and was actually necessary and built upon and implemented... I found myself retaining much more information from these types of tests and assignments. Thank you!" In addition to significantly increasing the CIEQ student evaluations of the course, my efforts in teaching were further recognized by the graduate students in our department, who indicated in as survey that I was one of two faculty most deserving of recognition for teaching in our department.

Classroom and Laboratory Instruction:

- Success in the Sciences, UNL, Summer 2018 and currently every Fall since 2018
- Ecology and Management of Plant Pathogens, UNL, taught every Spring since 2016
- Plant Diseases Across Nebraska (field tour), UNL, Summer 2016, 2017
- Population Genetics and Advanced Epidemiology in R, UNL, Summer 2016
- Disease Dynamics and Evolution, UNL, Spring 2016
- Mycology Lab and guest lecturer, UGA, Fall 2009 and Fall 2010
- Plant Pathology Lab, UGA, Fall 2008
- Botany Lab, UCM, Fall 2006
- Anatomy and Physiology Lab, UCM, Fall 2006
- Tutor, Math Learning Center, UCM, Spring 2005
- Instructor, Introductory Algebra, UCM, Fall 2005

# **Computing Workshops**

Beyond the classroom, I primarily work in the R programming language for data analysis, which is notorious for having a steep learning curve and lacking in tutorials using plant disease data. To overcome this, I developed a workshop for scientists called *Introduction to R for Plant Pathologists* that uses real world plant pathology data and terminology as the scaffold for new R programming vocabulary. This workshop quickly became very popular, always selling out, and it has now been taught to nearly 1,000 scientists, including a nationwide webinar hosted by the American Phytopathological Society that had ~300 people registered each day of the program. Although such a workshop was never part of my formal teaching duties and represented a considerable effort, it garnered national attention for our department and allowed students in my lab group to gain teaching experience and visibility within our profession.

**Everhart, S.E.,** N.G. Gambhir, and Z.N. Kamvar. 2018. Intro to R for Plant Pathologists. *Example workshop website:* everhartlab.github.io/IntroR\_Workshop

- 283 online participants for Part II, APS Webinar, Online, February 26, 2020
- 316 online participants for Part I, APS Webinar, Online, February 19, 2020
- 65 attendees, American Phytopathological Society Meeting, Cleveland, OH, August, 2019
- 26 attendees, Penn State University, State College, PA, October 16, 2018
- 64 attendees, International Congress of Plant Pathology, Boston, MA, August 28, 2018
- 45 attendees, University of Nebraska, Lincoln, NE, June 27, 2018
- 20 attendees, Ohio State University, Wooster, OH, October 16, 2017
- 22 attendees, APS North Central Division Meeting in Champaign, IL, June 14, 2017
- 56 attendees, University of Nebraska, Lincoln, NE, May 24, 2017

Grünwald, N.J., Z.N. Kamvar, and **S.E. Everhart.** 2014. Population Genetics in R. *Example workshop website:* grunwaldlab.github.io/Population\_Genetics\_in\_R

- 40 attendees, Oregon State University, May 2014
- 60 attendees, APS National Meeting in Austin, TX, August 2014

# Mentoring

At UNL, I have served as mentor / supervisor to 26 people. To efficiently manage my lab group, we hold regular lab meetings, manage ordering supplies using an online request form via Google Spreadsheets, created online guides for lab safety training, good lab stewardship, expectations for graduate students, and tips for time management (see lab website: <u>everhart.unl.edu</u>). It is essential to develop these professional relationships with clear expectations, full support and structure, and to celebrate success. One of the greatest rewards is my students or postdocs winning awards and publishing as first author on manuscripts.

Postdoctoral Scholars (4):

- Margarita Marroquin-Guzman, June 2017–2019, now at Syngenta, St. Louis, MO
- Zhian Kamvar, January 2017–April 2018, now at R OpenScience, Portland, OR
- Thomas Miorini, March 2016–April 2017; January 2018 April 2018, presently postdoc at North Dakota State University, Carrington, ND
- B. Sajeewa Amaradasa, Aug. 2014 Jul. 2016, now Research Associate at the Institute for Advanced Learning and Research in Danville, VA

Graduate Students (9 + 1 incoming):

- Daniel Cerritos Garcia, (incoming student)
- Asha Mane (Ph.D.), current student, expected graduation May 2023
- Sergio Gabriel Peralta (Ph.D.), current student, expected graduation May 2023
- Denae Cato (M.S. Option II), current online student, expected graduation May 2023
- Edgar Nieto Lopez (Ph.D.), current student, expected graduation May 2021
- Nikita Gambhir (Ph.D.), graduated December 2020, now at Cornell University, Ithaca, NY
- Karen Ferreira Da Silva (Ph.D.), graduated May 2020, now at Corteva Agrisciences, Davis, CA
- Srikanth Kodati (Ph.D.), graduated December 2019, now at Valley Laboratory-Windsor, CT
- Gulcin Ercan (M.S.), graduated August 2019, now research scientist in Turkey
- Julianne Matczyszyn (Ph.D.), graduated August 2019, now technologist at UNL, Lincoln, NE

Graduate Student Rotations and Internships (2):

- Callie Braley (D.P.H.), Summer Internship 2018, USDA National Needs Fellow
- Bridget Tripp (Ph.D. Complex Biosystems), Fall 2015

Undergraduate Students (11) (underlined = co-author on current or future manuscript):

- Cristian Wolkup, UCARE and IANR Research Award, Honors Thesis, November 2018–Aug. 2020
- Rachel Persson, UCARE recipient, May 2018–2019
- Olivia Renelt, general laboratory work, October 2018–2019
- Isabel Chavez, general laboratory work, November 2017–May 2018
- Audrey Vega, general laboratory work, November 2017–May 2018
- Alex Johnson, general laboratory and molecular research, July 2017–January 2018
- Anthony Pannullo, IANR Research Award recipient, Honors Thesis, May 2015–August 2017
- Josh Hanson, culturing of Sclerotinia sclerotiorum, Oct. 2014–December 2017
- Morgan Thompsen, general laboratory work, May 2016–December 2016
- Sarah Campbell, culturing and genotyping of Sclerotinia sclerotiorum, October 2014–May 2016
- Flavio Nunes da Silva, isolation of Rhizoctonia, May–July, 2015 (10-week internship)

