

CURRICULUM VITAE

Atinderpal Singh, Ph.D.

Assistant Professor/Extension Water Management Specialist

Department of Extension Plant Sciences

New Mexico State University

945 College Drive N234, Las Cruces, NM 88003

Email: asingh@nmsu.edu

Phone: 575-646-3231 (office)

EDUCATION

Ph.D. (2019-2022)	Plant and Soil Science, Texas Tech University, Lubbock, TX
M.S. (2017-2019)	Plant and Soil Science, Texas Tech University, Lubbock, TX
M.S. (2013-2015)	Agronomy, Punjab Agricultural University, Ludhiana, India
B.S. (2009-2013)	Agriculture, Punjab Agricultural University, Ludhiana, India

PROFESSIONAL EXPERIENCE

April 2026-Present	Assistant Professor/Extension Water Management Specialist, Department of Extension Plant Sciences, New Mexico State University, Las Cruces, NM
August 2025-March 2026	Assistant Professor of Cropping Systems Agronomy, Department of Research Centers, Montana State University, Havre, MT
February 2023-July 2025	Postdoctoral Scholar, New Mexico State University, Agricultural Science Center, Clovis, NM
January 2017- December 2022	Graduate Research/Teaching Assistant, Department of Plant and Soil Science, Texas Tech University, Lubbock, TX
January 2016- December 2016	Research Associate, Department of Soil Science, Punjab Agricultural University, Ludhiana, India

PUBLICATIONS

Published Peer–Reviewed Journal Articles

1. **Singh, A.**, Ghimire, R., Aryal, D. R., Omer, M., Adhikari, A. D., Idowu, O. J., and Heerema, R. (2025). Soil carbon sequestration and biological health under pecan orchards of varying ages. *Soil Science Society of America Journal*, 89(3), e70089. <https://doi.org/10.1002/saj2.70089>
2. Adebayo, O., **A. Singh**, P. Bista, S. Angadi, and R. Ghimire (2025). Compost addition improve soil water storage and crop water productivity in cover crop integrated sorghum production system under a limited irrigation management. *Irrigation Science*, 1-15. <https://doi.org/10.1007/s00271-025-01011-2>.

3. **Singh, A.**, P. Bista., S.K. Deb., and R. Ghimire (2025). Simulating cover crops impacts on soil water and nitrogen dynamics and silage yields in the semi-arid southwestern United States. *Agricultural Water Management*, 307, p.109246. doi.org/10.1016/j.agwat.2024.109246.
4. Singh, S., R. Singh, K. Singh, K. Katoch, A. Zaeen, D. Birhan, **A. Singh**, H. Sandhu, H. Singh, and L.K. Sharma (2024). Smart fertilizer technologies: An environmental impact assessment for sustainable agriculture. *Smart Agricultural Technology*, 100504. doi.org/10.1016/j.atech.2024.100504.
5. **Singh A.**, A. Kafle, R. Saini, M. Singh, and S. Singh (2024). Herbicide impact on industrial hemp phytotoxicity and biomass yield in West Texas. *Weed Technology*, 1-22. doi.org/10.1017/wet.2024.13.
6. **Singh A.**, R. Ghimire, and P. Acharya (2024). Soil organic carbon sequestration and nutrient responses varied with cover crops in irrigated forage rotations. *Soil and Tillage Research*, 238: 106020. doi.org/10.1016/j.agwat.2024.109246.
7. **Singh, A.**, S.K. Deb, L.C. Slaughter, S. Singh, G.L. Ritchie, W. Guo, and R. Saini (2023). Simulation of root zone soil water dynamics under cotton-silverleaf nightshade interactions in drip-irrigated cotton. *Agricultural Water Management*, 288, 108479. doi.org/10.1016/j.agwat.2023.108479.
8. **Singh, A.**, S.K. Deb, S. Singh, P. Sharma, and J.S. Kang (2020). Effects of non-leguminous cover crops on yield and quality of baby corn (*Zea mays* L.) grown under subtropical conditions. *Horticulturae*, 6, 21. doi.org/10.3390/horticulturae6020021.
9. Saini, R., **A. Singh**, and S.K. Deb (2020). Effect of seed meals on weed control and soil physical properties in direct-seeded pumpkin. *Sustainability*, 12 (14): 5811. doi.org/10.3390/su12145811.
10. Sharma, P., **A. Singh**, C. Kahlon, A. Brar, K. Grover, M. Dia, and R. Steiner (2018). The role of cover crops towards sustainable soil health and agriculture - a review paper. *American Journal of Plant Sciences*, 9, 1935-1951. doi.org/10.4236/ajps.2018.99140.
11. Weindorf, D.C., S. Chakraborty, B. Li, S.K. Deb, **A. Singh**, and N.Y. Kusi (2018). Compost salinity assessment via portable X-ray fluorescence (PXRF) spectrometry. *Waste Management* 78:158-163. doi.org/10.1016/j.wasman.2018.05.044
12. **Singh, A.**, J.S. Kang, and H. Singh (2016). Growth and development of baby corn (*Zea mays* L.) as influenced by non-leguminous forage cover crops and their spell of chopping under conservation agriculture. *Research on Crops* 17 (4):679-684. doi.org/10.5958/2348-7542.2016.00114.5.

