SUSHAN RU

Department of Horticulture, Auburn University
287 CASIC Building, 559 Devall Drive, Auburn, AL 36849
Email: sushan.ru@auburn.edu Tel: (334) 844-3094

EDUCATION

Ph.D. Horticulture, Washington State University 2011–2016
M.S. Horticulture, Washington State University 2009–2011
B.S. Horticulture, Southwest University, China 2005–2009

PROFESSIONAL EXPERIENCE

Assistant Professor of Small Fruit Breeding & Genetics, Auburn University 2021–Present

- Developing blueberry cultivars for Alabama and nearby regions using a combination of traditional and modern breeding technologies
- Enabling efficient blueberry breeding through interdisciplinary tools such as high-throughput phenotyping, quantitative genetics and bioinformatics
- Mentoring and training young scientists in small fruit breeding and genetics

Postdoctoral Research Associate, University of Minnesota 2017–2021
Postdoctoral Research Associate, University of Wisconsin-Madison 2017–2018

TEACHING

2022 – present Plant biotechnology (HORT 7070, 4 credits)
Horticultural Plant Breeding (HORT5100/6100, 3 credits)
Experimental Methods (HORT 7100, 4 credits, co-teach with another colleague)

Fall 2024 Guest lecture for the Horticulture Crop Production (HORT 2020) on blueberry management. November 20, 2024. Auburn, AL
Guest lecture for the Plant Propagation (HORT 2240) on tissue culture technology. November 12, 2024. Auburn, AL
Guest lecture for the Bioinformatics for Plant Research class at Washington State University. November 1, 2024
Guest lecture for the University of Minnesota, Professional Skills for Scientists (CFAN 8101) on Cultural differences and awareness. October 29, 2024. Virtual

Spring 2024 Guest lecture for the Research at Auburn (HONR 1087) on blueberry cultivar development. March 14, 2024. Auburn, AL
Guest lecture for the Plant Breeding class at the University of Delaware on blueberry breeding methods. April 12, 2024. Auburn, AL
Guest lecture for the Plant Propagation (HORT2240) on tissue culture technology. April 22, 2024. Auburn, AL

Fall 2023 Guest lecture for the Plant Propagation (HORT2240) on tissue culture technology. November 9, 2023. Auburn, AL
Guest lecture for the Horticulture Seminar (HORT7950) on how to deliver a research presentation, November 20, 2023. Auburn, AL
Guest lecture for the Research at Auburn (HONR 1087) on blueberry cultivar development. October 3, 2023. Auburn, AL

Spring 2023 Guest lecture for the Horticulture Seminar (HORT7950) on how to deliver a research presentation, March 17th, 2023. Auburn, AL

MENTORING (*chair or co-chair)

M.S. students: Pavani Mula* (Fall 2024–present), Meliza Sandoval* (Fall 2024–present), Clarisse Chipura (Fall 2024–present), Md Mesbahul Maruf* (Spring 2024–present), Savannah Busby* (Fall 2022–Summer 2024), Dorcas Lukwesa (Spring 2022–Spring 2024), Md Hasibur Rahman (Spring 2023–Fall 2024), Ayodele Amodu* (Spring 2022–Fall 2023), Emily Wismer (Spring 2022–Fall 2023), Jarrett Price (Spring 2022–Fall 2023)

PhD students: Sakshi Pathania* (Spring 2024 – present), Savannah Busby* (Fall 2024 – present), Puranjit Singh (Spring 2023 – present), Peter Ephraim (Fall 2024–present), Francis Manze (Fall 2024 – present), Sarita Munoz Gomez (Spring 2024–present), Claudia Ann Rutland (Fall 2022 – Fall 2024)

Undergraduate students: Tucker Farthing (Fall 2024 – present), John Lin (Fall 2024 – present), Lauren Isley (Fall 2023), Tatum Messer (Fall 2023 – present), Zhenhao Sun (Summer 2023), Sophia G Schmidt (Spring 2023), XingJian Li (Spring 2022 – present), Jett Jackson (Spring 2022 – present), Mingxin Wang (Spring 2021 – Fall 2022), Jake McGwin (Fall 2021 – Spring 2022)

Postdocs: Roohollah Abdolshahi (2024), Kendall Lee, postdoc at the HudsonAlpha Institute for Biotechnology (Fall 2023 – present), Meng Su (2023, currently employed at KingAgroot CropScience Co.)