Research Technologists (1):

• Rebecca Higgins, half-time for white mold resistance screening in dry bean, October 2018–present

Departmental Staff (1)

• Jimin Kamvar, Digital Communications Liaison, October 2017–December 2017

Committee Member for (7):

- Ashley Stengel, Ph.D. Complex Biosystems, May 2016–present
- Raquel Rocha, Ph.D. Plant Pathology Specialization, 2018
- Nicholas Arneson, M.S. Entomology, 2018
- Tugce Karacoban, M.S. Entomology, 2018
- Bryant Gabriel, M.S. Entomology, 2018
- Madeline Dowling, Ph.D. Plant and Environmental Sciences, Clemson, 2018
- Ashley Foster, M.S. Applied Science, 2016

#### **OUTREACH**

Obtaining federal funding for teaching and outreach has incredible impact and broadly supports training of the next generation of scientists. At UNL, we obtained a USDA National Needs Fellowship grant, which is focused on supporting students in the Doctor of Plant Health program to study resistance management, and funding from the USDA Women and Minorities in Science, Technology, Engineering and Mathematics (STEM) Fields Program. The latter project came from an idea I had after learning about the website called MentorNet, which is an online platform to provide online mentoring to youth considering a STEM career and then thinking about how we could apply the same approach for diverse youth in rural Nebraska to consider agSTEM careers. The idea behind MentorNet and our program is that a student's interest in a career field is influenced by the kind of people that they see in that field and a student who has a role model who looks like themselves is more likely to successfully complete their degree. To put this idea into action, I connected with faculty across departments and we co-wrote a proposal to create a mentoring program for underrepresented youth to consider agSTEM careers. This program is called "Cultivate ACCESS", which is shorthand for "Cultivating Agricultural Career Communities to Empower Students in STEM". To accomplish this, our program connects high school youth in rural Nebraska communities (Scholars) with an established agSTEM professional (Mentors), using undergraduate UNL students to bridge the two groups (Ambassadors). My role was creating instructional materials on the importance of diversity to scientific discovery, managing our social media and print communications, design and development of the program website located at cultivate.unl.edu. Below are examples of talks and presentations that I have delivered or contributed to as a representative of the Cultivate ACCESS program.

Presentations and Workshops on Diversity and the Science of Teaching and Learning (SOTL):

- 1. **Everhart, S.E.** 2020. Why diversity matters. Presentation as part of the Diversity in Agriculture and Natural Resources Webinar hosted by the UNL College of Agricultural Sciences and Natural Resources. November 5, 2020.
- 2. **Everhart, S.E.** and R. Ibach. 2018. Cultivate ACCESS. Rapid-Fire Presentation. UNL College of Agriculture and Natural Resources Annual Meeting, August 7th, 2018.
- 3. Keshwani, J., R. Ibach, J. Bray-Obermeyer, **S. Everhart**, D. Keshwani, and L. Sandall. 2019. Cultivating ACCESS: Empowering students to pursue agSTEM through mentor relationships. North American Colleges and Teachers of Agriculture. Twin Falls, ID.

Professional skill development is currently a hot topic within graduate student education in the sciences. Job opportunities in academia are increasingly scarce, which means a greater number of our students will be pursuing careers in industry, government, and non-governmental organizations after graduation. Skills sought by prospective employers are increasingly focused on "soft skills" development. Recent studies have identified professional skills as an area in high demand by employers agSTEM disciplines<sup>3,4</sup>. Although professional development is one of the most frequent course topics requested by graduate students, training in this area is traditionally accomplished through mentoring provided by the student's major advisor. Yet heterogeneity in mentoring styles, students' differing needs, and lack of incentive are major hurdles that hinder this type of one-on-one training. Success in the Sciences was created to fill this gap. This course provided a roadmap for graduate students to the resources, training, and opportunities that are necessary to attain success in their graduate programs and a successful career in the sciences. Specific skills taught and topics covered include: resources for research, critical evaluation of the primary literature, project management, optimizing your time, mentoring and being mentored, publishing protocols and pitfalls, presenting your science, the art of communicating your work, tips for communicating with colleagues, networking to get a job, and the job interview. Topics were engaged using several active learning techniques, including: peer instruction, minute papers, gallery walks, think-pair-share, jigsaw strategy, and role playing.

<sup>&</sup>lt;sup>3</sup> Beckerman, J., W. Schneider. 2016. Mining the gap: Assessing leadership needs to improve 21<sup>st</sup> Century plant pathology. *Plant Disease* 100:2349-2356.

<sup>&</sup>lt;sup>4</sup> Richter, B.S., A. Poleatewich, M. Hayslett, K. Stofer. 2018. Finding the gaps: An assessment of concepts, skills, and employer expectations for plant pathology foundational courses. *Plant Disease* 102:1883–1898.

Perhaps the most valuable outcome of this course was that the content featured in this course was studentdriven. This meant that the topics we covered were those most relevant to our current graduate students and not based only on my own experiences. For students, knowledge gained in the course will differ from the knowledge gained from their major advisor, providing a complementary perspective and information that they can build upon in the future. By covering a broad array of topics in professional skills important in the sciences, questions were answered, doubts were discussed, and life-long skills were imparted. Below is a list of presentations / workshops delivered about some of the techniques used in the course and in developing this course.

Presentations and Workshops on the Science of Teaching and Learning (SOTL):

- 1. **Everhart, S.E.**, A. Stengel, and K. Stanke. 2019. Equipping graduate students for success via active learning. Workshop hosted by the UNL Center for Transformative Teaching Spring Symposium, February 22, 2019.
- Stanke, K.M., A. Stengel, S. Brown, and S. Everhart. 2019 Techniques for engaging your interdisciplinary STEM graduate students. North American Colleges and Teachers of Agriculture. Twin Falls, ID.
- 3. Stengel, A., K.M. Stanke, S. Brown, and **S. Everhart.** 2019. Backward design to promote tangible outcomes in graduate student professional development. North American Colleges and Teachers of Agriculture. Twin Falls, ID.
- 4. **Everhart, S.E. 2018.** Rubrics: Defining success. Presentation in the 2018 ARISE: Learning by Design workshop hosted by the UNL Center for Transformative Teaching. October 26, 2018.

