

List of publications during the year 2020-21

1. Kumar R. Ranjeet, Kavita Dubey, Suneha Goswami, Sumedha Hasija, Rakesh Panday, Pradeep K. Singh, Bhupinder Singh, Sindhu Sareen, Gyanendra K. Rai, Gyanendra P. Singh, Ashok K. Singh, Viswanathan Chinnusamy and Shelly Praveen. (2020) Heterologous expression and characterization of novel manganese superoxide dismutase (Mn-SOD) – A potential marker for heat stress-tolerance in wheat (*Triticum aestivum*). International Journal of Biological Macromolecules. doi.org/10.1016/j.ijbiomac.2020.06.026. (NAAS rating: 11.16, I184)
2. Kumar Ranjeet Ranjan, Kirti Arora, Suneha Goswami, Akshay Sakhare, Bhupinder Singh, Viswanathan C. and Shelly Praveen. (2020) MAPK Enzyme: a ROS Activated Signalling Sensor Involved in Modulating Heat Stress Response, Tolerance and Grain Stability of Wheat under Heat stress. 3 Biotech. Doi.org/10.1007/s13205-020-02377-0. (NAAS rating: 8.45, not rated)
3. Sharma Priyanka, Poonam Yadav, Chirashree Ghosh and Bhupinder Singh. (2020) Heavy metal capture from the suspended particulate matter by morus alba and evidence of foliar uptake and translocation of PM associated zinc using radiotracer (^{65}Zn). Chemosphere 254:126863; doi 10.1016/j.chemosphere.2020.126863 (NAAS rating 11.78, C082)
4. Krishnan Veda, Raja Rani, Monika Awana, Durgeh Pitale, Ankur Kulshreshtha, Susheel Sharma, Haritha Bollinedi, Archana Singh, Bhupinder Singh, A. K. Singh and Shelly Praveen. (2020) Role of nutraceutical starch and proanthocyanidins of pigmented rice in regulating hyperglycemia: Enzyme inhibition, enhanced glucose uptake and hepatic glucose homeostasis using in vitro model. Food Chemistry 335: 127505, doi 10.1016/j.foodchem.2020.127505 (NAAS rating 12.31, F039)
5. Kumari Sweta, Om Prakash Gupta, Chandra Bhushan Mishra, Vinutha Timmegowda, veda Krishnan, Bhupinder Singh, Archana Sachdev and Anil Dahuja. (2020) Gamma irradiation, an effective strategy to control the oxidative damage of soy proteins during and processing. Radiation Physics Chemistry. 177: 109134. doi.org/10.1016/j.radphyschem.2020.109134. (NAAS rating 8.23, R005)
6. Kumar R. Ranjan, Suneha Goswami, Gyanendra K. Rai, Neelu Jain, Pradeep K. Singh, Dwijesh Mishra, Krishna K. Chatarvedi, Sanjeev Kumar, Bhupinder Singh, Gyanendra P. Singh, Anil K. Rai, Viswanathan Chinnusamy and Shelly Praveen. (2020) Protection from terminal heat stress: a trade- off between heat- responsive transcription factors (HSFs) and stress – associated genes (SAGs) under changing environment. Cereal Research Communications 49:227-234, doi .org/10.1007/s42976-020-00097 (NAAS rating 6.81, C059)
7. Dahuja Anil, Ranjeet R. Kumar, Akshay Sakhare, Archana Watts, Bhupinder Singh, Suneha Goswami, Archana Sachdev and Shelly Praveen. (2020) Role of ATP-binding cassette transporters in maintaining plant homeostasis under abiotic and biotic stresses. Physiologia Plantarum Doi1.11/ppl.13302 (NAAS rating: 10.15, P070)
8. Bhatia Arti, Usha Mina, Vinod Kumar, Ritu Tomar, Amit Kumar, Bidisha Chakrabarti, R. N. Singh and Bhupinder Singh. (2021) Effect of elevated ozone and carbon dioxide interaction on growth, yield, nutrient content and wilt disease severity in chickpea grown in Northern India. Heliyon 7 (1) e06049; Doi.org/10.1016/j.heliyon.2021.e06049. (NAAS rating 8.85, not listed)

9. Kumar R. Ranjeet, Kavita Dubey, Kirti Arora, Monika Dalal, Gyanendra K. Rai, Dwijesh Mishra, Krishna K. Chaturvedi, Anil Rai, Soora Naresh Kumar, Bhupinder Singh, Viswanathan Chinnusamy and Shelly Praveen. (2021) Characterizing the putative mitogen-activated protein kinase (MAPK) and their protective role in oxidative stress tolerance and carbon assimilation in wheat under terminal heat stress. *Biotechnology Reports* 29: e00597; [Doi.org/10.1016/j.btre.2021.e00597](https://doi.org/10.1016/j.btre.2021.e00597). (NAAS rating 10.98, not listed)
10. Yadav Achchhelal, Arti Bhatia, Sudesh Yadav, Archana Singh, Ritu Tomar, Ramesh Harit, Vinod Kumar and Bhupinder Singh (2020) Growth yield and quality of maize under ozone and carbon dioxide interaction. *Aerosol and Air Quality Research* 21: 200194 <https://doi.org/10.4209/aaqr.2020.05.0194> (NAAS rating 6.0; A075)
11. Bhawana Joshi, Anita Chaudhary Harjodh Singh and P. Anil. 2020. Prospective evaluation of plant growth promoting rhizobacteria in isolation and in consortium for alleviation of drought stress in rice (*Oryza sativa L.*). *Plant and Soil NAAS rating 9.58*
12. Anita Chaudhary, Sherry Bhalla, G.P.S. Raghava and Girish Sahni. 2021. Fermented functional food database for human health. *Heliyon. NAAS rating 7.8*
13. Ranjeet R Kumar, Kavita Dubey, Kirti Arora, Monika Dalal, Gyanender K Rai, Deijesh Mishra, Krishna K. Chaturvedi, Anil Rai, **Soora Naresh Kumar**, Bhupinder Singh, C. Viswanathan, Shelly Praveen 2021. Characterizing the putative mitogen-activated protein kinase (MAPK) and their protective role in oxidative stress tolerance and carbon assimilation in wheat under terminal heat stress. *Biotechnology Reports* Feb, 2021, e 00597 (NAAS rating 10.98).
14. Mohanty, M., Nishant K. Sinha, J. Somasundara, Sonali S. McDermid, Ashok K. Patraa, Muneshwar Singha, A.K. Dwivedic, K. Sammi Reddy, Ch. Srinivas Rao, M. Prabhakard, K.M. Hatia, P. Jhaa, R.K. Singha, R.S. Chaudharya, **Soora Naresh Kumar**, Prabhat Tripathia, Ram C. Dalalg, Donald S. Gaydong, S.K. Chaudhari (2020) Soil carbon sequestration potential in a Vertisol in central India—results from a 43-year long-term experiment and APSIM modeling. *Agricultural Systems*, 184 (2020) 102906, <https://doi.org/10.1016/j.agsy.2020.102906>. (NAAS 10.13)
15. Panjwani, S., **S. Naresh Kumar**, Laxmi Ahuja, 2020. Simulation performance of selected global and regional climate models for temperature and rainfall in some locations in India, *J. Agrometeorology*, 22 (4): 407-418, (NAAS rating 6.47).
16. M.K. Malav, **S. Prasad**, N. Jain, Dinesh Kumar, S. Kanajiya (2020). Effect of organic rice (*Oryza sativa*) cultivation on greenhouse gas emission. *Ind. J. Agri. Sci.* 90 (9): 1769-1775. [NAAS rating: 6.21]
17. S. Kumar, **S. Prasad**, M. Shrivastava, S. K. Kharia, G. K. Sharma (2020). Consumption pattern of selected vegetables at five sites in Delhi NCR region. *Ind. J. Agri. Sci.* 90 (8): 1593–98. [NAAS rating: 6.21]
18. S. Kumar, **S. Prasad**, M. Shrivastava, SK. Kharia, S. Yadav (2020). Survey methodology for heavy metals toxicity assessment, *Chemical Science Review & Letters* 9 (34): 516-523. [NAAS rating: 4.75]
19. A. Kumar, K.S. Rana, A.K. Choudhary, R.S. Bana, V.K. Sharma, **S. Prasad** et al. (2021). Energy budgeting and carbon footprints of zero-tilled pigeon pea-wheat cropping system under sole or dual crop basis residue mulching and Zn-fertilization in a semi-arid agro-ecology. *Energy* 231, 120862. [NAAS rating: 12.08]

