Ravi Prakash Singh

List of Publications by Year
in descending order

82 papers	9,868 citations	94433 37 h-index	62596 80 g-index
83 all docs	83 docs citations	83 times ranked	6890 citing authors

#	Article	IF	Citations
1	A Putative ABC Transporter Confers Durable Resistance to Multiple Fungal Pathogens in Wheat. Science, 2009, 323, 1360-1363.	12.6	1,140
2	Genomic Selection in Plant Breeding: Methods, Models, and Perspectives. Trends in Plant Science, 2017, 22, 961-975.	8.8	1,004
3	Prediction of Genetic Values of Quantitative Traits in Plant Breeding Using Pedigree and Molecular Markers. Genetics, 2010, 186, 713-724.	2.9	664
4	The Emergence of Ug99 Races of the Stem Rust Fungus is a Threat to World Wheat Production. Annual Review of Phytopathology, 2011, 49, 465-481.	7.8	612
5	A recently evolved hexose transporter variant confers resistance to multiple pathogens in wheat. Nature Genetics, 2015, 47, 1494-1498.	21.4	575
6	Multiple wheat genomes reveal global variation in modern breeding. Nature, 2020, 588, 277-283.	27.8	513
7	Emergence and Spread of New Races of Wheat Stem Rust Fungus: Continued Threat to Food Security and Prospects of Genetic Control. Phytopathology, 2015, 105, 872-884.	2.2	393
8	Canopy Temperature and Vegetation Indices from High-Throughput Phenotyping Improve Accuracy of Pedigree and Genomic Selection for Grain Yield in Wheat. G3: Genes, Genomes, Genetics, 2016, 6, 2799-2808.	1.8	336
9	Disease Impact on Wheat Yield Potential and Prospects of Genetic Control. Annual Review of Phytopathology, 2016, 54, 303-322.	7.8	322
10	Increased Prediction Accuracy in Wheat Breeding Trials Using a Marker Ã— Environment Interaction Genomic Selection Model. G3: Genes, Genomes, Genetics, 2015, 5, 569-582.	1.8	266
11	Wheat improvement in India: present status, emerging challenges and future prospects. Euphytica, 2007, 157, 431-446.	1.2	262
12	Lr68: a new gene conferring slow rusting resistance to leaf rust in wheat. Theoretical and Applied Genetics, 2012, 124, 1475-1486.	3.6	248
13	New slow-rusting leaf rust and stripe rust resistance genes Lr67 and Yr46 in wheat are pleiotropic or closely linked. Theoretical and Applied Genetics, 2011, 122, 239-249.	3.6	224
14	Improving grain yield, stress resilience and quality of bread wheat using large-scale genomics. Nature Genetics, 2019, 51, 1530-1539.	21.4	216
15	Phenotypic and Genotypic Characterization of Race TKTTF of <i>Puccinia graminis</i> f. sp. <i>tritici</i> that Caused a Wheat Stem Rust Epidemic in Southern Ethiopia in 2013â€“14. Phytopathology, 2015, 105, 917-928.	2.2	202
16	Application of unmanned aerial systems for high throughput phenotyping of large wheat breeding nurseries. Plant Methods, 2016, 12, 35.	4.3	200
17	A high density GBS map of bread wheat and its application for dissecting complex disease resistance traits. BMC Genomics, 2015, 16, 216.	2.8	188
18	Combining Highâ€Throughput Phenotyping and Genomic Information to Increase Prediction and Selection Accuracy in Wheat Breeding. Plant Genome, 2018, 11, 170043.	2.8	175

