Publication Report

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Research Articles:

1. Gantait S, Kundu S, Ali MN, Sahu NC (2015) Synthetic seed production of medicinal plants: a review on influence of explants, encapsulation agent and matrix. Acta Physiologiae Plantarum, 37:98 (Springer; https://doi.org/10.1007/s11738- 015-1847-2)

2. Gantait S, Kundu S, Ali MN (2015) Influence of encapsulating agent and matrix levels on synseeds production of Bacopa monnieri (L.) Pennell. Medicinal Plants-International Journal of Phytomedicines and Related Industries, 7(3):182-187 (http://dx.doi.org/10.5958/0975-6892.2015.00026.X)

3. Gantait S, Kundu S, Wani SH, Das PK (2016) Cryopreservation of forest tree seeds: a mini-review. Journal of Forest and Environmental Science, 32(3):311-322 (http://dx.doi.org/10.7747/JFES.2016.32.3.311)

4. Gantait S, Kundu S, Yeasmin L, Ali MN (2017) Impact of differential levels of sodium alginate, calcium chloride and basal media on germination frequency of genetically true artificial seeds of Rauvolfia serpentina (L .) Benth. ex Kurz. Journal of Applied Research on Medicinal and Aromatic Plants, 4:75– 81(Elsevier; http://dx.doi.org/10.1016/j.jarmap.2017.01.005)

5. Salma U, Kundu S, Mandal N (2017) Artificial polyploidy in medicinal plants: Advancement in the last two decades and impending prospects. Journal of Crop Science and Biotechnology, 20(1):9-19 (Springer; https://doi.org/10.1007/s12892-016-0080-1)

6. Kundu S, Gantait S (2017) Abscisic acid signal crosstalk during abiotic stress response. Plant Gene, 11(Part B): 61-69 (Elsevier; http://dx.doi.org/10.1016/j.plgene.2017.04.007)

7. Kundu S, Salma U, Ali MN, Mandal N (2017) Factors influencing large-scale micropropagation of Sphagneticola calendulacea (L.) Pruski and clonality assessment using RAPD and ISSR markers. In Vitro Cellular and Developmental Biology – Plant, 53(3):167-177 (Springer; https://doi.org/10.1007/s11627-017-9824-7)

8. Salma U, Kundu S, Gupta SK (2017) New records of mites occurring on medicinal plants and bio-efficacy of green pesticides for management of Tetranychus ludeni Zacher on Rauwolfia serpentina (L.) Benth. ex Kurz. Pesticide Research Journal, 29(1): 60-67

9. Gantait S, Kundu S (2017) Neoteric trends in tissue culture- mediated biotechnology of Indian ipecac [Tylophora indica (Burm. f.) Merrill]. 3 Biotech, 7(3):231(Springer; https://doi.org/10.1007/s13205-017-0865-8)

10. Gantait S, Kundu S (2017) In vitro biotechnological approaches on Vanilla planifolia Andrews: advancements and opportunities. Acta Physiologiae Plantarum, 39(9):196 (Springer; https://doi.org/10.1007/s11738-017-2462-1)

11. Gantait S, Kundu S (2017) Does synthetic seed storage at higher temperature reduce reserpine content of Rauvolfia serpentina (L.) Benth. ex Kurz.? Rendiconti Lincei, 28(4):679-686 (Springer; https://doi.org/10.1007/s12210-017-0637-8)

12. Salma U, Kundu S, Ali MN, Mandal N (2017) An efficient micropropagation protocol for Eclipta alba (L.) Hassk.: an endangered, medicinally important plant. Journal of Crop and Weed, 13(3):49-54

13. Kundu S, Salma U, Sutradhar M, Mandal N (2017) An update on the medicinal uses, phytochemistry and pharmacology of Leucas Aspera, a medicinally important species. International Journal of Agriculture Innovations and Research, 6(4):39-44

14. Kundu S, Salma U, Ali MN, Mandal N (2018) Conservation, ex vitro direct regeneration and genetic uniformity assessment of alginate- encapsulated nodal cuttings of Sphagneticola calendulacea (L.) Pruski. Acta Physiologiae Plantarum, 40(3):53 (Springer; https:// doi.org/10.1007/s11738-018-2633-8)

15. Gantait S, Kundu S, Das PK (2018) Acacia: An exclusive survey on in vitro propagation. Journal of the Saudi Society of Agricultural Sciences. 17(2):163–177 (Elsevier; https://doi.org/10.1016/j.jssas. 2016.03.004)

16. Salma U, Kundu S, Ali MN, Mandal N (2018) Augmentation of wedelolactone through in vitro tetraploid induction in Eclipta alba (L.) Hassk. Plant Cell Tissue and Organ Culture, 133(2):289–298 (Springer; https://doi.org/10.1007/s11240-018-1381-1)

17. Kundu S, Salma U, Ali MN, Mandal N (2018) Induction of transgenic hairy roots and augmentation of wedelolactone biosynthesis by precursor feeding in Sphagneticola calendulacea (L.) Pruski. Industrial Crops and Products, 121:206-215 (Elsevier; https://doi.org/10.1016/j.indcrop.2018.05.009)

