

CURRICULUM VITAE

SK MUSFIQ US SALEHIN, Ph.D.

Assistant Professor of Agronomy and Soil Fertility
College of Agricultural, Consumer, and Environmental Sciences, New Mexico State University
Agricultural Science Center, Artesia, NM
Address: 67 E. Four Dinkus Rd, Artesia, NM-88210
Office: 575-748-1228 | Email: salehin@nmsu.edu

Education

Ph.D. in Agronomy Texas A&M University, College Station, TX Dissertation: The impact of organic management practices on greenhouse gas emissions from cotton-winter cover crop systems in East Central Texas.	05/2024
M.S. in Plant and Environmental Sciences New Mexico State University, Las Cruces, NM Thesis: Soil organic carbon and nitrogen fractions, greenhouse gas emissions, and crop yield in semiarid cropping systems.	05/2020
B.S. in Soil, Water, and Environmental Sciences University of Dhaka, Dhaka, Bangladesh	09/2017

Professional Experiences

Assistant Professor Agronomy and Soil Fertility (Research and Extension) College of Agricultural, Consumer, and Environmental Sciences, New Mexico State University	01/2026 – Present
Postdoctoral Research Associate Department of Soil and Crop Sciences, Texas A&M University	01/2024 – 01/2026
Graduate Research Assistant Department of Soil and Crop Sciences, Texas A&M University	05/2020 – 12/2023
Graduate Research Assistant Department of Plant and Environmental Sciences, New Mexico State University	08/2018 – 04/2020

Awards and Honors

1. Outstanding Postdoctoral Research Department of Soil and Crop Sciences, Texas A&M University, College Station, TX	2026
2. Postdoctoral Mentoring Academy Fellow Center for Teaching Excellence, Texas A&M University, College Station, TX	2025
3. Outstanding Graduate Student Research in Agronomy Department of Soil and Crop Sciences, Texas A&M University, College Station, TX	2024

4. 3rd Place in Student Oral Presentation: Cover Crop Management Community 2023
American Society of Agronomy (ASA)-Crop Science Society of America (CSSA)-Soil Science Society of America (SSSA) International Annual Meetings, St. Louis, MO
5. 3rd Place in Student Poster + 5 minutes Rapid Oral Presentation: Soils & Environmental Quality Community 2023
ASA-CSSA-SSSA International Annual Meetings, St. Louis, MO
6. 2023 ASA-CSSA-SSSA & Bayer Crop Science Encompass Scholar 2023
7. **1st Place** in Student Oral Presentations: Soil Carbon and GHG Emissions Community 2022
ASA-CSSA-SSSA International Annual Meetings, Baltimore, MD
8. **2nd Place** in Student Poster + 5 minutes Rapid Oral Presentations: Soil & Water Management and Conservation Division 2022
ASA-CSSA-SSSA International Annual Meetings, Baltimore, MD
9. Graduate Student Leadership Conference (Certificate) 2021
ASA-CSSA-SSSA International Annual Meetings, Salt Lake City, UT
10. **2nd Place** in Ph.D. Students Poster Competition 2021
American Society of Agronomy - Southern Regional Branch Annual Meeting, online
11. **1st place** in Ph.D. Students Poster Competition of Agronomy, Physiology, and Soils Section, Beltwide Cotton Conference, online 2021
12. 3rd Place in Student Oral Presentations: Soil & Water Management and Conservation 2020
ASA-CSSA-SSSA Annual Meeting, online
13. **2nd Place** in Student Poster Presentations: Global Climate Change Community 2019
ASA-CSSA-SSSA Annual Meeting, San Antonio, Texas
14. Arden & Elsie Baltensperger Endowed Scholarship, College of ACES 2019
New Mexico State University, Las Cruces, New Mexico

Publications

Peer-Reviewed Journal Articles

1. **Salehin, S. M. U.**, Poudyal, C., Rajan, N., & Bagavathiannan, M. (2025). Cover Crop Types Influence Biomass Estimation Using Unmanned Aerial Vehicle-Mounted Multispectral Sensors. *Remote Sensing*, 17(8), 1471. <https://doi.org/10.3390/rs17081471>
2. **Salehin, S. M. U.**, Rajan, N., Casey, K. D., Mowrer, J. E., Somenahally, A., & Bagavathiannan, M. Combined effects of biochar, cover crop residues, and manure on greenhouse gas emissions: insights from 60-day soil incubations. *Soil Science Society of America Journal*. e70008. <https://doi.org/10.1002/saj2.70008>
3. **Salehin, S. M. U.**, Rajan, N., Casey, K. D., Mowrer, J. E., & Bagavathiannan, M. Cover crops in organic cotton influence greenhouse gas emissions and soil microclimate. *Agronomy Journal*, 1-22. <https://doi.org/10.1002/agj2.21735>
4. **Salehin, S. M. U.**, Rajan, N., Mowrer, J., Casey, K. D., Somenahally, A. C., & Bagavathiannan, M. (2024). Greenhouse gas emissions during decomposition of cover crops and poultry litter with

simulated tillage in 90-day soil incubations. *Soil Science Society of America Journal*, 1–21. <https://doi.org/10.1002/saj2.20730>