2023–Present Mentor for horticulture students through the ASHS Mentor Program
2019–2020 Graduate student mentor through the National Association of Plant Breeders (NAPB)
2018–2020 Graduate student mentor through the College of Food, Agricultural and Natural Research Sciences Mentor Program, University of Minnesota

PUBLICATIONS

^corresponding author
[1]co-first author
*graduate student author
**undergraduate student author

In preparation:

Abdolshahi, Roohollah; Hardner, Craig; Main, Dorrie; Jung, Sook; Chu, Ye; Ru, Sushan. Pedigree analysis of rabbiteye blueberry (*Vaccinium virgatum* Aiton) indicates limited genetic diversity (*in preparation for submission to HortScience*)

Ru S*, Amodu A, Oliver J. Screening blueberry cultivars for resistance to Botryosphaeria stem blight (*in preparation for submission to Plant Disease*)

Submitted:

Bushakra, Jill; Jung, Sook; Su, Meng; **Ru, Sushan**; Main, Dorrie; Humann, Jodi L.; Bassil, Nahla V. A strawberry (*Fragaria* L.) crop ontology to enable standardized phenotyping for strawberry breeding and research (*submitted to HortScience*)

Singh P, Niknejad N, Spiers JD, **Ru S**, Bao Y. Development of a Smartphone Application for Blueberry Detection Towards Rapid Yield Estimation (*submitted to Computers and Electronics in Agriculture*)

Li X, **Ru S**, He Z, Spiers J, Xiang L. Developing automated tools for blueberry count, weight, and size estimation on a mobile device based on modified YOLOv5s (*submitted to Fruit Research*)

Published:

1. Rahman MH, Busby S, Hanif S, Maruf MM, Ahmad F, **Ru S**, Sanz-Saez A, Zheng J, Rehman T (2024). A Graph Convolutional Network Approach for Hyperspectral Image Analysis of

Blueberries Physiological Traits Under Drought Stress. Smart Agricultural Technology, 100743. https://doi.org/10.1016/j.atech.2024.100743
2. Amodu A, Oliver J, Lawrence K, Patel S, Koebernick J, Patel J, Coneva E, **Ru S*.** Identifying the distribution and causal pathogens of blueberry stem blight in Alabama. Plant Disease, 0 0:ja. doi.org/10.1094/PDIS-07-24-1404-SR
3. Rahman MH; Busby S; **Ru S**; Hanif S; Sanz-Saez A; Zheng J, Rehman T (2024) Transformer-based hyperspectral image analysis for phenotyping drought tolerance in blueberries. Computers and Electronics in Agriculture, 228:109684. doi.org/10.1016/j.compag.2024.109684
4. **Ru S***, Sanz-Saez A, Leisner C, Rehman T, Busby S (2024) Review on blueberry drought tolerance from the perspective of crop improvement. Frontiers in Plant Science 15:1352768. doi.org/10.3389/fpls.2024.1352768
5. **Ru S***, Ding S, Oliver JE, Amondu A (2023) A review of Botryosphaeria stem blight disease of blueberry from the perspective of plant breeding. Agriculture, 13(1), 100. https://doi.org/10.3390/agriculture13010100
Impact factor in 2022: **3.6**
6. Barth E, de Resende JTV, Mariguele KH, de Resende MDV, da Silva ALBR, **Ru S** (2022) Multivariate analysis methods to improve the selection of strawberry genotypes with low cold requirement. Sci Rep 12, 11458. https://doi.org/10.1038/s41598-022-15688-4
Impact factor in 2022: **4.6**
7. James T, Johnson A, Schaller A, Peace C, Luo F, Sandefur P, **Ru S** (2022) As it stands: the Palouse Wild Cider Apple Breeding Program. Plants, 11, 517. https://doi.org/10.3390/plants11040517
Impact factor in 2022: **4.5**
8. Jung S, Lee T, Gasic K, Campbell T, Yu J, Humann J, **Ru S**, Edge-Garza D, Hough H, Main D (2021) The Breeding Information Management System (BIMS): An online resource for crop breeding. Database, 2021, baab054. https://doi.org/10.1093/database/baab054
Impact factor in 2021: **4.5**
9. **Ru S**, Hardner C, Carter PA, Evans K, Main D, Harshman J, Sandefur P, Edge-Garza D, Peace C. (2021) Empirical evaluation of multi-trait DNA testing in an apple seedling population. Tree Genetics & Genomes 17:13. https://doi.org/10.1007/s11295-021-01494-y
Impact factor in 2021: **2.4**
10. **Ru S***, Bernardo R (2020) Predicted genetic gains from introgressing chromosome segments from exotic germplasm into an elite soybean cultivar. Theoretical and Applied Genetics 133:605-614. https://doi.org/10.1007/s00122-019-03490-2
Impact factor in 2020: **5.7**
11. **Ru S**, Bernardo R (2018) Targeted recombination to increase genetic gain in self-pollinated species. Theoretical and Applied Genetics 132:289–300. https://doi.org/10.1007/s00122-018-3216-1
Impact factor in 2018: **3.93**
12. Jung S, Lee T, Cheng C, Buble K, Zheng P, Yu J, Humann J, Ficklin SP, Gasic K, Scott K, Frank M, **Ru S**, Hough H, Evans K, Peace C, DeVetter L, McFerson J, Coe M, Kahn M, Wegrzyn J, Staton M, Main D (2018) 15 years of GDR: New data and functionality in the Genome Database for Rosaceae. Nucleic Acids Research 47:D1137–D1145. https://doi.org/10.1093/nar/gky1000
Impact factor in 2018: **11.56**
13. **Ru S**, Hardner C, Carter PA, Evans K, Main D, Peace C (2016) Modeling of genetic gain for single traits from marker-assisted seedling selection in clonally propagated crops. Horticulture Research 3:16015.
Impact factor in 2016: **4.6**
14. **Ru S***, Main D, Evan K, Peace C (2015) Current applications, challenges and perspectives of marker-assisted seedling selection in Rosaceae tree fruit breeding. Tree Genetics & Genomes 11: 8.