18. Salma U, Kundu S, Ali MN, Mandal N (2018) Elicitor mediated enhancement of wedelolactone in cell suspension culture of Eclipta alba (L.) Hassk. Plant Cell Tissue and Organ Culture, 134(3):409–421 (Springer; https://doi.org/10.1007/s11240-018- 1431-8)

19. Singh AK, Meetei NT, Kundu S, Salma U, Mandal N (2018) Impact of micrografting on absolute eradication of Closterovirus from Khasi mandarin using three diverse indigenous rootstocks and its authentication through RT-PCR and ELISA. In Vitro Cellular and Developmental Biology – Plant, 55, 180-189 (Springer; https://doi.org/10.1007/s11627-018-9946-6)

20. Kundu S, Salma U, Ali MN, Mandal N (2018) In vitro tetraploidization for the augmentation of wedelolactone, an anti-cancerous metabolite in Sphagneticola calendulacea (L.) Pruski. Acta Physiologiae Plantarum, 40(12):215 (Springer; https://doi.org/ 10.1007/s11738-018-2786-5)

21. Salma U, Kundu S, Ali MN, Mandal N (2019) Somatic embryogenesis-mediated plant regeneration of Eclipta alba (L.) Hassk. and its conservation through synthetic seed technology. Acta Physiologiae Plantarum, 41(6): 103 (Springer; https://doi.org/10.1007/s11738-019-2898-6)

22. Mukherjee E, Gantait S, Kundu S, Sarkar S, Bhattacharyya S (2019) Biotechnological interventions on the genus Rauvolfia: recent trends and imminent prospects. Applied Microbiology and Biotechnology, 103(18):7325-7354.(Springer; https://doi.org/10.1007/s00253-019-10035-6)

23. Kisku P, Sahu S, Salma U, Sinha Ray S, Saha P, Kundu S, Ali MN (2020) Encapsulation-dehydration based cryopreservation of Rauwolfia shoot tips and their regeneration potential in vitro. Journal of Crop and Weed, 16(1): 82-87

24. Salma U, Giri D, Sinha MK, Kundu S (2023) Ethyl methanesulfonate-mediated mutants of Bitter Gourd (meghna-2): a popular landrace of West Bengal. *Survey in Fishery Sciences*, 10(1S): 6889-6894

25. Sarkar M, Kundu S, Salma U, Mandal N (2023) In vitro tetraploidization towards enhancement of charantin biosynthesis in Momordica charantia (L.). Survey in Fishery Sciences, 10(1S): 6895-6902

26. 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

27. Mondal T, Sarkar T, Sengupta S, Kundu S (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

28. Modak S, Ghosh P, Mandal S, Sasmal D, Kundu S, Sengupta S, Kanthal S, Sarkar T (2024) Organophosphate Pesticide: Environmental impact and toxicity to organisms. Int J Res Agron 2024, 7(4S): 138-141. DOI: 10.33545/2618060X.2024.v7.i4Sb.566

29. Mandal S, Sasmal D, Modak S, Ghosh P, Kundu S, Sengupta S, Kanthal S, Sarkar T (2024) Agroforestry: socio-economic impact and future aspect. Int J Res Agron, 7(4S):131-137. DOI: 10.33545/2618060X.2024.v7.i4Sb.565

30. Koley B, Halder S, Biswas S, Adak E, Sengupta S, Kundu S, Sarkar T (2024) Site specific nutrient management: An overview. Int J Res Agron, 7(4S):117-126. DOI: 10.33545/2618060X.2024.v7.i4Sb.563

31. Gazi A, Maity A, Khatua N, Sengupta S, Kundu S, Sarkar T (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

32. Bakshi A, Dutta R, Kundu S, Sengupta S, Kanthal S, Sarkar T (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

33. Dutta R, Bakshi A, Kundu S, Sengupta S, Kanthal S, Sarkar T (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

34. Raj V, Sengupta S, Kundu S, Sarkar T (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

35. Roy K, Haque K N, Samanta K, Acharya R, Kanthal S, Kundu S, Sarkar T, Sengupta S (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

36. Salma U, Kundu S, Mandal N, Giri D, Sinha M K (2024) Thidiazuron-mediated in vitro clonal propagation of banana cultivar Grand Naine. International Journal of Agriculture Extension and Social Development, 7(4):88-91. DOI: https://doi.org/10.33545/26180723.2024.v7.i4Sb.533

37. 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. DOI: https://doi.org/10.9734/jabb/2024/v27i6956