20. **S. Prasad**, K.K. Yadav, S. Kumar, N. Gupta, S. Rezania, N. Radwan, J. Alam (2021). Chromium contamination and effect on environmental health and its remediation: A sustainable approaches, *Journal of Environmental Management* 285, 112174. [NAAS rating: 11.65]
21. T.G. Ambaye, M. Vaccari, A.B-Petriciolet, **S. Prasad**, Eric D van Hullebusch, Sami Rtimi (2021). Emerging technologies for biofuel production: A critical review on recent progress, challenges, and perspectives. *Journal of Environmental Management* 290, 112627[NAAS rating: 11.65]
22. **S. Prasad**, S. Kumar, K.K. Yadav, J. Choudhry, H. Kamyab, Q.V. Bach, K.R. Sheetal, S. Kannojiya, and N. Gupta (2020). Screening and evaluation of cellulolytic fungal strains for saccharification and bioethanol production from rice residue. *Energy*, 190, 116422. [NAAS rating: 12.08]
23. **S. Prasad**, A. Singh, N.E. Korres, , D. Rathore, S. Sevda, D. Pant (2020). Sustainable utilization of crop residues for energy generation: A Life Cycle Assessment (LCA) perspective. *Bioresource Technology*, 303, 122964. [NAAS rating: 13.54].
24. Debjani Sihi, Biswanath Dari, Zhengjuan Yan, Dinesh Kumar Sharma, Himanshu Pathak, Om Prakash Sharma and Lata Nain.2020. Assessment of Water Quality in Indo-Gangetic Plain of South-Eastern Asia under Organic vs. Conventional Rice Farming. *Water* 2 (4) 960-969. NAAS 9.2
25. Shenaz Rasheed,, P. Venkatesh, Dharam Raj Singh, V.R. Renjini, and.D.K. Sharma.2021. Valuation and eco-compensation for conservation of traditional paddy ecosystems and varieties in Kerala, India. *Ecosystem services*.49.101272. NAAS 11.4
26. O Kumar, N Jain, K Singh, N Ramawat, A Bhatia and D K Sharma.2020. Effect of different mitigation options on growth, productivity and economics of wheat (*Triticum aestivum*). *Indian Journal of Agricultural Sciences* 90 (10): 1964–68. NAAS 6.21
27. Kiran Karthik Raj, RN Pandey, Bhupinder Singh, DK Sharma, SK Lal and Ajin S Anil.2021. Adaptive strategies to minimize iron limiting stress under climate change scenario: A study pertinent to iron stress response of two soybean (*Glycine max* (L.) Merr.) Genotypes. *International Journal of Chemical Studies* 2021; 9(1): 625-63. NAAS 6.86
28. T Ghosh, P. P. Maity, T K Das, P Krishnan, A. Bhatia, M. Roy and D K Sharma.2020. Evaluation of different infiltration models under long term conservation agriculture practices. *Indian Journal of Agricultural Sciences* 90 (12): 2379–84. NAAS 6.21
29. T Ghosh, P. P. Maity, T K Das, P Krishnan, A. Bhatia, P.Bhattacharya And D K Sharma.2020. Variation of porosity, pore size distribution and soil physical properties under conservation agriculture. *Indian Journal of Agricultural Sciences* 90 (11): 2051–58. NAAS 6.21
30. Krishna D K, N V Kumbhare, D K. Sharma, Pramod Kumar and Arpan Bhowmik.2020. Facilitating Factors for a Successful Agri-tourism Venture: A Principal Component Analysis. *Indian Journal of Extension Education*.56 (2):18-21. NAAS 5.96
31. Krishna D K, N V Kumbhare, J.P Sharma, D.U.M. Rao, D K. Sharma, and Arpan Bhowmik.2020. Comparison of Expectation and Experience Values of Various Agri-tourism Aspects: A Multi-stakeholders' Analysis. *Journal of Community Mobilization and Sustainable Development*.15(1), 201-206.NAAS 5.67

32. Krishna, D. K., N. V. Kumbhare, J. P. Sharma, D. U. M. Rao, D. K. Sharma, Pramod Kumar and Arpan Bhowmik. 2020. Impact of Agritourism as Perceived by Multiple Stakeholders. *Int. J. Curr. Microbiol. App. Sci.* 9(7): 2499-2508. **NAAS 5.38**
33. **A Bhatia**, U Mina, V Kumar, R Tomer, A Kumar, B Chakrabarti, RN Singh, ... (2021) Effect of elevated ozone and carbon dioxide interaction on growth, yield, nutrient content and wilt disease severity in chickpea grown in Northern India, *Heliyon* 7 (1), e06049 (**NAAS 8.1**)
34. A Yadav, **A Bhatia**, S Yadav, A Singh, R Tomer, R Harit, V Kumar, B Singh (2021) Growth, Yield and Quality of Maize Under Ozone and Carbon Dioxide Interaction in North West India, *Aerosol and Air Quality Research*, <https://doi.org/10.4209/aaqr.2020.05.0194> (**NAAS 9.03**)
35. R Sándor, F Ehrhardt, P Grace, S Recous, P Smith, V Snow, JF Soussana, ... **A. Bhatia** et al., 2020, Ensemble modelling of carbon fluxes in grasslands and croplands, *Field Crops Research*, 252, 107791 (**NAAS 11.224**)
36. M Thakur, P Sharma, A Anand, VK Pandita, **A Bhatia**, S Pushkar, 2020, Raffinose and hexose sugar content during germination are related to infrared thermal fingerprints of primed onion (*Allium cepa L.*) seeds, *Frontiers in Plant Science* 11, 1502 (**NAAS 11.753**)
37. A Kumar, DK Jigyasu, G Subrahmanyam, R Mondal, AA Shabnam, ... **Bhatia Arti**, 2020, Nickel in terrestrial biota: Comprehensive review on contamination, toxicity, tolerance and its remediation approaches, *Chemosphere*, 129996 (**NAAS, 13.086**)
38. RK Fagodiya, H Pathak, **A Bhatia**, N Jain, A Kumar, SK Malyan (2020) Global warming impacts of nitrogen use in agriculture: an assessment for India since 1960. *Carbon Management* 11 (3), 291-301. (**NAAS 9.182**)
39. Rani, V., **Bhatia**, A., Kaushik, R., 2021a. Inoculation of plant growth promoting-methane utilizing bacteria in different N-fertilizer regime influences methane emission and crop growth of flooded paddy. *Sci. Total Environ.* 145826. <https://doi.org/10.1099/00221 287-61-2-205> (**NAAS 13.963**)
40. Rani, V., **Bhatia**, A., Nair, L., Tomar, G. S., Kaushik, R., 2021b. Methane utilizing plant growth-promoting microbial diversity analysis of flooded paddy ecosystem of India. *World Journal of Microbiology and Biotechnology*, 37(4), 1-22. (**NAAS 8.627**)
41. PP Maity, B Chakrabarti, TJ Purakayastha, **A Bhatia**, ND Saha, RS Jatav, ...2020. Do elevated CO₂ and temperature affect organic nitrogen fractions and enzyme, *Soil Research* 58 (4), 400-410 (**NAAS 7.987**)
42. S Kirti, Manjiah, KM, Dutta SC, Biswas, DR, **Bhatia A**, Tomer Ritu, 2021, Mitigating nitrous oxide emission using nanoclay-polymer composites in rice-wheat cropping system, *Archives of Agronomy and Soil Science* 67 (4), 459-473 (**NAAS 9.092**)
43. D Yadav, YS Shivay, YV Singh, VK Sharma, **A Bhatia** 2020, Enhancing nutrient translocation, yields and water productivity of wheat under rice–wheat cropping system through zinc nutrition and residual effect of green manuring. *Journal of Plant Nutrition* 43 (19), 2845-2856 (**NAAS 7.707**)
44. SK MK Malav, S Prasad, **N Jain**, D Kumar (2020), Effect of organic rice (*Oryza sativa*) cultivation on greenhouse gas emission, *Indian Journal of Agricultural Sciences* 90 (9), 1769-1775.
45. H Pathak, M Shahid, N Kumar, **N Jain** and J. Rane, Environment-friendly Agriculture: Gandhian Principles in Pathak H, Suresh Pal and Mohapatra T (2020) *Mahatma*

- Gandhi's Vision of Agriculture: Achievements of ICAR. Indian Council of Agricultural Research, New Delhi. p 97-106
46. N.Jain, V.K.Sehgal, H.Pathak,O.Kumar, Greenhouse gas emission and particulate matter emission from rice residue burning in Punjab and Haryana States of India, in Biomass burning in South and Southeast Asia, Eds K. Vedraru, T Ohara and C Justice, CRC press, Galley proof submitted for publication
 47. Das, T.K., Nath, C.P., Das, S., Biswas, S., Bhattacharyya, R., Sudhishri, S., Rishi Raj, Singh, B., Kakralia, S.K., Rathi, N., Sharma, A.R., Dwivedi, B.S., Biswas, A.K. and Chaudhari, S.K. (2020). Conservation Agriculture in rice-mustard cropping system for five years: Impacts on crop productivity, profitability, water-use efficiency, and soil properties. **Field Crops Research 250, 107781.** NAAS Score: 10.308.
 48. Ghosh, A., Singh, A.K., Kumar, S., Manna, M.C., Bhattacharyya, R., Agnihortri, R., Singh, S.K., Manjanagouda S. S, Gautam, K., Kumar, R.V., and Chaudhari S.K., (2020). Differentiating biological and chemical factors of top and deep soil carbon sequestration in semi-arid tropical Inceptisol: An outcome of Structural equation modeling. **Carbon Management 11, 441-453.** NAAS Score: 7.667.
 49. Ghosh, A., Misra, S., Bhattacharyya, R., Sarkar, A., Singh, A.K., Tyagi, V.C., Kumar, R.V. and Meena, V.S. (2020). Agriculture, dairy and fishery farming practices and greenhouse gas emission footprint: a strategic appraisal for mitigation. **Environmental Science and Pollution Research 27, 10160-10184.** NAAS Score: 9.056.
 50. Wankhede, M., Ghosh, A., Manna, M.C., Misra, S., Sirothia, P., Rahman, M.M., Bhattacharyya, P., Singh, M., Bhattacharyya, R., Patra, A.K. (2020). Does soil organic carbon quality or quantity govern relative temperature sensitivity in soil aggregates? **Biogeochemistry. 148, 191-206.** NAAS Score: 10.161.
 51. Ghosh, A., Das, A., Das, D., Ray, P., Bhattacharyya, R., Biswas, D.R., Biswas, S.S. (2020) Contrasting land use systems and soil organic matter quality and temperature sensitivity in North Eastern India. **Soil and Tillage Research 199, 104573.** NAAS Score: 10.601.
 52. Verma, AK, Meena, M.C., Datta, S.P., Dwivedi, B.S., Golui, D., Singh, V.K., Shrivastava, M. (2021) Effect of Long-term Integration of Sewage-Sludge and Fertilizers on Wheat Productivity, Profitability and Soil Fertility. Journal of the Indian Society of Soil Science 69 (1): 80-85 (N.R. 5.51)
 53. Sharma, G.K., Khan, S.A., Shrivastava, M., Bhattacharyya, R., Sharma, A., Gupta, D.K., Kishore, P., Gupta, N. (2021) Circular economy fertilization: Phycoremediated algal biomass as biofertilizers for sustainable crop production. Journal of Environment management 287: 112295 (N.R. 12.51)
 54. Pooja L.R., Shrivastava, M., Shiva Dhar, Sangwan, S., Das, R., Singh, R. (2021) Reduction of ammonia volatilization losses using inhibitors —A review. Ann. Agric. Res. New Series 42(1): 1-19. N.R. (4.51)
 55. Sharma, G.K., Khan, S.A., Shrivastava, M., Gupta, N., Kumar, S., Malav, L.C., Nogiya, M., Dubey, S.K. (2020) Bioremediation of sewage wastewater through microalgae (*Chlorella minutissima*). Indian Journal of Agricultural Sciences 90 (10): 2024–28 N.R. (6.21)
 56. Shrivastava, M, Lokhande, V.H., Patade, V.Y., Srivastava, S., Suprasanna, P., Awasthi, G. (2020) Copper accumulation and biochemical responses of *Sesuvium portulacastrum* (L.). Materials Today: Proceedings 34 (4): 679-684 (N.R. 7.51)