5. **Salehin, S. M. U.**, Ghimire, R., Angadi, S.V., and Mesbah, A. (2020). Soil organic matter, greenhouse gas emissions, and sorghum yield in semi-arid drylands. *Agrosystems, Geosciences & Environment*, 3(1), p.e20107. <https://doi.org/10.1002/agg2.20107>
6. **Salehin, S. M. U.**, Ghimire, R., Angadi, S.V., and Idowu, O.J. (2020). Grass buffer strips improve soil health and mitigate greenhouse gas emissions in center-pivot irrigated cropping systems. *Sustainability*, 12(15), p.6014. <https://doi.org/10.3390/su12156014>
7. **Salehin, S. M. U.**, Mohsin, G.M., Zaman, J.R., Uddin, M.J., and Rahman, M.K. (2020). Soil Fertility and Leaf Nutrient Status of Mango Orchard Sites. *Dhaka University Journal of Biological Sciences*, 29(2), pp.155-163. <https://doi.org/10.3329/dujbs.v29i2.48735>
8. Hassan, M., Ahmed, A.A.S., Hassan, M.A., Nasrin, R., Rayhan, A.S., **Salehin, S.M.U.**, and Rahman, M.K. (2017). Changes of soil fertility status in some soil series of Tista Floodplain Soils of Bangladesh, during 1996-2016. *Asian Research Journal of Agriculture*, pp.1-9. <https://doi.org/10.9734/arja/2017/34365>

Extension Article

1. **Salehin, S. M. U.**, Rajan, N., Mowrer, J., Bagavathiannan, M. Challenges and opportunities of organic cotton in southern Texas. Texas A&M AgriLife Extension. <https://soilcrop.tamu.edu/wp-content/uploads/sites/16/2025/02/04-2025-Organic-Cotton-in-Texas.pdf>

Journal Articles under Review

1. Gao, X., Gamage, L. K. H., Sidhu, P., **Salehin, S. M. U.**, Pathirage, K., Anand, S. K., Calabrese, S., Rajan, N. Too close or too far? Chamber placement biases soil CO₂ emission estimates in row crop agricultural fields. *Journal of Environmental Management*. Submitted: 02-27-2026
2. Phuyal, D., **Salehin, S. M. U.**, Babu, S. A., Okumoto, S., Rooney, W., Rajan, N. Nitrous Oxide Emission from Croplands: Biogeochemical Drivers, Nitrification Inhibitors, Policy Implications, and Future Directions. *Reviews in Environmental Science and Bio/Technology*. Submitted: 02-25-2026
3. Miyanaka, N., **Salehin, S. M. U.**, Pires, S., Howe, J., Jeong, J., Casey, K., Rajan, N. Effects of conservation tillage, nitrogen fertilization, and winter cover crops on soil organic carbon dynamics in the U.S. cotton production systems. *Agronomy Journal*. Submitted: 11-19-2025
4. **Salehin, S. M. U.**, Bhattarai, K., Rajan, N. Tree-Based Machine Learning Models to Predict Maize Growth, Nitrogen Uptake, and Yield using UAV Remote Sensing. *Smart Agricultural Technology*. Submitted: 1-20-2026
5. **Salehin, S. M. U.**, Miyanaka, N., & Rajan, N. Low-Carbon Cotton: Understanding and managing greenhouse gas emissions in production fields. *Agronomy Journal*. Submitted: 10-13-2025
6. Bhattarai, K., **Salehin, S. M. U.**, Rajan, N., Schnell, R. W. Split nitrogen application to soil improves corn agronomic performance and nitrogen use efficiency. *Discover Soil*. Submitted: 07-05-2025

Conference Proceedings

1. Mia, M. A., Rajan, N., Miyanaka, N., **Salehin, S. M. U.**, Rooney, W. (2026). Identifying best management practices for organic cotton production in southern Texas. Beltwide Cotton Conference: 2005-2026 proceedings.

2. Miyanaka, N., Rajan, N., **Salehin, S. M. U.**, Pires, S., Casey, K., & Tomlinson, P., Howe, J., & Jeong, J. (2025). Will covering cropping and using manure make cotton farming sustainable? Beltwide Cotton Conference: 2005-2025 proceedings.
3. Miyanaka, N., Rajan, N., **Salehin, S. M. U.**, Pires, S. T., Casey, K. D., Tomlinson, P. J., Howe, J., Jong, J. (2025), Impact of climate change on cotton yield and planting dates in East-Central Texas: when should we plant cotton under climate change? Beltwide Cotton Conference: 2005-2025 proceedings.
4. Miyanaka, N., Rajan, N., **Salehin, S. M. U.**, Howe, J., Pires, S. T., Casey, K.D., Tomlinson, P.J., and Jeong, J. (2024). Assessing the effects of conservation soil management practices on cotton yield and net sustainability in East-Central Texas. Beltwide Cotton Conference: 2005-2024 proceedings.
5. **Salehin, S. M. U.**, Rajan, N., Mowrer, J., Bagavathiannan, M., Casey, K., and Tomlinson, P. (2021). Greenhouse gas emissions, soil moisture, and temperature dynamics with different cover crops in organic cotton. Beltwide Cotton Conferences: 2005-2021 proceedings.

Book Chapter

1. Thakur, S. S., Lone, A. R., Bhattacharyya, S. S., **Salehin, S. M. U.**, Jain, S. K., & Yadav, S. (2023). Conquering the Impact of Climate Change through Organic Farming: A Global Perspective. In J. N. Bhakta & S. Rana (Eds.), *Research Advancements in Organic Farming*.

