

Curriculum-Vita

Dr. Sukamal Sarkar

Assistant Professor (Agronomy)

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Education

- Ph. D. (Agronomy) from Bidhan Chandra Krishi Viswavidyalaya, 2021
- M.Sc. (Ag) in Agronomy from Bidhan Chandra Krishi Viswavidyalaya, 2016
- B.Sc. (Ag) Honours from Visva-Bharati, 2014
- Qualified ICAR-National Eligibility Test (NET) in Agronomy, 2017 and 2018.

Work Experience

Designation	Recruiting Agency/ Sponsoring Agency	Joining Date	Leaving Date
Senior Research Fellow	Australian Centre for International Agricultural Research (ACIAR), BCKV	5 th August 2016	30 th September 2020
Assistant Director of Agriculture	Department of Agriculture, Government of West Bengal	1 st October 2020	12 th May 2022
Assistant Professor	Ramakrishna Mission Vivekananda Educational and Research Institute	14 th May 2022	Continuing

Awards and Recognitions

- 2019 : **The Commonwealth Scientific and Industrial Research Organization (CSIRO), Govt. of Australia**, Visiting Scientist for conducting Research in Cropping System Modelling (Rice and Grain Legumes) in CSIRO Agriculture and Food, Brisbane, Australia.
 - 2018 : **International Plant Nutrition Institute (IPNI) – Scholar Award 2018** – For outstanding PhD Research Work
 - 2018 : **The Commonwealth Scientific and Industrial Research Organization (CSIRO), Govt. of Australia** Post-Graduate Studentship for conducting a part of PhD Research in Cropping System Modelling in CSIRO Agriculture and Food, Brisbane, Australia.
 - 2017 : **Best Poster Award (2nd prize)** by Crop and Weed Science Society, BCKV
 - 2015 : **Alltech Young Scientist Award** by Alltech International, USA (Placed 2nd in India at Graduate Level)
 - 2015 : **Best Poster Award**, Indian Society of Soil Science, Kolkata Chapter
 - 2013 : **Alltech Young Scientist Award** by Alltech International, USA (Placed 3rd in Asia-Pacific Region at Undergraduate Level)
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Teaching Experience

- **Course taught:** Agronomy of Kharif Cereals and Pulse Crops [AGRON 201], Agronomy of Fibre and Kharif Oilseed Crops [AGRON 202], Agronomy of Medicinal, Aromatic and Narcotic Crops [AGRON 203], Agronomy of Fodder and Forage Crops [AGRON 204], Cropping System and Sustainable Agriculture [AGRON 206], Factors Affecting Crop Quality [AGRON 207]
- **Research Supervision:** M.Sc. – 02 (Ongoing)

Research Interest

- Plant Nutrition and site-specific nutrient management
- Salinity Stress in Field Crops
- APSIM Modelling (Cereals and Grain legume)
- Coastal Zone Agriculture

Publications

Publication in SCI Journals

1. **Sarkar, S.**, Gaydon, D. S., Brahmachari, K., Poulton, P. L., Chaki, A. K., Ray, K., Ghosh, A., Nanda, M. K., & Mainuddin, M. (2022). Testing APSIM in a complex saline coastal cropping environment. *Environmental Modelling & Software*, 147(December 2020), 105239. <https://doi.org/10.1016/j.envsoft.2021.105239> [IF:5.288]
2. Banerjee H, **Sarkar S**, Dutta SK, Garai S, Ray K, Zingore S, Goswami R, Majumdar K. Nitrogen management trade-offs in hybrid rice for agronomy, carbon, and energy efficiency. *Nutrient Cycling in Agroecosystems*. 2022 Mar 28:1-4 [IF:3.270].
3. Ghosh, D., Brahmachari, K., Skalický, M., Roy, D., Das, A., **Sarkar, S.**, Moulick, D., Brestič, M., Hejnak, V., Vachova, P. and Hassan, M.M. (2022). The combination of organic and inorganic fertilizers influence the weed growth, productivity and soil fertility of monsoon rice. *PloS one*, 17(1), p.e0262586. [IF:3.24]
4. Hossain, A., Skalicky, M., Brestic, M., Mahari, S., Kerry, R. G., Maitra, S., **Sarkar, S.**, Saha, S., Bhadra, P., Popov, M., Islam, M. T., Hejnak, V., Vachova, P., Gaber, A., & Islam, T. (2021). Application of Nanomaterials to Ensure Quality and Nutritional Safety of Food. *Journal of Nanomaterials*, 2021, 1–19. <https://doi.org/10.1155/2021/9336082> [IF:2.986]
5. Mondal, M., Biswas, B., Garai, S., Adhikary, S., Bandyopadhyay, P. K., **Sarkar, S.**, Banerjee, H., Brahmachari, K., Maitra, S., Mandal, T. K., Gaber, A., Althobaiti, Y. S., Raafat, B. M., & Hossain, A. (2021). Raising Climate-Resilient Embolden Rice (*Oryza sativa* L.) Seedlings during the Cool Season through Various Types of Nursery Bed Management. *Sustainability*, 13(22), 12910. <https://doi.org/10.3390/su132212910> [IF:3.251]
6. Remesan, R., Prabhakaran, A., Sangma, M.N., Janardhanan, S., Mainuddin, M., Sarangi, S.K., Mandal, U.K., Burman, D., **Sarkar, S.**, Mahanta, K.K., 2021. Modeling and Management Option Analysis for Saline Groundwater Drainage in a Deltaic Island. *Sustainability* 13, 6784. <https://doi.org/10.3390/su13126784> [IF:3.251]
7. Moulick, D., Samanta, S., **Sarkar, S.**, Mukherjee, A., Pattnaik, B. K., Saha, S., ... & Santra, S. C. (2021). Arsenic contamination, impact and mitigation strategies in rice agro-environment: An inclusive insight. *Science of The Total Environment*, 149477. [IF:7.963,]
8. Ghosh, A., Nanda, M.K., Sarkar, D., **Sarkar, S.**, Brahmachari, K., Ray, K., 2021. Assessing the agroclimatic potentiality in Indian sundarbans for crop planning by analyzing rainfall time series data. *J. Agrometeorol.* 23, 113–121. [IF:0.64]

