PUBLICATION REPORT

Dr. Tanmoy Sarkar
Assistant Professor
School of Agriculture
Swami Vivekananda University

Research Paper:

1. Sau, S., Sarkar, S., Sarkar, T., & Ghosh, B. (2016). Influential role of Biozyme on yield, leaf nutrient and quality of guava (Psidium guajava L.) cv. *Allahabad safeda. Bioscan, Suppl. Agron*, *11*(4), 2679-2682.
2. Sarkar, T., Sarkar, S., Sarkar, T., Sau, S. (2016). Growth and yield attributes of guava (Psidium guajava L.) varieties under West Bengal condition. *International Journal of Agriculture Sciences, ISSN*, 0975-3710.
3. Sarkar, T., Sau, S., Joshi, V., Sarkar, T., & Sarkar, S. (2017). Effect of modified and active packging on shelf life and quality of banana cv. *Grand nine. Bioscan*, *12*, 95-100.
4. Sarkar, T., Dewangan, R., Kumar, S., Choudhary, S. M., & Sarkar, S. K. (2017). Impact of global warming on fruit crops in india. *Innov Farm*, *2*, 148-153.
5. Sau, S., Datta, P., Sarkar, T., & Sarkar, S. (2018). Impact of low doses of gamma irradiation on off-season guava at ambient storage condition. *International Journal of Current Microbiology and Applied Sciences*, *7*(1), 295-307.
6. Sarkar, T., Sarkar, S. K., & Vangaru, S. (2018). Effect of sucrose and boric acid on in-vitro pollen germination of guava (Psidium guajava) varieties. *Advances Research*, *15*, 1-9.
7. Sau, S., Pal, B., Sarkar, S., & Sarkar, T. (2019). Influence of seed priming on germination and seedling vigour of wood apple (Feronia limonia Swingle). *International Journal of Bio-resource and Stress Management*, *10*(Apr, 2), 128-136.
8. Sarkar, T., & Sarkar, S. K. (2022). Pollination characteristics and intervarietal hybridization of Psidium guavaja. *Journal of Crop and Weed*. 18(1): 96-103
9. Sarkar, T., & Sarkar, S. K. (2022). Genetic diversity analysis of guava (Psidium guajava L) genotypes in West Bengal, India. *Journal of Applied Horticulture*, *24*(3), 381-387.

10. Sarkar, T., Sengupta, S., Kundu, S., & Das, K. (2023). Vegetative Multiplication Of Psidium Guajava L. Through Stem Cutting. *Journal of Survey in Fisheries Sciences*, 10(1S), 754-7056
11. Mondal, T., Layek, S., Sarkar, T., Roy, S., Mohanta, R., & Bauri, F. K. (2023). Morpho-Physicochemical Studies Of Kusum (Schleichera Oleosa (Lour.) Oken): A Potential Multipurpose Tree Species. *Journal of Survey in Fisheries Sciences*, *10*(1S), 6984-6986.
12. Layek, S., Mondal, T., Mohanta, R., Roy, S., Sarkar, T., & Majhi, D. (2023). Physico-Chemical Properties Of Star Gooseberry (Phyllanthus Acidus) Fruits Grown In New Alluvial Zone Of West Bengal. *Journal of Survey in Fisheries Sciences*, *10*(1S), 751-753.
13. Das, K., Dutta, P., & Sarkar, T. (2023). Studies On Different Planting System Cum High Density Planting In Litchi Cv. Bombai For Plant Vigour, Fruit Yield And Quality Under New Alluvial Zone Of West Bengal. *Journal of Survey in Fisheries Sciences*, *10*(1S), 6996-7003.
14. Mondal, T., Sarkar, T., Alam, M., Sarkar, S. K., Rathod, K. H., & Bauri, F. K. (2023). Effect of foliar application of micronutrients on plant growth, yield and fruit quality of Thai guava (Psidium guajava L.). Journal of Crop and Weed, 19(1): 88-94

Review article:

1. Adak, E., Halder, S., Koley, B., Biswas, S., **Sengupta, S.**, Kundu, S., & Sarkar, T. (2024). An Overview of the Importance of Biochar in Sustainable Agriculture. *Journal of Advances in Biology & Biotechnology*, *27*(6), 924-937
2. Pallabi Chatterjee, Tuhina Khatun, Mouparna Maji, Krishnendu Roy, Rakesh Das, Tanmoy Sarkar. (2024). Snails and slugs: A new threat to crop cultivation. Int J Res Agron 7(4):306-312. DOI: 10.33545/2618060X.2024.v7.i4e.567
3. Shreya Modak, Priya Ghosh, Supratim Mandal, Debasma Sasmal, Suprabuddha Kundu, **Sudip Sengupta**, Sahely Kanthal, Tanmoy Sarkar. (2024). Organophosphate Pesticide: Environmental impact and toxicity to organisms. *Int J Res Agron* 7(4S):138-141. DOI: 10.33545/2618060X.2024.v7.i4Sb.566
4. Supratim Mandal, Debasma, Sasmal, Shreya Modak, Priya Ghosh, Suprabuddha Kundu, **Sudip Sengupta**, Sahely Kanthal, Tanmoy Sarkar. (2024). Agroforestry: socio-economic impact and future aspect. *Int J Res Agron*. 7(4S):131-137. DOI: 10.33545/2618060X.2024.v7.i4Sb.565
5. Biresh Koley, Sonai Halder, Soumyajit Biswas, Emili Adak, **Sudip Sengupta**, Suprabuddha Kundu, Tanmoy Sarkar. (2024). Site specific

nutrient management: An overview. *Int J Res Agron* 7(4S):117-126. DOI: 10.33545/2618060X.2024.v7.i4Sb.563

6. Tanmoy Mondal, Tanmoy Sarkar, **Sudip Sengupta**, Suprabuddha Kundu. (2024). Nutritional and pharmacological aspects of Trapa natans: An underutilized boon crop of West Bengal. *Int J Res Agron* 7(4):69-72. DOI: 10.33545/2618060X.2024.v7.i4b.522
7. Akram Gazi, Ani Maity, Nabanita Khatua, Sudip Sengupta, Suprabuddha Kundu, Tanmoy Sarkar. (2024). Effect of vermicompost on soil quality and crop productivity. Int J Agric Extension Social Dev 7(4S):13-23. DOI: 10.33545/26180723.2024.v7.i4Sa.517
8. Ankan Bakshi, Rimita Dutta, Suprabuddha Kundu, Sudip Sengupta, Sahely Kanthal, Tanmoy Sarkar. (2024). Prospect of nano-fertilizers in agriculture: An overview. Int J Agric Extension Social Dev 7(4S):08-12. DOI: 10.33545/26180723.2024.v7.i4Sa.516
9. Rimita Dutta, Ankan Bakshi, Suprabuddha Kundu, Sudip Sengupta, Sahely Kanthal, Tanmoy Sarkar. (2024).Exploring the progress and techniques of cultivating oyster mushrooms: A comprehensive review. Int J Agric Extension Social Dev 7(4):138-143. DOI: 10.33545/26180723.2024.v7.i4b.511
10. Vibhor Raj, Sudip Sengupta, Suprabuddha Kundu, Tanmoy Sarkar. (2024). Advance agriculture system using artificial intelligence: Way towards future farming. Int J Agric Extension Social Dev;7(4):31-34. DOI: 10.33545/26180723.2024.v7.i4a.498
11. Krishnendu Roy, Kazi Nazimul Haque, Kousik Samanta, Rabindranath Acharya, Sahely Kanthal, Suprabuddha Kundu, Tanmoy Sarkar, **Sudip Sengupta**. (2024). Biological nitrogen fixation: Reducing the N footprints of the environment. *Int J Adv Biochem Res* 8(4S):133-137. DOI: 10.33545/26174693.2024.v8.i4Sb.936
12. Dipa Sanyal Aritra Malik, Rachita Paul, Tanmoy Sarkar. (2024). Rambai (Baccaurea sapida): A prospective lesser-known fruit with the potential to uplift the socio-economic conditions of rural communities in West Bengal. Int J Adv Biochem Res 8(4):113-115. DOI: 10.33545/26174693.2024.v8.i4b.934
13. Rachita Paul, Dipa Sanyal, Aritra Malik, Tanmoy Sarkar. (2024). Emerging postharvest technologies to enhance the shelf-life of horticultural crops: An overview. Int J Adv Biochem Res 2024;8(4):49-54. DOI: 10.33545/26174693.2024.v8.i4a.907
14. Aritra Malik, Dipa Sanyal, Rachita Paul, Tanmoy Sarkar. (2024). A comparative statement on sustainable development of horticulture in West

