CURRICULUM VITAE

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Research Center Director
The University of Tennessee

EDUCATION

Institution	Degree/Certificate	Date
Villanova	**University Lean Six Sigma Black Belt**	**2022**

- Led sitewide project to streamline fertilizer usage for trials and to match local BMPs, with a savings of more than $100k
- Developed precision application and guidance solutions for site tractors and implements to improve trial quality

The University of Tennessee	**PhD Plant Sciences**	**2017**

- Research focused on row-crop weed control and herbicide fate
- Dissertation – Scope and Influence of Enhanced Triazine Degradation in U.S. Soils **Auburn**

Auburn University	**M.S. Crop, Soil, and Environmental Sciences**	**2014**

- Research focused on weed control and herbicide fate in pasture, roadside, and turf grasses across the southeastern U.S.
- Thesis – Physiological Basis of Differential Sensitivity of Selected Graminaceous Species to Aminocyclopyrachlor

Auburn University	**B.S. Agronomy and Soils *summa cum laude***	**2012**

RELATED WORK EXPERIENCE

Syngenta Crop Protection Vero Beach, FL; Group Leader – Herbicide Biological Research and Development (April 2019 to Present)

- Led multicultural team of 11 PhD scientists, field and greenhouse research technicians, and interns to deliver global herbicide discovery programs to bring new products and A.I.s to the marketplace
- Led site research activities and handled budgets and logistics for 50+ personnel including more than 10 PhD level research scientists in absence of Regional Manager

• Created resistance sampling lab to support field agronomists, scientists, sales reps, and university cooperators with a tool to identify and manage herbicide resistant weeds • Completed and consulted on hundreds of research projects across the globe in field, greenhouse, lab, and growth chamber environments annually to deliver results to internal stakeholders, with a focus on North America

• Worked alongside hundreds of researchers from dozens of disciplines to share knowledge and increase the efficiency of pesticide development within the Syngenta Group • Created workslate management tools and visual systems to better execute research trials of scientists and increase communication with support teams

• Recruited, mentored, and hired 8 graduate and undergraduate research students from diverse backgrounds in the past 3 years from 6 different universities

• Implemented diversity and inclusion strategy to ensure that all avenues of talent were scouted for hiring and development purposes

• Developed quarterly discussions with all direct reports to understand their ambitions, pain points, and feedback, and discuss development plans to ensure growth and success • Built promotion packets for multiple employees to support their development • Wrote internal grants to secure funding for precision application technology, drones, and modern farm equipment to benefit our team and help them better deliver on research and outreach commitments

• Coordinated with group leaders to develop 5+ year capital expense plans to expand facilities and capabilities to ensure our station is in line with the objectives of the company leadership and that assets are properly managed

• Worked closely with University of Florida faculty and IR-4 to establish new use patterns for cover crops and forages in the state of Florida

• Created and implemented site-wide plan for preventative maintenance of equipment to reduce depreciation of equipment and other static assets

• Developed cross-training plans to support interdisciplinary research at the Vero Beach Research Center

• Collaborated with Florida Department of Agriculture and the University of Florida to establish adjusted best management practices for Florida research stations

• Visited growers both locally and across the U.S. and held frequent discussions with those growers to better understand the challenges faced and how our research program could deliver better solutions

• Traveled across North America to meet with researchers, retailers, and growers to view and discuss the development of the Syngenta herbicide portfolio 6+ times annually • Featured in many Syngenta publications and Thrive Magazine discussing the importance of programs for weed resistance management

• Led multi-year program to support local schools and community organizations to raise awareness and promote agriculture and integrated pest management careers

• Functioned as site lead for several large field days (100+ participants) at the Vero Beach site, handling logistics and tour presentations

• Led site tours to educate agricultural retailers, distributors, and students on agricultural best practices, principles of weed resistance management, and the economics of pest control • Created presentations, graphs, brochures, and time-lapse videos for sales and marketing staff to promote products and use patterns for crop protection solutions

- Created first ever Syngenta Crop Protection Internship program to educate students and screen future candidates for industry careers with a focus on diversity and inclusion
- Completed all the above while upholding the Syngenta Code of Conduct and always striving to be genuine and professional in my endeavors

Syngenta Crop Protection Vero Beach, FL; Herbicide Biological Research and Development Scientist (April 2017 to April 2019)