Peer–Reviewed Journal Articles - In Progress

1. Aryal, D. R., **A. Singh**, and R. Ghimire (2026). Can occasional tillage fit into long-term no-tillage systems? Soil carbon, nitrogen, and greenhouse gas emissions in semi-arid drylands. *Journal of Soil and Water Conservation*. **Accepted**.
2. **Singh, A.**, S.K. Deb, S. Singh, L. Slaughter, B. Kelly, and G.L. Ritchie (2026). Evaluating the HYDRUS (2D/3D) simulation model to investigate soil and plant water status in cotton

under deficit subsurface drip irrigation. *Agronomy*. In-preparation.

3. **Singh A.**, R. Saini, P. Bajwa, J. Singh, and S. Singh (2026). Evaluating glufosinate applications on cotton nectar sugar production and lint yield. *Weed Technology*. In-preparation.
4. **Singh A.**, A. Kafle, S.K. Deb., and S. Singh (2026). Soil water dynamics and water use efficiency of cucumber (*Cucumis sativus* L.) under deficit irrigation and biochar amendment in semi-arid environments. *HortScience*. In-preparation.

Book Chapter

1. Ghimire, R., Sapkota, S., **A. Singh**, Acharya, P., Frene, J., and Bista, P.(2026). Regenerative agriculture for soil health and food security in a changing world. In Belaghihalli N Gnanesh, Megha N Parajulee, Chittaranjan Kole (Ed.), *NextGen Strategies for Agricultural Sustainability and Food Security: Vol I- Crop Production*. <https://doi.org/10.1201/9781003607342>

RESEARCH PRESENTATIONS

Posters Presentations

1. Deb, S. K., **A. Singh**, A. Villalobos, and M. Singh (2024). Root Zone Soil Water Dynamics in Semi-Arid Cotton Systems Under Various Agronomic Considerations. ASA, CSSA, SSSA International Annual Meeting, November 10-13, San Antonio, TX.
2. **Singh, A.**, S.K. Deb, E. Escamilla, and R. Shim (2023). Evaluating root zone soil water dynamics in early-season planted upland cotton with cold germination ability. ASA, CSSA, and SSSA International Meetings held on October 29–November 1 in St. Louis, MO.
3. **Singh, A.**, D. R. Aryal, and R. Ghimire (2023). Greenhouse gas fluxes under different cropping systems in the semi-arid environment. The Carbon Management and Soil Health Project Meeting held on June 8 at New Mexico State University, Las Cruces, NM.
4. Gill, M., H. Maples, G. Kharel, **A. Singh**, E. Escamilla, and S.K. Deb (2023). Soil physical quality indicators as affected by long-term semiarid pasture management practices. ASA, CSSA, and SSSA International Meetings held on October 29–November 1 in St. Louis, MO.
5. **Singh, A.**, S.K. Deb, L. Slaughter, G. Ritchie, and S. Singh (2022). Role of biochar to improve soil physical and hydraulic properties in early-planted cotton. ASA, CSSA, and SSSA International Meetings, November 6–9, Baltimore, MD.
6. **Singh, A.**, and S.K. Deb (2022). Understanding of root zone soil water dynamics under cotton-silverleaf nightshade interactions. ASA, CSSA, and SSSA International Meetings, November 6–9, Baltimore, MD.
7. Saini, R.K., **A. Singh**, M. Singh, and S. Singh (2022). Effect of different herbicides on industrial hemp phytotoxicity and biomass yield. American Society for Horticultural Science Annual Conference. July 30–August 3, Chicago, IL.
8. **Singh, A.**, O. Mohawesh, and S.K. Deb (2021). Effects of biochar on soil physical and