Impact factor in 2015: **2.1**

15. Jung S, Ficklin SP, Lee T, Cheng C, Blenda A, Zheng P, Yu J, Bombarely A, Cho I, **Ru S**, Evans K, Peace C, Abbott AG, Mueller LA, Olmstead MA, Main D (2014) The Genome Database for Rosaceae (GDR): year 10 update. Nucleic Acids Research 42: D1237–1244.
Impact factor in 2013: **8.8**

EXTENSION PUBLICATIONS & CONFERENCE PROCEEDINGS

1. Coneva E, Conner P, Worthington M, **Ru S**, Salazar-Gutierrez M (2024) Assessment of improved newly released muscadine grapes for Alabama vineyards. Southern Regional Small Fruit Consortium. https://smallfruits.org/2024/07/assessing-muscadine-cultivars-and-selections/
2. Coneva E, Babiker E, Stafne E, **Ru S**, Salazar-Gutierrez M, Rodrigues C, Vinson E (2023) Early performance of newly released blueberry cultivars with improved fruit quality characteristics. Southern Regional Small Fruit Consortium. https://smallfruits.org/2023/01/newly-released-blueberry-cultivars/
3. Amodu A, Patel S, Lawrence K, Koebernick J, Coneva E, **Ru S*** (2023) Blueberry stem blight survey in Alabama. Southern Regional Small Fruit Consortium. https://smallfruits.org/2023/07/blueberry-stem-blight-survey-in-alabama/
4. **Ru S** (2023) Breeder Spotlight: Sushan Ru. VacCAP project newsletter, 06/09/2023 https://www.vacciniumcap.org/ruspotlight
5. Price J, Coneva E, Salazar-Gutierrez M, Vinson III EL, **Ru S**, Chaves-Cordoba B (2023) Planting Distance Can Increase the Yield of PD Resistant Predominantly *Vitis vinifera* Grapevine '502-20' (abstr). HortScience 58(9) Supplement: SR9. DOI: https://doi.org/10.21273/HORTSCI.58.9S.S1

SOFTWARE TOOLS

1. Singh P, Niknejad N, Spiers JD, **Ru S**, Bao Y. Development of a Smartphone Application for Blueberry Detection Towards Rapid Yield Estimation (*submitted to Computers and Electronics in Agriculture*)
2. Li X, **Ru S**, He Z, Spiers J, Xiang L. Developing automated tools for blueberry count, weight, and size estimation on a mobile device based on modified YOLOv5s (*submitted to Fruit Research*)