# SERVICE AND PROFESSIONAL ACTIVITIES

### Service to the Department

Graduate Education:

- Chair, Graduate Committee, 2020–present
- Member, Curriculum Committee, 2018–present
- Chair, *Ad hoc* Committee to write a graduate student handbook, 2019–2020
- Chair, Ad hoc Committee to write new graduate program proposal, 2018–2019

Department Communications:

- Developer/Administrator for Department of Plant Pathology website, January 2015-present
- CASNR Web Framework, 2015–present
- Member, Website Committee, 2018–present
- Chair, Website Committee, 2015–2018

Department Administration:

- Member, Department Head Advisory Committee, 2020-present
- Member, Ad hoc Committee to create department vision statement, 2017-present
- Supervisor, Jimin Kamvar, Digital Communications Liaison, 2017

Host for Seminar Speakers and Symposia at UNL:

- Dr. Cris Argueso, Colorado State University, November 10, 2019
- Dr. Amauri Bogo, Santa Catarina State Research Institute, August 21, 2019
- IANR Brazilian Student Symposium, seven student speakers, August 20, 2019
- Dr. Lucky Mehra, Kansas State University, March 11, 2019
- Dr. Jane Stewart, Colorado State University, October 8, 2018
- Dr. Jerry Weiland, USDA-ARS Horticultural Crops Research Unit, November 6, 2017
- Dr. Stacy Krueger-Hadfield, University of Alabama, November 15, 2017

Service to the University: Within the University, one of my most important roles has been to serve as a member of the UNL Academic Planning Committee (APC). This is a faculty body that reviews and approves academic programs and is also responsible for review of university budget reductions proposed by the Chancellor. This year, due to the coronavirus pandemic, the University faced a budget shortfall and made plans to cut \$38M over three years. Thus, our committee had an important role to provide oversight for this process, which involved solicited feedback from deans, faculty, and public hearings.

- Member, Academic Planning Committee, elected position, 2020-present •
- Member, Dermott Coyne Foundational Awards Committee that supports lectureships in plant breeding and emergency funding for graduate students, invited position, 2019-present
- Member, CASNR Curriculum Committee, Spring 2020
- Member, Ad hoc Committee to write the UNL Professional Code of Conduct, invited position, 2020 •

Service to the Profession: Beyond UNL, I have been an active member of my scientific society, the American Phytopathological Society (APS) and engaged in the scientific process as an editor and reviewer.

Positions within Scientific Societies (only most recent/relevant shown):

- Member, Annual Meeting Board of APS, invited position, 2016-present •
- Chair, Epidemiology Committee of APS, elected position, 2019–2020 •
- Vice-Chair, Epidemiology Committee of APS, elected position, 2018–2019 •
- Chair, Mycology Committee of APS, elected position, 2015–2016 •
- Vice-Chair, Mycology Committee of APS, elected position, 2014–2015 •

**Editorships for Scientific Journals:** 

- Senior Editor for *Phytopathology*, 2021–present •
- Section Editor for Tropical Plant Pathology, 2018–2019 •
- Associate Editor for Ciencias Rural, 2014–2015 •

Editorships for a Popular Magazine:

- Editor, Iowa Horticulturist magazine, 2008–2010
- Science Editor, Iowa Horticulturist magazine, 2005-2008

Ad hoc Peer Reviews for:

- Annals of Botany
- Ciencias Rural
- Crop Protection •
- Journal of Phytopathology
- Molecular Plant Microbe Interactions
- PeerJ • European Journal of Plant
  - *Phytopathology*

- Plant Disease •
- PLOS ONE
- Scientia Agricola
- Tropical Plant Pathology

Pathology

Multi-state / Hatch projects:

- Vice-Chair, Multistate Research project S1083: Ecological and genetic diversity of soilborne pathogens and indigenous microflora, 2021-present
- Member, Multistate Research project S1083, 2019–present
- Member, Hatch Project: Stress responses, adaptations and management of pests and pathogens in • agroecosystems, 2015–2020

Grant Panelist and Program Reviewer:

- USDA Hatch Projects, 2018
- USDA Foundational Program for Pests and Beneficial Species, 2017
- USDA External Review of Research Plans, 2017
- Academic Program Review, Department of Entomology, UNL, 2016

### **OUTSIDE ACTIVITIES**

• Expert Witness, Everhart Horticulture Consulting, pesticide drift case of Eagle Creek Vineyards v. Eric Brinkman, May 2017 – Nov. 2017

<b>GRANT FUNDING</b>		
	Total funding as PI / Co-PI	Portion to S.E.
Active Grants / Contracts	\$3,331673	\$932,967
Completed Grants / Contracts	\$2,339,815	\$492,031
Total:	\$5,671,488	\$1,424,998

# Active Grants and Contracts (active in 2021)

Research:

- Dutta, B., **S.E. Everhart**, (and 3 others at 3 other institutions), "Control Alt Delete: Enhancing resiliency of broccoli production by mitigating Alternaria leaf blight and head rot in the eastern United States", USDA-SCRI, \$2,731,129 (**\$744,135** sub-award to SE, 2020 to 2024).
- Everhart, S.E., "Improved white mold resistance in dry and snap beans through multi-site screening and pathogen characterization throughout major production areas", USDA-ARS National Sclerotinia Initiative, **\$74,165**, (2020 to 2021, with potential to renew for up to 5 years total).
- Everhart, S.E., T. Jackson-Ziems, "Survey and rapid detection of fungicide resistant Frogeye Leaf Spot in Nebraska", Nebraska Soybean Board, **\$198,331**, (2020 to 2023).
- Adams, G., and **S.E. Everhart,** "Population genetic analysis of the fungal pathogen *Gemmanyces piceae* to determine native (sexual), introduced (clonal), or invasive (mixed) reproduction on spruce in Alaska", USDA Forest Service Contract, **\$42,845**, (2020 to 2021).