- hydraulic properties and plant responses in drip-irrigated early-planted cotton. ASA, CSSA, and SSSA International Meetings, November 7–10, Salt Lake City, UT.
9. **Singh, A.**, S.K. Deb, L.C. Slaughter, W. Guo, and S. Singh (2021). Simulating root zone soil water dynamics in subsurface drip-irrigated cotton under cotton-weed interactions. ASA, CSSA, and SSSA International Meetings, November 7–10, Salt Lake City, UT.
 10. **Singh, A.**, S.K. Deb, L.C. Slaughter, W. Guo, and S. Singh (2021). Modeling of soil water dynamics in cotton production systems using a multi-model approach. ASA, CSSA, and SSSA International Meetings, November 7–10, Salt Lake City, UT.
 11. Maples, H., G. Kharel, M. Dhakal, **A. Singh**, E. Escamilla, and S.K. Deb (2021). Effects of long-term perennial and annual pasture systems on soil physical and hydraulic properties in a semiarid environment. ASA, CSSA, and SSSA International Meetings, November 7–10, Salt Lake City, UT.
 12. **Singh, A.**, S.K. Deb, S. Singh, and W. Guo (2020). A multi-model approach for analyzing soil water dynamics and root water uptake patterns of cotton grown under semiarid conditions. ASA, CSSA, and SSSA International Annual Meetings, November 9–13 (Virtual).
 13. **Singh, A.**, E. Escamilla, and S.K. Deb (2020). Modeling root zone soil water dynamics in drip irrigated cotton under cotton-weed interactions. ASA, CSSA, and SSSA International Annual Meetings, Nov. 9–13 (Virtual).
 14. **Singh, A.**, and S.K. Deb (2020). Root zone soil water dynamics in cotton under cotton-weed interactions. ASA, CSSA, and SSSA International Annual Meetings, November 9–13 (Virtual).
 15. **Singh, A.**, E. Escamilla, and S.K. Deb (2020). Comparison between relative evapotranspiration, midday leaf, and midday stem water potential in drip-irrigated cotton: 19th Annual Graduate School Poster Competition, March 11, Texas Tech University, Lubbock, TX.
 16. **Singh, A.**, S.K. Deb, S. Singh, and E. Escamilla (2019). Soil moisture depletion in drip irrigated cotton under deficit irrigation practices in the Texas high plains. ASA, CSSA, and SSSA International Annual Meetings, November 10–13, San Antonio, TX.
 17. **Singh, A.**, R. Saini, S. Singh, and S.K. Deb (2019). Effect of mustard and sunflower seed meals on soil physical properties and yield in pumpkin. ASA, CSSA, and SSSA International Annual Meetings, November 10–13, San Antonio, TX.
 18. **Singh, A.**, S.K. Deb, R. Gannaban, R. Shim, P. Mangat, and J. Singleton (2019). Evaluation of interactive effects of soil moisture and temperature on the growth and development of early-planted cotton. ASA, CSSA, and SSSA International Annual Meetings, November 10–13, San Antonio, TX.
 19. Saini, R., S. Singh, and **A. Singh** (2019). Field evaluation of mustard and sunflower seed meals for weed management in pumpkin. American Society for Horticultural Science Annual Conference, July 21–25, Las Vegas, NV.
 20. Parkash, V., S. Singh, R. Saini, B. Bhattarai, and **A. Singh** (2019). Effect of deficit irrigation and planting density on physiology, yield, and water use of cucumber in semi-arid west Texas. American Society for Horticultural Science Annual Conference, July 21–25, Las

Vegas, NV.

21. **Singh, A.**, E. Escamilla, S. Singh, and S.K. Deb (2019). Numerical modeling of root water uptake of cotton under deficit subsurface drip irrigation: 18th Annual Graduate School Poster Competition, March 26, Texas Tech University, Lubbock, TX.
22. **Singh, A.**, S.K. Deb, S. Singh, E. Escamilla, B. Bhattarai, and I. Pabuayon (2019). Soil water depletion in drip-irrigated forage crops under different levels of irrigation. 2018–2019 International Soils Meeting, January 6–9, San Diego, CA.
23. **Singh, A.**, J.S. Kang, and H.S. Dhadli (2016). Role of cover crops and their time of chopping on the microclimatic and root structure of baby corn (*Zea mays* L.) 81st Annual Convention and National Seminar on Developments in Soil Science, October 20–23, Gwalior, MP, India.

Oral Presentations

1. **Singh, A.**, and P. Lamb (2025). Determining optimal planting windows for winter pulse crops. Montana State University Pulse Research Round Up, hosted by Montana Pulse crop Committee, December 1, Great Falls, MT.
2. **Singh, A.**, and R. Ghimire (2025). Evaluating winter cover crops effect on greenhouse gas emissions and soil water dynamics in forage corn production under semi-arid regions. ASA, CSSA, SSSA International Annual Meeting, November 9-12, Salt Lake City, UT.
3. **Singh, A.**, R. Ghimire, and O. J. Idowu (2024). Mitigating greenhouse gas emissions with cover cropping in lands transitioning from irrigated to dryland forage production. ASA, CSSA, SSSA International Annual Meeting, November 10-13, San Antonio, TX.
4. **Singh, A.**, and R. Ghimire (2024). Numerical simulation of root water uptake of forage corn in semi-arid conditions. Western Society of Crop Science Annual meetings, held on July 17–18 in Monterey Bay, CA.
5. **Singh, A.**, and R. Ghimire (2024). Assessing cover crops for mitigating greenhouse gas emissions in lands transitioning from irrigated to dryland under forage corn. ASA, CSSA, and SSSA International Meetings will be held on November 10–13 in San Antonio, TX.
6. **Singh, A.** (2024). Cover crops improved soil health in irrigated forage crops. Postdoc Lightning Talk. New Mexico State University, February 28, Las Cruces, NM.
7. **Singh, A.**, R. Ghimire, P. Acharya, D.R. Aryal, P. Bista, and O.J. Idowu (2024). Evaluating soil health dynamics and their relationship with other ecosystem services. Plant and Environmental Sciences Graduate Research Seminar held at New Mexico State University on February 9 in Las Cruces, NM.
8. **Singh, A.**, R. Ghimire, and P. Acharya (2023). Cover Crops Impact on Soil Health under Corn-Sorghum Rotation in Semi-arid Regions. ASA, CSSA, and SSSA International Meetings held on October 29–November 1 in St. Louis, MO.
9. **Singh, A.**, R. Ghimire, D.R. Aryal, P. Bista and O.J. Idowu (2023). Strategies to mitigate greenhouse gas emissions in lands transitioning from irrigated to dryland. ASA, CSSA, and SSSA International Meetings held on October 29–November 1 in St. Louis, MO.

