

## PUBLICATIONS 2021

### 9.1 Papers in Research Journal

#### 9.1.1 International/ National (NAAS rating more than 6)

- Adhikari T, Dharmarajan R, Lamb D, Zhang H (2021). Remediation of Frogmore Mine Spoiled Soil with Nano Enhanced Materials. *Soil and Sediment Contamination: An International Journal*, DOI: 10.1080/15320383.2021.1950610. **(NAAS Rating 7.25)**
- Adhikari T, Gowda RC, WanjariRH, Singh M (2021). Impact of continuous fertilization on heavy metals content in soil and food grains under 25 years of long-term fertilizer experiment. *Communication in Soil Science and Plant Analysis* 52(04),389-405. (DOI: <https://doi.org/10.1080/00103624.2020.1854290>). **(NAAS Rating 6.77)**
- Adhikari T, Dharmarajan R (2021).Nanocontaminants in soil: emerging concerns and risks. *International Journal of Environmental Science and Technology* <https://doi.org/10.1007/s13762-021-03481-1>.**(NAAS Rating 8.54)**
- Aher SB, LakariaBL, Kaleshananda S, Singh AB (2021). Yield, Nutrient uptake and Economics of Soybean-wheat cropping system under organic nutrient management in Central India. *Journal of Plant Nutrition*45(6), 904-919. **(NAAS Rating: 7.13)**
- Behera SK, Shukla AK, Prakash C Tripathi A, Kumar A,Trivedi V (2021). Establishing management zones of soil sulphur and micronutrients for sustainable crop production. *Land Degradation & Development*32(13), 3614-3625. <https://doi.org/10.1002/ldr.3698>-(**NAAS Rating 9.78**)
- Behera SK, Shukla AK, Singh P, Trivedi V, Patra AK, Rao AS, Singh AK (2021). Zinc application enhances yield and alters micronutrients concentration in pigeonpea (*Cajanuscajan*L. Millsp.).*Nutrient Cycling in Agroecosystems* 119,423-443. <https://doi.org/10.1007/s10705-021-10133-w>-(**NAAS Rating 8.45**)
- Behera SK, Suresh K, Shukla AK, Kamireddy M, Mathur RK, Majumdar K (2021). Soil and leaf potassium, calcium and magnesium in oil palm (*Elaeisguineensis* Jacq.) plantations grown on three different soils of India: Status, stoichiometry and relations. *Industrial Crops and Products* 168, 113589. <https://doi.org/10.1016/j.indcrop.2021.113589>-(**NAAS Rating 10.24**)
- Bharati K, Parmar R, Vishwakarma A, Dubey G, Patra A, Chaudhari SK, Mohanty SR (2021). Nitrous oxide production from soybean and maize under the influence of weedicides and zero tillage conservation agriculture. *Journal of Hazardous Materials*, 402, p.123572.**(NAAS Rating 15.04)**
- Bhattacharjya S, Adhikari T, Sahu Asha, Patra AK (2021). Ecotoxicological effect of TiO<sub>2</sub> nano particles on different soil enzymes and microbial community. *Ecotoxicology*. <https://doi.org/10.1007/s10646-021-02398-2>.**(NAAS rating: 8.82)**
- Bhattacharjya S, Sahu A, Phalke DH, Manna MC, Thakur JK, Mandal A, Tripathi AK, Sheoran P, Choudhary M, Bhowmick A, Rahman MM, Naidu R, Patra AK (2021). In situ decomposition of crop residues using lignocellulolytic microbial consortia: a viable alternative to residue burning. *Environmental Science and Pollution Research*. <https://doi.org/10.1007/s11356-021-12611-8>.**(NAAS Rating: 9.06)**
- Biswas DR, Ghosh A, Ramachandran R, Basak BB, Bhattacharyya R, Biswas SS, Sarkar A, Moharana PC (2021). Decay kinetics of enzymes as influenced by manuring under varying hydrothermal regimes in a wheat–maize cropping system of subtropical Cambisols in India. *Journal of Soil Science and Plant Nutrition* 21, 908-921.**(NAAS Rating: 8.16)**
