Matthew P Reynolds

List of Publications by Year
in descending order

243 papers	27,837 citations	4653 85 h-index	6643 156 g-index
254 all docs	254 docs citations	254 times ranked	15355 citing authors

#	Article	IF	Citations
1	Rising temperatures reduce global wheatÂproduction. Nature Climate Change, 2015, 5, 143-147.	8.1	1,544
2	Genome-wide comparative diversity uncovers multiple targets of selection for improvement in hexaploid wheat landraces and cultivars. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 8057-8062.	3.3	1,065
3	Plant Breeding and Drought in C3 Cereals: What Should We Breed For?. Annals of Botany, 2002, 89, 925-940.	1.4	987
4	Crops that feed the world 10. Past successes and future challenges to the role played by wheat in global food security. Food Security, 2013, 5, 291-317.	2.4	709
5	Radically Rethinking Agriculture for the 21st Century. Science, 2010, 327, 833-834.	6.0	627
6	Climate change: Can wheat beat the heat?. Agriculture, Ecosystems and Environment, 2008, 126, 46-58.	2.5	550
7	Raising yield potential of wheat. II. Increasing photosynthetic capacity and efficiency. Journal of Experimental Botany, 2011, 62, 453-467.	2.4	511
8	Raising yield potential in wheat. Journal of Experimental Botany, 2009, 60, 1899-1918.	2.4	508
9	Heat and drought adaptive QTL in a wheat population designed to minimize confounding agronomic effects. Theoretical and Applied Genetics, 2010, 121, 1001-1021.	1.8	484
10	Raising yield potential of wheat. III. Optimizing partitioning to grain while maintaining lodging resistance. Journal of Experimental Botany, 2011, 62, 469-486.	2.4	474
11	Achieving yield gains in wheat. Plant, Cell and Environment, 2012, 35, 1799-1823.	2.8	459
12	Association Analysis of Historical Bread Wheat Germplasm Using Additive Genetic Covariance of Relatives and Population Structure. Genetics, 2007, 177, 1889-1913.	1.2	426
13	Genome-wide association study for grain yield and related traits in an elite spring wheat population grown in temperate irrigated environments. Theoretical and Applied Genetics, 2015, 128, 353-363.	1.8	400
14	Drought-adaptive traits derived from wheat wild relatives and landraces. Journal of Experimental Botany, 2006, 58, 177-186.	2.4	388
15	Stress-induced expression in wheat of the Arabidopsis thaliana DREB1A gene delays water stress symptoms under greenhouse conditions. Genome, 2004, 47, 493-500.	0.9	369
16	Similar estimates of temperature impacts on global wheat yield by three independent methods. Nature Climate Change, 2016, 6, 1130-1136.	8.1	352
17	Partitioning of assimilates to deeper roots is associated with cooler canopies and increased yield under drought in wheat. Functional Plant Biology, 2010, 37, 147.	1.1	347
18	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.	0.8	336