10. Aryal, D.R., R. Ghimire, and **A. Singh** (2023). Soil organic carbon storage and greenhouse gas fluxes under diverse tillage systems in semi-arid southern high plains of New Mexico. ASA, CSSA, and SSSA International Meetings held on October 29–November 1 in St. Louis, MO.
11. **Singh, A.**, S.K. Deb, L. Slaughter, S. Singh, G. Ritchie, and W. Guo (2023). Root Zone Soil Water Dynamics Under Cotton-Silverleaf Nightshade Interactions in Drip-Irrigated Upland Cotton. ASA, CSSA, and SSSA International Meetings held on October 29–November 1 in St. Louis, MO.
12. Deb, S.K., and **A. Singh** (2022). Root zone water dynamics and cotton production under various agronomic practices in West Texas. ASA, CSSA, and SSSA International Meetings, November 6–9, Baltimore, MD.
13. **Singh, A.**, and S.K. Deb (2022). Understanding of root zone soil water dynamics under cotton-silverleaf nightshade interactions. ASA, CSSA, and SSSA International Meetings, November 6–9, Baltimore, MD.
14. **Singh, A.**, and S.K. Deb (2021). Simulating root zone soil water dynamics in subsurface drip-irrigated cotton under cotton–weed interactions. ASA, CSSA, and SSSA International Meetings, November 7–10, Salt Lake City, UT.
15. **Singh, A.**, and S.K. Deb (2021). Modeling of soil water dynamics in cotton production systems using a multi-model approach. ASA, CSSA, and SSSA International Meetings, November 7–10, Salt Lake City, UT.
16. **Singh, A.**, and S.K. Deb (2021). Evaluating Root Zone soil water dynamics in cotton grown under various agronomic considerations in a semiarid environment. ASA, CSSA, and SSSA International Meetings, November 7–10, Salt Lake City, UT.
17. **Singh, A.**, S.K. Deb, and Rosalyn B. Shim (2020). Effects of early-season planting and soil physical environments on seedling emergence, growth, development, and yield of cotton germplasm with cold germination ability. ASA, CSSA, and SSSA International Annual Meetings, November 9–13 (Virtual).
18. **Singh, A.**, and S.K. Deb (2019). Modeling of spatial and temporal root water uptake of cotton under deficit irrigation in West Texas. ASA, CSSA, and SSSA International Annual Meetings, November 10–13, San Antonio, TX.
19. **Singh, A.**, and S.K. Deb (2019). Modeling of root water uptake of cotton under deficit subsurface drip irrigation. 10th Texas Tech Annual Biological Sciences Symposium, April 26–27, Texas Tech University, Lubbock, TX.
20. **Singh, A.**, and S.K. Deb (2019). Evaluation of root water uptake of cotton under deficit subsurface drip irrigation using HYDRUS (2D/3D) model: 1st Annual PSS Graduate Student Research Symposium, April 22, Texas Tech University, Lubbock, TX.
21. **Singh, A.**, S.K. Deb, E. Escamilla, and S. Singh (2019). Modeling root water uptake patterns of cotton under deficit subsurface drip irrigation. 2018–2019 International Soils Meeting, January 6–9, San Diego, CA.
22. **Singh, A.**, S.K. Deb, S. Singh, and J.S. Kang (2017). Effect of Cover Crops on yield, quality, microclimatic, and Soil Properties in No-till Baby Corn. ASA, CSSA, and SSSA

International Annual Meetings, October 22–25, Tampa, FL.

Invited Guest Speaker

1. **Singh, A.** (2024). Cover crops for sustainable agriculture in semi-arid regions. *Course: AGRI 493, Sustainable Agriculture*. Department of Agriculture and Food Science, Western Kentucky University, Bowling Green, KY, February 21 [Virtual].

RESEARCH GRANTS (funded)

The asterisk () indicates that I am an official Co-Principal Investigator rather than a Principal Investigator due to my postdoc status, but I am the lead co-writer and project leader.*

1. **NMSU CES New Extension Innovation Grant (2026-27):** Mobile Water Management Clinics for New Mexico Producers. Principal Investigator: **A. Singh***. Amount Awarded: **\$15,500**.
2. **New Mexico Water Resources Research Institute (2023–2024):** Numerical modeling of root water uptake of forage crops in semi-arid environments. Principal Investigator: R. Ghimire. Co-Principal Investigator: **A. Singh***. Amount Awarded: **\$27,000**.
3. **Montana Ag Experiment Station/College of Agriculture shared equipment grant (2025):** Soil instrumentation platform for enhancing multi-program research in semi-arid environments. Principal Investigator: **A. Singh**. Co-Principal Investigators I: P. Lamb and R. Pinto. Amount awarded: **\$41,000**.
4. **Montana Pulse Crop Committee (2025-26):** Optimizing planting dates for winter pulse crops in the Northern Great Plains. Principal Investigator: **A. Singh**. Co-Principal Investigator: P. Lamb. Amount awarded: **\$17,500**.