Grants and Projects

1. USDA-NIFA Multistate Hatch Project WERA-103 – Nutrient Management and Water Quality. **Role: Research Participant and New Mexico State University Representative.** 2026 – Present.
2. USDA-NIFA Umbrella Hatch Project (New Mexico State University). Carbon-Food-Energy-Water in New Mexico Agricultural Systems. **Role: Co-Project Director.** 2026 – Present.
3. USDA-NIFA Umbrella Hatch Project (New Mexico State University). Land Use and Environmental Functions. **Role: Co-Project Director.** 2026 – Present.
4. Sustainable Management and Value-Added Utilization of Manure Generated at Rodeo and Livestock Event Sites around Las Cruces, NM. New Mexico State University CESFAS Seed Grant. **Role: PI.** 2026 (under review).

Conference Abstracts (61)

† Presenting author

1. **Salehin, S. M. U.**[†], Rajan, N., Wheeler, W., Sidhu, P., Cocco, C., Pereira, E., Howe, J., Morgan, C. Modeling soil N₂O emissions from agricultural landscapes using soil microclimate, meteorological, and management drivers. Abstract submitted to *AGU25*, New Orleans, U.S.
2. **Salehin, S. M. U.**[†], Rajan, N., Wheeler, W., Mowrer, J., Howe, J. Role of alternate wetting and drying and ratooning on methane emissions and carbon balance in rice cropping systems of Texas. Abstract submitted to *AGU25*, New Orleans, U.S.
3. Tiwari, A., **Salehin, S. M. U.**[†], Panjwani, S., Sayantan, S., Sarkar, R., Ray, R., Baath, G., Rajan, N., Bhandari, M. Investigating the potential of AI for modeling Texas's carbon budget using multi-source satellite earth observations and limited in-situ ground datasets. Abstract submitted to *AGU25*, New Orleans, U.S.

4. Dogbey, B. F.[†], Miyanka, N., **Salehin, S. M. U.**, Rajan, N. Diurnal dynamics of CO₂ and N₂O fluxes and their interrelationship in conventional and organic cotton systems. Abstract submitted to AGU25, New Orleans, U.S.
5. Miyanaka, N.[†], Dogbey, B. F., **Salehin, S. M. U.**, Pires, S., Rajan, N. Quantifying the cost of method: static vs. dynamic soil chambers for measuring greenhouse gas emissions from organic and conventional cotton systems. Abstract submitted to *AGU25*, New Orleans, U.S.
6. **Salehin, S. M. U.**[†], Rajan, N., Sidhu, P., Wheeler, W., Cocco, C., Pereira, E. I. P., Howe, J. A., Bagnall, D. K., & Morgan, C. L. S. 2025. Measurement Frequencies of CO₂ and N₂O fluxes from Agricultural Fields Impact National and Global-Scale Emission Estimates [Abstract]. CANVAS 2025, Salt Lake City, UT.
<https://scisoc.confex.com/scisoc/2025am/meetingapp.cgi/Paper/165956>
7. **Salehin, S. M. U.**[†], Rajan, N., Wheeler, W., Mowrer, J. E., & Howe, J. A. 2025. Role of Alternate Wetting and Drying and Ratoon Rice in the Carbon Balance of Rice Production in Texas [Abstract]. CANVAS 2025, Salt Lake City, UT.
<https://scisoc.confex.com/scisoc/2025am/meetingapp.cgi/Paper/165950>
8. Gomez, C.[†], Gao, X., **Salehin, S. M. U.**, Yuan, P., Phuyal, D., Miyanaka, N., Rooney, W., Okumoto, S., Antony-Babu, S., & Rajan, N. 2025. Reducing Nitrate Leaching through Nitrogen Retention Using Biological Nitrification Inhibition (BNI) in Sorghum [Abstract]. CANVAS 2025, Salt Lake City, UT.
<https://scisoc.confex.com/scisoc/2025am/meetingapp.cgi/Paper/166829>
9. Gomez, C.[†], **Salehin, S. M. U.**, Gao, X., Phuyal, D., Yuan, P., Miyanaka, N., Antony-Babu, S., Okumoto, S., Rooney, W., & Rajan, N. 2025. Reducing Nitrogen Loss in Sorghum Cropping Systems through Biological Nitrification Inhibition (BNI) [Abstract]. CANVAS 2025, Salt Lake City, UT. <https://scisoc.confex.com/scisoc/2025am/meetingapp.cgi/Paper/166798>
10. Pathirage, K.[†], Rajan, N., Khadka, D., Aburto, F., **Salehin, S. M. U.**, & Ray, R. L. 2025. Field-Scale GHG Emission Responses Following Basalt Rock Powder Application in Corn [Abstract]. CANVAS 2025, Salt Lake City, UT.
<https://scisoc.confex.com/scisoc/2025am/meetingapp.cgi/Paper/167478>
11. Pathirage, K.[†], Rajan, N., Khadka, D., Aburto, F., **Salehin, S. M. U.**, Miyanaka, N., & Ray, R. L. 2025. Enhanced Weathering of Basalt Rock Powder for Carbon Sequestration: First Field Evidence from a Corn Field Experiment in Texas. [Abstract]. CANVAS 2025, Salt Lake City, UT. <https://scisoc.confex.com/scisoc/2025am/meetingapp.cgi/Paper/167429>
12. Mia, M. A.[†], Rajan, N., Miyanaka, N., **Salehin, S. M. U.**, & Rooney, W. 2025. Effect of Organic Management Practices on Agronomic Performance of Sorghum-Based Rotations [Abstract]. CANVAS 2025, Salt Lake City, UT.
<https://scisoc.confex.com/scisoc/2025am/meetingapp.cgi/Paper/167636>
13. Miyanaka, N.[†], **Salehin, S. M. U.**, Pires, S. T., Casey, K. D., Tomlinson, P. J., Howe, J. A., Jeong, J., & Rajan, N. 2025. Climate-Smart Index for Dryland Cotton: Evaluating the Effects of Tillage, Cover Crops, and Manure on Overall Sustainability [Abstract]. CANVAS 2025, Salt Lake City, UT. <https://scisoc.confex.com/scisoc/2025am/meetingapp.cgi/Paper/166543>
14. Wheeler, W.[†], Rajan, N., **Salehin, S. M. U.**, & Sidhu, P. 2025. Estimating Soil Gas Fluxes from Long-Term Automated Chamber Measurements Using Random Forest: Lessons Learned [Abstract]. CANVAS 2025, Salt Lake City, UT.
<https://scisoc.confex.com/scisoc/2025am/meetingapp.cgi/Paper/167627>

