



**Science
Societies**

Theses and dissertations, 2024–2025

May 26, 2026



ASA

American Society of Agronomy



CSSA

Crop Science Society of America



SSSA

Soil Science Society of America

For more than 30 years, ASA, CSSA, and SSSA have published thesis and dissertation titles of graduates in the agronomic, crop, soil, and related environmental science disciplines. This year, we received 80 submissions from 52 universities. See the list.

For more than 30 years, ASA, CSSA, and SSSA have published thesis and dissertation titles of graduates in the agronomic, crop, soil, and related environmental science disciplines. This year, we received 80 submissions from 52 universities. Congratulations to all of our master's and Ph.D. graduates. We encourage you to take full advantage of membership in the Societies as you pursue your professional careers. Your hard work, dedication, and perseverance has paid off, and an exciting career in our sciences now begins. ASA, CSSA, and SSSA are here for you every step of the way!

Degree				
Name	Institution	date	Advisers	Thesis/dissertation title

Doctorate Degrees in Agronomic Science Fields

ASA Agronomic Production Systems Section

		Degree		
Name	Institution	date	Advisers	Thesis/dissertation title
Arinaitwe, Unius	Virginia Tech	12/10/2024	H. W. Frame, W. E. Thomason, M. S. Reiter	Optimizing Corn and Cotton Performance with Adaptive Management Systems and Subsurface Drip Irrigation in the Mid- Atlantic USA.
Bedwell, Dr. Emily	Univ. of Georgia	5/9/2025	G. Vellidis	Developing a Data-Driven Decision Support Tool to Enhance Irrigation Water Use Efficiency and Fresh Market Quality of Sweet Corn in the Southeastern United States.
Chakrabarty, Swapan	Auburn Univ.	12/14/2024	R. Prasad	Cover Crop Management and Nutrient Type Effects on Collard and Cotton Growth.
Huang, Jiamin	North Dakota State Univ.	8/8/2025	A. Green, C. Keene	Spring Wheat Yield, Quality and Economics Under Varying Levels of Management Intensity.

Degree				
Name	Institution	date	Advisers	Thesis/dissertation title
Karn, Rupak	Auburn Univ.	12/14/2024	R. Prasad	Evaluation of Broiler Litter as a Nitrogen Source for Corn and Cotton Production in Alabama.
Serr, Katy	Texas Tech Univ.	12/14/2024	W. Guo	Application of Precision Agriculture Technologies for Sustainable Crop Management in the Southern High Plains.
Shay, Nicholas	Univ. of Georgia	12/7/2024	E. P. Prostko	Evaluation of Herbicide Tolerance and Efficacy Across Georgia Agronomic Production Systems.
Taaime, Nawal	Univ. of California-Davis	7/25/2024	M. El Gharous	Sustainable Agronomic Practices for the Cultivation of Quinoa in Morocco: Planting Date, Organic and Mineral Fertilization.
Dias de Oliveira, Gabriel	Federal Univ. of Parana	5/11/2025	F. L. Cuquel	Nutrient Dynamics and Zinc Addition in Shiitake and Gray Oyster Mushroom Cultivation.

ASA Climatology and Modeling Section

Degree				
Name	Institution	date	Advisers	Thesis/dissertation title
Acharya, Bibek	Univ. of Florida	8/14/2024	V. Sharma	Assessing Nitrogen and Water Transport in a Rotational Production System: Monitoring and Modeling for Water Quality Management.
Jensen, Joseph	Colorado State Univ.	8/2/2024	J. Chávez	Optimizing Remote Sensing Data for Actual Crop Evapotranspiration Mapping at Different Resolutions.

ASA Environmental Quality Section

Olivo, Agustin	Cornell Univ.	8/31/2024	Q. Ketterings	Evaluation and Dissemination of Systems Analysis Tools and Performance Indicators to Improve Environmental Outcomes of New York Dairies.
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ASA Global Agronomy Section

Degree				
Name	Institution	date	Advisers	Thesis/dissertation title
Johnson, Jean-Martial	Univ. of Bonn	10/10/2024	M. Becker	Effects of Alternate Wetting and Drying Irrigation on Rice Productivity in Burkina Faso.
Junaid, Muhammad Bilawal	King Saud Univ.	10/17/2024	S. El-Sayed El-Hendawy, I. M. I. Al-Ashkar, N. A. Al-Suhaibani	Assessment of the Salt Tolerance of Wheat Genotypes Based in Agro-Physiological Traits, Spectral Reflectance Indices, and Molecular Markers.

