Curriculum Vitae

Name: Akashdeep Singh
Permanent Address: Sharda Niwas, Ward no. 7, VPO Rajiana, 53 Mile, Teh. Nagrota Bagwan, Distt. Kangra, H.P.-176 056
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Education

2020-2024 Ph.D. Agronomy, Chaudhary Sarwan Kumar Himachal Pradesh Agricultural University, Palampur, India (OGPA: 8.82)

2018-2020 M.Sc. Agronomy, Chaudhary Sarwan Kumar Himachal Pradesh Agricultural University, Palampur, India (OGPA: 8.58)

2014-2018 B.Sc. (Hons.) Agriculture, Chaudhary Sarwan Kumar Himachal Pradesh Agricultural University, Palampur, India (OGPA: 7.93)

2012-2013 12th Grade, Sacred Heart Senior Secondary School (82% (ISC))

2010-2011 10th Grade, Sacred Heart Senior Secondary School (85% (ICSE))

Work Experience

14 June, 2025 – Present

Position: Assistant Professor, Department of Agronomy, Dr Khem Singh Gill Akal College of Agriculture, Eternal University, Baru Sahib, Sirmour, HP-173 101

10 June, 2024 - 5 June, 2025

Position: Assistant Professor (Agronomy), School of Agricultural Sciences, Nirwan University, Jaipur, Rajasthan-303 305

Computer Skills

Softwares: Word, Powerpoint, Excel, APSIM
Statistical: Excel stat, SPSS, R, Python

Scholastic Achievements

- Qualified ICAR-NET conducted by ASRB with 55.11%
- Among top 2 students in Dept. of Agronomy, CSK HPKV, Palampur.
- Among top 7 students in B.Sc. (Hons.) Agriculture at CSK HPKV, Palampur.
- Third place in 12th ISC board examination in Sacred Heart Sen. Sec. School, Dharamshala.

Scholar Metrics

H-index: 6

i-10 index: 3

Publications

Edited Book

1. Kumar, N., **Singh, A.**, Sharma, T (Ed.). (2023). *Impact of climate change on agriculture*. S. R. Scientific, Agra, India. ISBN: 978-9393483-140.

Book Chapters

1. Sharma, T., Ananthakrishnan, S., Gawdiya, S., Rawat, A., **Singh, A.,** Suryawanshi, Y., Chauhan, G. & Rana, R.S. (2025). Hydroponics farming: A holistic perspective for crop production. In: Oilseed Crops (Ed.). Wiley. https://doi.org/10.1002/9781394186426.ch13
2. Thakur, A., **Singh, A.** and Bharat, N. K. (2024). Conservation and development of rice germplasm for natural farming. In: Climate-Smart Rice Breeding (Ed.). Springer, Singapore. DOI: 10.1007/978-981-97-7098-4_3
3. Sharma, T., Mrabet, R., **Singh, A.,** Kumar, N., Baghla, D., Kumar, S., Rana, B.B. and Chauhan, G. (2024). Global hunger: The need for smart and sustainable agriculture. In: Sustainable Green Nanotechnology (Ed.). CRC Press, Boca Raton. DOI: 10.1201/9781003389408-8
4. Chauhan, G., Espindola, J., Kaur, S., **Singh, A.,** Kumar, N., Rana, B.B. and Sharma, T. (2024). Nanofertilizers for sustainable agriculture. In: Sustainable Green Nanotechnology (Ed.). CRC Press, Boca Raton. DOI: 10.1201/9781003389408-10
5. Sanadya, S. K., Sharma, R., Bhinda, M. S., **Singh, A.,** Manuja, S., Kumari, A. (2023). Nanotechnology mediated agronomic biofortification: a way forward. In: Advances in Nanotechnology for Smart Agriculture: Techniques and Applications (Ed.). Routledge and CRC Press, Boca Raton, Florida, USA.
6. Kumari, S., Rana, S. S., Manuja, S., Rana, B. B., **Singh, A.** (2023). Futuristic agriculture with robots: a concept to reality. In: Impact of Climate Change on Agriculture (Ed.). S. R. Scientific Publication, Agra, India. ISBN: 978-9393483-140.
7. Sharma, T., **Singh, A.,** Kumar, N., Chauhan, G. (2023). Digital technologies and tools for the ensuing digital era. In: Applying Drone Technologies and Robotics for agricultural sustainability (Ed.). IGI Global Publisher.
8. Sharma, T., **Singh, A.,** Kumar, N., Singh, D., Chauhan, G. (2023). Biofuel Circular economy in environmental sustainability. In: Renewable Energy in Circular Economy. Springer Nature. DOI: 10.1007/978-3-031-42220-1_12
9. Sharma, T., **Singh, A.,** Kumar, N., Chauhan, G., Singh, D. P., Singh, A., Rana, B. B. (2023). Emerging pollutants in the environment and ecological risks. In: Management and Mitigation of Emerging Pollutants. Springer Nature. DOI: 10.1007/978-3-031-41005-5_1
10. Mrabet, R., **Singh, A.,** Sharma, T. (2023). Conservation Agriculture as Sustainable and Smart Soil Management: When Food Systems meet sustainability. In: Agroecological Approaches for Sustainable Soil Management. John Wiley & Sons LTD. DOI: 10.1007/978-3-031-41005-5_1