15. Wheeler, W.[†], **Salehin, S. M. U.**, & Rajan, N. 2025. Harnessing Advanced Sensing and Analytics to Improve Agricultural GHG Measurement and Monitoring within MMRV Frameworks [Abstract]. CANVAS 2025, Salt Lake City, UT.
<https://scisoc.confex.com/scisoc/2025am/meetingapp.cgi/Paper/170837>
16. Miyanaka, N.[†], **Salehin, S. M. U.**, Pires, S. T., Jeong, J., Tomlinson, P. J., Casey, K. D., Howe, J. A., & Rajan, N. 2025. Process-Based Crop Model Simulations of Cotton Productivity and Soil Greenhouse Gas Dynamics for Assessment of Overall Sustainability [Abstract]. CANVAS 2025, Salt Lake City, UT. <https://scisoc.confex.com/scisoc/2025am/meetingapp.cgi/Paper/166459>
17. Sidhu, P.[†], Rajan, N., **Salehin, S. M. U.**, & Wheeler, W. 2025. Field Greenhouse Gas Emission Cost of Crop Water Use and Irrigation in a Semi-Arid Climate [Abstract]. CANVAS 2025, Salt Lake City, UT. <https://scisoc.confex.com/scisoc/2025am/meetingapp.cgi/Paper/167381>
18. Sidhu, P.[†], Wheeler, W., **Salehin, S. M. U.**, Jha, P. K., Gholson, D. M., & Rajan, N. 2025. Ground-Truthing IPCC Nitrous Oxide Emission Factors in Southern U.S. Agroecosystems [Abstract]. CANVAS 2025, Salt Lake City, UT.
<https://scisoc.confex.com/scisoc/2025am/meetingapp.cgi/Paper/167333>
19. Atiemo, M. B.[†], Rajan, N., Sidhu, P., **Salehin, S. M. U.**, & Guo, W. 2025. Water and Greenhouse Gas Footprint of Corn Vs Sorghum Silage in the Texas High Plains. [Abstract]. CANVAS 2025, Salt Lake City, UT. <https://scisoc.confex.com/scisoc/2025am/meetingapp.cgi/Paper/167464>
20. Rajan, N.[†], **Salehin, S. M. U.**, Wheeler, W., Howe, J. A., Jha, P. K., Gholson, D. M., Bagnall, D. K., & Morgan, C. L. S. 2025. Agrighgflux Network: High-Resolution CO₂, N₂O, CH₄, and H₂O Flux Data from Agroecosystems in the Southern U.S. [Abstract]. CANVAS 2025, Salt Lake City, UT. <https://scisoc.confex.com/scisoc/2025am/meetingapp.cgi/Paper/168277>
21. Sidhu, P.[†], Rajan, N., **Salehin, S. M. U.**, Wheeler, W., & Howe, J. A. 2025. Quantifying Short-Lived N₂O Pulse Dynamics Following Irrigation and Rainfall Events [Abstract]. CANVAS 2025, Salt Lake City, UT. <https://scisoc.confex.com/scisoc/2025am/meetingapp.cgi/Paper/167407>
22. Kariyawasam Hetti Gamage[†], L. R., Rajan, N., Gao, X., **Salehin, S. M. U.**, & Calabrese, S. 2025. Influence of Soil Type on Moisture-Induced Pulse Emissions of Greenhouse Gases in a Corn Cropping System [Abstract]. CANVAS 2025, Salt Lake City, UT.
<https://scisoc.confex.com/scisoc/2025am/meetingapp.cgi/Paper/167678>
23. Panjwani, S.[†], Baath, G. S., **Salehin, S. M. U.**, Sidhu, P., Tiwari, A., Rajan, N., & Bhandari, M. 2025. Simulation of Sorghum Productivity and Greenhouse Gas Fluxes in a Semi-Arid Agroecosystem Using Daycent [Abstract]. CANVAS 2025, Salt Lake City, UT.
<https://scisoc.confex.com/scisoc/2025am/meetingapp.cgi/Paper/170366>
24. Rajan, N.[†], **Salehin, S. M. U.**, Sidhu, P., Wheeler, W., Atiemo, M. B. Measuring cropland emissions of carbon dioxide, nitrous oxide, and methane for advanced market applications. Abstract submitted to the 2025 AmeriFlux Annual Meeting, Tucson, AZ.
25. Rajan, N.[†], Sidhu, P., Miyanaka, N., **Salehin, S. M. U.**, Wheeler, W., Pires, S. Evaluating IPCC emission factors using field-measured nitrous oxide emissions in cotton cropping systems in the U.S. Abstract submitted to the 6th Biennial Australian Cotton Research Conference 2025, Narrabri, Australia.
26. **Salehin, S. M. U.**[†], Wheeler, W., Mowrer, J., Rajan, N. (2025, February). Role of methane emissions in the total carbon balance of rice production in South Texas. In Soil Survey and Land Resources Workshop 2025, College Station, TX.