- Chitdeshwari TC, Jegadeeswari D, Kumar A,Shukla AK (2021). Boron fertilization improves growth, yield, boron uptake and quality of beetroot (*Beta vulgaris* L.). *Agrochimica* 65, 173-186. **(NAAS Rating 6.65)**
- Coumar MV, Parihar RS, Dwivedi AK, Saha JK, Rajendiran S, Lakaria BL, Patra AK (2021). Effects of Co-composting of Municipal Solid Waste and Pigeon Pea Biochar on Heavy Metal Mobility in Soil and Translocation to Leafy Vegetable Spinach. *Bulletin of Environmental Contamination and Toxicology* 106(12). DOI: 10.1007/s00128-020-03096-1. **(NAAS Rating 7.66)**
- Das S, Bhattacharyya R, Das TK, Sharma AR, Dwive BS, Biswas AK, Meena MC (2021). Soil quality indices in a Conservation agriculture-based rice-mustard cropping system in north-western Indo-Gangetic plains. *Soil and Tillage Research* 208,104914.( **NASS Rating 10.60**)

- Dhaliwal SS, Sharma S, Sharma V, Shukla AK, Walia SS, Alhomrani M, Gaber A, Toor AS, Verma V, Randhawa MK, Hossain A (2021). Long-term integrated nutrient management in the maize-wheat cropping system in alluvial soils of north-western India: influence on soil organic carbon, microbial activity and nutrient status. *Agronomy* 11, 2258. <https://doi.org/10.3390/agronomy11112258>.(NAAS Rating 8.60)
- Dhaliwal SS, Sharma S, Shukla AK, Sharma V, Bhullar MS, Dhaliwal TK, Alorabi M, Alotaibi SS, Gaber A, Hossain A(2021). Removal of biomass and nutrients by weeds and direct-seeded rice under conservation agriculture in light-textured soils of north-western India. *Plants* 10, 2431. <https://doi.org/10.3390/plants10112431>.(NAAS Rating 8.76)
- Dhaliwal SS, Sharma V, Shukla AK, Kaur J, Verma V, Singh P, Singh H, Abdel-Hafez SH, Sayed S, Gaber A, Ali R, Hossain A(2021). Enrichment of Zinc and Iron Micronutrients in Lentil (*Lens culinaris* Medik.) through Biofortification. *Molecules* 26,7671. <https://doi.org/10.3390/molecules26247671>.(NAAS Rating 9.27)
- Dhaliwal SS, Sharma V, Shukla AK, Verma V, Behera SK, Sandhu PS, Kaur K, Gaber A, Althobaiti YS, Abdelhadi AA, Hossain A (2021). Assessment of agroeconomic indicators of *Sesamum indicum* L. as influenced by application of boron at different levels and plant growth stages. *Molecules* 26, 6699. <https://doi.org/10.3390/molecules26216699>.(NAAS Rating 9.27)
- Dhaliwal SS, Sharma V, Shukla AK, Verma V, Behera SK, Singh P, Alotaibi SS, Gaber A, Hossain A (2021). Comparative efficiency of mineral, chelated and nano forms of zinc and iron for improvement of zinc and iron in Chickpea (*Cicer arietinum* L.) through biofortification. *Agronomy* 11, 2436. <https://doi.org/10.3390/agronomy111122436>.(NAAS Rating 8.60)
- Dhaliwal SS, Sharma V, Shukla AK, Verma V, Sandhu PS, Behera SK, Singh P, Kaur J, Singh H, Abdel-Hafez SH, Gaber A, Sayed S, Hossain A (2021). Interactive effects of foliar application of zinc, iron and nitrogen on productivity and nutritional quality of Indian mustard (*Brassicajuncea* L.). *Agronomy* 11(11),2333. <https://doi.org/10.3390/agronomy11112333>.(NAAS Rating 8.60)
- Garg KK, Jain D, Rajpurohit D, Kushwaha HS, Daima HK, Stephen BJ, Singh A, Mohanty SR (2021). Agricultural Significance of Silica Nanoparticles Synthesized from a Silica Solubilizing Bacteria. *Comments on Inorganic Chemistry*, 1-17. (NAAS Rating 10.82)
- Ghosh A, Singh AK, Madhab SK, Manna C, Jha P, BhattacharyyaR, Manjanagouda SS, SinghR, ChaudhariSK, Kumar RV (2021). Do moisture conservation practices influence stability of soil organic carbon and structure? *Catena*119, 105127. (NAAS Rating 10.33)