9. Goswami, R., Roy, K., Dutta, S., Ray, K., **Sarkar, S.**, Brahmachari, K., Nanda, M.K., Mainuddin, M., Banerjee, H., Timsina, J., Majumdar, K., 2021. Multi-faceted impact and outcome of COVID-19 on smallholder agricultural systems: Integrating qualitative research and fuzzy cognitive mapping to explore resilient strategies. *Agric. Syst.* 189, 103051. <https://doi.org/10.1016/j.agsy.2021.103051> [IF:5.370]
10. Garai, S., Brahmachari, K., **Sarkar, S.**, Mondal, M., Banerjee, H., Nanda, M.K., Chakravarty, K., 2021. Impact of seaweed sap foliar application on growth, yield, and tuber quality of potato (*Solanum tuberosum* L.). *J. Appl. Phycol.* 31, 157–162. <https://doi.org/10.1007/s10811-021-02386-3> [IF:3.215]
11. Mondal, M., Biswas, B., Garai, S., **Sarkar, S.**, Banerjee, H., 2021. Zeolites Enhance Soil Health, Crop Productivity and Environmental Safety. *Agronomy* 1–29. <https://doi.org/10.3390/agronomy11030448> [IF:3.417]
12. Hossain, A., Skalicky, M., Brestic, M., Maitra, S., Ashraful Alam, M., Syed, M.A., Hossain, J., **Sarkar, S.**, Saha, S., Bhadra, P., Shankar, T., Bhatt, R., Kumar Chaki, A., EL Sabagh, A., Islam, T., 2021. Consequences and Mitigation Strategies of Abiotic Stresses in Wheat (*Triticum aestivum* L.) under the Changing Climate. *Agronomy* 11, 241. <https://doi.org/10.3390/agronomy11020241> [IF:3.417]
13. Ghosh, D., Brahmachari, K., Das, A., Hassan, M.M., Mukherjee, P.K., **Sarkar, S.**, Dinda, N.K., Pramanick, B., Moulick, D., Maitra, S., Hossain, A., 2021. Assessment of Energy Budgeting and Its Indicator for Sustainable Nutrient and Weed Management in a Rice-Maize-Green Gram Cropping System. *Agronomy* 11, 166. <https://doi.org/10.3390/agronomy11010166> [IF:3.417]
14. Hossain, A., Skalicky, M., Brestic, M., Maitra, S., **Sarkar, S.**, Ahmad, Z., Vemuri, H., Garai, S., Mondal, M., Bhatt, R., Kumar, P., Banerjee, P., Saha, S., Islam, T., Laing, A.M., 2021. Selenium Biofortification: Roles, Mechanisms, Responses and Prospects. *Molecules* 26, 881. <https://doi.org/10.3390/molecules26040881> [IF:4.412]
15. Sau, S., **Sarkar, S.**, Mitra, M., Gantait, S., 2021. Recent trends in agro-technology, post-harvest management and molecular characterisation of pomegranate. *J. Hortic. Sci. Biotechnol.* 00, 1–19. <https://doi.org/10.1080/14620316.2021.1877201> [IF:1.641]
16. Ghosh, D., Brahmachari, K., Brestic, M., Ondrisik, P., Hossain, A., Skalicky, M., **Sarkar, S.**, Moulick, D., Dinda, N.K., Das, A., Pramanick, B., Maitra, S., Bell, R.W., 2020. Integrated Weed and Nutrient Management Improve Yield, Nutrient Uptake and Economics of Maize in the Rice-Maize Cropping System of Eastern India. *Agronomy* 10, 1906. <https://doi.org/10.3390/agronomy10121906> [IF:3.417]
17. Mondal, M., Skalicky, M., Garai, S., Hossain, A., **Sarkar, S.**, Banerjee, H., Kundu, R., Brestic, M., Barutcular, C., Erman, M., EL Sabagh, A., Laing, A.M., 2020. Supplementing Nitrogen in Combination with Rhizobium Inoculation and Soil Mulch in Peanut (*Arachis hypogaea* L.) Production System: Part II. Effect on Phenology, Growth, Yield Attributes, Pod Quality, Profitability and Nitrogen Use Efficiency. *Agronomy* 10, 1513. <https://doi.org/10.3390/agronomy10101513> [IF:3.417]
18. Mondal, M., Skalicky, M., Garai, S., Hossain, A., **Sarkar, S.**, Banerjee, H., Kundu, R., Brestic, M., Barutcular, C., Erman, M., EL Sabagh, A., Laing, A.M., 2020. Supplementing Nitrogen in Combination with Rhizobium Inoculation and Soil Mulch in Peanut (*Arachis hypogaea* L.) Production System: Part I. Effects on Productivity, Soil Moisture, and Nutrient Dynamics. *Agronomy* 10, 1582. <https://doi.org/10.3390/agronomy10101582> [IF:3.417]
19. Ray, K., Banerjee, H., Dutta, S., **Sarkar, S.**, Murrell, T.S., Singh, V.K., Majumdar, K., 2020. Macronutrient Management Effects on Nutrient Accumulation, Partitioning, Remobilization, and Yield of Hybrid Maize Cultivars. *Front. Plant Sci.* 11, 1–19. <https://doi.org/10.3389/fpls.2020.01307> [IF:5.753]