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19	Wheat genetic resources enhancement by the International Maize and Wheat Improvement Center (CIMMYT). Genetic Resources and Crop Evolution, 2008, 55, 1095-1140.	1.6	155
20	Identification of genomic regions for grain yield and yield stability and their epistatic interactions. Scientific Reports, 2017, 7, 41578.	3.3	127
21	Genome-wide association mapping for resistance to leaf rust, stripe rust and tan spot in wheat reveals potential candidate genes. Theoretical and Applied Genetics, 2018, 131, 1405-1422.	3.6	101
22	Genomic and pedigree-based prediction for leaf, stem, and stripe rust resistance in wheat. Theoretical and Applied Genetics, 2017, 130, 1415-1430.	3.6	99
23	Strategic crossing of biomass and harvest indexâ€"source and sinkâ€"achieves genetic gains in wheat. Euphytica, 2017, 213, 1.	1.2	97
24	Hyperspectral Reflectance-Derived Relationship Matrices for Genomic Prediction of Grain Yield in Wheat. G3: Genes, Genomes, Genetics, 2019, 9, 1231-1247.	1.8	96
25	Genetic Yield Gains In CIMMYT's International Elite Spring Wheat Yield Trials By Modeling The Genotype Ã— Environment Interaction. Crop Science, 2017, 57, 789-801.	1.8	89
26	New Deep Learning Genomic-Based Prediction Model for Multiple Traits with Binary, Ordinal, and Continuous Phenotypes. G3: Genes, Genomes, Genetics, 2019, 9, 1545-1556.	1.8	81
27	Integrating genomic-enabled prediction and high-throughput phenotyping in breeding for climate-resilient bread wheat. Theoretical and Applied Genetics, 2019, 132, 177-194.	3.6	78
28	Singleâ€Step Genomic and Pedigree Genotype Ã— Environment Interaction Models for Predicting Wheat Lines in International Environments. Plant Genome, 2017, 10, plantgenome2016.09.0089.	2.8	66
29	Prospects and Challenges of Applied Genomic Selectionâ€"A New Paradigm in Breeding for Grain Yield in Bread Wheat. Plant Genome, 2018, 11, 180017.	2.8	65
30	Fifty years of semi-dwarf spring wheat breeding at CIMMYT: Grain yield progress in optimum, drought and heat stress environments. Field Crops Research, 2020, 250, 107757.	5.1	64
31	Genetic Contribution of Synthetic Hexaploid Wheat to CIMMYTâ€™s Spring Bread Wheat Breeding Germplasm. Scientific Reports, 2019, 9, 12355.	3.3	62
32	Hybrid Wheat Prediction Using Genomic, Pedigree, and Environmental Covariables Interaction Models. Plant Genome, 2019, 12, 180051.	2.8	58
33	Genetic loci associated with high grain zinc concentration and pleiotropic effect on kernel weight in wheat (Triticum aestivum L.). Molecular Breeding, 2014, 34, 1893-1902.	2.1	56
34	A largeâ€scale genomic association analysis identifies the candidate causal genes conferring stripe rust resistance under multiple field environments. Plant Biotechnology Journal, 2021, 19, 177-191.	8.3	54
35	Identification and characterization of pleiotropic and co-located resistance loci to leaf rust and stripe rust in bread wheat cultivar Sujata. Theoretical and Applied Genetics, 2015, 128, 549-561.	3.6	49
36	Comparison of Models and Wholeâ€Genome Profiling Approaches for Genomicâ€Enabled Prediction of Septoria Tritici Blotch, Stagonospora Nodorum Blotch, and Tan Spot Resistance in Wheat. Plant Genome, 2017, 10, plantgenome2016.08.0082.	2.8	48