- Giridhar K, Gowda NK S, Pal DT, Krishnamoorthy P, Joseph RF, Dey DK, Shukla AK(2021). Feeding zinc biofortified sorghum stover decreases zinc deficiency in sheep. *Indian Journal of Animal Sciences* 91(4), 299–304.(NAAS Rating 6.28)
- Hati KM, Jha P, Dalal RC, Somasundaram J, DangaYP, KopittkePM, Kirchhof G, Menzies NW (2021). 50 years of continuous no-tillage, stubble retention and nitrogen fertilization enhanced macro-aggregate formation and stabilisation in a Vertisol. *Soil & Tillage Research* 214, 105163. (NAAS Rating 10.60)
- Hati KM, Sinha NK, Mohanty M, Jha P, Londhe S, SialA, TowettE, Chaudhary RS, Somasundaram J, Coumar MV, DhyaniSK, Biradar C, Rizvi J, Patra AK, Chaudhari SK (2022). Mid-Infrared Reflectance Spectroscopy for Estimation of Soil Properties of Alfisols from Eastern India. *Sustainability* 14, 4883. <https://doi.org/10.3390/su14094883>.(NAAS Rating 8.58)
- Jain D, Bhojiya AA, Chauhan S, Rajpurohit D, Mohanty SR(2021). Polyphasic characterization of plant growth promoting cellulose degrading bacteria isolated from organic manures. *Current Microbiology* 78(2), 739-748.(NAAS Rating 7.75)
- Jayraman S, Sinha NK, Mohanty M, Hati KM, Biswas AK, Chaudhary RS, Shukla AK (2021). Conservation tillage, residue management, and crop rotation effects on soil major and micro-nutrients in semi-arid vertisols of India. *Journal of Soil Science and Plant Nutrition* 21(1), 523-535.(NAAS Rating 8.16)

- Jha P, Hati KM, Dalal RC, Dang YP, Kopittke PM, McKenna BA, Menzies NW (2022). Effect of 50 years of no-tillage, stubble retention, and nitrogen fertilization on soil respiration, easily extractable glomalin, and nitrogen mineralization. *Agronomy* 12,151. <https://doi.org/10.3390/agronomy12010151>.(NAAS Rating 7.68)
- Jha P, Lakaria BL, Vishwakarma AK, Wanjari RH, Mohanty M, Biswas AK, Sinha NK (2021). Modeling the organic carbon dynamics in long-term fertilizer experiments of India using the Rathamsted carbon model. *Ecological Modelling* 450,109562. (NAAS Rating 8.50)
- Jhanji S, Shukla AK, Dhatt KK, Kumar P (2021). Road to successful floriculture through soil micronutrient mapping of different zones of India.*Indian Journal of Agricultural Sciences* 91 (5), 666–672.(NAAS Rating 6.21)
- Jinger D, Kumar R, Kakade V, Dinesh D, Singh G, Pande VC, Bhatnagar PR, RaoBK, Vishwakarma AK, Kumar D,Singhal V (2022). Agroforestry for controlling soil erosion and enhancing system productivity in ravine lands of Western India under climate change scenario.*Environmental Monitoring and Assessment*194, 267.<https://doi.org/10.1007/s10661-022-09910-z>. (NAAS Rating 7.90)
- Jorin B, Maluk M, Atoliya N, Kumar SC, Chalasani D, Tkacz A, Singh P, Basu A, Pullabhotla SV, Kumar M, Mohanty SR (2021). Genomic diversity of pigeon pea (*Cajanuscajan* L. Millsp.) endosymbionts in India and selection of potential strains for use as agricultural inoculants. *Frontiers in Plant Science*, 1848.(NAAS Rating 10.40)
- Khanam R, Hazra GC, Ghosh AB, Kulsum PG, Chatterjee N, Shukla AK(2021). Risk Assessment of Arsenic Toxicity Through Groundwater-Soil-Rice System in Maldah District, Bengal Delta Basin, India.*Archives of Environmental Contamination and Toxicology*81, 438–448.(NAAS Rating 8.40)
- Kumar D, Rizvi RH, Bhatt S, Singh R, Chaturvedi OP (2021). Land use/land cover change and soil fertility mapping using GIS and remote sensing: A case study of Parasai-Sindh watershed in Bundelkhand region of Central India. *Range Management and Agroforestry* 42(1),15-21. (NAAS Rating 6.28)