ASA Land Management and Conservation Section

Gruener, Chandler	Univ. of Georgia	8/5/2024	M. Levi	Impacts of a White Clover 'Living Mulch' on Soil Health and Fertility in Some Georgia Cropping Systems.
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Doctorate Degrees in Crop Science Fields

C01-Crop Breeding Genetics & Cytology

Agarwal, Prashasti	Virginia Tech	5/14/2025	B. Zhang	Assessing and Implementing Value-Added Soybean Innovations in the Soybean Meal and Food Industry.
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Degree				
Name	Institution	date	Advisers	Thesis/dissertation title
Costa Filho, Edson	Montana State Univ.	8/2/2024	J. Sherman	Genetic Dissection of Malt Quality in Barley: An Examination of Hydration Index and Metabolite QTL.
Singh, Vishal	Utah State Univ.	4/30/2025	A. Kaundal	Advancing Maize Salinity Tolerance: Insights From Association Mapping, Transcriptomics, and Genomic Prediction.
Stoll, Hannah	Univ. of Minnesota-Twin Cities	10/31/2024	J. A. Anderson	From Research Findings to Educational Frameworks: Breeding Progress and Genomic Insights into Intermediate Wheatgrass at the University of Minnesota.
Yusuf, Muyideen	Univ. of Minnesota-Twin Cities	12/31/2024	L. Shannon	Deploying High-Throughput Phenotyping for Genomic Assisted Breeding: Pathway to Accelerated Genetic Gain and Efficiency in Potato.

C02-Crop Physiology & Metabolism

Degree				
Name	Institution	date	Advisers	Thesis/dissertation title
Langenfeld, Noah	Utah State Univ.	5/1/2025	B. Bugbee	Optimizing Nutrient Recycling to Achieve Zero-Discharge Management for Controlled Environment Agriculture.
Singh, Prachi	Banaras Hindu Univ.	9/24/2024	P. K. Srivastava	Crop Biophysical and Biochemical Parameters Retrieval Using Hyperspectral Datsat.
C03-Crop Ecology, Management & Quality				
Clouse, Kayla	Univ. of Kansas	12/31/2024	M. Wagner	Microbial Communities and Soil Physiochemical Properties as Mediators of Heterosis Expression in Maize.
Radermacher, Samantha	Kansas State Univ.	12/12/2024	I. Ciampitti, T. Hefley, P. V. Vara Prasad	Seed Yield and Quality of Soybeans Across the US: An Overview of Management and Environmental Characterization.
C04-Seed Physiology, Production & Technology				

Degree				
Name	Institution	date	Advisers	Thesis/dissertation title
Shrestha, Amrit	Memphis State Univ.	12/13/2024	K. Cichy	Insight into the Genetic Control of Cooking Time at the Transcriptomic and Genomic Levels.
C05-Turfgrass Science				
Guevara, Jackie Lyn	Michigan State Univ.	5/2/2025	J. N. Rogers III	Seeding Practices for Cool-Season Sod Grown on Plastic Production and Domed Stadiums.
Montoro Bais, Jose Diego	Univ. of Florida	8/8/2025	M. Schiavon, B. Unruh, K. Kenworthy	Optimizing Management Practices for Florida St. Augustinegrass Lawns.
Pritchard, Benjamin	Univ. of Tennessee- Knoxville	5/15/2025	J. T. Brosnan	Understanding the Applications of Tetflupyrolimet in Turfgrass Systems.
Tucker, Matthew	Virginia Tech	5/14/2025	D. S. McCall, J. D. Eisenback	Investigating Population Dynamics of <i>Hoplolaimus galeatus</i> and Select Associated Relationships in Creeping Bentgrass Putting Greens.