57. Kumar, S., Prasad, S., Shrivastava, M., Kharia, S.K. and Sharma, G. K. (2020) Consumption pattern of selected vegetables at five sites in Delhi NCR region. Indian Journal of Agricultural Sciences 90 (8): 1593–8 N.R. (6.21)
58. Kumar, S., Prasad, S., Shrivastava, M., Kharia, S.K. and Yadav, S. 2020. Survey Methodology for Heavy Metals Toxicity Assessment. Chemical Science Review and Letters. 9 (34): 516-523 N.R. (4.71)
59. A Sharma, S Kumar, **Shakeel A. Khan**, A. Kumar, J.I. Mir, O.C. Sharma, D.B. Singh, S. Arora. 2021. Plummeting anthropogenic environmental degradation by amending nutrient-N input method in saffron growing soils of north-west Himalayas. *Scientific Reports* 41598. <https://doi.org/10.1038/s41598-021-81739-x> (NAAS IF 10.38).
60. Kumar, A.; Subrahmanyam, G.; Kumar, Mondal, R.; A. Shabnam; M.M.S., Malyan, S K.; Fagodia R.K.; **Shakeel A. Khan**; S.; Kumar A.; Zhi-Guo, Y. 2020. Bio-remediation approaches for alleviation of cadmium contamination in natural resources. *Chemosphere* 2020 128855. <https://doi.org/10.1016/j.chemosphere.2020.128855> (NAAS IF 13.08)
61. Kumar, A.; Kumar, A.; M.M.S., C.-P.; Chaturvedi, A.K.; Shabnam, A.A.; Subrahmanyam, G.; Mondal, R.; Gupta, D.K.; Malyan, S.K.; Kumar, S.; **Shakeel A. Khan**, S.; Yadav, K.K. 2020. Lead Toxicity: Health Hazards, Influence on Food Chain, and Sustainable Remediation Approaches. *Int. J. Environ. Res. Public Health* 2020, 17, 2179. <https://doi.org/10.3390/ijerph17072179> (NAAS IF 8.85)
62. Bhatia A, Mina U, Kumar V, Tomer R, Kumar A, **Chakrabarti B**, Singh RN, Singh B (2021) Effect of elevated ozone and carbon dioxide interaction on growth, yield, nutrient content and wilt disease severity in chickpea grown in Northern India, *Heliyon*, 7(1) e06049, ISSN 2405-8440, <https://doi.org/10.1016/j.heliyon.2021.e06049>. (NAAS rating: 8.1)
63. Bhattacharya P, Maity Pramanik P, Mowrer J, Maity A, Ray M, Das S, **Chakrabarti B**, Ghosh T, Krishnan P (2020) Assessment of soil health parameters and application of the sustainability index to fields under conservation agriculture for 3, 6, and 9 years in India. *Heliyon* 6, <https://doi.org/10.1016/j.heliyon.2020.e05640> (NAAS rating: 8.1)
64. Yadav RK, Purakayastha TJ, Ahmed N, Das R, **Chakrabarty B**, Biswas S, Sharma VK, Singh P, Talukdar D, Mourya KK, Walia SS, Singh R, Shukla VK, Yadava MS, Ravisankar N, Yadav BN (2021) Long-term effect of fertilization and manuring on soil aggregate carbon mineralization. *Ind. J. Ag. Sci.* 91(2):254-257. (NAAS rating: 6.21)
65. Chakrabarti B, Bhatia A, Pramanik P, Das Saha N, Bhattacharyya R, Harit RC, Kumar V (2020) Impact of Elevated Carbon Dioxide (CO₂) Concentration on Yield of Maize Crop. *Journal of Agricultural Physics* 20 (2), 208-212. (NAAS rating: 5.1)
66. Singh R, Das R, Sangwan S, Rohatgi B, Khanam R, Pedda GPSK, Das S, Lyngdoh YA, Langyan S, Shukla A, Shrivastava M and Misra S.. Utilisation of agro-industrial waste for sustainable green production: a review. *Environmental Sustainability*. (Accepted)
67. Khandelwal A, Singh R, Singh M and Shrivastava M. Dendritic polyurea microcapsule: A slow release nitrogen fertilizer. *Iranian Polymer Journal*. (Accepted) (7.74)
68. Prasad, S., **Kumar, S.**, Yadav, K. K., Choudhry, J., Kamyab, H., Bach, Q. V., Sheetal, K.R., Kannojiya, S. and Gupta, N. (2020). Screening and evaluation of cellulolytic fungal strains for saccharification and bioethanol production from rice residue. *Energy*, 190, 116422 (NAAS rating: 12.08).

69. **Kumar, S.**, Prasad, S., Shrivastava1, M., Kharia, S.K. and Yadav, S. 2020. Survey Methodology for Heavy Metals Toxicity Assessment. Chemical Science Review and Letters. 9 (34), 516-523 (**NAAS rating: 4.75**).
70. **Kumar, S.**, Prasad, S., Shrivastaval, M., Kharia, S.K. and Sharma, G.K. 2020. Consumption pattern of selected vegetables at five sites in Delhi NCR region. Indian Journal of Agricultural Sciences 90 (8): 1593–8 (**NAAS rating: 6.21**).
71. Sharma, G.K., Khan, S.A., Shrivastava, M., Gupta, N., **Kumar, S.**, Malav, L.C., Nogiya, M. and Dubey, S.K. 2020. Bioremediation of sewage wastewater through microalgae (*Chlorella minutissima*). Indian Journal of Agricultural Sciences 90 (10): 2024-8 (**NAAS rating: 6.21**).
72. Gupta, N., Yadav, K. K., Kumar, V., Krishnan, S., **Kumar, S.**, Nejad, Z. D., Khan, M.M. & Alam, J. 2020. Evaluating heavy metals contamination in soil and vegetables in the region of North India: Levels, transfer and potential human health risk analysis. Environmental Toxicology and Pharmacology, 103563 (**NAAS rating: 9.29**).
73. Prasad, S., Yadav, K. K., **Kumar, S.**, Gupta, N., Cabral-Pinto, M. M., Rezania, S., Radwan, N. Alam, J. 2021. Chromium contamination and effect on environmental health and its remediation: A sustainable approaches. Journal of Environmental Management, 285, 112174 (**NAAS rating: 11.65**).
74. **Khandelwal, A.**, Singh, S. B., Sharma, A., Nain, L., Varghese, E., & Singh, N. (2021). Effect of surfactant on degradation of Aspergillus sp. and Trichoderma sp. mediated crude oil. International Journal of Environmental Analytical Chemistry, 1-14. (NAAS Rating – 7.43)

List of publications during the year 2021-22

1. Dieleman, C., Bhatia, A., Ravikumar, A., Llovell, F., Svane, S., Tibrewal, K., Zaelke, D. and Murphy, A., 2022. Opportunities beyond CO₂ for climate mitigation. One Earth, 5(12), pp.1308-1311.
2. Yadav, P., Mina, U., Bhatia, A. and Singh, B., 2022. Cultivar assortment index (CAI): a tool to evaluate the ozone tolerance of Indian Amaranth (*Amaranthus hypochondriacus* L.) cultivars. Environmental Science and Pollution Research, pp.1-15.
3. Sanyal, S., Chakrabarti, B., Prasanna, R., Bhatia, A., Kumar, S.N., Purakayastha, T.J., Joshi, R. and Sharma, A., 2022. Influence of cyanobacterial inoculants, elevated carbon dioxide, and temperature on plant and soil nitrogen in soybean. Journal of Basic Microbiology, 62(10), pp.1216-1228.
4. Ghosh, S., Das, T.K., Rana, K.S., Biswas, D.R., Das, D.K., Singh, G., Bhattacharyya, R., Datta, D., Rathi, N. and Bhatia, A., 2022. Energy budgeting and carbon footprint of contrasting tillage and residue management scenarios in rice-wheat cropping system. Soil and Tillage Research, 223, p.105445.
5. Kumar, S., Prasad, S., Shrivastava, M., Bhatia, A., Islam, S., Yadav, K.K., Kharia, S.K., Dass, A., Gupta, N., Yadav, S. and Cabral-Pinto, M.M., 2022. Appraisal of probabilistic levels of toxic metals and health risk in cultivated and marketed vegetables in urban and peri-urban areas of Delhi, India. Environmental Toxicology and Pharmacology, 92, p.103863.