- Kumar P, Sharma M, Butail NP, Yadav S, Kumar P, Shukla AK (2021). Assessing the spatial variability of the soil properties in geologically complex Jawali region of north-west Himalaya,India.*International Journal of EnvironmentalAnalytical Chemistry*. <https://doi.org/10.1080/03067319.2021.1900146>.(NAAS Rating 7.43)
- Kumar S, Yadav DK, Sharma K, Yadav S, Vijaykumar L, Deeksha MG (2021). Screening of rice landraces and their morpho-biochemical basis of resistance against *Cnaphalocrocismedinalis*. *The Indian Journal of Agricultural Sciences* 91(3). (NAAS Rating 6.21) Volume No 91(3): 382-387
- Lakshmi PV, Singh SK, Pramanick B, Kumar M, Laik R, Kumari A, Shukla AK, Abdel Latef AA H, Ali OM,Hossain A(2021). Long-term zinc fertilization in calcareous soils improves wheat (*triticumestivum* l.) productivity and soil zinc status in the rice–wheat cropping system. *Agronomy* 11, 1306. <https://doi.org/10.3390/agronomy11071306>.(NAAS Rating 7.68)
- Lal N, Gupta AK, Marboh ES, Kumar A, Nath V(2021).Effect of mode of pollination on fruit set and fruit characteristics in litchi.*Erwerbs-Obstbau*63,227-23.(NAAS Rating 7.04)
- Lal N, Sahu N, Evening Stone Marboh, Gupta AK, Kumar A, Nath V (2021). Effect of Pollen Grain and Pollination Period on Fruit Set in Litchi (*Litchi chinensis*Sonn.). *National Accademy of Sciences Letter* 44(5), 461-464.(NAAs Rating 6.42)
- LenkaNK, Lenka S, Yashona DS, Shukla AK, Elanchezhian R, Dey P, Agrawal PK, Biswas AK, Patra AK (2021).Carbon dioxide and/or temperature elevation effect on yield response, nutrient partitioning and use efficiency of applied nitrogen in wheat crop in central India. *Field Crops Research* 264, 108084.(NAAS Rating 10.31)
- Lenka NK, Lenka S, Yashona DS,JatD (2021). Elevated temperature and low nitrogen partially offset the yield, evapotranspiration, and water use efficiency of winter wheat under carbon dioxide enrichment. *Agricultural Water Management* 250, 106856. (NAAS Rating 10.02)

- Lenka NK, Meena BP, Lal R, Khandagale A, Lenka S, Shirale AO (2022). Comparing four indexing approaches to define soil quality in an intensively cropped region of Northern India. *Frontiers in Environmental Sciences* 10, 865473. doi: 0.3389/fenvs.2022.865473. **(NAAS Rating 10.58)**
- Mangalasserya S, Nayak MG, Philip PS, Rupa TR, Behera SK, Srinivasan V (2021). Delineating the nutrient constraints and developing nutrient norms for cashew (*Anacardium occidentale* L.) in coastal India. *Journal of Plant Nutrition* 44(17), 2627-2639. <https://doi.org/10.1080/01904167.2021.1921198>. **(NAAS Rating 7.13)**
- Manorama K, Behera SK, Suresh K (2021). Establishing optimal nutrient norms in leaf and soil for oil palm in India. *Industrial Crops and Products* 174, 114223. <https://doi.org/10.1016/j.indcrop.2021.114223>. **(NAAS Rating 10.24)**
- Manorama K, Behera SK, Suresh K, Prasad MV, Mathur RK, Harinarayana P (2021). Mulching and technological interventions avoid land degradation in intensive oil palm (*Elaeisguineensis* Jacq.) production system. *Land Degradation & Development* 32(13), 3785-3797. <https://doi.org/10.1002/ldr.3886>. **(NAAS Rating 9.78)**
- Meena BP, Biswas AK, Singh M, Das H, Chaudhary RS, Singh AB, Shirale AO, Patra AK (2021). Energy budgeting and carbon footprint in long-term integrated nutrient management modules in a cereal- legume (*Zea mays* – *Cicer arietinum*) cropping system. *Journal of Cleaner Production* 314:1-13, 127900. **(NAAS Rating 13.25)**.