Degree				
Name	Institution	date	Advisers	Thesis/dissertation title
Xin, Xin	Washington State Univ.	6/3/2025	M. M. Neff	From Field Trials to Molecular Studies: Gibberellin-Mediated Seed Yield Enhancement, Vernalization Responsive Genes and Rapid Spring Green up in <i>Poa pratensis</i> .
C06-Forage & Grazing Lands				
Dantas Queiroz, Luana	Univ. of Florida	8/8/2025	J. Dubeux	Multifunctional Benefits of Integrated Crop-Livestock Systems in the Southeastern U.S.
C07-Genomics, Molecular Genetics & Biotechnology				
Hein, Kirsten	Colorado State Univ.	12/13/2024	J. McKay	Investigating the Adaptive Genetic Landscape of Global Crop Species.
Marston, Elliott	Michigan Technological Univ.	12/14/2024	C. Külheim	Novel Methods of Tree Improvement in the Genomic Era.
Karnatam, Krishna	Punjab Agricultural Univ.	9/12/2024	Y. Vikal	Genome Wide Association Studies for Banded Leaf and Sheath Blight & Shoot Fly Resistance in Maize.

Degree				
Name	Institution	date	Advisers	Thesis/dissertation title

Doctorate Degrees in Soil Science Fields

SSSA Nutrient Management & Soil & Plant Analysis

Judd, Tanner	Univ. of Wisconsin-Madison	8/24/2025	Z. Freedman	Investigating Carbon and Nitrogen Cycling Across Agricultural Landscapes Through Probing of Microbial Mechanisms
Mridha, Deepanjan	Washington State Univ.	7/31/2024	T. Roychowdhury	Alleviation of Arsenic Stress from Rice Plant (<i>Oryza sativa</i> L.) and Subsequent Reduction of Rice Grain Arsenic Using Different Amendments.

SSSA Pedology

Rodrigues, Hugo	Federal Rural Univ. of Rio de Janeiro	3/1/2025	M. B. Ceddia, G. Mattos Vasques	Efficacy of autoRA: Algorithm for Automatic Delineation of Reference Areas to Support Optimized Soil Sampling.
Saurette, Daniel	Univ. of Guelph	10/1/2024	A. Biswas	Determining the Optimal Sample Size for Digital Soil Mapping.

Degree				
Name	Institution	date	Advisers	Thesis/dissertation title
Sacramento, Iorrana	Federal Univ. of Vicosá	5/27/2025	C. E. Schaefer	Understanding the Environmental Dynamics of the Pantanal: Pedological, Phytosociological, and Machine Learning Applications for Landscape Evolution and Inundation Monitoring Studies.
SSSA Soil & Water Management & Conservation				
Ankomah, Godfred	Univ. of Georgia	8/4/2025	H. Sintim	Integrating Sustainable Management Practices to Improve Soil Health and Row Crop Productivity.
SSSA Soil Biology & Biochemistry				
Fletcher, Elizabeth	Virginia Tech	5/14/2025	B. Badgley, J. Barney	Linking Plant and Soil Microbial Diversity via Functional Trait Ecology.
Lord, Sam	Univ. of Missouri	5/16/2025	K. Veum	Ecological Legacies From Grasslands to Agroecosystems: Microbial Ecology, Plant Community Assembly, and Resource Allocation.

		Degree		
Name	Institution	date	Advisers	Thesis/dissertation title
Polussa, Alexander	Yale Univ.	5/19/2025	M. Bradford	The Role of Local Factors in Shaping Microbial Communities and Biogeochemical Functions Across Scales.
Wang, Zhine	Clemson Univ.	12/16/2024	R. Ye	The Diverse Effects of Continual Organic Inputs on Soil Biogeochemical Properties and Microbial Communities in Sandy Ultisols Under Organic Production.
Willard, Samuel	Imperial College London	9/1/2024	B. Waring	Examining Key Regulators of Organic Matter Stability at the Local, Regional, and Global Scale.

SSSA Soil Chemistry

Gupta, Soura	Indian Agricultural Research Institute	10/25/2024	M. C. Meena	Chemistry and Availability of Molybdenum in Soils.
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SSSA Soil Fertility & Plant Nutrition

Degree				
Name	Institution	date	Advisers	Thesis/dissertation title

Hopkins, Austin	Colorado State Univ.	9/15/2024	J. Ippolito	A Meta-Analysis of Measured Annual Nutrient Runoff From Agricultural Land in North America.
Sharma, Ayush	Univ. of Florida	8/13/2024	L. K. Sharma, L. Zotarelli	Optimizing Potato Nutrient Management Through Sulfur and Precision Agriculture Applications.