20. **Sarkar, S.**, Ghosh, A., Brahmachari, K., Ray, K., Nanda, M.K., Sarkar, D., 2020. Weather relation of rice-grass pea crop sequence in Indian Sundarbans. *J. Agrometeorol.* 22, 148–157. [IF:0.64]
21. Mainuddin, M., Maniruzzaman, M., Gaydon, D.S., **Sarkar, S.**, Rahman, M.A., Sarangi, S.K., Sarker, K.K., Kirby, J.M., 2020. A water and salt balance model for the polders and islands in the Ganges delta. *J. Hydrol.* 587, 125008. <https://doi.org/10.1016/j.jhydrol.2020.125008> [IF:5.722]
22. **Sarkar, S.**, Ghosh, A., Brahmachari, K., Ray, K., Nanda, M.K., 2020. Assessing the Yield Response of Lentil (*Lens culinaris* Medikus) as Influenced by Different Sowing Dates and Land Situations in Indian Sundarbans. *Legum. Res.* 1–8. <https://doi.org/10.18805/LR-4237> [IF:0.34]
23. Ghosh, D., Brahmachari, K., Skalicky, M., Hossain, A., **Sarkar, S.** et al. 2020. Nutrients Supplementation through Organic Manures Influence the Growth of Weeds and Maize Productivity. *Molecules* 25, 1–19. <https://doi.org/10.3390/molecules25214924> [IF: 4.412]
24. Ray, K., Sen, P., Goswami, R., **Sarkar, S.**, Brahmachari, K., Ghosh, A., Nanda, M.K., Mainuddin, M., 2020. Profitability, energetics and GHGs emission estimation from rice-based cropping systems in the coastal saline zone of West Bengal, India. *PLoS One* 15, e0233303. <https://doi.org/10.1371/journal.pone.0233303> [IF:4.412]
25. **Sarkar, S.**, Skalicky, M., Hossain, A., Brestic, M., Saha, S., Garai, S., Ray, K., Brahmachari, K., 2020. Management of Crop Residues for Improving Input Use Efficiency and Agricultural Sustainability. *Sustainability* 12, 9808. <https://doi.org/10.3390/su12239808> [IF:3.251]
26. Samui, I., Skalicky, M., **Sarkar, S.**, Brahmachari, K., Sau, S., Ray, K., Hossain, A., Ghosh, A., Nanda, M.K., 2020. Yield Response, Nutritional Quality and Water Productivity of Tomato (*Solanum lycopersicum* L.) are Influenced by Drip Irrigation and Straw Mulch in the Coastal Saline Ecosystem of Ganges Delta, India. *Sustain.* 12, 6779. <https://doi.org/10.3390/su12176779> [IF:3.251]
27. Roy, D., Bhattacharjee, T., Biswas, A., Ghosh, A., **Sarkar, S.**, Mondal, D., Sarkar, P.K., 2019. Resistance monitoring for conventional and new chemistry insecticides on *Bemisia tabaci* genetic group Asia-I in major vegetable crops from India. *Phytoparasitica* 47, 55–66. <https://doi.org/10.1007/s12600-018-00707-w> [IF:1.439]
28. Ray, K., Banerjee, H., Bhattacharyya, K., Dutta, S., Phonglosa, A., Pari, A., **Sarkar, S.**, 2018. Site-specific nutrient management for maize hybrids in an Inceptisol of West Bengal, India. *Exp. Agric.* 54, 874–887. <https://doi.org/10.1017/S001447971700045X> [IF:2.118]
29. Banerjee, H., Das, T.K., Ray, K., Laha, A., **Sarkar, S.**, Pal, S., 2018. Herbicide ready-mixes effects on weed control efficacy, non-target and residual toxicities, productivity and profitability in sugarcane–green gram cropping system. *Int. J. Pest Manag.* 64, 221–229. <https://doi.org/10.1080/09670874.2017.1384594> [IF:1.907]
30. **Sarkar, S.**, Banerjee, H., Chakraborty, I., Sau, S., Ray, K., Ghosh, D., Deb, P., 2018. Assessment of growth, yield, tuber quality and profitability of potato upon boron fertilization. *J. Environ. Biol.* 39, 365–372. <https://doi.org/10.22438/jeb/39/3/MRN-610> [IF:0.56]
31. **Sarkar, S.**, Banerjee, H., Ray, K., Ghosh, D., 2018. Boron fertilization effects in processing grade potato on an Inceptisol of West Bengal, India. *J. Plant Nutr.* 41, 1456–1470. <https://doi.org/10.1080/01904167.2018.1457685> [IF:1.707]
32. Sau, S., Ghosh, S.N., **Sarkar, S.**, Gantait, S., 2018. Effect of rootstocks on growth, yield, quality, and leaf mineral composition of Nagpur mandarin (*Citrus reticulata* Blanco.), grown in red lateritic soil of West Bengal, India. *Sci. Hortic. (Amsterdam)*. 237, 142–147. <https://doi.org/10.1016/j.scienta.2018.04.015> [IF: 3.463]