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37	The Aegilops ventricosa 2NvS segment in bread wheat: cytology, genomics and breeding. Theoretical and Applied Genetics, 2021, 134, 529-542.	3.6	48
38	Genetic structures of the CIMMYT international yield trial targeted to irrigated environments. Molecular Breeding, 2012, 29, 529-541.	2.1	41
39	Resistance to Spot Blotch in Two Mapping Populations of Common Wheat Is Controlled by Multiple QTL of Minor Effects. International Journal of Molecular Sciences, 2018, 19, 4054.	4.1	40
40	Genomic Bayesian functional regression models with interactions for predicting wheat grain yield using hyper-spectral image data. Plant Methods, 2017, 13, 62.	4.3	38
41	Strategies for Selecting Crosses Using Genomic Prediction in Two Wheat Breeding Programs. Plant Genome, 2017, 10, plantgenome2016.12.0128.	2.8	37
42	Increased ranking change in wheat breeding under climate change. Nature Plants, 2021, 7, 1207-1212.	9.3	37
43	Improving global integration of crop research. Science, 2017, 357, 359-360.	12.6	34
44	Grain yield genetic gains and changes in physiological related traits for CIMMYTâ€™s High Rainfall Wheat Screening Nursery tested across international environments. Field Crops Research, 2020, 249, 107742.	5.1	34
45	Regularized selection indices for breeding value prediction using hyper-spectral image data. Scientific Reports, 2020, 10, 8195.	3.3	32
46	Aerial highâ€throughput phenotyping enables indirect selection for grain yield at the early generation, seedâ€limited stages in breeding programs. Crop Science, 2020, 60, 3096-3114.	1.8	31
47	Resistance to stem rust Ug99 in six bread wheat cultivars maps to chromosome 6DS. Theoretical and Applied Genetics, 2014, 127, 231-239.	3.6	30
48	Haplotype-Based, Genome-Wide Association Study Reveals Stable Genomic Regions for Grain Yield in CIMMYT Spring Bread Wheat. Frontiers in Genetics, 2020, 11, 589490.	2.3	29
49	Cloning of the broadly effective wheat leaf rust resistance gene Lr42 transferred from Aegilops tauschii. Nature Communications, 2022, 13, .	12.8	29
50	Identification and Validation of a Common Stem Rust Resistance Locus in Two Bi-parental Populations. Frontiers in Plant Science, 2018, 9, 1788.	3.6	28
51	Economic benefits of blast-resistant biofortified wheat in Bangladesh: The case of BARI Gom 33. Crop Protection, 2019, 123, 45-58.	2.1	28
52	Harnessing translational research in wheat for climate resilience. Journal of Experimental Botany, 2021, 72, 5134-5157.	4.8	28
53	Genome-wide association mapping for wheat blast resistance in CIMMYTâ€™s international screening nurseries evaluated in Bolivia and Bangladesh. Scientific Reports, 2020, 10, 15972.	3.3	27
54	Genomic Selection for Grain Yield in the CIMMYT Wheat Breeding Programâ€"Status and Perspectives. Frontiers in Plant Science, 2020, 11, 564183.	3.6	27

