Himanshu Pathak

List of Publications by Year
in descending order

73 papers	5,784 citations	94433 37 h-index	91884 69 g-index
73 all docs	73 docs citations	73 times ranked	4968 citing authors

#	Article	IF	Citations
1	Efficiency of Fertilizer Nitrogen in Cereal Production: Retrospects and Prospects. Advances in Agronomy, 2005, , 85-156.	5.2	794
2	How extensive are yield declines in long-term riceâ€“wheat experiments in Asia?. Field Crops Research, 2003, 81, 159-180.	5.1	457
3	Global nitrogen budgets in cereals: A 50-year assessment for maize, rice and wheat production systems. Scientific Reports, 2016, 6, 19355.	3.3	343
4	Saving of Water and Labor in a Riceâ€“Wheat System with Noâ€Tillage and Direct Seeding Technologies. Agronomy Journal, 2007, 99, 1288-1296.	1.8	264
5	InfoCrop: A dynamic simulation model for the assessment of crop yields, losses due to pests, and environmental impact of agro-ecosystems in tropical environments. I. Model description. Agricultural Systems, 2006, 89, 1-25.	6.1	211
6	Tillage and Crop Establishment Affects Sustainability of South Asian Riceâ€“Wheat System. Agronomy Journal, 2011, 103, 961-971.	1.8	175
7	Mitigating nitrous oxide and methane emissions from soil in riceâ€“wheat system of the Indo-Gangetic plain with nitrification and urease inhibitors. Chemosphere, 2005, 58, 141-147.	8.2	156
8	Greenhouse gas emissions from Indian rice fields: calibration and upscaling using the DNDC model. Biogeosciences, 2005, 2, 113-123.	3.3	143
9	Emission of nitrous oxide from rice-wheat systems of Indo-Gangetic plains of India. Environmental Monitoring and Assessment, 2002, 77, 163-178.	2.7	141
10	Mitigation of greenhouse gas emission from riceâ€“wheat system of the Indo-Gangetic plains: Through tillage, irrigation and fertilizer management. Agriculture, Ecosystems and Environment, 2016, 230, 1-9.	5.3	136
11	Novel and conserved heat-responsive microRNAs in wheat (Triticum aestivum L.). Functional and Integrative Genomics, 2015, 15, 323-348.	3.5	121
12	Recycling of rice straw to improve wheat yield and soil fertility and reduce atmospheric pollution. Paddy and Water Environment, 2006, 4, 111-117.	1.8	118
13	Global warming mitigation potential of biogas plants in India. Environmental Monitoring and Assessment, 2009, 157, 407-418.	2.7	115
14	Conservation agriculture in an irrigated cottonâ€“wheat system of the western Indo-Gangetic Plains: Crop and water productivity and economic profitability. Field Crops Research, 2014, 158, 24-33.	5.1	115
15	Title is missing!. Nutrient Cycling in Agroecosystems, 2003, 65, 105-113.	2.2	110
16	Long-term changes in yield and soil fertility in a twenty-year rice-wheat experiment in Nepal. Biology and Fertility of Soils, 2001, 34, 73-78.	4.3	109
17	Introducing greenhouse gas mitigation as a development objective in rice-based agriculture: I. Generation of technical coefficients. Agricultural Systems, 2007, 94, 807-825.	6.1	101
18	Impacts of conservation agriculture on total soil organic carbon retention potential under an irrigated agro-ecosystem of the western Indo-Gangetic Plains. European Journal of Agronomy, 2013, 51, 34-42.	4.1	101