RESEARCH GRANTS (submitted/not funded)

1. **USA Dry Pea and Lentil Council (2025).** Enhancing winter pea production through soil microclimate and planting depth management. Principal Investigator: **A. Singh**. Co-Principal Investigators: Jensen, J., Nafi, E. Amount requested: **\$38,532** [submitted].
2. **New Mexico Water Resources Research Institute (2025):** Comparing Process-Based and Machine Learning Models for Evaluating Soil Water Dynamics in Irrigated and Dryland Cropping Systems in Eastern New Mexico. Principal Investigator: P. Bista. Co-Principal Investigators: **A. Singh***, R. Ghimire. Amount requested: **\$27,517** [not awarded].
3. **Montana Department of Agriculture (2025):** No-till fiber hemp in Montana: Optimizing agronomic practices for dryland agriculture. Principal Investigator: Nafi, E, Co-Principal Investigators: **A. Singh**. Amount requested: **\$29,966** [not awarded].
4. **Montana Wheat & Barley Committee (2025):** Soil health benefits of cover crops in winter wheat. Principal Investigator: **A. Singh**. Co-Principal Investigator: R. Pinto. Amount requested: **\$30,500** [not awarded].

EXTENSION AND OUTREACH ACTIVITIES

Talks:

NARC Winter Advisory Council Meeting, Havre, MT, January 21, 2026

Engaged with producers, stakeholders, and researchers during Montana state university's Northern Agricultural Research Center (NARC) Advisory Council meeting and discussed ongoing research activities within Cropping Systems Agronomy team. More than 60 participants attended the meeting. Attendees shared current production challenges and provided suggestions for future research priorities.

Pumpkin Patch Day, Agricultural Science Center, Clovis, NM, October 23–24, 2024

Interacted with third- to fifth-grade students from multiple schools in Curry County during the Pumpkin Patch Day event over two days. Discussed plant growth and the process of photosynthesis, emphasizing how plants produce food. Displayed various crop plants to help students become familiar with agricultural crops. Assisted students in harvesting pumpkins from the field, providing hands-on learning experiences in agriculture.

Annual Field Day, Agricultural Science Center, Clovis, NM, August 6, 2024

Talked about soil health and water measurement in plots facing irrigation retirement. More than 100 people, including producers and researchers, attended the presentation. I demonstrated the ongoing field experiment and discussed the influence of winter cover crops on soil water dynamics, soil health, greenhouse gas emissions, and forage corn yield. I also interacted with the producers to discuss their challenges in forage production in semi-arid conditions.

Field Tour for Scientists visiting under the Scientific Exchange Program, July 25, 2024

Field trial demonstrations to visiting scientists from Nigeria, Tanzania, Niger, Ghana, and South Africa at the Agricultural Science Center, Clovis, NM. I discussed soil moisture sensors and soil health research in forage corn and sorghum. I talked about the results of using cover crops in the corn/sorghum rotation, which helped promote crop diversity, carbon sequestration, and soil water conservation, and maintained farm economics through increased yields and forage quality.

Pumpkin Patch Day, Agricultural Science Center, Clovis, NM, October 11–12, 2023

Delivered a talk to third to fifth-grade students from different schools in Curry County. Discussed the importance of earthworms in the soil and demonstrated different facts about earthworms using pictures and charts. Displayed live earthworms collected from the field.

Annual Field Day, Agricultural Science Center, Clovis, NM, August 1, 2023

Discussed soil health and carbon farming demonstration plots in lands transitioning from irrigated to dryland production. Demonstrated the impacts of conservation practices on soil carbon and nitrogen loss as greenhouse gases. Displayed the Gasmeter technology for measuring greenhouse gas emissions.

Farmer's Fair: Punjab Agricultural University, Ludhiana, Punjab, India, 2009–2016

Interacted with farmers across the state and demonstrated the latest farm implements used for research, and demonstrated research plots to update growers on the latest research. Organized tours to the laboratory to update farmers about the latest techniques for analyzing plant, soil, and water samples.

Rural Area Village Training Program, Punjab Agricultural University, Ludhiana, Punjab, India, Spring 2013

I attended six-month extension training programs to interact with the growers during my undergraduate studies. Visited every farmer's door in the assigned village to collect data regarding the latest problems they faced. Analyzed collected data and prepared reports for the Department of Extension Education. Delivered talks in the assigned village about growing the home vegetable garden.

Pamphlets:

1. Evaluating soil health and water changes in lands transitioning from irrigated to dryland production (2024). Annual Field Day, August 6, Agricultural Science Center, New Mexico State University, Clovis, NM.
2. Greenhouse gas fluxes under different cropping systems in semi-arid environments (2023). Annual Field Day, August 1, Agricultural Science Center, New Mexico State University, Clovis, NM.