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55	Target Population of Environments for Wheat Breeding in India: Definition, Prediction and Genetic Gains. Frontiers in Plant Science, 2021, 12, 638520.	3.6	26
56	Sources of the highly expressed wheat bread making (wbm) gene in CIMMYT spring wheat germplasm and its effect on processing and bread-making quality. Euphytica, 2016, 209, 689-692.	1.2	24
57	A Bayesian Genomic Multi-output Regressor Stacking Model for Predicting Multi-trait Multi-environment Plant Breeding Data. G3: Genes, Genomes, Genetics, 2019, 9, 3381-3393.	1.8	22
58	Characterization of QTLs for Seedling Resistance to Tan Spot and Septoria Nodorum Blotch in the PBW343/Kenya Nyangumi Wheat Recombinant Inbred Lines Population. International Journal of Molecular Sciences, 2019, 20, 5432.	4.1	17
59	Screening and Mapping for Head Blast Resistance in a Panel of CIMMYT and South Asian Bread Wheat Germplasm. Frontiers in Genetics, 2021, 12, 679162.	2.3	16
60	Genome-wide association analysis for arabinoxylan content in common wheat (T. Aestivum L.) flour. Journal of Cereal Science, 2021, 98, 103166.	3.7	14
61	Genomic Selection for Wheat Blast in a Diversity Panel, Breeding Panel and Full-Sibs Panel. Frontiers in Plant Science, 2021, 12, 745379.	3.6	13
62	Elucidating the genetics of grain yield and stress-resilience in bread wheat using a large-scale genome-wide association mapping study with 55,568 lines. Scientific Reports, 2021, 11, 5254.	3.3	11
63	Multiâ€trait selection of bread wheat ideotypes for adaptation to early sown condition. Crop Science, 2022, 62, 67-82.	1.8	10
64	Refined mapping of stripe rust resistance gene YrP10090 within a desirable haplotype for wheat improvement on chromosome 6A. Theoretical and Applied Genetics, 2021, 134, 2005-2021.	3.6	9
65	Genome-Wide Association Mapping Indicates Quantitative Genetic Control of Spot Blotch Resistance in Bread Wheat and the Favorable Effects of Some Spot Blotch Loci on Grain Yield. Frontiers in Plant Science, 2022, 13, 835095.	3.6	9
66	Genomic selection for spot blotch in bread wheat breeding panels, full-sibs and half-sibs and index-based selection for spot blotch, heading and plant height. Theoretical and Applied Genetics, 2022, , 1.	3.6	9
67	A singular value decomposition Bayesian multiple-trait and multiple-environment genomic model. Heredity, 2019, 122, 381-401.	2.6	8
68	Genome-wide mapping and allelic fingerprinting provide insights into the genetics of resistance to wheat stripe rust in India, Kenya and Mexico. Scientific Reports, 2020, 10, 10908.	3.3	8
69	Improving Wheat Yield Prediction Using Secondary Traits and High-Density Phenotyping Under Heat-Stressed Environments. Frontiers in Plant Science, 2021, 12, 633651.	3.6	8
70	Bayesian multitrait kernel methods improve multienvironment genome-based prediction. G3: Genes, Genomes, Genetics, 2022, 12, .	1.8	8
71	Juvenile Heat Tolerance in Wheat for Attaining Higher Grain Yield by Shifting to Early Sowing in October in South Asia. Genes, 2021, 12, 1808.	2.4	8
72	Retrospective Quantitative Genetic Analysis and Genomic Prediction of Global Wheat Yields. Frontiers in Plant Science, 2020, 11, 580136.	3.6	7

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73	Breeding increases grain yield, zinc, and iron, supporting enhanced wheat biofortification. Crop Science, 2022, 62, 1912-1925.	1.8	7
74	Combined linkage and association mapping reveals two major QTL for stripe rust adult plant resistance in Shaanmai 155 and their haplotype variation in common wheat germplasm. Crop Journal, 2022, 10, 783-792.	5.2	5
75	Quantitative trait loci mapping reveals the complexity of adult plant resistance to leaf rust in spring wheat â€˜Copioâ€™. Crop Science, 2022, 62, 1037-1050.	1.8	5
76	Identification and mapping of two adult plant leaf rust resistance genes in durum wheat. Molecular Breeding, 2019, 39, 1.	2.1	4
77	Pre-emptive Breeding Against Karnal Bunt Infection in Common Wheat: Combining Genomic and Agronomic Information to Identify Suitable Parents. Frontiers in Plant Science, 2021, 12, 675859.	3.6	4
78	Plant breeding increases spring wheat yield potential in Afghanistan. Crop Science, 2022, 62, 167-177.	1.8	3
79	Genome-Wide Association Mapping Identifies Key Genomic Regions for Grain Zinc and Iron Biofortification in Bread Wheat. Frontiers in Plant Science, 0, 13, .	3.6	3
80	Molecular Characterization of Genomic Regions for Adult Plant Resistance to Stem Rust in a Spring Wheat Mapping Population. Plant Disease, 2022, 106, 439-450.	1.4	1
81	Achieving Genetic Gains in Practice. , 2022, , 97-123.		1
82	Dataset of historic and modern bread and durum wheat cultivar performance under conventional and reduced tillage with full and reduced irrigation. Data in Brief, 2022, 43, 108439.	1.0	0