33. Rana, L., Banerjee, H., Dutta, S.K., Ray, K., Majumdar, K., **Sarkar, S.**, 2017. Management practices of macronutrients for potato for smallholder farming system at alluvial soil (Entisols) of India. Arch. Agron. Soil Sci. 63, 1963–1976. <https://doi.org/10.1080/03650340.2017.1317922> [IF:3.092]

Publications in refereed Non-SCI Journals

1. Rana, L., Banerjee, H., Mazumdar, D., **Sarkar, S.**, Ray, K., Garai, S., Nayek, J., & Kumar, M. (2021). Determination of Principal Yield Attributing Traits of Hybrid Maize (*Zea mays* L.) Using Multivariate Analysis. International Journal of Bio-Resource and Stress Management, 12(5), 594–602. <https://doi.org/10.23910/1.2021.2366>
2. Rana, L., Banerjee, H., Mazumdar, D., Ray, K., **Sarkar, S.**, Garai, S., Nayak, J., 2020. Response of maize (*Zea mays*) hybrids to spatio-temporal variation in planting. Indian J. Agron. 65, 290–296. [NAAS: 5.46]
3. Goswami, S., Mondal, R., Puste, A.M., **Sarkar, S.**, Banerjee, H., Jana, K., 2020. Influence of irrigation and tillage management on growth, yield and water-use efficiency of wheat (*Triticum aestivum*) in Gangetic plains in West Bengal. Indian J. Agron. 65, 47–52. [NAAS: 5.46]
4. Garai, S., Brahmachari, K., **Sarkar, S.**, Kundu, R., Pal, M., Pramanick, B., 2019. Crop Growth and Productivity of Rainy Maize-garden Pea Copping Sequence as Influenced by Kappaphycus and Gracilaria Saps at Alluvial Soil of West Bengal, India. Curr. J. Appl. Sci. Technol. 36, 1–11. <https://doi.org/10.9734/cjast/2019/v36i230227> [NAAS: 5.32]
5. Banerjee, H., **Sarkar, S.**, Pal, S., Bandopadhyay, P., Rana, L., Samanta, S., 2019. Differential growth and yield response of hybrid rice (*Oryza sativa* L.) to seasonal variability. Indian J. Agric. Res. 53, 62–66. <https://doi.org/10.18805/IJARE.A-4972> [NAAS: 4.86]
6. Alipatra, A., Banerjee, H., Bhattacharyya, K., Bandopadhyay, P., Mazumdar, D., **Sarkar, S.**, 2019. Productivity, nutrient uptake and profitability of hybrid sunflower (*Helianthus annuus*) as influenced by irrigation and fertilizer-management practices under sub-tropical climate of West Bengal. Indian J. Agron. 64, 107–114. [NAAS: 5.46]
7. Banerjee, H., Garai, S., **Sarkar, S.**, Ghosh, D., Samanta, S., Mahato, M., 2019. Efficacy of herbicides against canary grass and wild oat in wheat and their residual effects on succeeding greengram in coastal Bengal. Indian J. Weed Sci. 51, 246. <https://doi.org/10.5958/0974-8164.2019.00052.2> [NAAS: 5.17]
8. Sau, S., Pal, B., **Sarkar, S.**, Sarkar, T., 2019. Influence of Seed Priming on Germination and Seedling Vigour of Wood Apple (*Feronia limonia* Swingle). Int. J. Bio-resource Stress Manag. 10, 128–136. <https://doi.org/10.23910/IJBMSM/2019.10.2.1967> [NAAS: 4.65]
9. Brahmachari, K., **Sarkar, S.**, Santra, D.K., Maitra, S., 2019. Millet for Food and Nutritional Security in Drought Prone and Red Laterite Region of Eastern India. Int. J. Plant Soil Sci. 26, 1–7. <https://doi.org/10.9734/ijpss/2018/v26i630062> [NAAS: 4.77]
10. Mainuddin, M., Rahman, M.A., Maniruzzaman, M., Sarker, K.K., Mandal, U.K., Nanda, M.K., Gaydon, D.S., Sarangi, S.K., **Sarkar, S.**, Yu, Y., Islam, M.T., Kirby, M., 2019. The Water and Salt Balance of Polders / Islands in the Ganges Delta. J. Indian Soc. Coast. Agric. Res. 37, 45–50. [NAAS: 4.00]
11. Ray, K., Brahmachari, M., Goswami, R., **Sarkar, S.**, Brahmachari, K., Ghosh, A., Nanda, M.K., 2019. Adoption of Improved Technologies for Cropping Intensification in the Coastal Zone of West Bengal, India: A Village Level Study for Impact Assessment. J. Indian Soc. Coast. Agric. Res. 37, 144–152. [NAAS: 4.00]
12. **Sarkar, S.**, Samui, I., Brahmachari, K., Ray, K., Ghosh, A., 2019. Management Practices for Utera Pulses in Rice-fallow System under Coastal Saline Zone of West Bengal. J. Indian Soc. Coast. Agric. Res. 37, 98–103. [NAAS: 4.00]