GRANTS & FELLOWSHIPS

2024

$177,628 (5 awards) funded|$43,900 as lead PI

- **Title:** Introducing late-blooming and early-ripening blueberries to Alabama. USDA Specialty Crop Block Grant Program, $40,000 (10/1/2024 – 07/31/2027). PI: ***Sushan Ru***. *Co-PIs: Elina Coneva, Marlee Trendal-Hayse* (70%).
- **Title:** Improve the Blueberry Yield Prediction App and Extend Its Availability for iOS Users. California Blueberry Commission. $33,728 (10/1/2024 – 9/01/2026). PI: Yin Bao, Sushan Ru.
- **Title:** Software support for multiple HORT and CSES classes. College of College of Agriculture Instructional Grant. $3,900. *PI: Sushan Ru, Charles Chen, Marnin Wolfe, Jenny Koebernick.*
- **Title:** Assessing Carbon Flux in A Blueberry Field Via Continuous Monitoring With Eddy Covariance Technology. Auburn University Experimental Station AAES Seed Grant Program, $50,000 (10/1/2024 – 9/30/2026). *PI: Zutao Yang. Role: collaborator.*

- **Title:** Comparing Quality, Flavor and Volatile Components of Rabbiteye and Southern Highbush Blueberry Cultivars. Technology. Auburn University Experimental Station AAES Seed Grant Program, $50,000 (10/1/2024 – 9/30/2026). *PI: Marlee Trandel-Hayse. Role: Collaborator.*

2023

$637,814 (6 awards) funded|$537,814 (2 awards) as lead PI

- **Title**: Postharvest and quality attributes of rabbiteye blueberry for Alabama. Southern Region Small Fruit Consortium, $5,000 (3/1/2024 – 2/1/2025). *PI: Marlee Trandel-Hayse. Co-PIs:* ***Sushan Ru****, Elina Coneva, Penelope Perkins-Veazie, Ebrahiem Babiker* (20%).
- **Title**: Chlorgenic Acid Content in Rabbiteye Blueberry (*Vaccinium virgatum*) Germplasm after Harvest and Storage. Southern Region Small Fruit Consortium, $5,000 (3/1/2024-2/1/2025). *PI: Penelope Perkins-Veazie. Co-PIs:* ***Sushan Ru****, Marlee Trandel-Hayse, Massimo Iorizzo.*
- **Title**: Expanding southern highbush blueberries to underserved regions of southeastern U.S. USDA National Institute of Food and Agriculture−Agriculture and Food Research Initiative Competitive Grants Program Foundational and Applied Science Program. $497,828 (9/1/2023 – 08/31/2026). *PI:* ***Sushan Ru****. Co-PIs: Patricio R. Munoz, Hamid Ashrafi, Ebrahiem Babiker, Jessica Spencer, Yin Bao, Elina Coneva* (80%).
- **Title**: Introducing new strawberry cultivars to multiple regions of Alabama. USDA Specialty Crop Block Grant Program, $39,986 (11/1/2023 – 10/31/2026). PI: ***Sushan Ru***. Co-PIs: *Edgar Vinson*, *Andre Luiz Biscaia Ribeiro da Silva*, *Amanda McWhirt* (40%).
- **Title**: Overcoming Armillaria Root Rot Disease Challenge in Peach Production to Sustain Family Farms while Enhancing Environmental Outcomes. USDA Specialty Crop Block Grant Program, $40,000 (11/1/2023 – 10/31/2026). PI: Elina Coneva. Co-PIs: ***Sushan Ru****, Melba Salazar-Gutierrez* (10%).
- **Title**: Data-driven high-throughput blueberry drought tolerant phenotyping for sustainable production under changing climate, Auburn University Research Support Program, $50,000 (7/1/2023 – 6/30/2025). *PI: Tanzeel Rehman. Co-PIs:* ***Sushan Ru****, Alvaro Sanz Saez de Jauregui, Yin Bao*.