Outreach and Fellowship Grants:

- Keshwani, J., S.E., Everhart, (and 3 others), "Cultivate ACCESS Diversity Fellows Program", CHS, \$80,000, (2020 to 2021).
- Keshwani, J., S.E. Everhart, (and 3 others), "Cultivating ACCESS: Agriculture Career Communities to Empower Students in STEM", USDA-NIFA WAMS: Women and Minorities in STEM Fields Program, \$94,387, (2017 to 2021).
- Hein, G., **Everhart, S.E.,** (and 6 others), "Bridging the Gap: Educating multidisciplinary professionals to steward pest management technologies for sustainable agriculture", USDA-NIFA National Needs Fellowship Program, **\$238,500**, (2016 to 2021).

# **Completed Grants and Contracts**

Research:

- Proctor, C., **S.E. Everhart**, (and 9 others at 3 other institutions), "Optimizing cropping systems for resilience to stress: The role of maturity group selection and cover crops on yield, weeds, insects, and microbes", USDA-NIFA Foundational on Pests and Beneficial Species, \$461,187, (**\$24,212** sub-award to SE, 2017 to 2020).
- Everhart, S "Improved white mold resistance in dry and snap beans through multi-site screening and pathogen characterization throughout major production areas", USDA-ARS National Sclerotinia Initiative, **\$72,000**, (2019 to 2020).

- Bond, J., S.E. Everhart, (and 13 others at 10 institutions), "Seedling diseases: Identification, management and education", N. Central Soybean Research Program, \$878,940, (\$72,000 sub-award to SE, 2015 to 2018).
- Kabbage, M., **S.E. Everhart**, (and 4 others at 3 institutions), "Biology and Control of Sclerotinia Stem Rot of Soybean", N. Central Soybean Res. Program, \$240,000, (**\$75,000** sub-award to SE, 2015 to 2018).
- Everhart, S.E., and A. Adesemoye, "Fungicide resistance in *Rhizoctonia solani* and implications for soybean fields in Nebraska", NE Soybean Board, \$121,961, (**\$77,193** sub-award to SE, 2015 to 2018).
- Steadman, J., and **S.E. Everhart**, "Improved white mold resistance in dry and snap beans through multisite screening and pathogen characterization throughout major production areas", USDA-ARS National Sclerotinia Initiative, **\$117,096**, (2016 to 2018).
- Adams, G., and **S.E. Everhart**, "Population genetic analysis of the fungal pathogen *Gemmanyces piceae* to determine native (sexual), introduced (clonal), or invasive (mixed) reproduction on spruce in Alaska", USDA Forest Service, **\$10,000**, (2017 to 2018).
- Everhart, S.E., "Impact of sub-lethal fungicides on genome evolution: A potential new mechanism of resistance emergence in fungi", UNL Layman Award, **\$10,000**, (2015 to 2016).
- Everhart, S.E., "In vitro fungicide testing of SDS pathogen, Fusarium virguliforme (current name Neocosmopora virguliforme)", Gowan Company, **\$5,625**, (2016 to 2017).

Outreach and Fellowship Grants:

• Everhart, S.E., "Genome-wide characterization of population variation and evolution in *Phytophthora ramorum*, causal agent of sudden oak death.", USDA-AFRI-NIFA Postdoctoral Fellowship, **\$130,000**, (2012 to 2014).

# PUBLICATIONS

Peer-Reviewed Manuscripts:

\*\**Corresponding or co-corresponding author* 

- Dundore-Arias, E.A. Eloe-Fadrosh, L.M. Schriml, G.A. Beattie, F.P. Brennan, P.E. Busby, R.B. Calderon, S.C. Castle, J.B. Emerson, S.E. Everhart, K. Eversole, K. Frost, J. Herr, A.J. Huerta, A.S. Iyer-Pascuzzi, A. Kalil, J.E. Leach, J. Leonard, J.E. Maul, B. Prithiviraj, M. Potrykus, N.R. Redekar, J.A. Rojas, K.A.T. Silverstein, D. Tomso, S. Tringle, B. Vinatzer, and L. Kinkel. 2020. Community-driven metadata standards for agricultural microbiome research. *Phytobiomes* 4: 115–121.
- 2. **Everhart, S.E.**, N. Gambhir, R. Stamm. 2020. Population genomics of filamentous plant pathogens—A brief overview of research questions, approaches, and pitfalls. *Phytopathology* pp.PHYTO-11.
- 3. Gambhir, N.G., Z.N. Kamvar, R. Higgins, B.S. Amaradasa, and **S.E. Everhart**\*\*. 2020. Spontaneous and fungicide-induced genomic variation in *Sclerotinia sclerotiorum*. *Phytopathology* pp.PHYTO-10.
- 4. Koehler-Cole, K., **S.E. Everhart**, Y. Gu, C.A. Proctor, M. Marroquin-Guzman, D.D. Redfearn, and R.W. Elmore. 2020. Is allelopathy from winter cover crops affecting row crops?. *Agricultural & Environmental Letters*, *5*(1), e20015.
- 5. Olgun, T., **S.E. Everhart**, T. Anderson, and J. Wu-Smart. 2020. Comparative analysis of viruses in four bee species collected from agricultural, urban, and natural landscapes. *PLoS ONE*, 15(6), p.e0234431.
- Sciarresi, C., C. Proctor, E.R. Haramoto, L.E. Lindsey, G.I. Carmona, R. Elmore, S. E. Everhart, W. Looker, M. Marroquin-Guzman, J. McMechan, J. Wehrbein, R. Werle, and M. Salmeron. 2020. Evaluating short-season soybean management adaptations for cover crop rotations with a crop simulation model. *Field Crops Research* 250: 107734.
- 7. Ajayi, O.O., **S.E. Everhart**, P.J. Brown, A.U. Tenuta, A.E. Dorrance, and C. Bradley. 2019. Genetic structure of *Rhizoctonia solani* AG-2-2IIIB from soybean in Illinois, Ohio, and Ontario. *Phytopathology* 109:2132–2141.
- 8. Dale, A.L., N. Feau, **S.E. Everhart**, G. Bilodeau, B. Dhillon, J. Tabima, C. Brasier, N. Grünwald, and R.C. Hamelin. 2019. Mitotic recombination and a two-speed genome drive evolution in asexual lineages of the sudden oak death pathogen *Phytophthora ramorum*. *mBio* 10.1128/mBio.02452-18.