13. Ghosh, A., Nanda, M.K., Sarkar, D., **Sarkar, S.**, Brahmachari, K., Ray, K., 2019. Application of Multi-dated Sentinel-2 Imageries to Assess the Cropping System in Gosaba Island of Indian Sundarbans. *J. Indian Soc. Coast. Agric. Res.* 37, 32–44. [NAAS: 4.00]
14. Ghosh, K., **Sarkar, S.**, Brahmachari, K., Porel, S., 2018. Standardizing Row Spacing of Vetiver for River Bank Stabilization of Lower Ganges. *Curr. J. Appl. Sci. Technol.* 26, 1–12. <https://doi.org/10.9734/CJAST/2018/39328> [NAAS: 5.32]
15. Sau, S., **Sarkar, S.**, Ghosh, B., Ray, K., Deb, P., Ghosh, D., 2018. Effect of Foliar Application of B, Zn and Cu on Yield, Quality and Economics of Rainy Season Guava Cultivation. *Curr. J. Appl. Sci. Technol.* 28, 1–10. <https://doi.org/10.9734/CJAST/2018/42131> [NAAS: 4.00]
16. Roy, D., Sarkar, P.K., **Sarkar, S.**, 2018. Field efficacy, non-target toxicity and economics of novel systemic molecules against *Lipaphis erysimi* K. and its seasonal incidence in mustard. *Indian J. Entomol.* 80, 217. <https://doi.org/10.5958/0974-8172.2018.00036.6> [NAAS: 5.89]
17. Sau, S., Datta, P., Sarkar, T., **Sarkar, S.**, 2018. Impact of Low Doses of Gamma Irradiation on Off-Season Guava at Ambient Storage Condition. *Int. J. Curr. Microbiol. Appl. Sci.* 7, 295–307. <https://doi.org/10.20546/ijcmas.2018.701.032> [NAAS: 5.38]
18. **Sarkar, S.**, Banerjee, H., Sengupta, K., 2018. Agronomic fortification of zinc in potato production in Indian context: A review. *J. Appl. Nat. Sci.* 10, 1037–1045. <https://doi.org/10.31018/jans.v10i3.1863> [NAAS: 4.84]
19. **Sarkar, S.**, Banerjee, H., Chakraborty, I., Sau, S., Ray, K., Ghosh, D., Deb, P., 2018. Assessment of growth, yield, tuber quality and profitability of potato upon boron fertilization. *J. Environ. Biol.* 39, 365–372. <https://doi.org/10.22438/jeb/39/3/MRN-610> [IF:0.56, NAAS: 6.56]
20. Sardar, S., Sengupta, K., **Sarkar, S.**, Roy, D.C., Patra, B.C., 2018. Performance of Rice Hybrids In Eastern Gangetic Alluvial Zone Of West Bengal, INDIA. *J. Exp. Biol. Agric. Sci.* 6, 959–656. [https://doi.org/10.18006/2018.6\(6\).959.965](https://doi.org/10.18006/2018.6(6).959.965) [NAAS: 5.07]
21. Banerjee, H., Samanta, S., Dutta, A., **Sarkar, S.**, Garai, S., 2018. Selection of Rapeseed-mustard Varieties in Coastal Region of West Bengal: A Way Forward to Rice-fallow Intensification. *J. Indian Soc. Coast. Agric. Res.* 36, 54–63. [NAAS: 4.00]
22. Banerjee, H., Samanta, S., **Sarkar, S.**, Garai, S., Pal, S., Brahmachari, K., 2018. Growth, Productivity and Nutrient Uptake of Different Rice Cultivars under Coastal Eco-System of West Bengal. *J. Indian Soc. Coast. Agric. Res.* 36, 115–121. [NAAS: 4.00]