2022

$617,365 (6 awards) funded|$572,365 (3 awards) as lead PI

- **Title**: Enabling genomics-assisted crop breeding and research through advanced database resources. USDA National Institute of Food and Agriculture−Specialty Crop Research Initiative, $5.1M with $501,238 to Auburn University (9/1/2022 – 8/31/2026). *PIs: Dorrie Main, Sook Jung, Co-PIs: Fred Gmitter, Jr., Ksenija Gasic, Rebecca McGee,* ***Sushan Ru****, Trevor Rife, Nahla Bassil, Craig Hardner, Yu Wang, Elizabeth Ross, James McFerson, Michael Coe* (100%).
- **Title**: Introducing southern highbush blueberries to Alabama through multi-location cultivar evaluation. Auburn University Experimental Station AAES Grant Program, $50,000 (10/1/2022 – 9/30/2024). *PI:* ***Sushan Ru****. Co-PIs: Elina Coneva, James Spiers, Courtney Leisner, Charles Chen.*
- **Title**: Continue to improve the accuracy of blueberry yield prediction. California Blueberry Commission, $16,127 (1/1/2023 – 12/31/2023). *PI:* ***Sushan Ru****. Co-PIs: Yin Bao, James Spiers* (40%).
- **Title**: Screening blueberry cultivars for stem blight resistance. Southern Region Small Fruit Consortium, $5,000 (3/1/2023 – 2/1/2024). *PI:* ***Sushan Ru****. Co-PIs: Elina Coneva, Kathy Lawrence, Kassie Conner, Jonathan Oliver* (55%).
- **Title:** Assessment of improved and newly released muscadine grape cultivars for Alabama vineyards. Southern Region Small Fruit Consortium, $5,000 (3/1/2023 – 2/1/2024). *PI: Elina Coneva. Co-PIs: Patrick Conner, Margaret Worthington,* ***Sushan Ru*** (10%).

- **Title**: Cultivar evaluation and extension education on improved newly released muscadine grapes for Alabama vineyards. USDA Specialty Crop Block Grant Program, $40,000 (2022 – 2024). *PI: Elina Coneva. Co-PIs: Edgar Vinson, Melba Salazar,* ***Sushan Ru*** (10%).

2021

$126,008 (6 awards) funded|$41,008 (3 awards) as lead PI

- **Title**: Distribution of Botryosphaeria stem blight in blueberry production of Alabama. Southern Region Small Fruit Consortium, $5,000 (2022 – 2023). *PI:* ***Sushan Ru****. Co-PIs: Elina Coneva, Kathy Lawrence, Ebrahiem Babiker, Jonathan Oliver, Melba Salazar-Gutierrez* (50%).
- **Title**: Enabling high-throughput yield prediction for efficient blueberry production. Southern Region Small Fruit Consortium, $5,000 (2022 – 2023). *PI:* ***Sushan Ru****. Co-PIs: Yin Bao, James Spiers, Elina Coneva, Patricio Munoz, Hamid Ashrafi, Paul Bartley* (40%).
- **Title**: Extension Education on Newly Released Blueberry Cultivars with Improved Fruit Quality Characteristics. Southern Region Small Fruit Consortium, $5,000 (2022 – 2023). *PI: Elina Coneva. Co-PIs:* ***Sushan Ru****, Melba Salazar-Gutierrez, Edgar Vinson, Camila Rodrigues, Harli Willis* (10%).
- **Title**: Enabling high-throughput yield prediction in blueberry production. California Blueberry Commission, $31,008 (2021 – 2022). *PI:* ***Sushan Ru****. Co-PIs: Yin Bao, James Spiers, Elina Coneva, Paul Bartley* (50%).
- **Title**: Expanding blueberry production via high tunnels. USDA Specialty Crop Block Grant Program, $40,000 (2021 – 2023). *PI: James Spiers. Co-PIs: Melba Salazar-Gutierrez,* ***Sushan Ru*** (10%).
- **Title**: Blueberry cultivars with enhanced quality for Alabama family farms. USDA Specialty Crop Block Grant Program, $40,000 (2022 – 2024). *PI: Elina Coneva, Co-PIs: Edgar Vinson, Melba Salazar-Gutierrez,* ***Sushan Ru*** (5%).

SELECTED AWARDS

2024 (1) First place of the American Society for Horticultural Science (ASHS) Early Career Competition, September 2024, Honolulu, Hawaii

2023 (1) Travel support for attending the National Association of Plant Breeders' 2023 Annual Meeting, July 16-20, 2023, Greenville, SC

STUDENT AWARDS

2024 (2) Savannah Busby, Second Place for the Graduate Student Competition in the 2024 Southeastern Professional Fruit Workers Conference. October 23-25, 2024, Auburn, AL, USA.

Savannah Busby, First Place for the 2024 SR-ASHS Annual Meeting Southern Fruit Workers 3-Minute Thesis Competition, February 2, 2024, Atlanta, GA, USA.