- Kamvar, Z.N., and S.E. Everhart\*\*. 2019. Something in the agar does not compute: On the discriminatory power of mycelial compatibility in *Sclerotinia sclerotiorum*. *Tropical Plant Pathology*. 44:32–40.
- Miorini, T.J.J., Z.N. Kamvar, R. Higgins, C.G. Raetano, J.R. Steadman, and S.E. Everhart\*\*. 2019. Variation in pathogen aggression and cultivar performance against *Sclerotinia sclerotiorum* in soybean and dry bean from Brazil and the U.S. *Tropical Plant Pathology*. 44:73–81.
- 11. Pannullo, A.P., Z.N. Kamvar, T.J.J. Miorini, J.R. Steadman, and **S.E. Everhart**\*\*. 2019. Genetic variation and structure of *Sclerotinia sclerotiorum* populations from soybean in Brazil. *Tropical Plant Pathology* 44:53–64.
- 12. Bogo, A., C.C. Comparin, R.M.V. Sanhueza, P. Ritschel, R.T. Casa, F.N. Silva, and **S.E. Everhart**. 2018. Characterization of *Neofabraea actinidiae* and *N. brasiliensis* as causal agents of apple bull's-eye rot in southern Brazil. *Canadian Journal of Plant Pathology* DOI: 10.1080/07060661.2017.1421588
- 13. Nieto-López, E. H., **S.E. Everhart**, V. Ayala-Escobar, M. Camacho-Tapia, N.B. Lima, R. Nieto-Angel, and J.M. Tovar-Pedraza. 2018. First report of *Collectrichum gloeosporioides* causing anthracnose of tejocote (*Crataegus gracilior*) fruits in Mexico. *Plant Disease*. 102:1855.
- 14. Dowling, M., G. Schnabel, H. Boatwright<sup>†</sup>, and **S.E. Everhart**<sup>\*\*</sup>. 2017. Novel gene-sequence markers for isolate tracking within *Monilinia fructicola* lesions. *Pest Management Science* 73:1822–1829.
- 15. Grünwald, N.J., **S.E. Everhart**, B.J. Knaus, and Z.N. Kamvar. 2017. Best practices for population genetic analyses. *Phytopathology*. 107:1000–1010.
- Kamvar, Z., Amaradasa, B.S., R. Jhala, S. McCoy, J.R. Steadman, and S.E. Everhart\*\*. 2017. Population structure and phenotypic variation of *Sclerotinia sclerotiorum* from dry bean in the United States. PeerJ. 5:e4152 <u>doi.org/10.7717/peerj.4152</u>
- 17. Miorini, T.J.J., C.G. Raetano, and **S.E. Everhart**\*\*. 2017. Control of white mold of dry bean and residual activity of fungicides applied by chemigation. *Crop Protection*. 94:192–202.
- Amaradasa, B.S., and S.E. Everhart\*\*. 2016. Effects of sublethal fungicides on mutation rates and genomic variation in fungal plant pathogen, *Sclerotinia sclerotiorum*. *PLoS ONE*. 11(12): e0168079. DOI 10.1371/journal.pone.0168079.
- de Bem, B.P., A. Bogo, S.E. Everhart, R.T. Casa, M.J. Gonçalves, J.L. Marcon, L.R. Rufato, F.N. Silva, R. Allebrandt, and I.C. da Cunha. 2016. Effect of four training systems on the temporal dynamics of downy mildew in two grapevine cultivars in southern Brazil. *Tropical Plant Pathology*. DOI 10.1007/s40858-016-0110-8.
- Dowling, M., P.K. Bryson, H. Boatwright<sup>†</sup>, J.R. Wilson, Z. Fan, G. Schnabel, S.E. Everhart, and P. Brannen. 2016. Effect of fungicide application on *Monilinia fructicola* population diversity and transposon movement. *Phytopathology* 106:1504–1512.
- Dugan, F.M., and S.E. Everhart. 2016. Cryptic species: A leitmotif of contemporary mycology has challenges and benefits for plant pathologists. *Plant Health Progress* 17:250–253. DOI10.1094/PHP-RV-16-0046
- Tabima J.F., S.E. Everhart, M.M. Larsen, A.J. Weisberg, Z.N. Kamvar, M.A. Tancos, C.D. Smart, J.H. Chang, and N.J. Grünwald. 2016. Microbe-ID: An open source toolbox for microbial genotyping and species identification. *PeerJ* 4:e2279 DOI 10.7717/peerj.2279.
- 23. Chen, F., **S.E. Everhart^**, P.K. Bryson, C.L., X. Song, X.L., G. Schnabel. 2015. Fungicide-induced transposon movement in *Monilinia fructicola*. *Fungal Genetics and Biology* 85:38–44.
- 24. de Bem, B.P., Bogo, A., S.E. Everhart, R.T. Casa, M.J. Gonçalves, J.L.M. Filho, and I.C. da Cunha. 2015. Effect of Y-trellis and vertical shoot positioning training systems on downy mildew and botrytis bunch rot of grape in highlands of southern Brazil. *Scientia Horticulturae* 185:162–166.
- 25. Everhart, S.E., and H. Scherm. 2015. Clonal disease foci of *Monilinia fructicola* during brown rot epidemics within peach tree canopies. *Phytopathology*. 105:542–549.
- 26. Schnabel, G., F. Chen, S.E. Everhart, W.C. Bridges and X.L. Liu. 2014. Studies on sensitivity reduction in solo and mixture treatments and fungicide-induced mutagenesis in *Monilinia fructicola. In*: H.W. Dehne, H.B. Deising, U. Gisi, B. Fraaije, U. Gisi, D. Hermann, A. Mehl, E.C. Oerke, P.E. Russel, G. Stammler, K.H. Kuck, H. Lyr (Eds). "Modern Fungicides and Antifungal Compounds", Vol. VII, pp 263–268. 2014 Deutsche Phytomedizinische Gesellschaft, Braunschweig, ISBN: 978-3-941261-13-6.