Book

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

Book Chapter

1. Salma U, Kundu S, Gantait S (2017) Phytochemistry and pharmaceutical significance of Picrorhiza kurroa Royle ex Benth. In: Mahdi AA, Abid M, Abid Ali Khan MM (eds.) Phytochemistry and Pharmacology of Medicinal Herbs. Lenin Media Pvt. Ltd., New Delhi (India), pp. 26-37
2. Gantait S, Kundu S, Salma U (2017) Pavonia odorata: Botany, conventional applications, phytochemistry and pharmacology. In: Mahdi AA, Sharma YK, Abid M, Abid Ali Khan MM (eds.) Biochemistry and Therapeutic Uses of Medicinal Plants. Discovery Publishing House Pvt. Ltd., New Delhi (India), pp. 220-231
3. Gantait S, Kundu S (2017) Artificial seed technology for storage and exchange of plant genetic resources. In: CP Malik, SH Wani, HB Kushwaha, R Kaur (eds.) Advanced Technologies for Crop Improvement and Agricultural Productivity. Agrobios (International), Jodhpur (India), pp. 135-159
4. Kundu S, Gantait S (2018) Thidiazuron-induced protocorm-like bodies in Orchid: progress and prospects. In: N Ahmad, M Faisal (eds.), Thidiazuron: From Urea Derivative to Plant Growth Regulator, Springer, Singapore, pp. 273- 287
5. Salma U, Kundu S, Gantait S (2018) Conserving biodiversity of a potent anticancer plant, Catharanthus roseus through in vitro biotechnological intercessions: substantial progress and imminent prospects. In: Akhtar M, Swamy M (eds.) Anticancer Plants: Natural Products and Biotechnological Implements. Springer, Singapore, pp. 83-107

6. Kundu S, Gantait S (2018) Fundamental facets of somatic embryogenesis and its applications for advancement of peanut biotechnology. In: Gosal S, Wani S (eds.) Biotechnologies of Crop Improvement, Volume 1, Springer, Cham, pp. 267-298
7. Kundu S, Salma U, Gantait S (2018) Cryopreservation of medicinal herbs: Major breakthroughs, hurdles and future. In: Kumar N (eds.) Biotechnological Approaches for Medicinal and Aromatic Plants. Springer, Singapore, pp. 353-381
8. Kundu S, Sutradhar M, Salma U (2019) Synthetic seed technology in forest trees: A promising technology for conservation and germplasm exchange. In: Faisal M, Alatar A (eds.) Synthetic Seeds. Springer, Switzerland, pp. 241-258
9. Kundu S (2023) Enhancing the Production of Secondary Metabolites in Medicinal Plants via Hairy Root Culture Using Agrobacterium rhizogenes, Modern Facets of Agriculture in India. Published by Swami Vivekananda University, India. ISBN: 978-93-5967-754-5, Page 72-79
10. Sarkar T, Sengupta S, Kanthal S, Kundu S (2024) Climate Change Mitigation Through Agro-Forestry Improves Natural Resource and Livelihood Security. In: Jatav HS, Rajput VD, Minkina T, Van Hullebusch ED, Dutta A (eds) Agroforestry to Combat Global Challenges. Sustainable Development and Biodiversity, vol 36. Springer, Singapore. https://doi.org/10.1007/978-981-99-7282-1_12
11. Kundu S (2024) Biotechnological Strategies to Ameliorate the Secondary, Metabolites in Medicinal Plants, Emerging Trends in Sustainable Agriculture, Published by Swami Vivekananda University, India. ISBN: 978-93-340-0372-7, Page 48-55
12. Kundu S, Salma U (2024) Resource conservation a way to foster the crop production, Cryopreservation- the future to conserve genetic resources, Published by Swami Vivekananda University, India. ISBN: 978-93-304-3456-1, Page 79-90

Patents

1. 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)

Conference Paper

1. Kundu S, Gantait S (2017) Impact of Storage temperature on reserpine content of synthetic seed-germinated Rauvolfia plantlets. International symposium on Eco–Efficiency in Agriculture & Allied Research; Crop and Weed Science Society (CWSS), Bidhan Chandra Krishi Viswavidyalaya, West Bengal, India.

2. Kundu S (2016) Micropropagation of medicinal herbs of West Bengal. National seminar on Bio prospecting and potentiality of medicinal plants in human welfare and

economic uplift in West Bengal, Ramakrishna Mission Vivekananda University, Narendrapur, West Bengal, India.

3. Kundu S, Gantait S (2015) Impact of encapsulating agent, matrix levels and media formulations on artificial seed production of Rauwolfia serpentina (L.) Benth. ex Kurz. National conference on Bioresources Management for Sustenance of Ecosystem and Livelihood, Uttar Banga Krishi Viswavidyalaya, West Bengal, India.

Popular Article

1. Umme Salma, Poulomi Sen, Suprabuddha Kundu, Avishek Chatterjee, Sanchari Roy and Jayita Hore (2023) Use of Plant Biotechnology in Agriculture. JustAgriculture. Vol. 3 Issue-8, Page 540

2. Poulomi Sen, Umme Salma, Avishek Chatterjee, Suprabuddha Kundu, Jayita Hore and Sanchari Roy (2023) Application of CRISPR/Cas9 Genome Editing Technology in Modern Agriculture. JustAgriculture Vol. 3 Issue-6, page 6-8

3. Poulomi Sen, Umme Salma, Avishek Chatterjee, Suprabuddha Kundu and Jayita Hore (2023) TALENs: Strategy and application in modern agriculture. Indian Farmer, Vol. 10 (03);125-129