2023 (1) Savannah Busby, 2023 Jimmy Witt Memorial Scholarship, AL Fruit & Vegetable Growers Association

SELECTED ABSTRACTS & PRESENTATIONS († indicates invited talks)

2025

1. Ru S (2025) Update on blueberry breeding at Auburn University Southeast Regional Fruit & Vegetable Conference. January 9 – 11, 2025. Savannah, GA.

2024 (21)

1. †**Ru S** (2024) Developing the first small fruit breeding program at Auburn University. Oral presentation at the Michigan State University-Corteva Plant Breeding, Genetics, and Biotechnology (PBGB) Symposium, December 13, 2024. East Lansing, MI
2. †**Ru S**, Tapia R, Itam MO, Abdoshahi R, Jung S, Lee T, Main D (2024). Applying Field Book and BIMS in fruit breeding. Oral presentation at the 2024 ASHS Annual Meeting, Honolulu, Hawaii, September 24, 2024
3. †**Ru S**, Singh P, Bao Y (2024). Android-based smartphone app for blueberry yield prediction. Oral presentation at the 2024 ASHS Annual Meeting, Honolulu, Hawaii, September 26, 2024
4. Abdolshahi R, Cheng C, Main D, Bushakra J, Yu J, Humann J, Buble K, Bassil N, Zheng P, Jung S, **Ru S**, Lee T (2024) Update on the Genome Database for Vaccinium (GDV): How GDV supports Vaccinium Research and Breeding. Poster presentation at the 2024 ASHS Annual Meeting, Honolulu, Hawaii, September 27, 2024.
5. †**Ru S** (2024) Developing frost-tolerant blueberry cultivars for Alabama. Oral presentation at the Small Fruit and Viticulture Workshop and Demonstration, June 12, 2024. Clanton, AL, USA.
6. †**Ru S** (2024) Update on the strawberry cultivar evaluation trial. Oral presentation at the Strawberry Workshop and Demonstration, April 17, 2024. Clanton, AL, USA.
7. †**Ru S** (2024) Android-based smartphone app for blueberry yield prediction. Oral presentation at the California Blueberry Day, March 27th, 2024. Visalia, CA, USA.
8. †**Ru S** (2024) Cold-tolerant blueberry cultivars for Alabama. Oral presentation at the Alabama Vegetable & Fruit Growers Association Annual Conference, February 14-16, 2024. Golf Shores, AL, USA.
9. **Ru S**, Amodu A, Oliver J, Patel S, Lawrence K, Koebernick J, Coneva E (2024) Blueberry stem blight survey and cultivar screening in Alabama. Oral presentation at the 2024 SR-ASHS Annual Meeting. February 2-4, 2024, Atlanta, GA
10. Busby S, Sanz-Saez A, Leisner C, Rehman T, **Ru S** (2024) Evaluating drought tolerance of southern highbush and rabbiteye blueberries. Oral presentation at the at the 2024 SR-ASHS Annual Meeting. February 2-4, 2024, Atlanta, GA.
11. †**Ru S**, Su M, Jung S, Lee T, Main D (2024) Using Field Book and BIMS in blueberry breeding. Oral presentation at the Plant and Animal Genome Conference (PAG 31), January 12 – 17, 2024. San Diego, CA, USA.
12. Busby S, Sanz-Saez A, Leisner C, Rehman T, **Ru S** (2024) Evaluating drought tolerance of southern highbush and rabbiteye blueberries. Poster presentation at the Plant and Animal Genome Conference (PAG 31), January 12-17, 2024. San Diego, CA, USA.
13. Main D, Jung S, Cheng C, Lee T, Humann J, Buble K, Yu J, Gasic K, Bassil N, **Ru S**, Peace C, Coe M, Ficklin S, Hardner C (2024) Using GDR to enable Rosaceae research – new developments and future directions. Oral presentation at the Plant and Animal Genome Conference (PAG 31), January 12 – 17, 2024. San Diego, CA, USA.
14. Humann J, Cheng C, Lee T, Buble K, Zheng P, Jung S, Yu J, Gasic K, **Ru S**, Bassil N, Iorizzo M, Main D (2024) Genome Database for Vaccinium: A community resource for genetics, genomics, and breeding research. Oral presentation at the XIII International Vaccinium Symposium, Prince Edward Island, Canada, August 24 – 29, 2024.