11. Mrabet, R., **Singh, A.**, Sharma, T., Kassam, A., Friedrich, T., Basch, G., Moussadek, R., Gonzalez-Sanchex, E. (2022). Conservation Agriculture: climate proof and nature positive approach. In: Resource Management in Agroecosystems. InTechOpen.
12. **Singh, A.,** Singh, A., Singh, D. P., Sharma, T. (2022). Potential of Agriculture in Mitigating Climate Change. In Environment in 21st century (Volume III). K D Publications, Maharashtra, India. ISBN: 978-93-94570-38-2.

Research Papers/Articles

1. Sachin, Singh, J., Sharma, R., **Singh, A.,** Narwhal, K., Rana, B. B., Verma, A. & Sharma, S. (2025). Response of blackgram (*Vigna mungo* L.) to organic nutrient sources and their effect on soil properties and yield attributes in Western Himalayan region of India. Plant Science Today (Accepted & under Copy-editing)
2. Sharam, T., Kumar, N., **Singh, A.,** Chauhan, G., Sharma, G. D., Rana, B. B. & Kumar, P. (2025). Nutrient management strategies for improved growth attributes in sweet sorghum. Himachal Journal of Agricultural Research 51(1): 51-57.
3. Prajapat, D.; **Singh, A;** Sharma, D.; Kumar, R.; Kumar, M.; Choudhary, R. & Rana, B.B. (2025). Growth and productivity of wheat as influenced by organic nutrient sources in East-central part of Rajasthan, India. International Journal of Plant & Soil Science 37(5): 494-502.
4. Saini, A., Manuja, S., Singh, G., Bindra, A.D., Sahoo, C., **Singh, A.,** Yadi, R., Johnson, R., Joel, J.M. and Fayezizadeh, M.R. (2025). Effect of cultivation practices on productivity and nutrient dynamics of wheat varieties under northern hill zone of India. BMC Plant Biology 25: 497.
5. Sharma, R., Gautam, S., **Singh, A.,** Rana B. B., Upadhyay, R.G., Saharan, S. & Manuja, S. (2025). Bio-efficacy of ethalfluralin against weeds of potato (*Solanum tuberosum* L.), its phytotoxicity and effects on productivity and profitability in North-Western Himalayan region. The Indian Journal of Agricultural Sciences 93(6): 664-670.
6. Godara, V., **Singh, A.,** Singh, M., Thakur, S., Choudhary, V., Sharma, D., Dogra, P. and Rana, B.B. (2025). Response of mustard (*Brassica juncea* L.) to nirogen and sulphur fertilization under semi-arid conditions. Journal of Experimental Agriculture International 47(3): 339-348.
7. Sharma, V.J., **Singh, A.,** Sachin, Rai, D., Sharma, D., Yadav, B. and Rana, B.B. (2025). Evaluation of integrated nutrient management practices on growth and yield of wheat (*Triticum aestivum* L.) under Northeastern Part of Rajasthan, India. International Journal of Plant & Soil Science 37(3): 1-8.
8. Rana, B.B., Sharma, V., Manuja, S., Sharma, S.K., **Singh, A.,** Sharma, R. and Chauhan, G. (2025). Evaluation of herbicide efficacy on growth indices of maize cultivated under conservation agriculture system. Plant Archives 25(1): 2808-2817.
9. Nagar, R., **Singh, A.,** Dayma, J., Sharma, D., Rana, B.B. and Choudhary, R. (2025). Evaluation of herbicide efficacy on weed dynamics and yield of chickpea. Journal of Experimental Agriculture International 47(2): 34-42.
10. Yadav, V.P., **Singh, A.,** Kumar, R., Sharma, D., Dayma, J., Choudhary, L. and Rana B.B. (2025). Influence of organic nutrient sources and hydrogel on yield attributes and productivity of mustard (*Brassica juncea* L.). International Journal of Plant & Soil Science 37(1): 519-524.