23. Roy, D., **Sarkar, S.**, Sardar, S., Sengupta, K., 2017. Effect of nutrient management on the incidence of major insect and disease pests in rice-mustard cropping system. *Int. J. Chem. Stud.* 5, 1408–1412. [NAAS: 5.31]
24. Ghosh, S., **Sarkar, S.**, Sau, S., Karmakar, S., Brahmachari, K., 2017. Influence of Guava (*Psidium guajava* L.) based Intercropping Systems on Soil Health and Productivity in Alluvial Soil of West Bengal. *Int. J. Curr. Microbiol. Appl. Sci.* 6, 241–251. <https://doi.org/10.20546/ijcmas.2017.611.029> [NAAS: 5.38]
25. Banerjee, H., **Sarkar, S.**, Deb, P., Chakraborty, I., Sau, S., Ray, K., 2017. Zinc Fertilization in Potato: A Physiological and Bio-chemical Study. *Int. J. Plant Soil Sci.* 16, 1–13. <https://doi.org/10.9734/IJPSS/2017/33844> [NAAS: 4.77]
26. Rana, L., Banerjee, H., Ray, K., **Sarkar, S.**, 2017. System of wheat intensification (SWI) – A new approach for increasing wheat yield in small holder farming system. *J. Appl. Nat. Sci.* 9, 1453–1464. [NAAS: 4.84]
27. Banerjee, H., Chatterjee, S., **Sarkar, S.**, Gantait, S., 2017. Evaluation of rapeseed - mustard cultivars under late sown condition in coastal ecosystem of West Bengal. *J. Appl. Nat. Sci.* 9, 940–949. [NAAS: 4.84]

28. Majumder, I., Sau, S., Ghosh, B., Kundu, S., Roy, D., **Sarkar, S.**, 2017. Response of growth regulators and micronutrients on yield and physico - chemical quality of Ber (*Zizyphus mauritiana* Lamk) cv . BAU Kul - 1. J. Appl. Nat. Sci. 9, 2404–2409. [NAAS: 4.84]
29. Ghosh, D., **Sarkar, S.**, Brahmachari, K., Garai, S., Pal, M., Sharma, A., 2017. Potassium schoenite: an emerging source of potassium for improving growth, yield and quality of potato. J. Exp. Biol. Agric. Sci. 5, 173–182. [https://doi.org/10.18006/2017.5\(2\).173.182](https://doi.org/10.18006/2017.5(2).173.182) [NAAS: 5.07]
30. Sau, S., **Sarkar, S.**, Das, A., Saha, S., Datta, P., 2017. Space and time utilization in horticulture based cropping system: an income doubling approach from same piece of land. J. Pharmacogn. Phytochem. 6, 619–624. [NAAS: 5.21]
31. Sau, S., Chandra, B., Viswavidyalaya, K., Sarkar, T., 2017. Effect of Modified and Active Packaging on Shelf Life and Quality of Banana Cv . Grand Naine Aging on Shelf Life Active PA Quality. The Bioscan 12, 95–100. [NAAS: 5.26]
32. Banerjee, H., **Sarkar, S.**, Ray, K., Rana, L., Chakraborty, A., 2016. Integrated nutrient management in potato based cropping system in alluvial soil of West Bengal. Ann. Plant Soil Res. 18, 8–13. [NAAS: 4.39]
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Books