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19	Translational research impacting on crop productivity in drought-prone environments. Current Opinion in Plant Biology, 2008, 11, 171-179.	3.5	324
20	Climate change impact and adaptation for wheat protein. Global Change Biology, 2019, 25, 155-173.	4.2	312
21	Canopy Temperature Depression Association with Yield of Irrigated Spring Wheat Cultivars in a Hot Climate. Journal of Agronomy and Crop Science, 1996, 176, 119-129.	1.7	269
22	Genome-wide association mapping of yield and yield components of spring wheat under contrasting moisture regimes. Theoretical and Applied Genetics, 2014, 127, 791-807.	1.8	263
23	Raising yield potential of wheat. I. Overview of a consortium approach and breeding strategies. Journal of Experimental Botany, 2011, 62, 439-452.	2.4	262
24	Stay-green in spring wheat can be determined by spectral reflectance measurements (normalized) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 3789-3798.	2.4	255
25	Physiological breeding. Current Opinion in Plant Biology, 2016, 31, 162-171.	3.5	249
26	A Direct Comparison of Remote Sensing Approaches for High-Throughput Phenotyping in Plant Breeding. Frontiers in Plant Science, 2016, 7, 1131.	1.7	248
27	Physiological and Genetic Changes of Irrigated Wheat in the Postâ€“Green Revolution Period and Approaches for Meeting Projected Global Demand. Crop Science, 1999, 39, 1611-1621.	0.8	245
28	Detection of two major grain yield QTL in bread wheat (Triticum aestivum L.) under heat, drought and high yield potential environments. Theoretical and Applied Genetics, 2012, 125, 1473-1485.	1.8	243
29	Physiological Traits for Improving Heat Tolerance in Wheat Â. Plant Physiology, 2012, 160, 1710-1718.	2.3	242
30	A rapid monitoring of NDVI across the wheat growth cycle for grain yield prediction using a multi-spectral UAV platform. Plant Science, 2019, 282, 95-103.	1.7	238
31	Sink-limitation to yield and biomass: a summary of some investigations in spring wheat. Annals of Applied Biology, 2005, 146, 39-49.	1.3	233
32	Phenotyping approaches for physiological breeding and gene discovery in wheat. Annals of Applied Biology, 2009, 155, 309-320.	1.3	224
33	Genome-Wide Association Analyses Identify QTL Hotspots for Yield and Component Traits in Durum Wheat Grown under Yield Potential, Drought, and Heat Stress Environments. Frontiers in Plant Science, 2018, 9, 81.	1.7	222
34	Spectral Reflectance to Estimate Genetic Variation for In-Season Biomass, Leaf Chlorophyll, and Canopy Temperature in Wheat. Crop Science, 2006, 46, 1046-1057.	0.8	218
35	Conceptual framework for drought phenotyping during molecular breeding. Trends in Plant Science, 2009, 14, 488-496.	4.3	213
36	Drought-adaptive attributes in the Seri/Babax hexaploid wheat population. Functional Plant Biology, 2007, 34, 189.	1.1	199

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37	Hyperspectral reflectance as a tool to measure biochemical and physiological traits in wheat. Journal of Experimental Botany, 2018, 69, 483-496.	2.4	190
38	Spectral Reflectance Indices as a Potential Indirect Selection Criteria for Wheat Yield under Irrigation. Crop Science, 2006, 46, 578-588.	0.8	183
39	Prospects for utilising plant-adaptive mechanisms to improve wheat and other crops in drought- and salinity-prone environments. Annals of Applied Biology, 2005, 146, 239-259.	1.3	182
40	Avenues for genetic modification of radiation use efficiency in wheat. Journal of Experimental Botany, 2000, 51, 459-473.	2.4	177
41	Genetic characterization of the wheat association mapping initiative (WAMI) panel for dissection of complex traits in spring wheat. Theoretical and Applied Genetics, 2015, 128, 453-464.	1.8	177
42	High-throughput phenotyping for crop improvement in the genomics era. Plant Science, 2019, 282, 60-72.	1.7	176
43	Genetic Yield Gains and Changes in Associated Traits of CIMMYT Spring Bread Wheat in a â€œHistoricâ€•Set Representing 30 Years of Breeding. Crop Science, 2012, 52, 1123-1131.	0.8	171
44	The uncertainty of crop yield projections is reduced by improved temperature response functions. Nature Plants, 2017, 3, 17102.	4.7	170
45	Food security and climate change: on the potential to adapt global crop production by active selection to rising atmospheric carbon dioxide. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 4097-4105.	1.2	167
46	Climate-smart agriculture global research agenda: scientific basis for action. Agriculture and Food Security, 2014, 3, .	1.6	165
47	The Physiological Basis of the Genetic Progress in Yield Potential of CIMMYT Spring Wheat Cultivars from 1966 to 2009. Crop Science, 2015, 55, 1749-1764.	0.8	165
48	Comparison of leaf, spike, peduncle and canopy temperature depression in wheat under heat stress. Field Crops Research, 2002, 79, 173-184.	2.3	163
49	Multi-environment QTL mixed models for drought stress adaptation in wheat. Theoretical and Applied Genetics, 2008, 117, 1077-1091.	1.8	160
50	Genomic Prediction of Gene Bank Wheat Landraces. G3: Genes, Genomes, Genetics, 2016, 6, 1819-1834.	0.8	159
51	Evaluating Potential Genetic Gains in Wheat Associated with Stressâ€Adaptive Trait Expression in Elite Genetic Resources under Drought and Heat Stress. Crop Science, 2007, 47, S-172.	0.8	157
52	Wheat genetic resources enhancement by the International Maize and Wheat Improvement Center (CIMMYT). Genetic Resources and Crop Evolution, 2008, 55, 1095-1140.	0.8	155
53	Molecular detection of genomic regions associated with grain yield and yield-related components in an elite bread wheat cross evaluated under irrigated and rainfed conditions. Theoretical and Applied Genetics, 2010, 120, 527-541.	1.8	151
54	Combining high grain number and weight through a DH-population to improve grain yield potential of wheat in high-yielding environments. Field Crops Research, 2013, 145, 106-115.	2.3	144