6. Sharma, G.K., Khan, S.A., Shrivastava, M., Bhattacharyya, R., Sharma, A., Gupta, N. and Bhatia, A., 2022. Phycoremediated N-fertilization approaches on reducing environmental impacts of agricultural nitrate leaching. *Journal of Cleaner Production*, 345, p.131120.
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List of publications during the year 2022-23

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List of publications during the year 2023-24

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List of the publications 2024-25

S. No.	S.No.	IF	NAAS Score
1.	Swadhina Koley and Soora Naresh Kumar* (2024). Machine learning-based potential loss assessment of maize and rice production due to fash food in Himachal Pradesh, India, Environ Monit Assess (2024) 196:497. https://doi.org/10.1007/s10661-024-12667-2	3.1	9.1
2.	Nandini GA, Abhishek Chitranshi, Mallesh Gampa, Suneha Goswami, Vinutha T, Monika Dalal, Sudhir Kumar, Soora Naresh Kumar , Aruna Tyagi, Vishwanathan C., Ranjeet R. Kumar (2024) Unraveling the effect of Drought and Heat Stresses on Grain Quality of Wheat (<i>Triticum aestivum</i>). Ind. J. Agric. Sci. (accepted)	0.4	6.4
3.	Ranjeet R. Kumar, Ravi K. Niraj, Suneha Goswami, Vinutha Thimmegowda, Gyan P. Mishra, Dwijesh Mishra, Gyanendra K. Rai, Soora Naresh Kumar , Chinnusamy Viswanathan, Aruna Tyagi, Gyanendra P. Singh, Anil K. Rai (2024) Characterization of putative calcium-dependent protein kinase-1 (TaCPK-1) gene: hubs in signalling and tolerance network of wheat under terminal heat3 Biotech (2024) 14:150 https://doi.org/10.1007/s13205-024-03989-6	3.1	9.1
4.	Ranjeet R. Kumar, Suman Bakshi, Suneha Goswami, Sudhir Kumar, Vinutha T., Sanjay J. Jambhulkar, Gyan P. Mishra, Gyanendra K. Rai, Soora Naresh Kumar , Bhupinder Singh, Gyanendra P. Singh, Viswanathan C., & Shelly Praveen (2024) Elucidating the defence response of wheat mutants developed for augmenting terminal heat stress tolerance and improved grain-quality. J. Plant Growth Regul.	4.2	10.2
5.	<u>Priya Bhattacharya</u> , K. K. Bandyopadhyay, P. Krishnan, P. P. Maity, T. J. Purakayastha, A. Bhatia, B. Chakrabarti, S. N. Kumar , Sujan Adak, Ritu Tomer and Meenaksh. Impact of tillage and residue management on greenhouse gases emissions and global warming potential of winter wheat in a semi-arid climate. Journal of Agrometeorology ISSN : 0972-1665 (print), 2583-2980 (online) Vol. No. 25 (4) : 503-509 (December - 2023) https://doi.org/10.54386/jam.v25i4.2337		6.0
6.	Badrigari Soujanya, Dhara Singh Gurjar, Pothula Srinivasa Brahma, Ajai Kumar Tiwari, Samrath Lal Meena, Shiv Prasad, Basaraveni Gouthami, Aditya Machnoor, Naveen Kumar (2025). Enhancing Water Productivity and Flower Yield of Tuberose through Drip Fertigation and Optimized Land Configurations in Semi-Arid Region. BioResources20(2), 4020-4032.		4.66
7.	Ambaye, T.G., Hassani, A., Vaccari, M., Franzetti, A., Prasad, S., Aminabhavi, T.M. and Rtimi, S., 2025. Nano-bioremediation for the removal of inorganic and organic pollutants from the soil. Environmental Science and Pollution Research, pp.1-19.		6.0
8.	Sinduja, M., Maheswari, M., Velusamy, S., Narayanasamy, S., Dinesh, G.K., Dhevagi, P., Prasad, S. and Kalpana, P., 2025. Metagenomic Profiling of Soil Microbial Communities in		8.20

	Chromium-Contaminated Tannery Sludge. Geomicrobiology Journal, pp.1-9.		
9.	Aravind, K.S., Vashisth, A., Krishnan, P., Kundu, M., Prasad, S., Meena, M.C., Lama, A., Das, P. and Das, B., 2025. Development of multistage crop yield estimation model using machine learning and deep learning techniques. International Journal of Biometeorology, 69(2), pp.499-515.		9.0
10.	Khokhar, S. K., Gupta, C. K., Goyal, V., Usha, K., Pandey, V., Sharma, J., Kumar, N., Bhupinder Singh (2024). Enriched Linz-Donawitz (LD) slag application for improving grain yield and quality of wheat grown under nutritionally poor degraded soil. Journal of Environmental Biology, 45(6), 665–675. https://doi.org/10.22438/jeb/45/6/mrn-5374 ; NAAS ID: J211, NAAS Journal Rating: 6.6.		6.6
11.	Pooja Tamuk, Raghu Nath Pandey, Tapan Jyoti Purakayastha, Mandira Barman, Bhupinder Singh, Ampee Tasung (2024) Mitigation of Iron Deficiency in Aerobic Rice with Biological Interventions in Inceptisol. J Soil Sci Plant Nutr 24, 4180–4195. https://doi.org/10.1007/s42729-024-01818-6 ; NAAS ID: J524, NAAS Journal Rating: 9.4.		9.4
12.	Nitin Sharma, Bhupinder Singh, Subbaiyan Gopala Krishnan, Haritha Bollinedi, Pranab Kumar Mandal, Milan Kumar Lal, Prakash Kumar Jha, P.V.Vara Prasad, Anjali Anand (2024) Higher Grain-Filling Rate in Inferior Spikelets of Tolerant Rice Genotype Offset Grain Yield Loss under Post-Anthesis High Night Temperatures, Rice Science, 31(5): 572-586 https://doi.org/10.1016/j.rsci.2024.06.003 ; NAAS ID: R068, NAAS Journal Rating: 11.6.		11.6
13.	Ragini, R.; Murukan, N.; Sekhon, N.K.; Chugh, C.; Agarwal, P.; Yadav, P.; Mallick, N.; Jha, S.K.; Iquebal, M.A.; Tandon, G. Aakriti Verma, Bhupinder Singh, Sherry Rachel Jacob, K. Raghunandan, Kumble Vinod Prabhu, Shivmangal Singh Tomar and Vinod (2024) Breaking the association between gametocidal gene(s) and leaf rust resistance gene (LrS2427) in <i>Triticum aestivum</i> - <i>Aegilops speltoides</i> derivative by gamma irradiation. Molecular Breeding 44, 54. https://doi.org/10.1007/s11032-024-01491-8 ; NAAS ID: M093, NAAS Journal Rating: 8.6.		8.6
14.	Murugan, T., Awasthi, O.P., Bhupinder Singh, Shalini G Rudra (2024) In vitro mutagenesis using habituation and PBR autotrophy based indirect somatic embryogenesis (ISE) system in Kinnow mandarin. Physiol Mol Biol Plants 30, 1297–1312 (2024). https://doi.org/10.1007/s12298-024-01498-7 ; NAAS ID: M072, NAAS Journal Rating: 9.4.		9.4
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	rhizobacterium Bacillus sp. strain MRD-17 and macro-nutrients on the amelioration of drought stress in mustard (<i>Brassica juncea</i> L.). New Zealand Journal of Crop and Horticultural Science, 1–20. https://doi.org/10.1080/01140671.2024.2363524 ; NAAS ID: N057, NAAS Journal Rating: 7.2.		
16.	Swagata Nandi, Anjan Das, A.D. Munshi, Vikrant Vikrant, Khushboo Kumari, H. Choudhary, A.K. Sureja, Akshay Talukdar, Dhandapani Raju, Bhupinder Singh, T.K. Behera, S.S. Dey (2025) Tissue-specific response in seedling stage reveals key physio-biochemical and molecular network associated with drought tolerance in cucumber, <i>Scientia Horticulturae</i> , 342: 114009, https://doi.org/10.1016/j.scienta.2025.114009 ; NAAS ID: S019, NAAS Journal Rating: 9.9.		9.9
17.	*Singh, Bhupinder, Pandey, V., Kumari, S., Usha, K., Gupta , C.K., and Khan , A. (2025). Effect of Linz-Donawitz (LD) steel slag on soil properties and yield of cereal, vegetable and oilseed crops. <i>Journal of Eco-Friendly Agriculture</i> , 20(1), 52–58. https://doi.org/10.48165/jefa.2024.20.1.9 ; NAAS ID: J193, NAAS Journal Rating: 5.36.		5.36
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19.	Anshul Gupta, Renu Dhupper and *Bhupinder Singh (2024) Effect of sulphur dioxide (SO ₂) enrichment on growth attributes and its biochemical basis in tomato (<i>Solanum lycopersicum</i> L.). <i>Journal of Applied Horticulture</i> , 2025, 27(1): 66-71. https://doi.org/10.37855/jah.2025.v27i01.13 ; NAAS ID: J074, NAAS Journal Rating: 5.43.		5.43
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22.	Kumar, R.R., Bakshi, S., Goswami, S., Sudhir Kumar, Vinutha Thimmegowda, Sanjay J. Jambulkar, Gyan P. Mishra, Gyanendra K. Rai, Soora Naresh Kumar, Bhupinder Singh, Gyanendra P. Singh, Viswanathan Chinnusamy & Shelly Praveen (2024) Elucidating the Defence Response of Wheat Mutants Developed for augmenting Terminal Heat Stress Tolerance and Improved Grain-Quality. <i>J Plant Growth Regul</i> 43, 3826–3845 (2024). https://doi.org/10.1007/s00344-024-11355-2 ; NAAS ID: J468, NAAS Journal Rating: 9.9.		9.9
23.	Raviteja Machanuru, Manoj Shrivastava, Renu Singh, Bhupinder Singh, Debashis Chakraborty, Pooja Lakshmidavarahalli Ramalingappa, Mahesh Narayan (2024) Plant enzymatic activity as an indicator of nano-TiO ₂ exposure in rice ecosystems, <i>Plant Nano Biology</i> , 10:100117, https://doi.org/10.1016/j.plana.2024.100117 ; NAAS ID: --, NAAS Journal Rating: --. (Elsevier group, cite score : 2.8)		-
24.	Vinita Mulodia, Archna Suman, Shiv Prasad, Sneha Kumari, Kalidindi Usha, Bhupinder Singh, (2024) Effect of particle size and application rate of steel (Linz-Donawitz, LD) slag on heavy metal built-up in soil and their transfer dynamics in spinach (<i>Spinacia oleracea L.</i>), <i>Sustainable Chemistry for the Environment</i> , 6:100112, https://doi.org/10.1016/j.scenv.2024.100112 ; NAAS ID: --, NAAS Journal Rating: --. (Elsevier group, cite score : 0.4)		-
25.	Sourav Choudhury, RN Pandey, VK Sharma, Bhupinder Singh, Pragati Pramanik Maity, Anil Kumar, Pooja Tamuk, Hari Krishna B, Akshay Talukdar and KM Manjaiah (2025) Effect of zinc management under elevated CO ₂ and temperature on growth and yield of rice (<i>Oryza sativa L.</i>). <i>International Journal of Research in Agronomy</i> , 8(4C): 173-177, https://doi.org/10.33545/2618060X.2025.v8.i4c.2762 ; NAAS ID: J428, NAAS Journal Rating: 5.2.		5.2
26.	Pooja Tamuk, Raghunath Pandey, Tapan Jyoti Purakayastha, Mandira Barman, Debasish Chakraborty, Bishal Gurung, Sourav Choudhury, Ankita Trivedi, and *Bhupinder Singh (2024) Grain and shoot iron (Fe) content and root phytosiderophore release are the major determinants of Fe-deficiency tolerance index (FeDTI) and the reliable screening markers to breed Fe-efficient rice (<i>Oryza sativa L.</i>) <i>Journal of Plant Nutrition</i> , 47(11): 1725-1749; https://doi.org/10.1080/01904167.2024.2320212 ; NAAS ID: J470, NAAS Journal Rating: 7.6.		7.6
27.	S. Kunduru, A. Chaudhary, A. Kamra, R.S. Bana, S.N. Kumar and V.R. Yalamalle (2024). Seed priming with Aloe vera and Trichoderma asperellum improves germination in chickpea under osmotic and temperature stress. <i>Seed Science and Technology</i> , 52, 3, 265-281. https://doi.org/10.15258/sst.2024.52.3.04	1.7	7.7
28.	Mehmood Azhar, Anita Chaudhary*, Swati Gabaa, Latief Bashira, Anil Kumar pinaka, Anju Kamra, Soora Naresh Kumar, Praveen	2.1	8.1