27. Miyanaka, N.[†], Rajan, N., **Salehin, S. M. U.**, Pires, S., Casey, K., & Tomlinson, P., Howe, J., & Jeong, J. (2025, January). Will covering cropping and using manure make cotton farming sustainable? In Cotton Beltwide Conference 2025, New Orleans, LA.
28. Miyanaka, N.[†], Rajan, N., **Salehin, S. M. U.**, Pires, S. T., Casey, K. D., Tomlinson, P. J., Howe, J., Jong, J. (2025, January), Impact of climate change on cotton yield and planting dates in East-Central Texas: when should we plant cotton under climate change? In Beltwide Cotton Conference 2025, New Orleans, LA.
29. **Salehin, S. M. U.**[†], Ghimire, R., Kakani, V. G., Tomlinson, P., and Sapkota, S. (2024, December). Navigating the Future of Farming: Strategies for a Nitrogen-Smart Agricultural Landscape II eLightning. In *AGU24*. AGU.
30. **Salehin, S. M. U.**[†], Wheeler, W., Sidhu, P., Vincent, L., and Rajan, N. (2024, December). Relationship between N₂O emissions and soil meteorological parameters in different agricultural landscapes. In *AGU24*. AGU.
31. Wheeler, W.[†], **Salehin, S. M. U.**, Rajan, N., Howe, J. A., Mowrer, J., Bagnall, D. K., Looker, N., Peoples, M., Sidhu, P., and Vincent, L. (2024, December). AgriFlux: a network of GHG emission monitoring sites in climate-smart crop fields in the U.S. In *AGU24*. AGU
32. **Salehin, S. M. U.**[†], Wheeler, W., Mowrer, J. E., & Rajan, N. (2024) Evapotranspiration and Water Use Efficiency of Rice Production in South Texas [Abstract]. ASA, CSSA, SSSA International Annual Meeting, San Antonio, TX.
<https://scisoc.confex.com/scisoc/2024am/meetingapp.cgi/Paper/158499>
33. Sidhu, P.[†], Smith, J. F., **Salehin, S. M. U.**, Wheeler, W., & Rajan, N. (2024) Soil GHG Emission from a Grain Sorghum Field in the Semi-Arid Texas High Plains [Abstract]. ASA, CSSA, SSSA International Annual Meeting, San Antonio, TX.
<https://scisoc.confex.com/scisoc/2024am/meetingapp.cgi/Paper/159744>
34. Gomez, C.[†], Phuyal, D., Miyanaka, N., **Salehin, S. M. U.**, Rooney, W. L., Okumoto, S., & Rajan, N. (2024) The Effect of Fertilizer Type and Genotype on Biological Nitrification Inhibition Expression of Sorghum Under Field Conditions [Abstract]. ASA, CSSA, SSSA International Annual Meeting, San Antonio, TX.
<https://scisoc.confex.com/scisoc/2024am/meetingapp.cgi/Paper/159796>
35. Sidhu, P.[†], Smith, J. F., **Salehin, S. M. U.**, Wheeler, W., Howe, J. A., Anapalli, S., Mubvumba, P., Bagnall, D. K., Looker, N., Morgan, C. L. S., & Rajan, N. (2024) Diurnal Soil Greenhouse Gas Fluxes from a No-till Grain Sorghum Field in the Semi-Arid Southern U.S. Great Plains [Abstract]. ASA, CSSA, SSSA International Annual Meeting, San Antonio, TX.
<https://scisoc.confex.com/scisoc/2024am/meetingapp.cgi/Paper/159755>
36. Sidhu, P.[†], Smith, J. F., Wheeler, W., **Salehin, S. M. U.**, & Rajan, N. (2024) Evaluating Evapotranspiration and Water Use Efficiency of Grain Sorghum Using Eddy Covariance in the Texas High Plains [Abstract]. ASA, CSSA, SSSA International Annual Meeting, San Antonio, TX. <https://scisoc.confex.com/scisoc/2024am/meetingapp.cgi/Paper/159847>
37. Miyanaka, N.[†], Rajan, N., Pires, S. T., **Salehin, S. M. U.**, Casey, K. D., Tomlinson, P. J., Jeong, J., & Howe, J. A. (2024) Modeling Greenhouse Gas Emissions from Cotton Fields Using the DSSAT Model [Abstract]. ASA, CSSA, SSSA International Annual Meeting, San Antonio, TX.
<https://scisoc.confex.com/scisoc/2024am/meetingapp.cgi/Paper/159783>
38. Miyanaka, N.[†], Rajan, N., Pires, S. T., Casey, K. D., **Salehin, S. M. U.**, Tomlinson, P. J., Howe, J. A., & Jeong, J. (2024) Development and Evaluation of a Climate-Smart Index [Abstract]. ASA, CSSA, SSSA International Annual Meeting, San Antonio, TX.
<https://scisoc.confex.com/scisoc/2024am/meetingapp.cgi/Paper/159741>