- Meena BP, Jha P, Ramesh K, Biswas AK, Elanchezhian R, Das H, Sathyaseelan N, Shirale AO, Patra AK (2021). Agronomic management based on multi-split topdressing increases grain yield and nitrogen use efficiency in rainfed maize in Vertisols of India. *Journal of Plant Nutrition*, DOI: 10.1080/01904167.2021.1998529. **(NAAS Rating 7.13)**
- Meena BP, Jha P, Ramesh K, Biswas AK, Elanchezhian R, Neenu S, Das H, Shirale AO, Patra AK (2021). Modified split application of nitrogen with biochar improved grain yield and nitrogen use efficiency in rainfed maize grown in Vertisols of India. *Journal of Plant Nutrition*. <https://doi.org/10.1101/2020.07.13.200345>. **(NAAS Rating 7.13)**
- Mohanty SR, Kumar A, Parmar R, Dubey G, Patra AK, Kollah B (2021). Do methanotrophs drive phosphorus mineralization in soil ecosystem?. *Canadian Journal of Microbiology*, 67(6), 464-475. **(NAAS Rating 7.79)**
- Moharana PC, Biswas DR, Ghosh A, Sarkar A (2020). Variability of crop residues determines solubilization and availability of phosphorus fractions during composting of rock phosphate enriched compost vis-à-vis ordinary compost. *Communications in Soil Science and Plant Analysis* 51(15), 2085-2101. **(NAAS Rating 6.77)**
- Nandi R, Mondal K, Singh KC, Saha M, Bandyopadhyay PK, Ghosh PK (2021). Yield-water relationships of lentil grown under different rice establishments in Lower Gangetic Plain of India. *Agricultural Water Management* 246, 106675. <https://doi.org/10.1016/j.agwat.2020.106675>. **(NAAS Rating 10.02)**
- Pratibha G, Shrinivas I, Biswas AK, Madhavi M, Indoria AK, Murthy K, Reddy S, Ch SR (2021). Weed shift and community diversity in conservation and conventional agriculture systems in pigeonpea-castor system under rainfed semi-arid tropics. *Soil and Tillage Research* 212, 105075. **(NAAS Rating 10.60)**
- Ramana S, Tripathi AK, Ajay, Singh AB, Bharti K, Sahu Asha, Rajput PS, Saha JK, Srivastava S, Dey P, Patra AK (2021). Potential of cotton for remediation of Cd-contaminated soils. *Environmental Monitoring and Assessment*. 193, 186. <https://doi.org/10.1007/s10661-021-08976-5>. **(NAAS rating: 7.90)**
- Ramana S, Tripathi AK, Bharti K, Singh AB, Ajay, Sahu A, Rajput PS, Dey P, Saha JK, Patra AK (2021). Tolerance of cotton to elevated levels of Pb and its potential for phytoremediation. *Environmental Science and Pollution Research*. <https://doi.org/10.1007/s11356-021-13067-6>. **(NAAS rating: 9.06)**
- Ramana S, Tripathi AK, Kumar A, Dey P, Saha JK, Patra AK (2021). Phytoremediation of Soils Contaminated with Cadmium by *Agave Americana*. *Journal of Natural Fibers*. <https://doi.org/10.1080/15440478.2020.1870642>. **(NAAS Rating 8.62)**

- Ramana S, Tripathi AK, Kumar Ajay, Dey P, Saha JK, Patra AK (2021). Evaluation of *Furcraea foetida* (L.) Haw. for phytoremediation of cadmium contaminated soils. *Environmental Science and Pollution Research*. <https://doi.org/10.1007/s11356-021-12534-4>. **(NAAS Rating: 9.06)**
- Renu S, Sarim KM, Singh DP, Sahu U, Bhoyar MS, Sahu A, Kaur B, Gupta A, Mandal A, Thakur JK, Manna MC, Saxena AK (2021). Deciphering cadmium (Cd) tolerance in newly isolated bacterial strain, *Ochrobactrum intermedium* BB12, and its role in alleviation of Cd stress in Spinach plant (*Spinacia oleracea* L.). *Frontiers in Microbiology* 4156. **(NAAS Rating 10.23)**