SSSA Soil Physics and Hydrology

Dixon, Chihiro	Utah State Univ.	8/9/2024	S. B. Jones	Advancing Thermal Property Measurements and Water Management for Controlled Environment Agriculture on Earth and Beyond.
Haumann, Jacobus	Univ. of the Free State	1/10/2025	F. D. Fourie, S. Esterhuyse	Using Forward and Inverse Modelling to Investigate the Capability of Two- Dimensional Electrical Resistivity Tomography to Detect Water-Bearing Zones in the Subsurface

Degree				
Name	Institution	date	Advisers	Thesis/dissertation title
McDowell, Taylor	Univ. of Wisconsin- Madison	8/16/2024	J. Mason	Unsaturated Zone Hydrology and Geochemical Tracers of Erosion in Stabilized Aeolian Landscapes of the Central Great Plains.
Pathirana, Sashini	Memorial Univ. of New Foundland	1/6/2025	L. Galagedara, M. Cheema, S. Lambot	Integrated Ground- penetrating Radar – Electromagnetic Induction Techniques to Support Precision Agriculture by Assessing the Effects of Agricultural Practices.
Sierra Augustinus, I.	Bowling Green State Univ.	8/8/2025	M. Zamkov	Coalescence Growth of II- VI Colloidal Nanocrystals and their LEDS Applications.
Wang, Dengjun	Chinese Academy of Sciences	7/1/2024	D. Zhou	Mechanistic Understanding of the Fate and Transport of Engineered Nanomaterials and Biochar Colloids in the Subsurface.

SSSA Soils & Environmental Quality

Degree				
Name	Institution	date	Advisers	Thesis/dissertation title

Ghimire, Deepak	Univ. of Nebraska-Lincoln	12/20/2024	B. Maharjan	Optimizing Fertilizer Nitrogen Management for Sustainable Sugar Beet Production.
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SSSA Wetland Soils

Chizen, Chantel	Univ. of Saskatchewan	12/5/2024	A. Bedard-Haughn	Soil Carbon Storage in Cultivated Prairie Pothole Wetlands.
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Doctorate Degrees No Division Specified

Makkar, Jasleen	Mississippi State Univ.	12/13/2024	J. A. Thomasson	Multi-Temporal UAV Remote Sensing Combined with Machine Learning for Estimating Cotton Yield.
Singh, Rajveer	Washington State Univ.	12/14/2024	D. R. See	Genetic Mechanisms of Late-Maturity Alpha-Amylase in Spring and Winter Wheat (<i>Triticum aestivum</i> L.) Under Discrete and Continuous Temperature Stress.

Masters Degrees in Agronomic Science Fields

ASA Agronomic Production Systems Section

Degree				
Name	Institution	date	Advisers	Thesis/dissertation title
Khan, Imran	Tribhuvan Univ.	7/11/2024	L. Yadav, P. Ghimire, K. Aryal	Effect of Urea Management on Productivity and Nitrogen Use Efficiency in Rice.
Jeffery, Hannah	Texas Tech Univ.	12/13/2024	G. Ritchie	Weed Management for Sustainable Cotton Production in West Texas.
Shydrowski, Maya	Univ. of California-Davis	9/12/2025	M. Lundy, C. Pittelkow	Remote Sensing-Based Estimation of the Nitrogen Nutrition Index Enhances Diagnosis of Nitrogen Use Efficiency in Wheat.
Burlingame, Rebecca	Illinois State Univ.	8/15/2025	R. Rhykerd	The Impact of Selected Winter Cover Crops on Soybean and Corn Yield, Seed Quality, and Economic Returns.

ASA Environmental Quality Section

Arel, Chandler	Univ. of Arkansas	8/26/2024	K. Brye	Struvite Effects on Greenhouse Gas Emissions from Flood- and Furrow-irrigated Rice in the Greenhouse.
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Degree				
Name	Institution	date	Advisers	Thesis/dissertation title
Morris, Brian	Pennsylvania State Univ.	12/22/2024	T. Groh, J. Duncan, H. Preisendanz	Impact of Biochar Application on Agricultural Landscapes Through Infiltration and Changes in Soil Physical Properties.