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19	Yield and Soil Fertility Trends in a 20â€Year Riceâ€"Riceâ€"Wheat Experiment in Nepal. Soil Science Society of America Journal, 2002, 66, 857-867.	2.2	98
20	Nitrous oxide emission from a sandy loam Inceptisol under irrigated wheat in India as influenced by different nitrification inhibitors. Agriculture, Ecosystems and Environment, 2002, 91, 283-293.	5.3	83
21	Methane emission from riceâ€"wheat cropping system in the Indo-Gangetic plain in relation to irrigation, farmyard manure and dicyandiamide application. Agriculture, Ecosystems and Environment, 2003, 97, 309-316.	5.3	83
22	Global temperature change potential of nitrogen use in agriculture: A 50-year assessment. Scientific Reports, 2017, 7, 44928.	3.3	81
23	Potential and cost of carbon sequestration in Indian agriculture: Estimates from long-term field experiments. Field Crops Research, 2011, 120, 102-111.	5.1	79
24	Nitrogen, phosphorus, and potassium budgets in Indian agriculture. Nutrient Cycling in Agroecosystems, 2010, 86, 287-299.	2.2	77
25	Mitigation of greenhouse gas emission with system of rice intensification in the Indo-Gangetic Plains. Paddy and Water Environment, 2014, 12, 355-363.	1.8	76
26	Effects of water deficit stress on agronomic and physiological responses of rice and greenhouse gas emission from rice soil under elevated atmospheric CO2. Science of the Total Environment, 2019, 650, 2032-2050.	8.0	75
27	Yield and Soil Nutrient Changes in a Longâ€Term Riceâ€Wheat Rotation in India. Soil Science Society of America Journal, 2002, 66, 162-170.	2.2	73
28	Yield and Soil Fertility Trends in a 20-Year Riceâ€"Riceâ€"Wheat Experiment in Nepal. Soil Science Society of America Journal, 2002, 66, 857.	2.2	72
29	Greenhouse gas mitigation in riceâ€"wheat system with leaf color chart-based urea application. Environmental Monitoring and Assessment, 2012, 184, 3095-3107.	2.7	71
30	Effects of dicyandiamide, farmyard manure and irrigation on crop yields and ammonia volatilization from an alluvial soil under a rice (Oryza sativa L.)-wheat (Triticum aestivum L.) cropping system. Biology and Fertility of Soils, 2002, 36, 207-214.	4.3	70
31	Growth, yield and quality of maize with elevated atmospheric carbon dioxide and temperature in northâ€"west India. Agriculture, Ecosystems and Environment, 2016, 218, 66-72.	5.3	69
32	Dry direct-seeding of rice for mitigating greenhouse gas emission: field experimentation and simulation. Paddy and Water Environment, 2013, 11, 593-601.	1.8	68
33	Greenhouse gases emission from soils under major crops in Northwest India. Science of the Total Environment, 2016, 542, 551-561.	8.0	61
34	Methane and nitrous oxide emissions from Indian rice paddies, agricultural soils and crop residue burning. , 2013, 3, 196-211.		57
35	Simulation of Nitrogen Balance in Rice-Wheat Systems of the Indo-Gangetic Plains. Soil Science Society of America Journal, 2006, 70, 1612-1622.	2.2	55
36	Harnessing Next Generation Sequencing in Climate Change: RNA-Seq Analysis of Heat Stress-Responsive Genes in Wheat (<i>Triticum aestivum</i> L.). OMICS A Journal of Integrative Biology, 2015, 19, 632-647.	2.0	50

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37	Greenhouse gases emission, soil organic carbon and wheat yield as affected by tillage systems and nitrogen management practices. Archives of Agronomy and Soil Science, 2017, 63, 1644-1660.	2.6	44
38	Impact of resourceâ€conserving technologies on productivity and greenhouse gas emissions in the riceâ€wheat system. , 2011, 1, 261-277.		42
39	Molecular and ecological perspectives of nitrous oxide producing microbial communities in agro-ecosystems. Reviews in Environmental Science and Biotechnology, 2020, 19, 717-750.	8.1	41
40	Identification of Putative RuBisCo Activase (TaRca1)â€"The Catalytic Chaperone Regulating Carbon Assimilatory Pathway in Wheat (Triticum aestivum) under the Heat Stress. Frontiers in Plant Science, 2016, 7, 986.	3.6	38
41	Sustainability of the Rice-Wheat Cropping System. Journal of Crop Improvement, 2007, 19, 125-136.	1.7	35
42	Differential expression of heat shock protein and alteration in osmolyte accumulation under heat stress in wheat. Journal of Plant Biochemistry and Biotechnology, 2013, 22, 16-26.	1.7	30
43	Calcium triggers protein kinases-induced signal transduction for augmenting the thermotolerance of developing wheat (Triticum aestivum) grain under the heat stress. Journal of Plant Biochemistry and Biotechnology, 2015, 24, 441-452.	1.7	29
44	Weed and Nitrogen Management Effects on Weed Infestation and Crop Productivity of Wheatâ€"Mungbean Sequence in Conventional and Conservation Tillage Practices. Agricultural Research, 2017, 6, 33-46.	1.7	29
45	Global warming impacts of nitrogen use in agriculture: an assessment for India since 1960. Carbon Management, 2020, 11, 291-301.	2.4	29
46	Nitrogen Challenges and Opportunities for Agricultural and Environmental Science in India. Frontiers in Sustainable Food Systems, 2021, 5, .	3.9	29
47	Ascorbic acid at pre-anthesis modulate the thermotolerance level of wheat (Triticum aestivum) pollen under heat stress. Journal of Plant Biochemistry and Biotechnology, 2014, 23, 293-306.	1.7	28
48	Biochemical Defense Response: Characterizing the Plasticity of Source and Sink in Spring Wheat under Terminal Heat Stress. Frontiers in Plant Science, 2017, 8, 1603.	3.6	28
49	Elevated carbon dioxide level along with phosphorus application and cyanobacterial inoculation enhances nitrogen fixation and uptake in cowpea crop. Archives of Agronomy and Soil Science, 2017, 63, 1927-1937.	2.6	27
50	RuBisCo activaseâ€"a catalytic chaperone involved in modulating the RuBisCo activity and heat stress-tolerance in wheat. Journal of Plant Biochemistry and Biotechnology, 2019, 28, 63-75.	1.7	26
51	Characterization of differentially expressed stress-associated proteins in starch granule development under heat stress in wheat (Triticum aestivum L.). Indian Journal of Biochemistry and Biophysics, 2013, 50, 126-38.	0.0	25
52	Introducing greenhouse gas mitigation as a development objective in rice-based agriculture: II. Costâ€"benefit assessment for different technologies, regions and scales. Agricultural Systems, 2007, 94, 826-840.	6.1	24
53	Nitrous oxide emission and mitigation from maizeâ€"wheat rotation in the upper Indo-Gangetic Plains. Carbon Management, 2019, 10, 489-499.	2.4	24
54	Ecosystem services in different agro-climatic zones in eastern India: impact of land use and land cover change. Environmental Monitoring and Assessment, 2019, 191, 98.	2.7	24