- 27. Everhart, S.E., A. Askew, L. Seymour, and H. Scherm. 2013. Spatio-temporal patterns of pre-harvest brown rot epidemics within individual peach tree canopies. *European Journal of Plant Pathology* 135:499–509.
- Everhart, S.E., A. Askew, L. Seymour, T.C. Glenn, and H. Scherm. 2012. Spatial patterns of brown rot epidemics and development of microsatellite markers for analyzing fine-scale genetic structure of *Monilinia fructicola* populations within peach tree canopies. Online. *Plant Health Progress* doi:10.1094/PHP-2012-0723-04-RS.
- 29. Everhart, S.E., A. Askew, L. Seymour, I.J. Holb, and H. Scherm. 2011. Characterization of threedimensional spatial aggregation and association patterns of brown rot symptoms within intensively mapped sour cherry trees. *Annals of Botany* 108:1195–1202.
- 30. Everhart, S.E.\*\* 2010. Upper canopy collection and identification of grapevines (*Vitis*) from the tree canopy of select forests in the southeastern United States. *Castanea* 75: 141–149.
- 31. Keller, H.W., and **S.E. Everhart** 2010. Importance of Myxomycetes in biological research and teaching. *Fungi* 3(1):13–27.
- 32. Everhart, S.E\*\*., J.S. Ely, and H.W. Keller. 2009. Evaluation of tree canopy epiphytes and bark characteristics associated with corticolous myxomycetes. *Botany* 87:509–517.
- 33. Keller, H.W., **S.E. Everhart,** M. Skrabal, and C.M. Kilgore. 2009. Tree canopy biodiversity in temperate forests: Exploring islands in the sky. *Southeastern Biology* 56:52–74.
- 34. Everhart, S.E., and H.W. Keller. 2008. Influence of bark pH on the occurrence and distribution of tree canopy myxomycete species. *Mycologia* 100:191–204.
- 35. Everhart, S.E., and H.W. Keller. 2008. Life history strategies of corticolous myxomycetes: The life cycle, fruiting bodies, plasmodial types, and taxonomic orders. *Fungal Diversity* 29:1–16.
- 36. Keller, H.W., and **S.E. Everhart** 2008. Myxomycete species concepts, monotypic genera, the fossil record, and additional examples for good taxonomic practice. *Revista Mexicana de Micologia* 27:9–19.
- Keller, H.W., C.M. Kilgore, S.E. Everhart, G. Carmack, C. Crabtree, and A. Scarborough. 2008. Myxomycete plasmodia and fruiting bodies: Unusual occurrences and user friendly study techniques. *Fungi* 1:24–37.
- Kilgore, C.M., H.W. Keller, S.E. Everhart, A. Scarborough, K. Snell, M. Skrabal, C. Pottorff, and J.S. Ely. 2008. Tree canopy research and student experiences using the double rope climbing method. *Journal of Botanical Research Institute of Texas* 2:1309–1336.

Manuscripts in Review or Revision:

- 39. Srikanth K., A. Adesemoye, G. Yuen, J. Volesky, **S.E. Everhart\*\***. 202X. Origin of agricultural plant pathogens: Diversity and pathogenicity of *Rhizoctonia* fungi associated with native prairie grasses in the Sandhills of Nebraska. *PLoS ONE. In review*.
- Miorini, T.J.J., N. Gambhir, E.H. Nieto-Lopez, L. Mehra, A. Pannullo, J.R. Steadman, and S.E. Everhart\*\*. 202X. Comparison of methods to assess fungicide sensitivity of *Sclerotinia sclerotiorum*. *PhytoFrontiers. In review*.
- 41. Gambhir, N., S. Kodati, M. Huff, F.N. da Silva, O. Ajayi-Oyetunde, M. Staton, C. Bradley, A.O. Adesemoye, and S.E. Everhart\*\*. 202X. Prevention and detection of fungicide resistance development in *Rhizoctonia zeae* from soybean and corn in Nebraska. *Plant Health Progress. In review*.
- 42. Da Silva, K.F., **S. Everhart\*\***, and J. Louis. 202X. Impact of maize hormonal crosstalk on the performance of Spodoptera frugiperda in plants infected with *Clavibacter michiganensis* subsp. *nebraskensis. Journal of Chemical Ecology. In revision.*

Other Products - Book Chapters, Software, Proceedings, & Magazine Articles:

- 1. Mane A., **S.E. Everhart**, and T.A. Jackson-Ziems, 2020. Fungicide Resistance and Management of Frogeye Leaf Spot of Soybean in Nebraska. *CropWatch*, June 24, 2020.
- 2. Jackson-Ziems, T.A., **S.E. Everhart**, and A. Mane. 2020. Diseases to watch out for in crops. *Norfolk daily News-Ag News*, July 9, 2020.
- 3. Mane A., **S.E. Everhart**, and T.A. Jackson-Ziems. 2020. Frogeye Leaf Spot, Disease Update. *Soybean Management Field Day*. August, 2020.