11. Sharma, T., Chauhan, P.S., Patel, M., **Singh, A.,** Kaur, M., Chauhan, G., Rana, B.B., Kumar, N. and Walia, A. (2025). Carbon negative biofuels: a step ahead of carbon neutrality. Biofuels 1-21.
12. Meena, R., **Singh, A.,** Kumar, R., Sharma, D., Choudhary, V. and Chauhan, G. (2025). Effect of integrated nutrient modules on productivity and profitability of mustard. Plant Archives 25(SP1): 2236-2240.
13. Meghwal, D.R., **Singh, A.,** Bhinda, N.K., Choudhary, V. and Kumar, R. (2025). Effect of weed management practices on productivity and profitability of Indian mustard (*Brassica juncea* L.) International Journal of Research in Agronomy 8(1): 277-281.
14. Sharma, S., **Singh, A.,** Yadav, B., Choudhary, V. and Rana, B.B. (2024). Influence of different levels of sulphur on growth and productivity of mustard (*Brassica juncea* L.). International Journal of Plant & Soil Science 36(12): 623-629.
15. Sharma, V., **Singh, A.,** Yadav, B., Choudhary, V. and Rana, B.B. (2024). Response to varying levels and sources of nitrogen on the growth and yield of barley (*Hordeum vulgare* L.). Journal of Experimental Agriculture International 46(12): 656-662.
16. Saini, A., Manuja, S., Singh, G., Sahoo, C., Manhas, S., **Singh, A.,** Guleria, A., Kumar, M. and Bhardwaj, B. (2024). Impact of tillage methods and cultivars on phenology & productivity of wheat-rice system under irrigated conditions. Plant Science Today 11(4): 1285-1295.
17. Singh, G., **Singh, A.,** Bindra, A.D., Saini, A., Manuja, S., and Fayezizadeh, M.R. (2024). Assessment of sowing environment for wheat cultivars and evaluation of growing degree days for phenological stages in the Northwest Himalayan region of Himachal Pradesh. Discover Applied Science 6:571.
18. Sharma, T., Singh, J., Madaik, S., Kumar, P., **Singh, A.,** Rana, B.B. and Chauhan, G. (2024). Organic input incorporation for enhancing sustainability and economic viability of cowpea in North-Western Himalayan region. Frontiers in Agronomy 6: 1458603
19. Kumawat, S.K., **Singh, A.,** Choudhary, V., Sharma, D. and Kumar, R. (2024). Effect of weed management on growth and growth attributes of wheat (*Triticum aestivum* L.). International Journal of Research in Agronomy SP7(10): 333-335
20. Gurjar, M.S., **Singh, A.,** Choudhary, V. and Sharma, D. (2024). Effect of date of sowing on growth, yield attributes and productivity of different varieties of wheat (*Triticum aestivum* L.). International Journal of Research in Agronomy 7(9): 810-813
21. Chaudhary, S., Saini, A., Manuja, S., Bindra, A.D., Suman, S., Upadhyay, R.G., **Singh, A.,** Kumari, S., Rana, B.B., Goswamy, Y. and Sahoo, C. (2024). Impact of planting time on performance of different wheat varieties: a review. International Journal of Plant & Soil Science 36: 961-972.
22. Singh, A., Pathania, P., Singh, J., Sharma, R., **Singh, A.,** Mujahed, A. and Saharan, S. (2024). Influence pf nitrogen levels on productivity, profitability and nitrogen use efficiency of new rice (*Oryza sativa* L.) cultivars in northwestern Himalayas. RASSA Journal of Science for Society 6(2): 59-62.
23. Kumar, N., Singh, R., Agrawal, R. K., Sharma, G. D., **Singh, A.**, Sharma, T. & Rana, R. S. (2024). Optimizing forage harvest and the nutritive value of Italian ryegrass-based mixed forage cropping under northwestern Himalayan conditions. Frontiers in Plant Science 15: 1346936.