39. Miyanaka, N.[†], Rajan, N., **Salehin, S.M.U.**, Howe, J., Pires, S. T., Casey, K.D., Tomlinson, P.J., and Jeong, J., 2024. Assessing the effects of conservation soil management practices on cotton yield and net sustainability in East-Central Texas. In Beltwide Cotton Conference 2024, Dallas, Texas. National Cotton Council.
40. **Salehin, S. M. U.**[†], Rajan, N., Poudyal, C., & Bagavathiannan, M. V. (2023) Estimation of Cover Crop Biomass Using UAV-Mounted Multispectral Sensors [Abstract]. ASA, CSSA, SSSA International Annual Meeting, St. Louis, MO.
<https://scisoc.confex.com/scisoc/2023am/meetingapp.cgi/Paper/149089>
41. **Salehin, S. M. U.**[†], Rajan, N., Mowrer, J. E., Casey, K. D., Somenahally, A., & Bagavathiannan, M. V. (2023) Reducing Soil Greenhouse Gas Emissions with Biochar during Cover Crops and Manure Decomposition [Abstract]. ASA, CSSA, SSSA International Annual Meeting, St. Louis, MO. <https://scisoc.confex.com/scisoc/2023am/meetingapp.cgi/Paper/149061>
42. Miyanaka, N.[†], Rajan, N., Pires, S. T., Casey, K. D., **Salehin, S. M. U.**, Tomlinson, P. J., Howe, J. A., & Jeong, J. (2023) Modeling Cotton Growth and Greenhouse Gas Emissions from Cotton Production in East-Central Texas Using the DSSAT [Abstract]. ASA, CSSA, SSSA International Annual Meeting, St. Louis, MO.
<https://scisoc.confex.com/scisoc/2023am/meetingapp.cgi/Paper/148687>
43. Miyanaka, N.[†], Rajan, N., Pires, S. T., Casey, K. D., **Salehin, S. M. U.**, Tomlinson, P. J., Howe, J. A., & Jeong, J. (2023) Greenhouse Gas Emissions from Cotton Production Systems and Its Implication on Sustainability in East-Central Texas [Abstract]. ASA, CSSA, SSSA International Annual Meeting, St. Louis, MO.
<https://scisoc.confex.com/scisoc/2023am/meetingapp.cgi/Paper/151018>
44. **Salehin, S. M. U.**[†], Rajan, N., Casey, K. D., Tomlinson, P. J., Miyanaka, N., Mowrer, J. E., & Bagavathiannan, M. V. (2022) Greenhouse Gas Emissions, and Sequestration in Organic Cotton Systems with Different Cover Crops. [Abstract]. ASA, CSSA, SSSA International Annual Meeting, Baltimore, MD. <https://scisoc.confex.com/scisoc/2022am/meetingapp.cgi/Paper/141560>
45. **Salehin, S. M. U.**[†], Rajan, N., Casey, K. D., Mowrer, J. E., Somenahally, A., & Bagavathiannan, M. (2022) Biochar Reduces Greenhouse Gas Emissions during Decomposition of Cover Crops and Manures: Results from Soil Incubation [Abstract]. ASA, CSSA, SSSA International Annual Meeting, Baltimore, MD. <https://scisoc.confex.com/scisoc/2022am/meetingapp.cgi/Paper/142147>
46. **Salehin, S. M. U.**[†], Barth, M., Rajan, N., Bagavathiannan, M., & Mowrer, J. E. (2022) Prospects and Challenges of Organic Cotton Production in East-Central Texas. [Abstract]. ASA, CSSA, SSSA International Annual Meeting, Baltimore, MD.
<https://scisoc.confex.com/scisoc/2022am/meetingapp.cgi/Paper/142142>
47. Phuyal, D.[†], Rajan, N., Rooney, W. L., Antony-Babu, S., Casey, K. D., Zapata, D., Schill, M., Subramanian, N. K., **Salehin, S. M. U.**, Maharjan, B. K., Okumoto, S., & Subbarao, G. V. (2022) Biological Nitrification Inhibition Activity of Sorghum Genotypes with Differential Sorgoleone Secretion Capacity [Abstract]. ASA, CSSA, SSSA International Annual Meeting, Baltimore, MD. <https://scisoc.confex.com/scisoc/2022am/meetingapp.cgi/Paper/142451>
48. Miyanaka, N.[†], Rajan, N., Casey, K. D., **Salehin, S. M. U.**, Pires, S. T., & Jeong, J. (2022) Effects of Conservation Practices on Greenhouse Gas Emissions from Cotton Fields in East-Central Texas [Abstract]. ASA, CSSA, SSSA International Annual Meeting, Baltimore, MD.
<https://scisoc.confex.com/scisoc/2022am/meetingapp.cgi/Paper/142269>
49. Miyanaka, N.[†], Rajan, N., Pires, S. T., Casey, K. D., **Salehin, S. M. U.**, & Jeong, J. (2022) Simulating Greenhouse Gas Emissions from Conventional Cotton Cropping Systems in East-