- 4. Higgins, R., and **S.E. Everhart.** 2020. New sources of white mold resistance derived from wide crosses in common bean and evaluated in the greenhouse and field using multi-site screening nurseries. *Bean Improvement Cooperative*. 63:129–130.
- 5. R. Higgins, **S.E. Everhart**, and J.R. Steadman. 2019. New sources of white mold resistance derived from wide crosses in common bean and evaluated in the greenhouse and field using multi-site screening nurseries. *Bean Improvement Cooperative*. 62:27–28.
- 6. Nieto-Lopez, E.H., T.J.J. Miorini, and **S.E. Everhart**. 2019. Fungicide sensitivity of 207 *Sclerotinia sclerotiorum* isolates from dry bean and soybean. *Bean Improvement Cooperative*. 62:29–30.
- 7. Everhart, S.E., and K. Ivors. 2018. E-Posters: Out with the old and in with the new. *Phytopathology News*. Page 3.
- 8. Gambhir, N., **S.E. Everhart**, S. Kodati, and A. Adesemoye. 2018. Fungicide resistance: Risk and management. *SoybeaNebraska*, Spring 2018, Page 22.
- 9. Kodati, S., A. Adesemoye, N. Gambhir, and **S.E. Everhart**. 2018. Rhizoctonia diseases in soybean. *SoybeaNebraska*, Spring 2018, Page 23.
- 10. R. Higgins, Z.N. Kamvar, **S.E. Everhart**, and J.R. Steadman. 2018. New sources of white mold resistance derived from wide crosses in common bean and evaluated in the greenhouse and field using multi-site screening nurseries comparing 2016 and 2017 data. *Bean Improvement Cooperative*.
- 11. Keller, H.W., **S.E. Everhart,** and C.M. Kilgore. 2017. The Myxomycetes: Biology, life cycle, genetics and reproduction. In: Stephenson, S. and C. Lado (editors) "Myxomycetes: Biology, Systematics, Biogeography and Ecology", Elsevier, Atlanta, GA.
- Miorini, T.J., A. Pannullo<sup>†</sup>, T. Hornby<sup>†</sup>, R. Higgins, S.E. Everhart, and J.R. Steadman. 2017. Phenotypic and genotypic characterization of relevant *Sclerotinia sclerotiorum* isolates. *Bean Improvement Cooperative*.
- 13. Kamvar, Z., J. Tabima, **S.E. Everhart,** J. Brooks, S. Krueger-Hadfield, E. Sotka, and N. Grunwald, 2016. Package 'poppr'. <u>https://cran.r-project.org/web/packages/poppr</u>
- 14. Everhart, S.E., B. Amaradasa, R. Jhala, R. Higgins, and J.R. Steadman. 2016. Population structure and fungicide sensitivity of 366 *Sclerotinia sclerotiorum* isolates from dry common bean. *Bean Improvement Cooperative*. 59:131–132.
- 15. Everhart, S.E. 2016. PLPT 496/892: Disease Dynamics & Evolution—A Peer Review of Teaching Project Benchmark Portfolio. http://digitalcommons.unl.edu/prtunl/20
- 16. Grunwald, N.J., Z.N. Kamvar, and **S.E. Everhart.** 2015. Population Genetics in R. Online book: <u>http://grunwaldlab.github.io/Population\_Genetics\_in\_R</u>
- 17. Everhart, S.E., T.F. Tabima, and N.J. Grünwald. 2014. *Phytophthora ramorum*. In: Dean, R.A., A. Lichens-Park, and C. Kole (eds) Genomics of Plant Associated Fungi and Oomycetes, Springer, New York, NY. Pp. 159–174.
- 18. Everhart, S.E. 2008. Edible, avoidable, and artistic fungi for summer and fall. *The Iowa Horticulturist* 24(2): 22–23.
- 19. Everhart, S.E. 2008. Edible and avoidable fungi for spring. *The Iowa Horticulturist* 24(1): 22–23.
- 20. Everhart, S.E. 2007. Smooth patch on oak trees. The Iowa Horticulturist 23(3): 17.
- 21. Everhart, S.E. 2006. Slime invaders on your lawn. The Iowa Horticulturist 22(2): 18-20.
- 22. Keller, H.W. and **S.E. Everhart.** 2006. Myxomycetes (true slime molds): Educational sources for students and teachers (Part I and II). *Inoculum* 57(3): 1–2; 57(4): 4–5.
- 23. Everhart, S.E. 2002. Daylily rust in Iowa. The Iowa Horticulturist 19(1): 18–20.
- 24. Everhart, S.E. 2000. Wildflower demonstration garden. The Iowa Horticulturist 17(1): 14–15.
- 25. Everhart, S.E. 1999. White pines in Iowa. The Iowa Horticulturist 15(2): 10.

Book Reviews:

- 1. Everhart, S.E. 2010. Taming the Truffle by I.R. Hall, G. Brown, and A. Zambonelli. *The Iowa Horticulturist* 25(3): 18.
- 2. Everhart, S.E. 2009. Tabletop Gardens by R. McCreary. *The Iowa Horticulturist* 25(2): 18.
- 3. Everhart, S.E. 2009. Bloom-Again Orchids by J. White. *The Iowa Horticulturist* 25(2): 18.