1. Satyam, S., Mukhopadhyay, P., **Sarkar, S.** 2015. *Study of Available NPK and Potassium Fixing Capacity of Soils of Bihar*. LAP LAMBERT Academic Publishing. Germany. ISBN: 978-3-659-75116-5

2. **Sarkar, S.** *Rice Biology and System of Rice Intensification (SRI)*. 2014. LAP LAMBERT Academic Publishing. Germany. ISBN: 978-3-659-62382-0
3. Sengupta, K., **Sarkar, S.**, Banerjee, M. and Banerjee, P. (2021) MCQ's on Agronomy. New India Publishing Agency. ISBN: 978-93-89751-95-0

Book Chapters

1. Sau, S., Roy, D., Ghosh, B., Majumder, I., Kundu, S., & **Sarkar, S.** 2018. Fruit Setting, Yield and Economics of Ber (*Zizyphus mauritiana* Lamk) cv. 'Bau Kul-1' to the Exposure of Growth Regulators and Micronutrients. In *Sustainable Horticulture*, Volume 1 (pp. 365-374). Apple Academic Press.
2. Banerjee, H., **Sarkar, S.**, Ray, K., Rana, L. and Garai, S. 2018. Processing Quality and Value Addition in Potato. In: *Recent Trends & Advances in Food Science & Post Harvest Technology* (Chakraborty et. al Eds). Satish Serial Publishing House. New Delhi, pp. 87-107. ISBN 978-93-88020-53-4
3. **Sarkar S.**, Hossain A., Saha S., Samui I., Sau S., Meena R.S. (2021) Carbon and Nitrogen Footprints Management for Environmental and Food Security. In: Banerjee A., Meena R.S., Jhariya M.K., Yadav D.K. (eds) *Agroecological Footprints Management for Sustainable Food System*. Springer, Singapore. https://doi.org/10.1007/978-981-15-9496-0_4
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5. Moullick D., **Sarkar, S.**, Awasti, J.P., Ghosh, D., Choudhury, S., Tata, S.K., Brahmachari, K., Santra, S.C. (2020) Rice Grain Quality Traits: Neglected or Less Addressed? In: Roychoudhury A. (eds) *Rice Research for Quality Improvement: Genomics and Genetic Engineering*. Springer, Singapore. https://doi.org/10.1007/978-981-15-4120-9_29
6. **Sarkar, S.**, Ghosh, A., Brahmachari, K., 2020. Application of APSIM Model for Assessing the Complexities of Rice-based Cropping Systems of South-Asia, in: Maitra, S., Pramanick, B. (Eds.), *Advanced Agriculture*. New Delhi Publishers, New Delhi, pp. 212–233. <https://doi.org/10.30954/NDP-advagr.2020.11>
7. Hossain, A., **Sarkar, S.**, Rahman, M.A., Bhatt, R., Garai, S., Saha, S., Islam, M.T., Meena, R.S., 2021. Ecological Intensification for Sustainable Agriculture in South Asia, in: *Ecological Intensification of Natural Resources for Sustainable Agriculture*. Springer Singapore, Singapore, pp. 171–213. https://doi.org/10.1007/978-981-33-4203-3_6
8. Hossain, A., Mottaleb, K.A., Maitra, S., Mitra, B., Alam, M., Ahmed, S., Islam, M., Sarkr, K.K., **Sarkar, S.**, Chaki, A.K. and Hoque, M.A. (2021) Conservation Agriculture Improves Soil Health: Major Research Findings from Bangladesh. In: Jayaraman S., Dalal R.C., Patra A.K., Chaudhari S.K. (eds) *Conservation Agriculture: A Sustainable Approach for Soil Health and Food Security*. Springer, Singapore. https://doi.org/10.1007/978-981-16-0827-8_26
9. Hossain, A., Mottaleb, K.A., Maitra, S., Mitra, B., Ahmed, S., **Sarkar, S.**, Chaki, A.K. and Laing, A.M., 2021. Conservation Agriculture: Next-Generation, Climate Resilient Crop Management Practices for Food Security and Environmental Health. In: Jayaraman S., Dalal R.C., Patra A.K., Chaudhari S.K. (eds) *Conservation Agriculture: A Sustainable Approach for Soil Health and Food Security*. Springer, Singapore. https://doi.org/10.1007/978-981-16-0827-8_28
10. Hossain, A., Bhatt, R., **Sarkar, S.**, Barman, M., Majumder, D., Saha, S., Islam, M. T., Maitra, S., & Meena, R. S. (2021). Cost-Effective and Eco-Friendly Agricultural Technologies in Rice-Wheat Cropping Systems for Food and Environmental Security. In *Sustainable Intensification for Agroecosystem Services and Management* (pp. 69–96). Springer Singapore. https://doi.org/10.1007/978-981-16-3207-5_3
11. Garai, S., Mondal, M., Nayak, J., Sarkar, S., Banerjee, H., Brahmachari, K., & Hossain, A. (2021). Input Use Efficiency for Improving Soil Fertility and Productivity. In *Input Use Efficiency*