15. Coneva E, **Ru S**, Salazar-Gutierrez M, Vinson E (2024) Evaluation of Newly Released Rabbiteye Blueberry Cultivars for Central Alabama. Poster presentation at the XIII International Vaccinium Symposium, Prince Edward Island, Canada, August 24 – 29, 2024.
16. Rahman H, **Ru S**, Sanz Saez A, Busby S, Rehman T (2024) Drought tolerance assessment with statistical and deep learning models on hyperspectral images for high-throughput plant phenotyping. Oral presentation for the 16th International Conferences on Precision Agriculture, Manhattan, KS, USA, July 21 – 24, 2024
17. **Ru S** (2024) Frost-tolerant blueberry cultivars for Alabama. Oral presentation at the Small Fruit Growers Workshop, June 12, 2024. Chilton Research Station, AL, USA.
18. Singh P, Bao Y, **Ru S** (2024) Deep learning approaches for yield prediction and maturity assessment for blueberry. ASA CSSA SSSA International Annual Meeting. Nov. 10 – 13, San Antonio, Texas.
19. Coneva E, Price J, Salazar-Gutierrez M, Vinson E, Ru S, Chaves-Cordoba B (2024) Effect of Planting Distance on PD Resistant Predominantly *Vitis Vinifera* Grape '502-20' During the Years of Establishment. Abstract and Poster at the ASHS Annual Meeting, Hawaii Sett 22-27, 2024
20. Coneva E, Conner P, Worthington M, Salazar-Gutierrez M, Ru S, Vinson E, Chaves-Cordoba B (2024) Evaluation of Muscadine Cultivars and Advanced Selections in Alabama. Abstract of Oral Presentation at the SR ASHS Annual Meeting, February 2-4, 2024, Atlanta, GA
21. Coneva E, Conner P, Worthington M, Salazar-Gutierrez M, Ru S, Vinson E, Chaves-Cordoba B (2024) Evaluation of Muscadine Grape Cultivars for Alabama Vineyards. Poster at the SE Regional F&V Conference, Savannah, GA, Jan. 2024

2023 (14)

1. †**Ru S** (2023) Expanding southern highbush blueberries to underserved regions of Southeastern U.S. SERA 47 Annual Meeting, Zoom, December 11, 2023
2. Amodu A, Patel S, Lawrence K, Koebernick J, Coneva E, **Ru S** (2023) Identifying the distribution and causal pathogens of blueberry stem blight in Alabama. Poster presentation at the 2023 College of Agriculture Graduate Student Research Poster Showcase. November 26, 2023, Auburn, AL
3. Busby S, Sanz-Saez A, Leisner C, Rehman T, **Ru S** (2023) Evaluating drought tolerance of southern highbush and rabbiteye blueberries. Poster presentation at the 2023 College of Agriculture Graduate Student Research Poster Showcase. November 26, 2023, Auburn, AL
4. Singh P, **Ru S**, Bao Y (2023) A deep learning-based smartphone app for field-based blueberry yield prediction. Oral presentation for the 2023 ASA, CSSA, SSSA International Annual Meeting, October 29-November 1, 2023, St. Louis, Missouri
5. **Ru S**, Amodu A, Patel S, Lawrence K, Koebernick J, Coneva E (2023) Blueberry stem blight survey in Alabama. Oral presentation at the 2023 American Society for Horticultural Science (ASHS) Annual Meeting, July 31 – August 4, 2023, Orlando, FL
6. Amodu A, Patel S, Lawrence K, Koebernick J, Coneva E, **Ru S** (2023) Identifying the distribution and causal pathogens of blueberry stem blight in Alabama. Poster presentation at the 2023 American Society for Horticultural Science (ASHS) Annual Meeting, July 31 – August 4, 2023, Orlando, FL
7. Busby S, Sanz-Saez A, Leisner C, Rehman T, **Ru S** (2023) Evaluating drought tolerance of southern highbush and rabbiteye blueberries Poster presentation at the