Masters Degrees in Crop Science Fields

C01-Crop Breeding Genetics & Cytology

Picabea, Maria Valentina	Univ. of Missouri	12/12/2024	J. Gillman, A. Scaboo, T. Joshi	A Study of Genetic Architecture Underlying Seed Composition Traits in Soybean (<i>Glycine max.</i>).
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C05-Turfgrass Science

Perkinson, Payton	Michigan State Univ.	8/15/2024	K. Frank	Spring Establishment of Creeping Bentgrass and Annual Bluegrass on Putting Greens Following Simulated Winterkill.
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C06-Forage & Grazing Lands

Sweger, Amanda	Montana State Univ.	5/8/2025	H. Goosey, C. Jones, K. McVay	Assessing Sulfur as a Means to Reduce Nitrate Accumulation and Improve Statewide Barley Forage Quality.
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Degree				
Name	Institution	date	Advisers	Thesis/dissertation title
Witt, Parker	South Dakota State Univ.	12/1/2024	J. Leffler, K. Ehlert	Plant Available Water Drives Semi-Arid Forage Quality and Quantity in a Common Garden Greenhouse Experiment.

Masters Degrees in Soil Science Fields

SSSA Soil & Water Management & Conservation

Brar, Gurparshad Singh	Auburn Univ.	7/11/2024	J. Lamba	Effect of Poultry Litter and Biochar Application Methods on Nutrient Loss.
MacKenzie, Katherine	East Texas State Univ.	8/1/2024	G. Ogden, B. Williams	Influence of Tillage on Aggregate Stability in Clay Soils of North Texas.

SSSA Soil Biology & Biochemistry

Stockmaster, Ashley	Bloomsburg Univ. of Pennsylvania	8/15/2025	S. Rier, A. Hare, H. DeBardleben	Microbial Enzyme Activity of Subaqueous Soils in the Long Island Sound.
Ochonye, Amarachi	South Dakota State Univ.	8/26/2024	D. Clay	Unleashing Microbial Power in the Corn Rhizosphere: Biofertilizer Driven Nitrogen Fixation and Yield Enhancement.

SSSA Soil Fertility & Plant Nutrition

Degree				
Name	Institution	date	Advisers	Thesis/dissertation title
Airee, Sandeep	Kentucky State Univ.	5/10/2025	A. Mukherjee, A. Chiluwal, M. Gebremedhin	Impacts of Fertility Practices on Soil Health and Water Quality.
Abiola, Samson	Oklahoma State Univ.	7/8/2024	A. de Oliveira Silva, B. Arnall, B. Carver	Enhancing Wheat Yield and Protein Formation: Assessing N Uptake Dynamics in Diverse Genotypes.
Estrada, Ella Hazel	Oklahoma State Univ.	12/12/2025	S. Phillips, S. Abit, S. Sharma	Spatial and Temporal Variability of Soil Health Scores and their Relationship to Crop Yield.
SSSA Soils & Environmental Quality				
Nice, Md Simoon	Texas Christian Univ.	8/19/2024	O. Harvey, G. Kharel	Assessing Lignocellulose-C Dynamics using 2-D Thermal Analysis-Mixing Ratio Approach.
Masters Degrees No Division Specified				

Name	Institution	Degree		Thesis/dissertation title
		date	Advisers	
Langton, Christopher	Univ. of Bordeaux	12/6/2024	G. Gambetta	Evaluating the Impact of Grapevine Red Blotch Virus on Grape Maturity and Wine Quality in Paso Robles, California Vineyards: Implications for Commercial Production.
Zeri N, Israt	Univ. of Manitoba	8/21/2024	M. Rahman, F. Delijani	The Effect of Mechanized Retting Chamber Parameters on the Canola Fibre Retting Performance.
Stephaniuk, Holly	Univ. of Saskatchewan	6/4/2025	S. Munira	Assessment of Agricultural N ₂ O Emissions: A Risk-Based Approach Using Soil Properties and GIS Spatial Data for Mapping N ₂ O Vulnerability.

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