	Kumar Singh, Neeraj Panwar.2025.Biopreservation of Cherry Tomato CPCT 263 with Cell Free Supernatant of Lactobacillus fermentum O1.1. Journal of Food protection (accepted)		
29.	Namita Das Saha, Priyanka Kumari, Bappa Das, R.N. Sahoo, Rajesh Kumar, Debasis Golui, Bhupinder Singh, Niveta Jain, Arti Bhatia, Anita Chaudhary, Bidisha Chakrabarti, Arpan Bhowmik, Partha Saha, Sadikul Islam,2024.Vis-NIR spectroscopy based rapid and non-destructive method to quantitate microplastics: An emerging contaminant in farm soil, Science of The Total Environment,Volume 927,2024,172088, ISSN 0048-9697, https://doi.org/10.1016/j.scitotenv.2024.172088 . NAAS 9.8	8.2	14.2
30.	Bhawana Joshi, Swati Tripathi, Anita Chaudhary, Arti Bhatia, G.K.Dinesh, Ajit Varma.2025.Impact Assessment of Elevated Carbon Dioxide and Ozone on the Soil Microbial Communities Structure and Functional Diversity in wheat agroecosystem. Biology and fertility of soils. (communicated)	5.1	14.2
31.	Ajay Singh Sindhu, Manish Kumar, Anita Chaudhary and Anju Kamra.2025.Soil sampling, cultivar screening, and defence enzyme estimation: A multi-phase study on Meloidogyne incognita in polyhouse cucumber. Scientific Reports (communicated)	4.379	10.379
32.	Dinesh GK, Sharma DK, Jat SL, Venkatraman V, Boomiraj K, Kadam P, Prasad S, Anokhe A, Selvakumar S, Rathika S, Ramesh T, Bandyopadhyay K, Jayaraman S, Ramesh KR, Sinduja M, Sathya V, Rao CS, Dubey R, Manu SM, Karthika S, Singh AK, Kumar B and Mahala DM (2024). Residue retention and precision nitrogen management effects on soil physicochemical properties and productivity of maize-wheat-mongbeam system in Indo-Gangetic Plains. Front. Sustain. Food Syst. 8:1259607.doi:10.3389/fsufs.2024.1259607	3.7	9.7
33.	Ajmal S.P. Venkatesh, Alka Singh, Praveen K. V. Renjini V. R, G K Jha, D.K Sharma and V Sangeetha.2024. What factors determine the economic value of wetland agro ecosystem services in developing countries? A meta regressions' approach. Wetlands Ecol Manage. 33:9 https://doi.org/10.1007/s11273-024-10016-1 (7.60)	1.6	7.6
34.	Deshahalli Divakara D, Gore PG, TripathiK, Katral A, Roy Choudhury D, Abhishek GJ, Shridhar RagiID1, Danakumar ThippeswamyI, Vignesh Muthusamy, DK Sharma, Rakesh SinghI, Kailash Chandra Bhatt (2024) Exploring genetic diversity of potentiallegume, Vigna angularis (Willd.) Ohwi and Ohashithrough agro-morphological traits and SSRmarkers analysis. PLoS ONE 19(12): e0312845. https://doi.org/10.1371/journal.pone.0312845	3.3	9.3
35.	Kademani S, Nain MS, Singh R, Kumar S, Parsad R, Sharma DK, Roy SK, Karjigi KD, Prabhakar I, Mahapatra A and Patil M (2024) Unveiling challenges and strategizing solutions for sustainable agri-entrepreneurship development. Front. Sustain. Food Syst. 8:1447371. doi: 10.3389/fsufs.2024.1447371.	3.7	9.7

36.	Radheshyam, Shankar Lal Jat, Aditya Kumar Singh, Hanuman Sahay Jat, D.K. Sharma, M.C. Meena, Sandeep Gawdiya, Anup Kumar, Rakesh Kumar, Rajbir Singh, and Mangi Lal Jat.2025. Conservation Agriculture offers system optimization for legume intensification: An on-farm study of western Indo-Gangetic Plains. <i>Field Crop Research</i> .321.109677.	5.6	11.6
37.	S Nedumarni, D K Sharma, Arti Bhatia, M Shrivastva, Y S Shovay, DMohan, GK Dinesh, KMurgasaniandMSMahadeva2024. Interactive effect of ambient and elevated levels of tropospheric ozone, nutrition and PGPR on growth and yield of chickpea (<i>Cicer arietinum</i>). <i>Indian Journal of Agricultural Sciences</i> 94 (5): 507–511.	0.4	6.4
38.	Vijayakumar S, Kumar D, Shivay YS, Sharma DK , Varatharajan T. 2024. 4R stewardship-based potassium application to enhance iron, zinc, and copper nutrient levels in wheat (<i>Triticum aestivum L.</i>). <i>Technology in Agronomy</i> 4: e024 https://doi.org/10.48130/tia-0024		
39.	K S Reedy, C M Parihar, P Panneerselvam, S L Jat, D R Sena, D K Sharma, R Pandey, R Dhakar, Ayan Sarkar, K Patra, S Bhardwaj, S Kumar and V Kumar. (2025). Impact of drip fertigation on growth and yield of wheat in a conservation agriculture-based rice (<i>Oryza sativa</i>)-wheat (<i>Triticum aestivum</i>) system in eastern Indo-Gangetic plains of India. <i>Indian Journal of Agricultural Sciences</i> 95 (2): 214–218.	0.4	6.4
40.	K S Reddy, C.M. Parihar, P. Panneerselvam, Kiranmoy Patra, Ayan Sarkar, Sunil Kumar, Sneha Bharadwaj, S.L. Jat, D.K. Sharma , D.R. Sena, Renu Pandey, Rajkumar Dhakar, G. Sreeja Reddy, Alok Sinha and Virender Kumar. (2025). Sub-surface Drip Fertigation Boosts Productivity of Maize and Nitrogen Use Efficiency under Conservation Agriculture-based Rice-Maize System in Eastern Indo-Gangetic Plains. <i>Indian Journal of Fertilisers</i> 21 (2): 100-107.		5.29
41.	Kamlesh Kumar,C. M. Parihar, H. S. Nayak,D. R.Sena, Samarth Godara,Rajkumar Dhakar, Kiranmoy Patra, Ayan Sarkar, Sneha Bharadwaj,Prakash Chand Ghasal, A. L.Meena, K. Srikanth Reddy, T. K. Das, S. L. Jat,D. K. Sharma,Y. S. Saharawat, Upendra Singh, M. L. Jat & M. K. Gathala 2024 Modeling maize growth and nitrogen dynamics using CERES-Maize (DSSAT) under diverse nitrogen management options in a conservation agriculture-based maize-wheat system. <i>Scientific Reports</i> 14(1):11743.	3.8	9.80
42.	Kamlesh Kumar, C. M. Parihar, TK Das, Renu Pandey, D. K. Sharma, VKSharma, Rajkumar Dhakar, S. L. Jat D. Kiranmoy Patra, K. Srikanth Reddy, Ayan Sarkar, Sneha Bharadwaj R. Sena, Samarth Godara, Ayan Sarkar, Sneha Bharadwaj, Prakash Chand Ghasal, A. L. Meena, T. K. Das, ,Y. S. Saharawat, and HS Nayak.2024. Impact of diverse tillage and nitrogen management on growth and yield of	0.4	6.4