Posters:

1. **Singh, A.**, and R. Ghimire (2024). Mitigating greenhouse gas emissions in lands transitioning from irrigated to dryland. New Mexico Soil Health and Soil Carbon Conference, held on July 31–August 1 at Embassy Suites by Hilton, Albuquerque, NM.
2. **Singh, A.**, R. Ghimire, D. R. Aryal, A. Adhikari, M. Omer, J. Idowu, and R. Heerema (2024). Soil Health Enrichment with Orchard Age in Pecan orchards of Southern New Mexico, New Mexico Soil Health and Soil Carbon Conference, held on July 31–August 1 at Embassy Suites by Hilton, Albuquerque, NM.

Articles:

1. **Singh, A.**, and R. Ghimire (2025). Boost soil health and water with winter cover crops in New Mexico. <https://nccmsh.nmsu.edu/index.html>

AWARDS & HONORS

1. Selected as an **outstanding reviewer** for the **2024 Agrosystems, Geosciences & Environment (AGE)** journal for excellent service as a reviewer.
2. Selected for the **Encompass Scholars** program sponsored by **Bayer Crop Science for 2023–24**. The year-long program helped me participate in a series of virtual Professional Development workshops focused on soft skills and leadership training and a **one-year**

membership in the American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America.

3. **Henry Lin Travel Grant Award of \$1,000** from the Soil Science Society of America to participate in the **2023** ASA, CSSA, and SSSA International Meetings, **October 29–November 1**, St. Louis, MO.
4. **Third place** in the Graduate Student Poster Competition on **September 29, 2022**, organized by the Davis College of Agricultural Sciences & Natural Sciences, Texas Tech University, Lubbock, TX.
5. **Summer Dissertation Research Award, 2022**, and a scholarship support amount of **\$2,300** from the Graduate School, Texas Tech University, Lubbock, TX.
6. **Second place** in the 5-minute rapid oral and poster graduate student competition in the Soil and Water Management and Conservation Division at the ASA, CSSA, and SSSA International Meetings, from **November 7–10, 2021**, in Salt Lake City, UT.
7. Selected to participate in the 6th Annual ASA, CSSA, and SSSA **Graduate Student Leadership Conference, November 9–13, 2020** (Virtual).
8. **First place** in oral presentation in the Plant and Soil Science category, 10th Texas Tech Annual Biological Sciences Symposium, **April 26–27, 2019**, Texas Tech University, Lubbock, TX.
9. **First place** in the 18th Graduate Student Poster Competition held on **March 26, 2019**, and received the Helen Jones Grad Sup Scholarship for **Spring 2019** at Texas Tech University, Lubbock, TX.

SCHOLARSHIPS/FELLOWSHIPS

1. **August 2019–December 2022:** The CH Foundation Graduate Fellowship for Doctoral degree (**\$4,000/yr**): Awarded by Graduate School, Texas Tech University, Lubbock, TX.
2. **Fall 2022:** Graduate Student Travel Scholarship (**\$750**): Awarded by the Agronomy, Crops, and Soil Science Graduate Student Committee to attend the ASA, CSSA, and SSSA International Annual Meetings, held from November 6 to 9 in Baltimore, Maryland.
3. **Fall 2022:** Graduate Student Travel Funding (**\$500**): Awarded by the Department of Plant and Soil Science at Texas Tech University for attending ASA, CSSA, and SSSA International Annual Meetings from November 7–10 in Salt Lake City, UT.
4. **Summer 2022:** Study Abroad Competitive Scholarship (**\$1,250**): Texas Tech University, Lubbock, TX.
5. **Fall 2022:** Study Abroad Competitive Scholarship (**\$200**): Texas Tech University, Lubbock, TX.
6. **Fall 2022:** TA/RA/GTPI Scholarship (**\$304**): Texas Tech University, Lubbock, TX.
7. **Spring 2022:** TA/RA/GTPI Scholarship (**\$304**): Texas Tech University, Lubbock, TX.
8. **2021:** West Texas Agricultural Chemical Institute Scholarship (**\$1000**): External Scholarship for advancing the doctoral degree at Texas Tech University, Lubbock, TX.