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55	Quantitative evaluation of climatic variability and risks for wheat yield in India. Climatic Change, 2009, 93, 157-175.	3.6	18
56	Mitigating greenhouse gas and nitrogen loss with improved fertilizer management in rice: quantification and economic assessment. Nutrient Cycling in Agroecosystems, 2010, 87, 443-454.	2.2	18
57	Nitric oxide triggered defense network in wheat: Augmenting tolerance and grain-quality related traits under heat-induced oxidative damage. Environmental and Experimental Botany, 2019, 158, 189-204.	4.2	18
58	Ammonia emission from subtropical crop land area in India. Asia-Pacific Journal of Atmospheric Sciences, 2012, 48, 275-281.	2.3	17
59	Simulation of leaf blast infection in tropical rice agro-ecology under climate change scenario. Climatic Change, 2017, 142, 155-167.	3.6	17
60	Simulation of fertilizer requirement for irrigated wheat in eastern India using the QUEFTS model. Archives of Agronomy and Soil Science, 2006, 52, 403-418.	2.6	16
61	Exogenous application of putrescine at pre-anthesis enhances the thermotolerance of wheat (Triticum aestivum L.). Indian Journal of Biochemistry and Biophysics, 2014, 51, 396-406.	0.0	15
62	Measurement of Ambient Ammonia over the National Capital Region of Delhi, India. Mapan - Journal of Metrology Society of India, 2014, 29, 165-173.	1.5	14
63	SSH Analysis of Endosperm Transcripts and Characterization of Heat Stress Regulated Expressed Sequence Tags in Bread Wheat. Frontiers in Plant Science, 2016, 7, 1230.	3.6	14
64	Impact of Elevated CO2 and Temperature on Brown Planthopper Population in Rice Ecosystem. Proceedings of the National Academy of Sciences India Section B - Biological Sciences, 2018, 88, 57-64.	1.0	14
65	Plummeting global warming potential by chemicals interventions in irrigated rice: A lab to field assessment. Agriculture, Ecosystems and Environment, 2021, 319, 107545.	5.3	14
66	The Stress of Suicide: Temporal and Spatial Expression of Putative Heat Shock Protein 70 Protect the Cells from Heat Injury in Wheat (Triticum aestivum). Journal of Plant Growth Regulation, 2016, 35, 65-82.	5.1	12
67	Nutrient Budget in Indian Agriculture During 1970â€“2018: Assessing Inputs and Outputs of Nitrogen, Phosphorus, and Potassium. Journal of Soil Science and Plant Nutrition, 2022, 22, 1832-1845.	3.4	11
68	Nitrogen Effects on Productivity and Soil Properties in Conventional and Zero Tilled Wheat with Different Residue Management. Proceedings of the National Academy of Sciences India Section B - Biological Sciences, 2019, 89, 123-135.	1.0	9
69	Ammonia Emission from Riceâ€“Wheat Cropping System in Subtropical Soil of India. Agricultural Research, 2014, 3, 175-180.	1.7	7
70	Effect of Sowing Date and Cultivars on Aphid Infestation in Wheat with Climate Change Adaptation Perspective. Proceedings of the National Academy of Sciences India Section B - Biological Sciences, 2016, 86, 315-323.	1.0	6
71	Greenhouse Gas Emissions and Mitigation in Agriculture. , 2015, 5, 357-358.		3
72	Soil microbial responses as influenced by Jatropha plantation under rainfed condition in north-west India. Agroforestry Systems, 2018, 92, 47-58.	2.0	1

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73	Agriculture and the United Nations Framework Convention on Climate Change. , 2013, 3, 313-314.		0