	conservation agriculture-based wheat (<i>Triticum aestivum</i>). Indian Journal of Agricultural Sciences 94 (4): 432–436.		
43.	च्केकएैण्णे लंकाए ज्ञाण ज्ञाणे ज्ञनउत्तरैैण्णे च्दकपजर्ए च्यर सतमीपकपए डण ।णे छ्ततंस.च्यदजवए डण ,2024द्व्यं त्मअपमू वद इपविनिमस चतवकनबजपवदरु “नेजंपदइसम कमअमसवचउमदज बमदतपवए मदअपतवदउमदजए दक बसपउजम र्बीदहम चमतेचमबजपअमे । ”नेजंपदइसम चतवंबीण श्रवनतदंस वि॑म्बिद्युपतवदउमदजंस विमउपबंस म्बहपदममतपदहरु 12,2द्व्यं 111996	7.7	13.70
44.	च्वरंए च्केकएैण्णे पदहीए टणे॑तीपर्जंअंए डणे ठंडनएैण्णे टीपेजीए ।णे – अपदीए व्य ,2024द्व्यं ममिभज वि॑इपवंनहउमदजमक स्प्यद.वच्वूपज्जे॑संह दक इपवर्बींत वद चीलेपवसवहपबंस दक लपमसक जजतपइनजम वी॑मूंज ;ज्जपजपबनउ॑मेजपअनउद्व्यं जेम प्यकपदं श्रवनतदंस वि॑हतपबनसजनतंस “बपमदबमे॑ 94,1द्व्यं 021.025१	0.37	6.4
45.	ज्ञनदकनए डणे ज्ञतपो॑ददए च्यर च्केकएैण्णे – वै॒संए ळण ,2024द्व्यं ल्लतममद दंदवेमदेवत वित चतमबपेम कमजमबजपवद वि॑ वितउसकमीलकम पद तिनपजे दक अमहमजंइसमे॑ मगजतंबजण थ्वक विमउपेजतलए 44३ए 138520१	8.8	14.8
46.	ठवतंए छए॑पदहीए ।णज्ञाणे॑ च्सए च्यर वेवए॑न्ज्ञाणे॑मजीए कणे॑ त्जीवतमए कणे॑ ठीकतंए॑ण्णे “माअकए॑ण्णे टमदांजतंदंदए टणे॑ च्केकएैण्णे दक॑ पदहीए ।ण ,2024द्व्यं ल्लतममद उत्तवदपं चतवकनबजपवदरु च्ववमे॑ जमबीदवसवहपमे॑ दक वी॑ससमदहमेण॑ अनम्मसए॑ 36७ए 131808४	7.40	13.40
47.	तपदपभेदए ल्लप्तणे॑ लंकाए ज्ञाणज्ञाणे॑मदमतए॑ छए॑ ल्लेमदए॑ छ्डणे॑ भेदए॑ डणे॑ ज्ञमदहंतंए॑ थ्व्यए॑ तंपदकतंदए॑ टणे॑ ज्ञतपो॑ददए॑ण्णे च्केकएैण्णे ।सतमीपकपए॑ डणे॑ दक॑ टपदलांए॑ ।टण ,2024द्व्यं ड्ववदव दक व्वेवसअमदबल इ॑मक जतंदेमेजमतपिबंजपवद वि॑ ब्लवजं नतमदे॑ममक वपसण प्यकनेजतपंस ब्लवचे॑ दक॑ च्ववकनबजरे॑ ।20७ए 117965७	5.90	11.90
48.	उइ॑लमए॑ ज्ञ ळणे॑ भेदपए॑ णए॑ टंबंवतपए॑ डणे॑ थ्तंद्रमजजपए॑ णए॑ च्केकएैण्णे थ्वतउपववसंए॑ थ्व्यए॑ – त्जपउपए॑ण्णे ,2024द्व्यं म्मतहपदह जमबीदवसवहपमे॑ वित जीम॑ तमउवअंस वि॑चमेजपबपकमे॑ तिवउ बवदजंउपदजमक॑ वेपसे॑ दक जीमपत॑ तमनेम पद॑ हतपबनसजनतमण॑ विमउवेचीमतमए॑ 142433४	8.1.	14.1
49.	उइ॑लमए॑ ज्ञ ळणे॑ भेदपए॑ णए॑ टंबंवतपए॑ डणे॑ थ्तंद्रमजजपए॑ णए॑ च्केकएैण्णे उपदंझींअपे॑ ज्ञ डणे॑ – त्जपउपए॑ण्णे ,2025द्व्यं छंदव.इपवतमउमकपंजपवद वित जीम॑ तमउवअंस वि॑पदवतहदपब दक॑ वतहंदपब च्ववससनजंदजे॑ तिवउ जीम॑ व॑पसण॑ म्बअ्यतवदउमदजंस “बपमदबम॑ दक॑ च्वससनजपवद ल्लेमंबीए॑ 1.19७	5.8	-
50.	ड्ववदां॑ ज्ञनदकनए॑ च्वतुममस॑ ज्ञतपो॑ददए॑पअ च्केकए॑ ठंदज टीपेजी॑ नतमदकमत कर्नीदए॑ ज्ञांझी॑उ त्वं त्मककल ,2025द्व्यं प्यजमतअमदजपवदे॑ वि॑उपबतवइपंस निमस॑ बमसस॑ जमबीदवसवहल वित उंदंहमउमदज वि॑हतपबनसजनतंस तमेपकनमे॑ दक॑ निजनतम॑ चमतेचमबजपअमे॑ /कअंदबमे॑ पद॑ हतवदवउलए॑ ।192ए 341.39२	7.73	-
51.	ड्वनतलए॑ त्पए॑ नकीपी॑तपए॑ण्णे वेए॑ ।णे॑ ज्ञर्नो॑ए॑ भ्य॑पदहीए॑ डणे॑ भेतउंए॑ टणे॑ – च्केकएैण्णे ,2024द्व्यं ल्लदवां॑ दक॑ व॑पस॑ सवे॑ नदकमत॑ पद॑.पजन॑ उवपेजनतम॑ बवदेमतअंजपवद॑ पद॑ वी॑तजप.चेजनतम॑ लेजमउ॑ वि॑मु॑तपक॑ बसपउजमण॑ श्रवनतदंस वि॑॑वपस॑ दक॑ जमत॑ ब्लदेमतअंजपवदए॑ 23,4द्व्यं 353.35९	2.2	8.2
52.	क्पदमी॑ए॑ ल्लज्ञाणे॑ भेतउंए॑ क्वज्ञाणे॑ श्रंजर॑ण्णे॑ टमदांजतंदंदए॑ टणे॑ ठववउपतंरए॑ ज्ञाणे॑ ज्ञंकंउए॑ च्यर च्केकएैण्णे॑ दवीमए॑ ।णे॑ मसाओनउत्तरै॑ण्णे॑ त्जीपाए॑ण्णे॑ दक॑ चतमबपेपवद॑ दपजतवहमद॑ उंदंहमउमदज॑ ममिभजे॑ वद॑ व॑पस॑ चीलेपवबीमउपबंस॑ चतवचमतजपमे॑ दक॑ चतवकनबजपअपजल॑ वि॑उंप्रमू॑मंज॑.उनदहइमंद॑ लेजमउ॑ पद॑ प्यकव.ल्लंदहमजपब॑ च्वंपदेण॑ थ्ववक॑लेजमउए॑ ।8ए॑ ।चा॑125960७	3.7	9.7
53.	वनरंदलए॑ टणे॑ ल्लनतरतए॑ क्व॑ए॑ ठी॑उंदंदकए॑ च्यर॑ए॑ ज्ञ॑तुपए॑ ।ण॑ ज्ञाणे॑ डममदर॑ण्णे॑ स्ण॑ च्केकएैण्णे॑ – ज्ञनउत्तरै॑ छण ,2025द्व्यं म्मीदवपदह॑ जमत॑ चतवकनबजपअपजल॑ दक॑ सिवूमत॑ लपमसक॑ वि॑जनइतवेम॑ जीतवनही॑ कतपच॑ मितजपस॑॑जपवद॑ दक॑ वचजपउप्रमक॑ संदक॑ बवदपहनतंजपवद॑ पद॑ जीम॑ मु॑तपक॑ तमहपवद॑ ठपवत्मेनतबमे॑ ।20,2द्व्यं 4020.4032४	1.47	7.30
54.	Sinduja, M., Maheswari, M., Velusamy, S., Narayanasamy, S., Dinesh, G.K., Dhevagi, P., Prasad, S. and Kalpana, P., 2025. Metagenomic Profiling of Soil Microbial Communities in Chromium-Contaminated Tannery Sludge. Geomicrobiology Journal, pp.1-9..[NAAS rating: 8.2]	3.2	8.2
55.	तंअपदकए॑ ज्ञ॑ए॑ टीपेजी॑ए॑ ।णे॑ ज्ञतपो॑ददए॑ च्यर॑ ज्ञनदकनए॑ डणे॑ च्केकएैण्णे॑ डममदर॑ डण॑ व्यए॑ – वेए॑ टण ,2025द्व्यं कमअमसवचउमदज वि॑उनसजपेजंहम॑ बतवच॑ लपमसक॑ मेजपउंजपवद॑ उवकमस॑ नेपदह॑ उंबीपदम॑ समंतदपदह॑ दक॑ कममच॑ समंतदपदह॑ जमबीदपुनमे॑ प्यजमतदंजपवदंस॑ श्रवनतदंस वि॑ठपवउमजमयतवसवहलए॑ ।69,2द्व्यं 499.51५७	9.7	9.0