9. **2021:** Graduate Student Travel Funding (**\$300**): Awarded by the Graduate School, Texas Tech University, for attending ASA, CSSA, and SSSA International Annual Meetings from **November 7–10**, Salt Lake City, UT.
10. **2021:** Graduate Student Travel Funding (**\$450**): Awarded by the Department of Plant and Soil Science at Texas Tech University for attending ASA, CSSA, and SSSA International Annual Meetings, **November 7–10**, Salt Lake City, UT.
11. **2021–2022:** Harold and Mary Dregne Graduate Program Endowment (**\$1,300**): Department of Plant and Soil Science at Texas Tech University, Lubbock, TX.
12. **Fall 2021:** TA/RA/GTPI Scholarship (**\$304**): Texas Tech University, Lubbock, TX.
13. **Summer 2021:** Study Abroad Competitive Scholarship (**\$750**): Texas Tech University, Lubbock, TX.
14. **Fall 2021:** Study Abroad Competitive Scholarship (**\$150**): Texas Tech University, Lubbock, TX.
15. **Spring 2021:** Study Abroad Competitive Scholarship (**\$600**): Texas Tech University, Lubbock, TX.
16. **Spring 2021:** TA/RA/GTPI Scholarship (**\$304**): Texas Tech University, Lubbock, TX.
17. **Fall 2020:** Study Abroad Competitive Scholarship (**\$400**): Texas Tech University, Lubbock, TX.
18. **Summer 2020:** Study Abroad Competitive Scholarship (**\$800**): Texas Tech University, Lubbock, TX.
19. **2019–2020:** TRIP Davidson Foundation Water Conservation Fellowship (**\$1,300**): Department of Plant and Soil Science, Texas Tech University, Lubbock, TX.
20. **Spring 2020:** TA/RA/GTPI Scholarship (**\$304**): Texas Tech University, Lubbock, TX.
21. **Fall 2019:** TA/RA/GTPI Scholarship (**\$304**): Texas Tech University, Lubbock, TX.
22. **2019:** Plant and Soil Science Graduate Student Travel Funding (**\$300**): For attending ASA, CSSA, and SSSA International Annual Meetings, November 10-13, in San Antonio, TX.
23. **Spring 2020:** Study Abroad Competitive Scholarship (**\$400**): Texas Tech University, Lubbock, TX.
24. **Fall 2019:** Study Abroad Competitive Scholarship (**\$300**): Texas Tech University, Lubbock, TX.
25. **Summer 2019:** Study Abroad Competitive Scholarship (**\$700**): Texas Tech University, Lubbock, TX.
26. **Spring 2019:** Study Abroad Competitive Scholarship (**\$300**): Texas Tech University, Lubbock, TX.
27. **2018–2019:** Fern Lee "Missy" Finck Endowed Graduate Fellowship (**\$1,000**) from the College of Agricultural Sciences and Natural Resources at Texas Tech University, Lubbock, TX.
28. **2018–2019:** TTU Graduate School Travel Funding (**\$300**): International Soils Meetings,

January 6–9, San Diego, CA.

29. **2018–2019**: Harold and Mary Dregne Graduate Program Endowment (**\$2,100**): Department of Plant and Soil Science at Texas Tech University, Lubbock, TX.
30. **2018–2019**: TX Seed TRD Cottonseed Endowed Scholarship (**\$400**): Department of Plant and Soil Science, Texas Tech University, Lubbock, TX.
31. **Summer 2018**: Study Abroad Competitive Scholarship (**\$700**): Texas Tech University, Lubbock, TX.
32. **Fall 2018**: Study Abroad Competitive Scholarship (**\$300**): Texas Tech University, Lubbock, TX.
33. **2017**: Texas Tech University Graduate School Travel Funding (**\$400**): for attending ASA, CSSA, and SSSA International Annual Meetings from **October 22–25**, Tampa, FL.
34. **Harold and Mary Dregne Graduate Program Endowment** for **2017–2018** (**\$700**): Department of Plant and Soil Science, Texas Tech University, Lubbock, TX.
35. Bharti Field Fresh Fellowship in **2014–2015** (**\$1,000**): For M.S. at Punjab Agricultural University, Ludhiana, India.

MEMBERSHIPS

- American Society of Agronomy **May 2017–present**
- Crop Science Society of America, **May 2017–present**
- Soil Science Society of America, **May 2016–present**
- Western Society of Crop Science **June 2024–present**
- Association of Agricultural Scientists of Indian Origin **August 2017–present**

MENTORING

- Graduate students (2025–2026): Hamza Badrari, Olufemi Adebayo
- Graduate students (2023–2024): Barsha Sharma, Olufemi Adebayo
- Advised graduate student (2019–2022): Eduardo Escamilla
- Advised undergraduate students (2017–2019): Eduardo Escamilla, Harrison Maples

PROFESSIONAL SERVICE

Associate Editor

- Agrosystems, Geosciences & Environment: December 2024 – December 2027

Conference Leadership

- Vice-leader of ASA Semi-Arid Dryland Cropping Systems Community: 2025

Committee Member

- Committee member of S – Henry Lin Travel Grant Award Committee in the Soil Science Society of America: March 1, 2025 – December 31, 2027

Session Moderator

- Advanced in Nutrient Management Oral III (PhD Student Competition II) session at ASA, CSSA, and SSSA International Annual Meetings on November 12, 2024, in San Antonio, TX.
- Student Research Symposium organized by the Department of Plant and Soil Science on April 5, 2021, Texas Tech University, Lubbock, TX.
- Soil and Water Management and Conservation General Oral IV session at ASA, CSSA, and SSSA International Annual Meetings on November 13, 2019, San Antonio, TX.
- Three Minute Thesis/Dissertation Competition on October 29, 2019, organized by the Graduate School, Texas Tech University, Lubbock, TX.
- Graduate Student Research Symposium on April 22, 2019, organized by the Department of Plant and Soil Science, Texas Tech University, Lubbock, TX.