2023 American Society for Horticultural Science (ASHS) Annual Meeting, July 31 – August 4, 2023, Orlando, FL

8. †**Ru S** (2023) Blueberry cultivar selection in Alabama. Oral presentation at the 2023 Alabama Fruit and Vegetable Growers Association Annual Conference and Tradeshow, February 9 – 10, Gulf Shores, Alabama
9. †**Ru S** (2023) Introduction to the blueberry breeding program at Auburn University. Oral presentation at the Gulf Coast Fruit & Vegetable Meeting. Gulf Coast Research and Extension Center, Fairhope, AL, January 6, 2023
10. †**Ru S** (2023) Introduction to the blueberry breeding program at Auburn University. Oral presentation at the Mobile County Fruit & Vegetable Meeting. Mobile, AL, January 5, 2023
11. †**Ru S** (2023) Blueberry breeding in Alabama. Oral presentation at the Mississippi Blueberry Virtual Education Workshop. January 6, 2023
12. †**Ru S** (2023) Updates on blueberry breeding in Alabama. Oral presentation at the Southeast Regional Fruit & Vegetable Conference. January 5 – 7, 2022. Savannah, GA.
13. Price J, Coneva ED, Vinson E, Salazar-Gutierrez M, Ru S, Chaves-Cordoba B (2023) Rootstock effect on yield, fruit quality and labor Input of 'Cresthaven' peach trained to a perpendicular V system. Oral presentation for the Auburn University Research Symposium, March 28, Auburn, AL.
14. Price J, Coneva E, Salazar-Gutierrez M, Vinson E, Ru S, and Chaves Cordoba B (2023) Planting distance can increase the yield of PD Resistant *Vitis Vinifera* grapevine '502-20'. Poster presentation at the Southeast Regional Fruit and Vegetable Conference, Savannah, GA, January 5 – 8, 2023.

2022 (10)

1. Price J, Coneva E, Salazar-Gutierrez M, Vinson E, **Ru S**, Chaves-Cordoba B (2022) Planting Distance Can Increase the Yield of PD Resistant Predominately Vitis Vinifera Grapevine '502-20'. Southeastern Professional Fruit Workers Conference, Lake Alfred, FL, November 14 – 16.
2. Coneva E, **Ru S**, Vinson E, Salazar-Gutierrez M (2022) Assessing New Rabbiteye Blueberry Cultivars for Central Alabama. Professional Agricultural Workers Conference (PAWC), Montgomery, November 12-14.
3. **Ru S** (2022) Continue to improve the accuracy of blueberry yield prediction. Oral presentation at the California Blueberry Commission Research Committee Meeting. September 7, 2022. Virtual
4. **Ru S** (2022) Expanding blueberry production in Alabama – small fruit breeding at Auburn University. Oral presentation at the 2022 ASHS Annual Conference, August 3, 2022, Chicago, U.S.
5. †**Ru S** (2022) Breeding Blueberry Cultivars for Alabama. Oral presentation at the Alabama Blueberry Production Workshop, June 10, 2022, Chilton Research and Education Center, Clanton, AL.
6. †**Ru S** (2022) Developing blueberry cultivars for Alabama. Oral presentation at the 2022 CommHort Fruit School. June 8, 2022. Online
7. †**Ru S** (2022) Small fruit breeding at Auburn University. Oral presentation at the ACES POW Commercial Horticulture Monthly Webinar Series, April 25, 2022. Online.
8. †**Ru S** (2022) Small fruit breeding at Auburn University – current goals, ongoing projects, and future work. Oral presentation at the Southeast Regional Fruit & Vegetable Conference. January 6 – 9, 2022. Savannah, GA.

9. **Ru S**, Hardner C, Carter PA, Evans K, Main D, Harshman J, Sandefur P, Edge-Garza D, Peace C. (2022) Empirical evaluation of multi-trait DNA testing in an apple seedling population. Poster presentation at the 2022 Southern Region American Society for Horticultural Sciences (SRASHS), February 11-13, 2022, New Orleans, Louisiana
10. **Ru S**, Hardner C, Carter PA, Evans K, Main D, Harshman J, Sandefur P, Edge-Garza D, Peace C. (2022) Empirical evaluation of multi-trait DNA testing in an apple seedling population. Poster presentation at the 2022 Plant and Animal Genome XXVI Conference. January 8-12, 2022, San Diego, CA, USA

2021 (2)

1. **Ru S** (2021) Developing elite blueberry cultivars for Alabama and beyond. Oral presentation at the HudsonAlpha-Auburn University Collaboration Meeting. December 14, 2021, Auburn, AL
2. **Ru S** (2021) High-throughput yield prediction for efficient blueberry production. Oral presentation at the California Blueberry Commission Research Committee Meeting. September 7, 2021. Virtual