24. **Singh, A.,** Bindra, A. D., Sharma, T., Sharma, R. Rana, B. B., Chauhan, G., Manuja, S. 2024. Growth and development of rice as influenced by establishment, residue retention and zinc application. International Journal of Plant & Soil Science 36(5): 1023-1032.
25. Sharma, T., Singh, J., **Singh, A.,** Sharma, R., Chauhan, G. (2023). Effect of organic nutrient sources on the yield, nutrient uptake and nodulation in cowpea (*Vigna unguiculata*) under mid-hill conditions of Western Himalayas. Environment Conservation Journal 24(2): 250-256.
26. Thakur, M., Chopra, P., Kumar, S., Sharma, T., **Singh, A.** (2023). Efficacy of different herbicides for controlling grass predominant weed flora and achieving higher production in dual purpose linseed under mid hills of Himachal Pradesh. Environment and Ecology 41(4C): 2845-2852.
27. Tiwari, H., Naresh, R. K., Debangshi, U., Roy, S., Reddy, B. R., Vismaya, G. U., Sharma, T., **Singh, A.**, Singh, A. (2022). Improving Resource Utilization Efficiency and Productivity in rice-wheat cropping system through cutting edge technologies: An overview. International Journal of Plant and Soil Science 34(23): 420-435.
28. Saini, A., Manuja, S., Kumar, S., Manhas, S., **Singh, A.**, Kumari, S. (2022). Productivity and profitability of rice (*Oryza sativa* L.) as influenced by different tillage systems and cultivars. Biological Forum-An International Journal 14(1): 748-751.
29. **Singh, A.**, Pathania, P., Sharma, T., Sharma, S. (2021). Effect of different crop sequences on soil nutrient status, nutrient uptake and crop yield in Western Himalayas of India. Indian Journal of Agricultural Research 55(6): 733-738.
30. Sharma, T., Singh, J., **Singh, A.**, Chauhan, G. (2021). Artificial Intelligence in water management. RASSA Journal of Science for Society 3(3): 145-148.
31. **Singh, A.**, Pathania, P. (2020). Evaluation of different crop sequences for yield, crop duration, land use efficiency and per day food availability. Himachal Journal of Agricultural Research 46(2): 193-196.
32. **Singh, A.**, Bala, A., Rana, S. S. (2020). Weed management in chickpea (*Cicer arietinum*): A review. Agricultural Reviews 41(2): 153-159.
33. Rana, S. S., Sharma, R., **Singh, A.**, Kumar, S. (2019). Studies on shifts in weed flora in maize (*Zea mays* L.) in Kangra district of Himachal Pradesh. Journal of Research in Weed Science 2: 230-240.

Conference proceedings/Abstracts

1. **Singh, A.,** Bindra, A. D., Manuja, S., Sharma, T. (2023). Sustainable modern technologies for climate resilient crop production. In National Conference on Natural and Organic Farming for Ecological, Economical and Nutritional Security, Palampur, Himachal Pradesh, India June 7-9, 2023.
2. Sharma, T., Singh, J., **Singh, A.,** Chauhan, G., Rana, B. B., Bala, A. (2023). Effect of organic nutrient sources in cowpea on microbial population, biomass carbon and dehydrogenase activity. In National Conference on Natural and Organic Farming for Ecological, Economical and Nutritional Security, Palampur, Himachal Pradesh, India June 7-9, 2023.
3. Sharma, R., Manuja, S., Saharan, S., **Singh, A.** (2023). Smart approaches and strategies for sustainable mechanization of Indian agriculture. In National Conference on Natural

and Organic Farming for Ecological, Economical and Nutritional Security, Palampur, Himachal Pradesh, India June 7-9, 2023.