Invited Judge

- Poster competition in Semi-Arid Dryland Cropping Systems Poster I session at ASA, CSSA, and SSSA International Annual Meetings, November 11, 2024, San Antonio, TX.
- Poster and Oral student competition at the Western Society of Crop Science annual meeting, July 17–18, 2024, California State University, Monterey Bay, CA.
- Poster competition in Research and Creativity Week on February 28, 2024, at New Mexico State University, Las Cruces, NM.
- Poster competition in the Application of Agricultural Systems Models to Address Emerging Issues and Climate Resilience session at ASA, CSSA, and SSSA International Meetings held on October 29–November 1, 2023, St. Louis, MO.
- Oral competition in the Advances in Nutrient Management session at ASA, CSSA, and SSSA International Meetings held on October 29–November 1, 2023, St. Louis, MO.
- Poster competition in Research and Creativity Week on February 21, 2023, at New Mexico State University, Las Cruces, NM.
- Poster and Oral competition in the Crop Physiology and Metabolism Division at ASA, CSSA, and SSSA International Annual Meetings from November 7–10, 2021, Salt Lake City, UT.
- Three Minute Thesis Competition on October 14, 2021, organized by the Graduate School at Texas Tech University, Lubbock, TX.
- Poster competition in the Crop Physiology and Metabolism Division at ASA, CSSA, and SSSA International Annual Meetings, November 9–13, 2020 (Virtual).
- Graduate student poster competition organized by the Graduate School on March 11, 2020, Texas Tech University, Lubbock, TX.
- Poster competition in Crop Ecology, Management, and Quality Division at ASA, CSSA, and

SSSA International Annual Meetings on November 11, 2019, in San Antonio, TX.

- Graduate student poster competition organized by the Graduate School on March 26, 2019, Texas Tech University, Lubbock, TX.
- Graduate student poster competition organized by Graduate School on April 10, 2018, Texas Tech University, Lubbock, TX.
- Plains Regional Science and Engineering Fair at University Supermarkets Arena, February 9, 2018, organized by Texas Tech University, Lubbock, TX.
- Graduate student poster competition in Fall 2017 organized by the Graduate School at Texas Tech University, Lubbock.

Invited Reviewer for Journal Articles (2019–present)

- Agronomy Journal
- Agrosystems, Geosciences & Environment
- Frontiers in Plant Science
- Journal of Agricultural Science
- Journal of Crop Improvement
- Journal of Plant Growth Regulation
- Soil & Tillage Research
- Soil Science Society of America Journal
- Organic Agriculture
- Technology in Horticulture

Student Leadership

- President of the Plant and Soil Science Graduate Student Council at Texas Tech University, Lubbock, TX, January 2021–August 2022.
- Student Ambassador for the Association of Agricultural Scientists of Indian Origin, June 2021–December 2022.
- Treasurer of the Plant and Soil Science Graduate Student Council, Fall 2019–Spring 2021, Texas Tech University, Lubbock, TX.
- Graduate Student Seminar Committee Member in the Department of Plant and Soil Science, Fall 2019–Spring 2021, Texas Tech University, Lubbock, TX.

EXTRACURRICULAR AND SYNERGETIC ACTIVITIES

- Volunteer in the Arbor Day Planting activity on April 30, 2022, at Texas Tech University, Lubbock, TX.
- Participated in Group Folk Dance in the Multicultural Festival on November 17, 2021, organized by the Texas Tech Residence Hall Association, Lubbock, TX.

- Volunteered in Lab course PSS 2432 (Principles and Practices in Soils) for the spring and fall of 2021 in the Department of Plant and Soil Science at Texas Tech University, Lubbock, TX.
- Volunteer in the Pumpkin Sale event in Fall 2020, organized by the Plant and Soil Science Graduate Student Council, at Texas Tech University, Lubbock, TX.
- Participated in the International Mother Language Day cultural event on February 23, 2020, organized by the TTU Association of Bangladeshi Students and Scholars.
- Participated in Group Folk Dance at the Diwali function in 2019 and 2021, organized by the Indian Student Association, at Texas Tech University, Lubbock, TX.
- Volunteer in Pumpkin Sale event, Fall 2019, organized by Plant and Soil Science Graduate Student Council, at Texas Tech University, Lubbock, TX.
- Volunteer in the Arbor Day Planting activity on April 26, 2019, at Texas Tech University, Lubbock, TX.
- Volunteer in State Land Judging Career Development Event (Area I), April 13, 2019, at Texas Tech University, Lubbock, TX.
- Participated in the International Mother Language Day cultural event on February 24, 2019, organized by the Association of Bangladeshi Students and Scholars.
- Volunteer at State Land Judging Career Development Event (Area I), April 14, 2018, at Texas Tech University, Lubbock, TX.
- Volunteer for the Arbor Day planting activity on April 27, 2018, at Texas Tech University in Lubbock, TX.