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55	Common genetic basis for canopy temperature depression under heat and drought stress associated with optimized root distribution in bread wheat. Theoretical and Applied Genetics, 2015, 128, 575-585.	1.8	142
56	High-Throughput Estimation of Crop Traits: A Review of Ground and Aerial Phenotyping Platforms. IEEE Geoscience and Remote Sensing Magazine, 2021, 9, 200-231.	4.9	141
57	PAPER PRESENTED AT INTERNATIONAL WORKSHOP ON INCREASING WHEAT YIELD POTENTIAL, CIMMYT, OBREGON, MEXICO, 20â€“24 MARCH 2006 Genetic progress in yield potential in wheat: recent advances and future prospects. Journal of Agricultural Science, 2007, 145, 17-29.	0.6	136
58	Photosynthesis of wheat in a warm, irrigated environment. Field Crops Research, 2000, 66, 37-50.	2.3	135
59	Breeder friendly phenotyping. Plant Science, 2020, 295, 110396.	1.7	135
60	Photosynthesis of wheat in a warm, irrigated environment. Field Crops Research, 2000, 66, 51-62.	2.3	132
61	Impacts of breeding on international collaborative wheat improvement. Journal of Agricultural Science, 2006, 144, 3-17.	0.6	132
62	Genetic dissection of grain yield and physical grain quality in bread wheat (Triticum aestivum L.) under water-limited environments. Theoretical and Applied Genetics, 2012, 125, 255-271.	1.8	132
63	Genetic analysis of multi-environmental spring wheat trials identifies genomic regions for locus-specific trade-offs for grain weight and grain number. Theoretical and Applied Genetics, 2018, 131, 985-998.	1.8	127
64	The yield correlations of selectable physiological traits in a population of advanced spring wheat lines grown in warm and drought environments. Field Crops Research, 2012, 128, 129-136.	2.3	125
65	Genomic tools to assist breeding for drought tolerance. Current Opinion in Biotechnology, 2015, 32, 130-135.	3.3	124
66	Association of water spectral indices with plant and soil water relations in contrasting wheat genotypes. Journal of Experimental Botany, 2010, 61, 3291-3303.	2.4	123
67	QTL for yield and associated traits in the Seri/Babax population grown across several environments in Mexico, in the West Asia, North Africa, and South Asia regions. Theoretical and Applied Genetics, 2013, 126, 971-984.	1.8	119
68	Relationship between grain yield and carbon isotope discrimination in bread wheat under four water regimes. European Journal of Agronomy, 2005, 22, 231-242.	1.9	117
69	Awns reduce grain number to increase grain size and harvestable yield in irrigated and rainfed spring wheat. Journal of Experimental Botany, 2016, 67, 2573-2586.	2.4	117
70	The importance of the period immediately preceding anthesis for grain weight determination in wheat. Euphytica, 2001, 119, 199-204.	0.6	115
71	Phenotypic plasticity of yield and phenology in wheat, sunflower and grapevine. Field Crops Research, 2009, 110, 242-250.	2.3	115
72	An integrated approach to maintaining cereal productivity under climate change. Global Food Security, 2016, 8, 9-18.	4.0	110