56.	ਤਨਸਵਕਪਏ ਟਣੇਂ "ਨਤੰਦਏ ਇਣੇ ਚੌਂਕਏਂ" ਏ ਜਨਉਂਤਪਏਂ "ਏ ਮੈਂਏ ਜਾਣੇ "ਪਦਹੀਏ ਠਣ ;2024ਵੱਧ ਸਿਮਿਬਜ ਵਿਚਤਜਪਕਸਮ ਪ੍ਰਮਾਂ ਦਕ ਚਚਸਪਕਪਵਦ ਤਜਮ ਵਿਜਮਸ ,ਸਪਦ.ਕਵਦੂਪਯਾਏ ਸ਼ਕਵੁੰਹ ਸ਼ਹ ਵਦ ਮੈਂਅਲ ਉਮਜ਼ਜ਼ ਇਨਪਸਕ.ਨਚ ਪਦੋਵਪਸ ਦਕ ਜੀਮਪਤ ਜਤਨਦੇਮਿਤ ਕਲਦੁਤਪਬੇ ਪਦੋਚਪਦਵੀਂ,ਚਪਦਵਾਂ ਵਸਮਤਬਮਂ ਸ਼ਫ਼ਾਂ "ਨੇਜ਼ਾਂਦੇਇਸਮ ਬੈਮਉਪੇਜਤਲ ਵਿਤ ਜੀਮ ਸ਼ਦਅਪਤਵਦਤਮਦਜਏ 6ਏ 100112ਏ ਖ਼ਤ੍ਰਕੁ 04,	0.4	6.4
57.	ਕਪਕੂਜਾਏ ਤਪੁੰਜਾਏ ਟਣ ਜਾਣੇ ਛੱਜੀਏ ਕਣੇ ਜਨਉਂਤਪਏਂ "ਏ ਕਮਲਾਏ ਇਣੇ ਜਨਉਂਤਏ ਚਣੇ - ਚੌਂਕਏਂ "ਪ ;2024ਵੱਧ ਪੁਚੰਬਜ ਵਿਚ ਸਵਦਹ.ਜਮਤਤ ਪਦਜਮਹਤਜਮਕ ਦਨਜਤਪਮਦਜ ਉਦਹਮਤਮਦਜ ਵਦ ਚਤਕਨਬਜਯਪਅਪਜਲਏ ਚਤਕਵਿਜ਼ਿਹਪਸਪਯਲਏ ਵਪਸ ਤੁਪਤਵਡਿਪਸ ਬਜਪਅਪਜਲਏ ਦਕ ਦਨਜਤਪਮਦਜ ਬਵਦਜਮਦਜ ਵਿਤਪਬਮ ;ਕਾਕਾਂ "ਜਪਅਛੁ ਪਦ ਭੋਉ ਜੀਮ ਪਕਕਪਦ ਸ਼ਰਵਨਤਦਾਂ ਵਿਚ ਹਤਪਬਨਸਜਨਤਾਂ ਬਪਮਦਬਮੇ 94;11ਵੱਧ 1240.1245ਏ ਰੁ ਛ ਤੋਂ ਤਜਪਦਹਲੁ 673,	0.37	6.4
58.	Kumar, A., Bandyopadhyay, K. K., Prasad, S., Kumar, S. N., Singh, R., Kaur, R., & Srivastava, M. (2024). Impacts of Various Management Practices on Crop Yield and Soil Biology in Maize-Wheat Cropping System. Asian Journal of Soil Science and Plant Nutrition, 10(2), 445-454. [NAAS rating: 5.06]	-	5.06
59.	ਚੌਂਕਏਂ "ਏ ਲੁਕਾਏ ਜਾਣ ਜਾਣੇ ਜਨਉਂਤਪਏਂ "ਏ ਚੰਕਪਜਾਏ ਚਣੇ ਸਤਮੀਪਕਪਏ ਠਣ ਇਣੇ ਛੁਤਸ਼.ਚਦਜਵਏ ਠਣ ;2024ਵੱਧ ਤਸਾਪਸੂ ਵਦ ਇਪਵਨਿਸਸ ਚਤਕਨਬਜਯਪਕਵਦਰੁ "ਨੇਜ਼ਾਂਦੇਇਸਮ ਕਮਅਸਸਚਾਤਮਦਜ ਬਮਦੰਤਪਬਏ ਮਦਅਪਤਵਦਤਮਦਜਏ ਦਕ ਬਸਪਉਂਜਮ ਬੀਦਹਸ ਚਮਤੇਚਮਬਜਪਅਮੇ "ਨੇਜ਼ਾਂਦੇਇਸਮ ਚਚਤਵਾਂਵੀਂ ਸ਼ਰਵਨਤਦਾਂ ਵਿਚ ਸ਼ਦਅਪਤਵਦਤਮਦਜਾਂ ਬੈਮਉਪਬਾਂਸ ਸ਼ਵਹਿਪਦਸਮਤਪਦਹਏ 12.2ਵੱਧ 111996	7.7	13.70
60.	ਚਵਰਏ ਕਣੇ ਚੌਂਕਏਂ "ਏ ਪਦਹੀਏ ਟਣੇਂ "ਤਪਬੋਜਾਂਏ ਟਣੇਂ ਠੰਡਨੇਂ "ਏ ਟੀਪੀਜੀਏ ਇਣੇ - ਅਪਦੀਏ ਵਿਚ ;2024ਵੱਧ ਸਿਮਿਬਜ ਵਿਚ ਇਪਵਨਹਤਮਦਜਕ ਸਪਦ.ਕਵਦੂਪਯਾਏ ਸ਼ਹ ਦਕ ਇਪਵਰੀਂਤ ਵਦ ਚੀਲੇਪਵਸਵਹਪਬਾਂਸ ਦਕ ਲਪਮਸਕ ਜਾਤਪਇਨਜਮੇ ਵੀਮੂਜਾਂ ;ਜਤਪਾਵਨਤ ਮੇਜਪਅਨਤਵੱਧ ਜੀਮ ਪਕਕਪਦ ਸ਼ਰਵਨਤਦਾਂ ਵਿਚ /ਹਤਪਬਨਸਜਨਤਾਂ "ਬਪਮਦਬਮੇ 94;1ਵੱਧ 021.025ਏ	0.37	6.4
61.	ਜਨਦਕਨਏ ਠਣੇਂ ਜਾਤਪੀਂਦਦਏ ਚਣੇ ਚੌਂਕਏਂ "ਏ - ਵੀਸੋਏ ਲਣ ;2024ਵੱਧ ਲਤਮਸਦ ਦੰਦਵੇਸਦੇਵਤ ਵਿਤ ਚਤਮਬਾਪੇਮ ਕਮਜਮਭਯਪਵਦ ਵਿਚ ਵਿਤਤਾਂਸਕਮੀਲਕਮ ਪਦ ਤਿਨਪਜੇ ਦਕ ਅਮਹਮਜਾਂਇਸਮੇ ਮਗਜਤਬੰਜਾਂ ਥਵਕ ਬੈਮਉਪੇਜਤਲੇ 443ਏ 138520ਏ	8.8	14.8
62.	ਠਵਤਏ ਛਣੇਂ "ਪਦਹੀਏ ਇਣਾਣੇ ਕਣੇ ਚਣੇ ਟੀਵਏ ਨਿਝਾਣੇ "ਮਜੀਏ ਕਣੇ ਤੰਜੀਵਤਮਏ ਕਣੇ ਠੀਕਤਾਂਪਏਂ "ਏ "ਮਾਕਾਏ ਇਣੇ ਟਮਾਂਜਾਂਤੰਦੰਦਏ ਟਣੇਂ ਚੌਂਕਏਂ "ਏ ਦਕ ਪਦਹੀਏ ਇਣੇ ;2024ਵੱਧ ਲਤਮਸਦ ਤਤਵਦਪ ਚਤਕਨਬਜਯਪਕਵਦਰੁ ਚਤਕਵਮੇ ਜਮਬੀਦਵਸਵਹਪਮੇ ਦਕ ਬੀਸਸਸਮਦਹਸੇਣ ਅਨਸ਼ਏ 36ਵੱਧ 131808ਏ	7.40	13.40
63.	"ਤਪਦਪਾਂਦਏ ਲਣਣੇਂ ਲੁਕਾਏ ਜਾਣਾਣੇ "ਮਦਮਤਏ ਹਿੱਣੇ ਲੱਸਮਦਏ "ਛਣੇਂ ਮੰਦਏ ਠਣੇਂ ਜਾਮਦਹਨਤਾਂ ਥਣਾਏ ਤਾਂਪਦਕਤਦਾਂ ਟਣੇਂ ਜਾਤਪੀਂਦਾਂਏ "ਏ ਚੌਂਕਏਂ "ਏ ਸਤਮੀਪਕਪਏ ਠਣ ਇਣੇ ਦਕ ਟਪਦਲਾਂਏ ਟਣ ;2024ਵੱਧ ਡਵਦਵ ਦਕ ਕੇਵਬਸਅਮਦਬਲ ਇੱਮਕ ਜਤਾਂਦੇਮਜਮਤਪਿਬਾਂਜਪਵਦ ਵਿਚ ਕੰਲਵਜਾਂ ਨਤਮਦ ਮਮਕ ਵਪਸਣ ਪਕਨਜਤਪਸ ਕਾਕਚੇ ਦਕ ਕਤਕਨਬਜਾਏ 209ਏ 117965ਏ	5.90	11.90
64.	ਤਾਈਲਮਏ ਜਾਣ ਲਣੇਂ ਮੰਦਪਏ ਇਣੇ ਟਬਾਂਤਪਏ ਟਣੇਂ ਥਾਂਦਮਜਜਪਏ ਇਣੇ ਚੌਂਕਏਂ "ਏ ਥਵਤਾਪਬਵਸਾਂ ਥਣਾਏ - ਤਜਪਾਤਪਏ ਇਣੇ ;2024ਵੱਧ ਸ਼ਮਤਹਪਦਹ ਜਮਬੀਦਵਸਵਹਪਮੇ ਵਿਤ ਜੀਮ ਤਮਤਵਅਂਸ ਵਿਚ ਚੰਮੇਜਪਕਪਕਮੇ ਤਿਵਤ ਬਵਦਜਾਂਤਪਦਜਕ ਵਪਸੇ ਦਕ ਜੀਮਪਤ ਤਮਨੇਮ ਪਦ ਹਤਪਬਨਸਜਨਤਮ ਬੈਮਉਰੇਚੀਮਤਮੇ 142433ਏ	8.1.	14.1
65.	ਤਾਈਲਮਏ ਜਾਣ ਲਣੇਂ ਮੰਦਪਏ ਇਣੇ ਟਬਾਂਤਪਏ ਟਣੇਂ ਥਾਂਦਮਜਜਪਏ ਇਣੇ ਚੌਂਕਏਂ "ਏ ਤਾਪਦੀਂਅਪੇ ਜਾਣ ਡਣੇਂ - ਤਜਪਾਤਪਏ ਇਣੇ ;2025ਵੱਧ ਛਦਵ.ਇਪਵਤਮਤਮਕਪਿਜਪਵਦ ਵਿਤ ਜੀਮ ਤਮਤਵਅਂਸ ਵਿਚ ਪਦਵਤਹਵਦਪਵ ਦਕ ਵਤਹਵਦਪਵ ਚਵਸਸਨਜਾਂਦਜੇ ਤਿਵਤ ਜੀਮ ਵਪਸਣ ਸ਼ਦਅਪਤਵਦਤਮਦਜਾਂ "ਬਪਮਦਬਮ ਦਕ ਚਵਸਸਨਜਾਵਦ ਤਸੇਮਤਵੀਏ 1.19ਏ	5.8	-
66.	ਡਵਦਪਾਂ ਜਨਦਕਨਏ ਚਤਾਂਸਮਸ ਜਾਤਪੀਂਦਾਂਏ ਪੀਪਅ ਚੌਂਕਏ ਦਾਂਦਜ ਟੀਪੇਜੀਏ ਨਤਮਦਕਮਤ ਕਨੀਦਾਏ ਜਾਂਤੀਓਤ ਤੋਂ ਤਸਕਕਲ ;2025ਵੱਧ ਪਦਜਮਤਅਮਦਜਪਵਦੇ ਵਿਚ ਤਪਵਤਵਡਿਪਸ ਨਿਸਸ ਬਮਸਸ ਜਮਬੀਦਵਸਵਹਲ ਵਿਤ ਉਦਹਮਤਮਦਜ ਵਿਚ ਹਤਪਬਨਸਜਨਤਮ ਤਸੇਪਕਨਮੇਲ ਬੰਸਸਸਮਦਹਸੇ ਦਕ ਨਿਜਨਤਮ ਚਮਤੇਚਮਬਜਪਅਮੇ /ਕਅਂਦਬਮੇ ਪਦ /ਹਤਵਦਵਚਲੇ 192ਏ 341.392	7.73	-
67.	ਡਨਤਲਾਏ ਤਪੁੰਜਾਏ ਨਕੀਪੀਤਪਏਂ "ਏ ਕੋਏ ਇਣੇ ਜਾਨ੍ਹੀਏ ਮੰਨ੍ਹੇ "ਪਦਹੀਏ ਟਣੇਂ "ਚੌਂਕਏਂ "ਪ ;2024ਵੱਧ ਲਤਵਾਂਦਕ ਵਪਸ ਸਵੇ ਨਦਕਮਤ ਪਦੇ.ਪਜਨ ਤਵਪੇਜਨਤਮ ਬਵਦੇਮਤਅਂਜਪਵਦ ਪਦੀਵਤਜਪ.ਚੋਜਨਤਮ ਲੇਜਮਤ ਵਿਚ ਸ਼ਮਤਪਾਤਪਕ ਬਸਪਉਂਜਮਣ ਸ਼ਰਵਨਤਦਾਂ ਵਿਚ ਵਪਸ ਦਕ ਜਮਤ ਬਵਦਮਤਅਂਜਪਵਦਏ 23.4ਵੱਧ 353.359	2.2	8.2
68.	ਕਪਦਮੀਏ ਲਣਾਣੇਂ "ਚੌਂਕਏਂ "ਏ ਕਣੇ ਟਣੇਂ ਨਕੀਪੀਤਪਏਂ "ਏ ਕੋਏ ਇਣੇ ਜਾਨ੍ਹੀਏ ਮੰਨ੍ਹੇ "ਪਦਹੀਏ ਟਣੇਂ ਰਾਮਦਾਂਜਾਂਤੰਦਏ ਟਣੇਂ ਰਾਵਵਤਪਤਰਏ ਜਾਣੇ "ਏ ਚੌਂਕਏਂ "ਏ ਦਵੀਮਏ ਇਣੇ "ਸਸਅਾਂਨਤਏ "ਏ ਤੰਜੀਪਾਏ "ਏ ਦਕ ਤੰਜੀਏ ਜਾਣੇ 2024ਏ ਤਸੇਪਕਨਮ ਤਮਜਮਦਯਪਵਦ ਦਕ ਚਤਮਬਪੇਵਦ ਦਪਜਤਵਹਮਦ ਉਦਹਮਤਮਦਜ ਸਿਮਿਬਜੇ ਵਦ ਵਪਸ ਚੀਲੇਪਬਵੀਸਤਪਬਾਂਸ ਚਤਕਵਮਤਜਪਮੇ ਦਕ ਚਤਕਵਕਨਬਜਯਪਅਪਜਲ ਵਿਚ ਤੰਪ੍ਰਮੂਸੰਜ.ਉਨਦਹਵਿਸੰਦ ਲੇਜਮਤ ਪਦ ਪਕਕਵ.ਲਾਂਦਹਮਜਪਵ ਕਾਂਪਦੇਣ ਥਤਵਦਜਪਮਤੇ ਪਦੇ "ਨੇਜ਼ਾਂਦੇਇਸਮ ਥਵਕ ਲੇਜਮਤੇ 8ਏ ਚਾਣ1259607	3.7	9.7
69.	"ਵਨਰਦਲਾਏ ਟਣੇਂ ਲਨਤਰਾਂ ਕਾਂਏ ਠਾਂਤੀਉਂਦੰਕਾਏ ਚਾਂਏ ਜਾਣੇ "ਪਦਹੀਏ ਇਣੇ ਜਾਨਉਂਤਪਏਂ "ਏ ਸ਼ਨੇ ਚੌਂਕਏਂ "ਏ - ਜਨਉਂਤਪਏਂ ਛਣੇ ;2025ਵੱਧ ਸਿੰਦੀਦਵਪਦਹ ਜਮਤ ਚਤਕਨਬਜਯਪਅਪਜਲ ਦਕ ਸਿਵੂਮਤ ਲਪਮਸਕ ਵਿਚ	1.47	7.30