Other publications

Popular Article: 15

Technical Bulletin: 02

Paper presented in International / National Symposiums

International

1. **International Symposium on Next Generation Approaches for Sustainable Development of Hill and Upland Horticulture**, Gangtok, Sikkim. Sikkim University, Sikkim, Gangtok on 5th – 7th November 2015. **Paper title:** Performance of hill potato cultivars under varied N levels in trans-gangetic plains of West Bengal: An assessment of productivity, energetic, GHG emission and profitability.
2. **International Symposium on “Eco-Efficiency in Agriculture & Allied Research”**, organized by Crop and Weed Science Society, Bidhan Chandra Krishi Viswavidyalaya on 20th – 23rd, January 2017. **Paper title:** Boron fertilization impacts on yield and processing quality of potato (cv. Kufri Chipsona-3) tuber.
3. **International Tropical Agriculture Conference (TropAg2019)** at Brisbane Convention and Exhibition Centre, Australia from 11-13th November 2019). **Paper title:** Modelling yield and seasonal soil salinity dynamics in Rice-Grasspea cropping system for the Coastal Saline Zone of West Bengal, India

National

1. **National Seminar on “Innovative Farming for Food and Livelihood Security in changing climate”** organized by Innovative Farming, Society for Advancement of Agricultural Innovation (SAAI) and AICRP on STCRC, Bidhan Chandra Krishi Viswavidyalaya, Mohanpur on 12th-13th January 2018. **Paper title:** Feasibility of Vetiver as a bioengineering tool for riverbank stabilization of Ganges basin.
2. **National Seminar on “Nutrients and pollutants in soil-plant-animal-human continuum for sustaining soil, food and nutritional security – way forward”** organized by Bidhan Chandra Krishi Viswavidyalaya, Mohanpur on 9th-10th June 2017. **Paper title:** Dry matter accumulation, nutrient partitioning and yield of crops as influenced by date of sowing and land situation in rice-pulse based cropping systems of coastal West Bengal.
3. **West Bengal Science and Technology Congress - 2016**. Presidency University, Kolkata. Organized by Department of Science and Technology, Government of West Bengal on 28th -29th February 2016. **Paper title:** Evaluation of herbicides for weed control in spring-planted sugarcane (*Saccharum officinarum* L.) And residual effect on greengram (*Vigna radiata* L.) In eastern India.
4. **National Symposium on Sustainable Agriculture for Food Security and Better Environment**. Organized by Dept. of Agronomy. Bidhan Chandra Krishi Viswavidyalaya on 17th -18th December 2015. **Paper title:** Response of potato (*Solanum tuberosum* L.) to zinc fertilization in trans-Gangetic plains of West Bengal.
5. **National Seminar on Soil Health: Key to Sustainable Agriculture (SHKSA)** organized by Visva Bharati University on 14th -15th November 2015. **Paper title:** Ferti-fortification with zinc in potato (*Solanum tuberosum* L.) cultivation in alluvial soil of West Bengal.
6. **National Seminar on Soil Health Management and Food Security** organized by Indian Society of Soil Science on 8th -10th October 2015. **Paper title:** Influence of climate change and heavy metal on the plant-microbe interactions.

Training/workshop/congress participated

1. Training on “**Introduction to Electromagnetic Induction Techniques for Soil Salinity Investigations**” in Khulna, 12th -14th February 2018. Ava Centre, Khulna, Bangladesh

Mass-media

- TV Live talk: 04 (Durodarshan Kolkata in Krishidarshan programme)
- Radio talk: 01 (Akashvani Murshidabad)

Academic membership

1. **Life member of *Society for Fertilizer and Environment***, 16, Ellora Road, Kolkata- 700075, West Bengal, India.
2. **Life member of *Indian Society of Coastal Agriculture Research***, ICAR-CSSRI, Canning Town West Bengal, India.
3. **Life member of *Indian Society of Agronomy***, Division of Agronomy, Pusa, New Delhi, Delhi 110012, India.

Google Scholar

<https://scholar.google.co.in/citations?user=46v-V-EAAAAJ&hl=en>

All	Citation
Citations	659
h-index	14
i10-index	23

ResearchGate

https://www.researchgate.net/profile/Sukamal_Sarkar3

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