- Central Texas Using the DSSAT Model [Abstract]. ASA, CSSA, SSSA International Annual Meeting, Baltimore, MD. <https://scisoc.confex.com/scisoc/2022am/meetingapp.cgi/Paper/142277>
50. Singh, P.[†], Angadi, S. V., DuBois, D., Ghimire, R., Idowu, O. J., Begna, S., & **Salehin, S. M. U.** (2022) Circular Grass Buffer Strips (CBS) System: A Synergetic Merger of Native Perennial Grasses and Annual Crop in Center Pivot Irrigated Agriculture Systems [Abstract]. ASA, CSSA, SSSA International Annual Meeting, Baltimore, MD. <https://scisoc.confex.com/scisoc/2022am/meetingapp.cgi/Paper/143863>
 51. **Salehin, S. M. U.**[†], Rajan, N., Murphree, P., Mowrer, J. E., Casey, K. D., & Bagavathiannan, M. V. (2021) Greenhouse Gas Emissions during Long-Term Incubation of Organically Managed Soils with Different Cover Crops. [Abstract]. ASA, CSSA, SSSA International Annual Meeting, Salt Lake City, UT. <https://scisoc.confex.com/scisoc/2021am/meetingapp.cgi/Paper/133071>.
 52. **Salehin, S. M. U.**[†], Rajan, N., Miyanaka, N., Casey, K. D., Tomlinson, P. J., Somenahally, A., Mowrer, J. E., & Bagavathiannan, M. V. (2021) Emission and Sequestration of Greenhouse Gases in Organically Managed Cotton Cropping Systems [Abstract]. ASA, CSSA, SSSA International Annual Meeting, Salt Lake City, UT. <https://scisoc.confex.com/scisoc/2021am/meetingapp.cgi/Paper/133145>
 53. **Salehin, S. M. U.**[†], Rajan, N., Casey, K., Mowrer, J., and Bagavathiannan, M., 2021, January. Effects of Different Cover Crops and Tillage on Greenhouse Gas Emissions in Soil Incubation. In ASA Southern Regional Branch Annual Meeting, Virtual-2021. American Society of Agronomy.
 54. **Salehin, S. M. U.**[†], Rajan, N., Casey, K., Mowrer, J., Tomlinson, P., and Bagavathiannan, M., 2021, January. Greenhouse Gas Emissions, Soil Moisture and Temperature Dynamics with Different Cover Crops in Organic Cotton. In Beltwide Cotton Conference, Virtual-2021. National Cotton Council.
 55. Miyanaka, N.[†], Rajan, N., Pires, S. T., **Salehin, S. M. U.**, Casey, K. D., Tomlinson, P. J., & Jeong, J. (2021) Quantifying Greenhouse Gas Emissions from Conventional and Organic Cotton Fields [Abstract]. ASA, CSSA, SSSA International Annual Meeting, Salt Lake City, UT. <https://scisoc.confex.com/scisoc/2021am/meetingapp.cgi/Paper/134158>
 56. Barth, M.[†], **Salehin, S. M. U.**, Mowrer, J. E., Rajan, N., & Bagavathiannan, M. (2021) An Agronomic Evaluation of Tillage and Cover Crops in Organic Cotton Production [Abstract]. ASA, CSSA, SSSA International Annual Meeting, Salt Lake City, UT. <https://scisoc.confex.com/scisoc/2021am/meetingapp.cgi/Paper/138605>
 57. Phuyal, D.[†], Rajan, N., Schnell, R. W., **Salehin, S. M. U.**, Casey, K. D., Rooney, W. L., Maharjan, B. K., Okumoto, S., & Subbarao, G. V. (2021) Effect of Biological Nitrification Inhibition of Sorghum on Nitrous Oxide Emission Under Different Nitrogen Fertilizer Types [Abstract]. ASA, CSSA, SSSA International Annual Meeting, Salt Lake City, UT. <https://scisoc.confex.com/scisoc/2021am/meetingapp.cgi/Paper/135497>
 58. Miyanaka, N.[†], Rajan, N., Pires, S. T., **Salehin, S. M. U.**, Casey, K. D., & Tomlinson, P. J. (2021) Global Warming Potential of Conventional and Organic Cotton Cropping System [Abstract]. ASA, CSSA, SSSA International Annual Meeting, Salt Lake City, UT. <https://scisoc.confex.com/scisoc/2021am/meetingapp.cgi/Paper/134174>
 59. **Salehin, S. M. U.**[†], Ghimire, R., Angadi, S. V., & Idowu, O. J. (2020) Circular Grass Buffer Strips to Improve Soil Health and Mitigate Greenhouse Gas Emissions in Center Pivot Irrigated Cropping Systems [Abstract]. ASA, CSSA and SSSA International Annual Meetings (2020) | VIRTUAL, Phoenix, AZ. <https://scisoc.confex.com/scisoc/2020am/meetingapp.cgi/Paper/124692>