- Syngenta Weed Resistance Tour – collaboration with University of Illinois on amaranthus resistance project to discover mechanism of S-metolachlor resistance in Amaranthus • Built collaboration with University of Florida to examine new use patterns for HPPD herbicides in minor crops and pasture grasses including orchardgrass, Timothy grass, switchgrass, and Teff grass
- Conducted dozens of research trials and created graphs/images to support sales brochures, launch materials, and products labels
- Communicated face to face and across dozens of platforms with global colleagues to manage project objectives, timelines, and results
- Completed programs to evaluate early-stage chemistry for control of aquatic weeds in lakes and canals
- Gained understanding and ability to grow more than 40 different crops for trialing purposes • Developed field planning schedule to track carryover pesticides, fertilizers, and crop rotations • Developed novel research methodologies for greenhouse, lab, and field trials • Led training and education program for Syngenta Agronomic Service Reps in 2017 and 2018 touching on weed management, resistance management, herbicide symptomology, and agronomic troubleshooting
- Conducted interviews with marketing team to promote herbicide resistance management strategies for the Syngenta portfolio
- Advisor to multiple graduate students on week-long visits sponsored by the WSSA and SWSS • Wrote business cases for funding of new research platforms including soil columns, UV degradation chambers, and soil microplots
- Acted as herbicide team safety and ethics representative from 2017-2019
- Developed database with user interface to connect 6 areas of the business to provide clear picture of herbicide development projects
- Collaborated with research team on projects including development of novel chemistries, new application technologies, formulation development and optimization, and application technologies
- Presented research results to global stakeholders, university personnel, channel partners, and fellow scientists on a regular basis
- Co-lead for 2017 SWSS weed contest at the Vero Beach Center
- Co-lead for 2018 Kansas Resistance Road tour to train growers and channel partners on weed control programs to manage amaranthus species

The University of Tennessee Knoxville, TN; Graduate Research Assistant (October 2014 to March 2017)

- Communicated frequently with fellow graduate students and lab group to ensure work was completed to standard and on-time
- Presented research results at professional meetings including SWSS and NCWSS • Conducted field, greenhouse, and laboratory experiments with a wide range of herbicides, crops, and weeds
- Published multiple papers (below) on a variety of topics and in multiple peer-reviewed journals • Cotton weed control speaker at 2016 Milan No-Till Field Day
- Soybean weed control speaker at 2016 WTREC Weed Tour
- Corn weed control speaker at Dow Agrosciences Field Day, Holston farm in Knoxville, TN • Taught PS457 Weed Science Course in Fall of 2015

Auburn University Auburn, AL; Graduate Research Assistant (August 2012 to October 2014)

- Worked on multiple collaborative projects with Alabama Cooperative Extension in row crops and roadside weed management
- Created drafts for multiple Alabama Cooperative Extension publications in turf and vegetable crops
- Focused research was on the fate of synthetic auxin herbicides in pasture and turfgrasses • Worked with mixed clover stands to determine nitrogen benefits to pasture and turfgrasses • Co-authored grant for DuPont to fund Aminocyclopyrachlor research in bermudagrass, bahiagrass, and tall fescue
- Presented research at professional meetings and turfgrass field days
- Supervised teams of undergraduate students to complete research objectives • Teacher Assistant for Principles of Weed Science and associated lab

PROFESSIONAL ORGANIZATIONS

American Chemical Society - 2020 to present
Western Society of Weed Science - 2017 to present
Florida Weed Science Society – Industry Chair - 2017 to present
Southern Weed Science Society - 2012 to present
Weed Science Society of America - 2012 to present
American Society of Agronomy - 2011 to 2014
Crop Science Society of America - 2011 to 2014
Soil Science Society of America - 2011 to 2014

ACCOMPLISHMENTS AND AWARDS

Professional

Syngenta Outstanding Research Leadership Award 2021
Level 1 OpEx Certification 2020

PhD

1st Place Oral Student Contest - Southern Weed Science Society 2017

2nd Place Oral Student Contest - Southern Weed Science Society 2016
University of Tennessee Outstanding Graduate Student Scholarship 2015

M.S.
1st Place Oral Student Contest Section I - Southern Weed Science Society 2014
Recipient of SWSS Endowment Student Enrichment Scholarship 2014
G.O. Mott Meritorious Graduate Student Award in Crop Science - Crop Science Society of America 2014

B.S.
SASES Award- Auburn University Agronomy and Soils Department 2012
Agriculture Dean's Award - Auburn University Agronomy and Soils Department
2012 Charlie Summerhour Award - Alabama Crop Management Association 2011

REFEREED JOURNAL PUBLICATIONS

Parker E.T., M.D.K. Owen, M.L. Bernards, W.S. Curran, L.E. Steckel, T.C. Mueller. 2018. A Comparison of Symmetrical and Asymmetrical Triazine Herbicides for Enhanced Degradation in Three Midwestern Soils. Weed Sci. *66:673-679.*

Mueller, T.C., **E.T. Parker,** L.E. Steckel, S.A. Clay, M.D.K. Owen, W.S. Curran, R. Currie, R. Scott, C. Sprague, D.O. Stephenson, D.K. Miller, E.P. Prostko, W.J. Grichar, J. Martin, L.J. Krutz, K. Bradley, M.L. Bernards, P. Dotray, S. Knezevic, V. Davis, R. Klein. 2017. Enhanced Atrazine Degradation is Widespread Across the United States. Pest Manag. Sci. *73:1953-1961*.

McCurdy, J.D., J.S. McElroy, M.L. Flessner, J.A. Hoyle, **E.T. Parker.** 2016. Tolerance of Three Clovers (Trifolium spp.) to Common Herbicides. Weed Technol. *30:478-485*.