- 4. Everhart, S.E. 2008. The Complete Compost Gardening Guide by B. Pleasant and D.L. Martin. *The Iowa Horticulturist* 24(2): 18.
- 5. Everhart, S.E. 2008. The Backyard Beekeeper by Fluttom. *The Iowa Horticulturist* 23(3): 20.
- 6. Everhart, S.E. 2008. Pocket Guide to Hostas by Grenfell and Shadrack. *The Iowa Horticulturist* 23(4): 18.
- 7. Everhart, S.E. 2008. Perennials for Midwestern Gardens by A. Kahtz. *The Iowa Horticulturist* 24(3): 18.
- Everhart, S.E. 2008. Landscape Design by VanDerZanden and Rodie. *The Iowa Horticulturist* 23(4): 18.
- 9. Everhart, S.E. 2008. Garden Your Way to Health and Fitness by B. Guinness and J. Knox. *The Iowa Horticulturist* 24(3): 18.
- 10. Everhart, S.E. 2008. Essential Plant Pathology by Schumann and D'Arcy. Inoculum 59(4): 74.
- 11. Everhart, S.E. 2008. Doing Time in the Garden by Jiler. The Iowa Horticulturist 23(3): 20.
- 12. Everhart, S.E. 2008. Complete Roses: Featuring 100 Easy-Growing Favorites by F. Roebuck. *The Iowa Horticulturist* 24(2): 18.
- 13. Everhart, S.E. 2007. Taste of the Midwest by Kaercher. *The Iowa Horticulturist* 23(1): 22.
- 14. Everhart, S.E. 2007. Tallgrass Prairie Wildflowers by Ladd. *The Iowa Horticulturist* 23(2): 22.
- 15. Everhart, S.E. 2007. Scats and Tracks of the Midwest by Halfpenny. The Iowa Horticulturist 23(1): 22.
- 16. Everhart, S.E. 2007. Lawns Natural and Organic by Williamson. The Iowa Horticulturist 23(2): 22.
- 17. Everhart, S.E. 2006. Vegetable Gardening Laboratories by Masiunas. The Iowa Horticulturist 22(4): 20.
- 18. Everhart, S.E. 2006. The Healthy Lawn Handbook by Winward. The Iowa Horticulturist 22(3): 20.
- 19. Everhart, S.E. 2006. Professional Interior Plantscaping by Collins. The Iowa Horticulturist 22(4): 20.
- 20. Everhart, S.E. 2006. Book of Water Gardens by Swindells and Mason. *The Iowa Horticulturist* 22(3): 20.
- 21. Everhart, S.E. 2005. The Art of Garden Photography by Adams. The Iowa Horticulturist 22(2): 8.
- 22. Everhart, S.E. 2005. Iowa Birds by Johnson, Bangma, and Kennedy. The Iowa Horticulturist 22(1): 8.
- 23. Everhart, S.E. 2005. Great Flowering Landscape Shrubs by Simeone. The Iowa Horticulturist 22(1): 8.
- 24. Everhart, S.E. 2005. Best Garden Plants for Iowa by Porto and Peters. The Iowa Horticulturist 22(2): 8.
- 25. Everhart, S.E. 2004. The Diversity of Life by Wilson. The Iowa Horticulturist 21(3): 9.
- 26. Everhart, S.E. 2004. Burpee Complete Gardener by Armitage, Heffernan, Kleiber and Shimizu. *The Iowa Horticulturist* 21(3): 9.

# PRESENTATIONS

Selected List of Invited Seminars and Symposia:

- 2020: Keynote Speaker, International Sclerotinia Workshop, Avignon, France (rescheduled to 2022)
- 2019: Department of Agronomy and Horticulture, University of Nebraska, Lincoln, NE
- 2018: College of Agriculture and Natural Resources Annual Meeting, University of Nebraska, Lincoln, NE Department of Plant Pathology, Kansas State University, Manhattan, KS Department of Plant Pathology and Environmental Microbiology, Penn State University, State College, PA (and two workshops)
- **2017:** 16<sup>th</sup> International Sclerotinia Workshop, Uberlandia, Brazil (*two invited talks*) Department of Plant Pathology, Ohio State University, Wooster, OH (*and workshop*) Department of Microbiology and Plant Pathology, Iowa State University, Ames, IA
- **2016:** Schroth Faces of the Future Symposium, Epidemiology, APS Meeting, Tampa, FL Department of Plant Pathology, UNL, Seminar Series, Lincoln, NE
- 2015: Department of Plant and Environmental Sciences, Clemson University, Clemson, SC Department of Biology and Agriculture, University of Central Missouri, Warrensburg, MO
- 2014: Plant Science Retreat, University of Nebraska, Nebraska City, NE

Poster and Oral Research Presentations:

# ▲ presenting author and member of Everhart Lab

- Mane<sup>A</sup>, A., T.A. Jackson-Ziems, C.A. Bradley, and S.E. Everhart. 2020. Rapid detection of QoI fungicide resistance in *Cercospora sojina* and characterization of populations in Nebraska. APS Plant Health 2020 Meeting oral presentation on Aug. 13, 2020.
- Gambhir<sup>A</sup>, N., S. Kodati, A.O. Adesemoye, and S.E. Everhart. 2020. Fungicide resistance: Screening and risk-assessment of *Rhizoctonia zeae* populations in Nebraska. APS Plant Health 2020 Meeting oral presentation on Aug. 14, 2020.
- Gambhir<sup>A</sup>, N., S. Kodati, A.O. Adesemoye, A.O. Olutoyosi, K. Bissonnette, C. Bradley, M. Chilvers, A.M. Fakhoury, T.A. Jackson-Ziems, L.F.S. Leandro, C.R. Little, D.K. Malvick, F.M. Mathew, B.D. Nelson, G. Sassenrath, D.L. Smith, D.E.P. Telenko, K.A. Wise, and S.E. Everhart. 2020. Distribution and population structure of *Rhizoctonia zeae* in the North Central United States. APS Plant Health 2020 Meeting poster presentation on Aug. 3, 2020.
- Nieto-Lopez<sup>^</sup>, E.H., T.J.J. Miorini, M. Chilvers, L.J. Giesler, T.A. Jackson-Ziems, M. Kabbage, D.S. Mueller, D.L. Smith, J.M. Tovar-Pedraza, J.F. Willbur, and S.E. Everhart. 2020. Fungicide sensitivity of *Sclerotinia sclerotiorum* from dry bean and soybean in the U.S. APS Plant Health 2020 Meeting poster presentation on Aug. 3, 2020.
- Higgins, R., C. Wulkop, E.H. Nieto-Lopez, and S. Everhart<sup>^</sup>. 2020. Sources of white mold resistance derived from wide crosses in common bean and fungicide sensitivity of *Sclerotinia sclerotiorum* from multi-site locations. National Sclerotinia Initiative Meeting poster and oral presentation on January 25, 2020.
- 6. Da Silva, K.F., D. Golick, J. Hedrick, J. Louis, and **S. Everhart**. 2019. Nationwide assessment of leadership development for graduate students in agricultural plant sciences. *North American Colleges and Teachers of Agriculture*. Twin Falls, ID.
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- 8. Da Silva<sup>^</sup>, K.F., J. Louis, and **S.E. Everhart**. 2019. Maize phytohormonal crosstalk under multiple biotic stressors. *American Phytopathological Society 2019 Plant Health*, Cleveland, OH.
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