60. **Salehin, S. M. U.[†]**, Rajan, N., Casey, K. D., Mowrer, J. E., Tomlinson, P. J., & Bagavathiannan, M. (2020) Effects of Cover Crops on Greenhouse Gas Emissions, Soil Temperature, and Soil Moisture Dynamics in Organic Cotton. [Abstract]. ASA, CSSA and SSSA International Annual Meetings (2020) | VIRTUAL, Phoenix, AZ.
<https://scisoc.confex.com/scisoc/2020am/meetingapp.cgi/Paper/126896>
61. **Salehin, S. M. U.[†]**, Ghimire, R., Nilahyane, A., Angadi, S. V., & Idowu, O. J. (2019) Soil N Dynamics and N₂O Emissions of Dryland Sorghum Field with Compost and Fertilizer Nitrogen Application [Abstract]. ASA, CSSA and SSSA International Annual Meetings (2019), San Antonio, TX. <https://scisoc.confex.com/scisoc/2019am/meetingapp.cgi/Paper/118622>

Leadership Activities and Services

- | | |
|--|----------------|
| 1. Guest Editor on Special Topic: Intelligent Agriculture: Sensors, IoT, and Artificial Intelligence, Frontiers in Agronomy | 2026 |
| 2. Forum expert, Soil Health Exchange | 2026 - Present |
| 3. Cotton Incorporated State Support Program Coordinator for New Mexico | 2026 - Present |
| 4. Session moderator: Symposium – Climate-Smart Agriculture in Action: Implementation, GHG Accounting, and Market Integration at CANVAS-2025, Salt Lake City, Utah | 2025 |
| 5. Student Oral Presentation Judge: Soil Carbon Farming as a Climate Change Solution Oral III at CANVAS-2025, Salt Lake City, Utah | 2025 |
| 6. Student Oral Presentation Judge: Advances in Nutrient Management Oral I at CANVAS-2025, Salt Lake City, Utah | 2025 |
| 7. Student Poster Presentation Judge: Agroclimatology and Agronomic Modeling Poster I at CANVAS-2025, Salt Lake City, Utah | 2025 |
| 8. Primary session convenor: Global Environmental Change American Geophysical Union (AGU) Annual Meeting, Washington DC | 2024 |
| 9. Session moderator: Soil C and GHG Emissions Community ASA-CSSA-SSSA International Annual Meeting, San Antonio, Texas | 2024 |
| 10. Vice President, Texas A&M University Postdoctoral Association Texas A&M University, College Station, TX | 2024 - Present |
| 11. Judge, ASA-CSSA-SSSA International Annual Meeting, San Antonio, TX Judged 12 student oral presentations in Climate Change and Agricultural community | 2024 |
| 12. Judge, Texas Science & Engineering Fair-2024 Judged 30 student projects in Plant Sciences in the senior (high school) category. | 2024 |
| 13. Member, Departmental Award Committee Soil and Crop Sciences Department, Texas A&M University, College Station, TX | 2023-2024 |
| 14. Judge, ASA-CSSA-SSSA International Annual Meeting, St Louis, MO Judged 5 oral and 3 poster presentations in Soil C and GHG emissions community. | 2023 |
| 15. Judge, ASA-CSSA-SSSA International Annual Meeting, St Louis, MO Judged a couple of student posters in the Diversity Student Poster Contest. | 2023 |
| 16. Grand Award Judge, International Science & Engineering Fair (ISEF)-2023 Judged 18 student projects in Plant Sciences in the senior category | 2023 |

17. Judge, Texas Science and Engineering Fair-2023 Judged a total of 18 student projects in environmental sciences in the senior category	2023
18. Judge, undergraduate research oral competition at the Student Research Week Texas A&M University, College Station, TX Judged a total of 7 student presentations.	2023
19. President, Soil and Crop Sciences Graduate Student Organization (SCGO) Texas A&M University, College Station, TX	2022-2023
20. Logistic officer, Bangladeshi Student's Association of Texas A&M University Texas A&M University, College Station, TX.	2022-2023
21. Judge, undergraduate research poster competition ASA-CSSA-SSSA International Annual Meetings 2021, Salt Lake City, UT Judged 10 student poster presentations.	2022
22. Leadership Certificate, Graduate Student Leadership Conference ASA-CSSA-SSSA International Annual Meetings, Salt Lake City, UT	2021
23. Treasurer, Soil and Crop Sciences Graduate Student Organization Texas A&M University, College Station, TX	2021-2022
24. Organizing volunteer, Texas Soil Judging Contest, Texas A&M AgriLife Helped to organize the soil judging event at College Station, TX	2022
25. Organizing volunteer, GPSG Student Research Week Texas A&M University, College Station, TX Helped to organize the event hosted by the Graduate and Professional Student Government (GPSG)	2022
26. Counselor, GRAD Camp, Graduate and Professional Student Government Texas A&M University, College Station, TX	2021
27. Judge, undergraduate research poster competition Student Research Week, Texas A&M University, College Station, TX Judged eight undergraduate research posters	2021

Peer Reviewer

- Agronomy Journal (2 articles)
- Soil Science Society of America Journal (3 articles)
- Agronomy (4 articles)
- Biochar Journal (4 articles)
- Forests (2 articles)
- Scientific Reports (1 article)
- Land (1 article)
- Soil Use and Management (1 article)
- Agrosystems, Geosciences, and Environment Journal (1 article)

Professional Affiliations

American Society of Agronomy	2018 - Present
Soil Science Society of America	2018 - Present
Crop Science Society of America	2018 - Present
American Geophysical Union	2019 - Present