- Roy T, Biswas AK, Sarkar AO, Jha P, Sharma NK, Mishra PK, Patra AK (2021). Impact of Varied Levels of N, P, and S Stoichiometry on C Mineralization from three Contrasting Soils with or Without Wheat Straw Amendment: a Laboratory Study. *Journal of Soil Science and Plant Nutrition*. <https://doi.org/10.1007/s42729-021-00664-0>. **(NAAS Rating 8.16)**  
**Rating 7.90)**
- Saha M, Das M, Sarkar A (2021). Distinct nature of soil organic carbon pools and indices under nineteen years of rice-based crop diversification switched over from uncultivated land in eastern plateau region of India. *Soil and Tillage Research* 207, 104856. **(NAAS Rating 10.60)**
- Saha M, Sarkar A, Badyopadhyay PK, Nandi R, Singh KC (2021). Tillage and potassium management for improving yield, physiological, and biochemical responses of rainfed lentil under moisture stressed rice-fallow. *Journal of Soil Science and Plant Nutrition* 20, 2536–2551. **(NAAS Rating 8.16)**
- Sahu A, Singh SK, Sahu N, Manna MC, Patra AK (2021). Phytoextraction of cadmium by African marigold (*Tagetes erecta* L.) grown under cadmium contaminated soil inoculated with arbuscular mycorrhizal fungus, *Glomus mosseae*. *International Journal of Environment and Pollution*. 68(1/2), 59-71. **(NAAS Rating 6.54)**
- Sahu N, Reddy GP, Obi, Das B, Kumar N, Singh SK (2021). Assessment on spatial extent of arid and semi-arid climatic zones of India using GIS. *Journal of Agrometeorology* 23(2), 189-193. **(NAAS Rating 6.47)**
- Sarkar A, Biswas AK, Ghosh A, Jha P, Das M, Patra AK, Roy T, Saha M, Biswas SS, Biswas DR (2021). Moisture sensitivity alteration of soil organic carbon and nitrogen mineralization in Vertisol. *Indian Journal of Agricultural Sciences* 91(10), 26-30. **(NAAS Rating 6.21)**
- Sarkar A, Biswas DR, Datta SC, Dwivedi BS, Bhattacharyya R, Kumar R, Bandyopadhyay KK, Saha M, Chawla G, Saha JK and Patra AK (2021). Preparation of novel biodegradable starch/poly(vinyl alcohol)/bentonite grafted polymeric films for fertilizer encapsulation. *Carbohydrate Polymers* 259, 117679. **(NAAS Rating 13.18)**
- Sarkar A, Biswas DR, Datta SC, Dwivedi BS, Kumar R, Bandyopadhyay KK, Bhattacharyya R, Saha M, Biswas SS, Patra AK (2021). Double-boiled linseed and mustard oil-based formulations to prepare oil-coated controlled release fertilizers. *Indian Journal of Agricultural Sciences* 91(2), 310-4. **(NAAS Rating 6.21)**
- Sarkar A, Saha M, Saha JK, Coumar MV, Mandal A, Patra AK (2021). Comparative assessment of P adsorption, release kinetics, enzymatic activities of weathered fly ash amended texturally different soils. *International Journal of Environmental Sciences and Technology*. <https://doi.org/10.1007/s13762-021-03196-3>. **(NAAS Rating 8.54)**
- Shukla AK, Behera SK, Prakash C, Patra AK, Rao CS, Chaudhari SK, Das S, Singh AK, Green A (2021). Assessing multi-micronutrients deficiency in agricultural soils of India. *Sustainability* 13(16), 9136. <https://doi.org/10.3390/su13169136>. **(NAAS Rating 8.58)**
- Shukla AK, Behera SK, Prakash C, Tripathi AK, Patra AK, Dwivedi BS, Trivedi V, Rao CS, Chaudhari SK, Das S, Singh AK (2021). Deficiency of phyto-available sulphur, zinc, boron, iron, copper and manganese in soils of India. *Scientific Reports* 11, 19760. <https://doi.org/10.1038/s41598-021-99040-2>. **(NAAS Rating 10.00)**
- Shukla AK, Behera SK, Tripathi R, Prakash C, Nayak AK, Kumar PS, Chitdeshwari T, Kumar D, Nayak RK, Babu PS, Katkar RN, Subbarayappa CT, Moharana KC, Patra AK, Rao CS,

- Chaudhari SK, Rao AS, Singh AK, Das S (2021). Evaluation of spatial spreading of phyto-available sulphur and micronutrients in cultivated coastal soils. *PLoS ONE*16(10), e0258166. <https://doi.org/10.1371/journal.pone.0258166>. **(NAAS Rating 8.74)**