4. Rana, B. B., Rana, M. C., Sharma, T., **Singh, A.,** Chauhan, G., Kumari, S. (2023). Effect of different cropping systems on soil microbial population, biomass carbon under natural farming. In National Conference on Natural and Organic Farming for Ecological, Economical and Nutritional Security, Palampur, Himachal Pradesh, India June 7-9, 2023.
5. Singh, G., Manuja, S., **Singh, A.,** Sharma, T. (2022). Comparative performance of leading wheat (*Triticum aestivum*) varieties under different sowing dates in North-Western Himalayan Area. In 1st International Symposium on Cereals for Food Security and Climate Resilience, Karnal, Haryana, India, January 18-20, 2022.
6. Sharma, T., Kumar, N., **Singh, A.,** Chauhan, G. (2022). Production potential of dual-purpose winter cereals in North-Western hilly regions. In 1st International Symposium on Cereals for Food Security and Climate Resilience, Karnal, Haryana, India, January 18-20, 2022.
7. Bharti, A., Sharma, R. P., **Singh, A.** (2022). Influence of FYM, lime and fertilizers on availability of macronutrients in Western Himalayan area. In International Conference on Biotechnological Initiative for Climate Resilient Agriculture, Pusa, Bihar, January 07-09, 2022.
8. **Singh, A.,** Pathania, P., Attri, A. (2021). Phytosociology and weed shift in rice-based cropping system in Western Himalaya of India. In 5th International Agronomy Congress on Agri Innovations to combat food and nutrition challenges, Hyderabad, Telangana, India, November 23-27, 2021.
9. Singh, G., Chopra, P., **Singh, A. (**2022). Effect of pre-and post-emergence herbicides on weed dynamics and seed yield of irrigated linseed (*Linum usitatissimum* L.) in Western Himalayan region. In International Conference on Advances in Agriculture and Food System towards Sustainable Development Goals, Bangalore, August 22-24, 2022.
10. Singh, G., **Singh, A.** (2022). Effect of herbicide and their combinations on weed control efficiency and yield in maize (*Zea mays*). In Indian Ecological Society International Conference 2022 on Sustainable Agricultural Innovations for Resilient Agri-food systems, Jammu, October 13-15, 2022.
11. Singh, G., Sharma, V., Manuja, S., **Singh, A.** (2022). Efficacy of herbicides and their combinations on weeds and effect on growth and yield of maize in North-Western Himalayan region of Himachal Pradesh. In 3rd International Weed Conference on Weed problems and management challenges: Future perspectives, Anand, Gujarat, India, December 20-23, 2022.

Trainings

1. CAAST-NAHEP sponsored: International Training on Rice crop modelling for bioenergy production and reduced greenhouse gas emissions at University of Southern Queensland, Toowoomba, Queensland, Australia (January 30-March 2, 2023).
2. SERB sponsored: High-end workshop on Climate-smart technologies for quality forage production and conservation, ICAR-NDRI, Karnal, Haryana, India (September 27-October 3, 2022)

3. CAAST-NAHEP in collaboration with ICAR- Indian Agricultural Statistical Research Institute, New Delhi: Training on "Statistics and Informatics in Experimental Data Management and Analysis" (March 14-21, 2022).
4. Agri Meet Foundation and Aviana in collaboration with ICAR-IISR, UPCAR, Lucknow, NABARD, NAHEP & ITM University, Gwalior, MP: Training on "Agriculture Drones Revolutionizing the Future of Agriculture" (May 21-June 10, 2022).
5. CAAST-NAHEP on Protected Agriculture and Natural Farming, CSKHPKV, Palampur in collaboration with ICAR-Indian Agricultural Statistical Research Institute, New Delhi: Training programme on "Experimental Design and Analysis through Statistical Softwares" (May 24-30, 2022).
6. CAAST-NAHEP in collaboration with CSA University of Agriculture and Technology Kanpur (U.P.): Training programme in "Off Season Protected cultivation of vegetables" (Jan 20-Feb 3, 2022).
7. Indian Society of Weed Science & ICAR-Directorate of Weed research, Jabalpur: National Training on Advances in Weed Management for Sustainable Agriculture (December 13-18, 2021).

Faculty Development Programme

1. AICTE Approved Online Faculty Development Programme on **"Emerging Technologies in Postharvest Management and Value Addition of Horticultural Commodities"** sponsored by Department of Agriculture and Environmental Sciences, National Institute of Food Technology Entrepreneurship and Management, Kundli, Haryana from **3-8 February 2025.**

Collaborating Companies

1. Ecocrest Solutions & Services Pvt. Ltd., Jamshedpur, Jharkhand, India (July 2022-Februrary 2023).

I hereby declare that the information provided above is true and correct to the best of my knowledge.

Place: Jaipur, Rajasthan.

Dr. Akashdeep Singh