Bengal (India): Climate change and food security. Int J Adv Biochem Res 2024;8(4):44-48. DOI: 10.33545/26174693.2024.v8.i4a.906

Book chapter

1. Sarkar, T., & Mani, A. (2018). Maturity Indices Of Tropical And Sub-Tropical Fruit Crops. In book: Trends & Prospects in Post Harvest Management of horticultural cropsPublisher: Today & Tomorrow's Printers and Publishers
2. Roy, A., Mani, A., Roy, P., & Sarkar, T. (2019). Advances in Post Harvest Management of Lentil (Lens culinaris Medik). *Recent Trends and Advances in Food Science and Postharvest Technology*, 43-49.
3. Sarkar, T., Roy, A., Choudhary, S. M., & Sarkar, S. K. (2021). Impact of climate change and adaptation strategies for fruit crops. In *India: Climate Change Impacts, Mitigation and Adaptation in Developing Countries* (pp. 79-98). Cham: Springer International Publishing.
4. Sarkar, T., **Sengupta, S.**, Kanthal, S., & Kundu, S. (2024). Climate Change Mitigation Through Agro-Forestry Improves Natural Resource and Livelihood Security. In *Agroforestry to Combat Global Challenges: Current Prospects and Future Challenges* (pp. 219-246). Singapore: Springer Nature Singapore

Books

1. Sarkar, T., Kundu, S., Sengupta, S., & Chatterjee, A. (2023). Modern Facets of Agriculture in India. Published by Swami Vivekananda University, India. ISBN: 978-93-5967-754-5
2. Sarkar, T., Kanthal, S., Bhattacharya, P., & Mukhopadhyay, R. (2024). Emerging Trends in Sustainable Agriculture. Published by Swami Vivekananda University, India. ISBN: 978-93-3400-372-7
3. Sarkar, T., Das, R., Majhi, T, & Bhowmick S. (2024). Resource Conservation: A way to foster the crop production, Published by Swami Vivekananda University, India. ISBN: 978-93-340-3456-1
4. Sarkar, T., Sengupta, S., & Chatterjee, A. (2024). Innovations and Challenges in Modern Agriculture, Published by Integrated Publications, New Delhi. ISBN: 978-93-5834-874-3. https://doi.org/10.62778/int.book.460
5. Sarkar, T., Sengupta, S (2024). Harvesting Tomorrow Innovations Redefining Agriculture. , Published by AkiNik Publication, New Delhi. 978-93-6135-113-6. https://doi.org/10.22271/ed.book.2965
6. Sarkar, T., Sengupta, S (2024). Agriculture Re-imagined: Innovations and Strategies for Sustainable Growth. Published by- Bright Sky Publications, New Delhi. ISBN: 978-93-6233-556-2. https://doi.org/10.62906/bs.book.198

Patents published:

1. Tanmoy Sarkar, Vibhor Raj, Sudip Sengupta, Abhishek Dhar, Saurabh Adhikari, Subhranil Som. Patent applied on “From Fields to Future: 4-Wheel Drive Robots are Reshaping Agriculture” (Application No. 202431003636, Published on 09/02/2024)
2. Tanmoy Sarkar, Vibhor Raj, Sudip Sengupta, Suprabuddha Kundu, Abhishek Dhar, Saurabh Adhikari, Subhranil Som. Patent applied on “Grow Sense Plant Support System” (Application No. 202431029282, Published on 26/04/2024)
3. Tanmoy Sarkar, Vibhor Raj, Sudip Sengupta, Abhishek Dhar, Saurabh Adhikari, Subhranil Som. Patent applied on “Thermo Guard Agri Sprayer” (Application No. 202431029002, Published on 19/04/2024)
4. Tanmoy Sarkar, Vibhor Raj, Sudip Sengupta, Abhishek Dhar, Saurabh Adhikari, Subhranil Som. Patent applied on “Exploring Wireless Charging technologies for smartphones” (Application No. 202431002798, Published on 02/02/2024)
5. Tanmoy Sarkar, Vibhor Raj, Sudip Sengupta, Abhishek Dhar, Saurabh Adhikari, Subhranil Som. Patent applied on “Automated Water Control of Biofloc” (Application No. 202331059046, Published on 29/09/2023)
6. Tanmoy Sarkar, Vibhor Raj, Abhishek Dhar, Saurabh Adhikari, Subhranil Som. Patent applied on “Energy Shoes” (Application No. 202331056637, Published on 29/09/2023)
7. Tanmoy Sarkar, Vibhor Raj, Abhishek Dhar, Saurabh Adhikari, Subhranil Som. Patent applied on “Paper Spray Bulb Camera” (Application No. 202331056069, Published on 29/09/2023)
8. Tanmoy Sarkar, Vibhor Raj, Abhishek Dhar, Saurabh Adhikari, Subhranil Som. Patent applied on “Voice Control Hydroponics and With Hydropower” (Application No. 202331056696, Published on 29/09/2023)
9. Tanmoy Sarkar, Vibhor Raj, Abhishek Dhar, Saurabh Adhikari, Subhranil Som. Patent applied on “Agri Solar Weight Trollyr” (Application No. 202331055691, Published on 08/09/2023)
10. Tanmoy Sarkar, Vibhor Raj, Sudip Sengupta, Abhishek Dhar, Saurabh Adhikari, Subhranil Som. Patent applied on “Turning Tap Water Into Electricity: A Green Solution” (Application No. 202431002783, Published on 02/02/2024)
11. Tanmoy Sarkar, Vibhor Raj, Suprabuddha Kundu, Abhishek Dhar, Saurabh Adhikari, Subhranil Som. Patent applied on “Artificial Ran Technology: A Game Changer in Agriculture” (Application No. 202431022672, Published on 12/04/2024)
12. Tanmoy Sarkar, Vibhor Raj, Abhishek Dhar, Saurabh Adhikari, Subhranil Som. Patent applied on “Eco Flow Irrigation” (Application No. 202431024196, Published on 05/04/2024)

13. Tanmoy Sarkar, Vibhor Raj, Abhishek Dhar, Saurabh Adhikari, Subhranil Som. Patent applied on “Nutri Waste Home Liquid Fertilizer Maker” (Application No. 202431027755, Published on 19/04/2024)
14. Tanmoy Sarkar, Vibhor Raj, Sudip Sengupta, Abhishek Dhar, Saurabh Adhikari, Subhranil Som. Patent applied on “Revolutionizing Agriculture: Vermicompost Innovations (Application No. 202431028475, Published on 19/04/2024)
15. Tanmoy Sarkar, Vibhor Raj, Abhishek Dhar, Saurabh Adhikari, Subhranil Som. Patent applied on “Pest Guard Pro-Air” (Application No. 202431028478, Published on 19/04/2024)
16. Tanmoy Sarkar, Vibhor Raj, Abhishek Dhar, Saurabh Adhikari, Subhranil Som. Patent applied on “Smart Flora Hub” (Application No. 202431028486 A, Published on 19/04/2024)
17. Tanmoy Sarkar, Vibhor Raj, Abhishek Dhar, Saurabh Adhikari, Subhranil Som. Patent applied on “Sustainable Spin Blade Weeder” (Application No. 202431029001 A, Published on 19/04/2024)