	जनइतवेम जीतवनही कतपच मितजपसपेजपवद दक वचजपउप्रमक संदक बवदपिहनतंजपवदे पद जीम मउपःतपक तमहपवदण ठपवत्सेवनतबमेए 20;2द्वए 4020.4032ण		
70.	तंअपदकए ज्ञणैए टौपेजीए ए झतपीदंदए च्यए झनदकनए डणए च्येकएैए डममदए डण ड्यए – केए ठण ;2025द्वण कमअमसवचउमदज वि उनसजपेजंहम बतवच लपमसक मेजपउंजपवद उवकमस नेपदह उम्बीपदम समंतदपदह दक कममच समंतदपदह जमबीदपुनमेण प्दजमतदंजपवदंस श्रवनतदंस वि ठपवउमजमवतवसवहलए 69;2द्वए 499.515ण	9.7	9.0
71.	डनसवकपंए टणैैनउंदए ए च्येकएैए झनउंतपएैए भैए ज्ञणै – पदहीए ठण ;2024द्वण ममिवज वि चंतजपबसम प्रम दक चचसपबंजपवद तंजम वि जममस ;स्पद्र.क्वदूपज्ञए स्कद्धैसंह वद ीमंअल उमजंस इनपसक.नव पद वपस दक जीमपत जतंदेमित कलदंउपबे पद चपदंबीैचपदंबपं वसमतबंम स्पद्धैनेजंपदंइसम बिमउपेजतल वित जीम म्दअपतवदउमदजए 6ए 100112ण ख्यरु 0ण4,	0.4	6.4
72.	क्वपकूजए त्य ज्ञणैैतउंए टण ज्ञणै छंजीए क्वण झनउंतपएैए कमलए ए झनउंतए च्यए – च्येकएैए ,2024द्वण प्दचंबज वि सवदह.जमतउ पदजमहतंजमक दनजतपमदज उंदंहमउमदज वद चतवकनबजपअपजलए चतवपिंझपसपजलएैवपस उपबतवझपंस बजपअपजलएैदक दनजतपमदज बवदजमदज वि तपबम ;क्वांैजपअंद्व पद ोउं जीम प्दकपंद श्रवनतदंस वि हतपबनसजनतंस “बपमदबमेए 94;11द्वए 1240.1245ण छ छ ।ै तंजपदहरु 6ण3,	0.37	6.4
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