- Singh M, Babanna SK, Kumar D, Ragunandhan P, Dwivedi ID, Kumar A, Tewari RK, Chaturvedi OP, Dagar JC (2021). Valuation of fuelwood from agroforestry systems: a methodological perspective. *Agroforestry Systems* 95, 977-993. **(NAAS Rating 7.97)**
- Sinha NK, Mohanty M, Somasundaram J, Chaudhary RS, Patra H, Hati KM, Singh RP, Thakur JK, Kumar J, KumarDhiraj, Rani A, Singh AB, Bal SK, Reddy KS, Prabhakar M (2021). Maize productivity analysis in response to climate change under different nitrogen management strategies. *Journal of Agrometeorology* 23(3), 279-285. **(NAAS Rating 6.47)**
- Suresh K, Behera SK, Manorama K, Mathur RK (2021). Phenological stages and degree days of oil palm crosses grown under irrigation in tropical conditions. *Annals of Applied Biology* 178(1), 121-128. <https://doi.org/10.1111/aab.12641>. **(NAAS Rating 8.04)**
- Tripathi R, Majhi M, Sahu SG, Mohanty S, Moharana KC, Shahid Md, Swain CK, Lal B, Gautam P, Dash PK, Chatterjee D, Kumar A, Tripathy R, Bhattacharya B, Shukla AK, Nayak AK (2021). Modelling the spatial variation of methane and nitrous oxide emission from rice fields using DNDC model. *Journal of the Indian Society of Remote Sensing*. <https://doi.org/10.1007/s12524-021-01433-3>. **(NAAS Rating 7.00)**
- Yadav DK, Tripathi KP, Kaushik P, Rana Pankaj, Kamil VS, Khatri DD, Shakil NA (2021). "Microwave assisted synthesis, characterization and biological activities of ferrocenyl chalcones and their QSAR analysis: Part II". *Journal of Environmental Science and Health, Part B*, 56(1), 82-97. DOI:10.1080/03601234.2020.1838828. **(NAAS Rating 7.20)**
- Yadav DK, Tripathi KP, Kaushik P, Rana P, Kamil VS, Khatri D, Shakil NA (2021). Antinematic activity of ferrocenyl chalcones against *Meloidogyne incognita* infestation in tomato. *Indian Journal of Agricultural Sciences* 91(2), 305-9. **(NAAS Rating 6.21)**

#### **International/National (NAAS rating less than 6)/ other publications**

- Kumar J, Vashisth A, Sinha NK, Mohanty M, Rani A, Chaudhary RS (2021). Application of Ground-Based Remote Sensing in Identifying Biotic Stress: A Review. *Research Biotica*, 3(1): 28-32.
- Lal N, SinghAwtar, GuptaAK, Marbohes, Kumar A, NathV (2021). Vivipary in litchi (*Litchi chinensis*): new report. *Current Horticulture* 9(2): 70. **(NAAS Rating 4.53)**
- LalN, Pandey SK, NathV (2021). Assessment of Dwarf Genotypes in Litchi based on Trunk and leaf characteristics. *Journal of AgriSearch*, 8 (4):331-337. **(NAAS Rating 4.71)**
- Mallick P, Basak JS, Dutta A, Das H, Majumder A (2021). Construction of Two Level Balanced and Nearly Balanced Optimal Supersaturated Designs. *Journal of Indian Society Agricultural Statistics* 75(1), 63-73. **(NAAS Rating 5.51)**
- Shukla AK, Behera SK, Singh G (2021). Micronutrient fertilizers in Indian agriculture—product profile, availability, forecast and agronomic effectiveness. *Indian Journal of Fertilisers* 17 (4), 348-360. **(NAAS Rating 4.76)**
- Singh NR, KumarDhiraj, HandaAK, NRam, KaminiMP, NareshKumar, RamA, DevI, Bhatt BP, ChaturvediOP, Arunachalam A and Singh LN (2021). Land use effect on soil organic carbon stocks, microbial biomass and basal respiration in Bundelkhand region of central India. *Agricultural Research*. <https://doi.org/10.1007/s40003-021-00584-6>. **(NAAS Rating 5.20)**
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