Parker, E.T., J.S. McElroy, and M.L. Flessner. 2015. Smooth Crabgrass and Goosegrass Control with Metamifop in Creeping Bentgrass. Hort. Technol. *25:757-761*.

Parker, E.T., G.R. Wehtje, J.S. McElroy, and P. Panizzi. 2015. Physiological basis for differential selectivity of four grass species to aminocyclopyrachlor. Weed Sci. *63:788-798*.

PAPERS AT PROFESSIONAL MEETINGS

E.T. Parker, M. Kitt, S.A. Strom, J.D. Weems. 2022. Syngenta: New Products, Label Amendments, Stewardship Commitment, and Updates. Southern Weed Sci. 75:130

J.W. Adams, J. Eaton, R. Jain, **E.T. Parker**. 2021. Syngenta and Precision Application Technology: Friend or Foe?. Florida Weed Sci. Soc.

C.M. Perkins**,** L.E. Steckel, T.C. Mueller, M. Hay, **E.T. Parker**. 2020. Application Timing on Control of *Echinochloa*. Southern Weed Sci. Soc. 73:180

E.T. Parker, M. Hay, P. Eure. 2020. Management of Volunteer Corn with Fusilade DX Plus Dicamba Tank Mixes. Southern Weed Sci. Soc. 73:266

C.M. Perkins**,** L.E. Steckel, T.C. Mueller, M. Hay, **E.T. Parker**. 2020. Dicamba Antagonism Effect on Control of *Echinochloa*. Southern Weed Sci. Soc. 73:180

E.T. Parker, R. Wuerffel, E. Palmer, D.L. Bowers, C.L. Dunne, D. Kaundun, C. Liu. 2019. Predicting the relative long-term effectiveness of herbicide programs on amaranthus using Syngenta's resistance fighter model. Proc Southern Weed Sci. Soc. 72:194

E.T. Parker, T.C. Mueller. 2017. Long Term Atrazine Use Reduces Soil Persistence: Does the Same Occur with Metribuzin and Simazine? Proc. Southern Weed Sci. Soc. 70:169

E.T. Parker, T.C. Mueller. 2016. Volatility Comparison of 2,4-D Formulations in Soybeans. Proc. Southern Weed Sci. Soc. 69:307

E.T. Parker, T.C. Mueller. 2015. Relative Volatility of 2,4-D Formulations Under Field Conditions. Proc. North Central Weed Sci. Soc. 68:174

E.T. Parker. 2015. SWSS Endowment Enrichment Scholarship Presentation – Gainesville FL. Proc. Southern Weed Sci. Soc. 68:102

E.T. Parker, G.R. Wehtje, J.S. McElroy and A.J. Price. 2014. Bioassay Techniques for Detecting Root Leakage of Auxinic Herbicides. Proc. Southern Weed Sci. Soc. 67:84

E.T. Parker, J.S. McElroy, G.R. Wehtje and A.J. Price. 2014. Absorption and Fate of Aminocyclopyrachlor in Graminaceous Species. Proc. Southern Weed Sci. Soc. 67:125

E.T. Parker, G.R. Wehtje, J.S. McElroy, A.J. Price and P. McCullough. 2013. Absorption and Fate of Aminocyclopyrachlor in Tall Fescue (*Schedonorus arundinaceus*). Proc. Southern Weed Sci. Soc. 66:22

E.T. Parker, G.R. Wehtje, J.S. McElroy and A.J. Price. 2013. Biological Assay Techniques for Detecting Root Leakage of Auxin Mimic Herbicides. Proc. Am. Soc. of Agron. 111-11

E.T. Parker, J.S. McElroy, G.R. Wehtje and A.J. Price. 2013. Absorption and Fate of Aminocyclopyrachlor in Bermudagrass, Bahiagrass, Cogongrass and Tall Fescue. Proc. Am. Soc. of Agron. 107-4

SEMINARS

Parker, E.T. Syngenta Crop Protection – Field Soil Sampling Procedures for Field Specialists. Spring 2021

Parker, E.T. Syngenta Crop Protection – Precision Irrigation Management for Row Crops. Spring 2021

Parker, E.T. Syngenta Crop Protection – Smartsheet for use in OpEx, Global Zoom Session. Summer 2020

Parker, E.T. Syngenta Crop Protection - Resistance Management, Oberlin, KS. Winter 2018

Parker, E.T. Syngenta Crop Protection Interview Seminar, Vero Beach Research Center, FL. Spring 2017

Parker, E.T. Scott's Miracle Grow Interview Seminar, Headquarters Marysville, OH. Spring 2017

Parker, E.T. Defense Seminar PhD University of Tennessee, Plant Sciences Department. Spring

2017

Parker, E.T. Proposal Seminar PhD The University of Tennessee, Plant Sciences Department (PLSC 504). Spring 2016.

Parker, E.T. Defense Seminar M.S. Auburn University, Department of Agronomy and Soils Seminar (AGRN 7950). Summer 2014.

Parker, E.T. Literature Review Seminar M.S. Auburn University, Department of Agronomy and Soils Seminar (AGRN 7950). Spring 2013.