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73	Spectral Water Indices for Assessing Yield in Elite Bread Wheat Genotypes under Wellâ€•Irrigated, Waterâ€•Stressed, and Highâ€•Temperature Conditions. Crop Science, 2010, 50, 197-214.	0.8	109
74	Crop model improvement reduces the uncertainty of the response to temperature of multi-model ensembles. Field Crops Research, 2017, 202, 5-20.	2.3	109
75	Adapting wheat cultivars to resource conserving farming practices and human nutritional needs. Annals of Applied Biology, 2005, 146, 405-413.	1.3	108
76	Modelling and genetic dissection of staygreen under heat stress. Theoretical and Applied Genetics, 2016, 129, 2055-2074.	1.8	107
77	Phenotyping transgenic wheat for drought resistance. Journal of Experimental Botany, 2012, 63, 1799-1808.	2.4	102
78	Relative contribution of shoot and ear photosynthesis to grain filling in wheat under good agronomical conditions assessed by differential organ Î´13C. Journal of Experimental Botany, 2014, 65, 5401-5413.	2.4	100
79	Genetic dissection of drought and heatâ€•responsive agronomic traits in wheat. Plant, Cell and Environment, 2019, 42, 2540-2553.	2.8	100
80	An assessment of wheat yield sensitivity and breeding gains in hot environments. Proceedings of the Royal Society B: Biological Sciences, 2013, 280, 20122190.	1.2	97
81	Strategic crossing of biomass and harvest indexâ€"source and sinkâ€"achieves genetic gains in wheat. Euphytica, 2017, 213, 1.	0.6	97
82	Phenotypic and genomeâ€•wide association analysis of spike ethylene in diverse wheat genotypes under heat stress. New Phytologist, 2017, 214, 271-283.	3.5	96
83	Yield potential in modern wheat varieties: its association with a less competitive ideotype. Field Crops Research, 1994, 37, 149-160.	2.3	95
84	Rubisco catalytic properties of wild and domesticated relatives provide scope for improving wheat photosynthesis. Journal of Experimental Botany, 2016, 67, 1827-1838.	2.4	93
85	The Potential of Using Spectral Reflectance Indices to Estimate Yield in Wheat Grown Under Reduced Irrigation. Euphytica, 2006, 150, 155-172.	0.6	89
86	Photosynthetic contribution of the ear to grain filling in wheat: a comparison of different methodologies for evaluation. Journal of Experimental Botany, 2016, 67, 2787-2798.	2.4	89
87	Developmental and growth controls of tillering and water-soluble carbohydrate accumulation in contrasting wheat (<i>Triticum aestivum</i>L.) genotypes: can we dissect them?. Journal of Experimental Botany, 2013, 64, 143-160.	2.4	88
88	Genetic Dissection of Grain Size and Grain Number Trade-Offs in CIMMYT Wheat Germplasm. PLoS ONE, 2015, 10, e0118847.	1.1	88
89	Quantifying genetic effects of ground cover on soil water evaporation using digital imaging. Functional Plant Biology, 2010, 37, 703.	1.1	86
90	Genetic control of grain yield and grain physical characteristics in a bread wheat population grown under a range of environmental conditions. Theoretical and Applied Genetics, 2014, 127, 1607-1624.	1.8	85

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91	Interpreting Genotype âœ• Environment Interaction in Wheat by Partial Least Squares Regression. Crop Science, 1998, 38, 679-689.	0.8	83
92	Dimensions of Diversity in Modern Spring Bread Wheat in Developing Countries from 1965. Crop Science, 2002, 42, 1766-1779.	0.8	82
93	Genetic Yield Gains of the CIMMYT International Semiâ€Arid Wheat Yield Trials from 1994 to 2010. Crop Science, 2012, 52, 1543-1552.	0.8	82
94	Optimizing dry-matter partitioning for increased spike growth, grain number and harvest index in spring wheat. Field Crops Research, 2019, 240, 154-167.	2.3	82
95	Hot spots of wheat yield decline with rising temperatures. Global Change Biology, 2017, 23, 2464-2472.	4.2	80
96	Overcoming the tradeâ€off between grain weight and number in wheat by the ectopic expression of expansin in developing seeds leads to increased yield potential. New Phytologist, 2021, 230, 629-640.	3.5	79
97	Physiological Performance of Synthetic Hexaploid Wheatâ€Derived Populations. Crop Science, 2000, 40, 1257-1263.	0.8	78
98	Multi-environment analysis and improved mapping of a yield-related QTL on chromosome 3B of wheat. Theoretical and Applied Genetics, 2013, 126, 747-761.	1.8	77
99	Development and Deployment of a Portable Field Phenotyping Platform. Crop Science, 2016, 56, 965-975.	0.8	77
100	Stakeholder perception of wheat production constraints, capacity building needs, and research partnerships in developing countries. Euphytica, 2007, 157, 475-483.	0.6	76
101	Relationships between Largeâ€Spike Phenotype, Grain Number, and Yield Potential in Spring Wheat. Crop Science, 2009, 49, 961-973.	0.8	76
102	Identification of novel quantitative trait loci for days to ear emergence and flag leaf glaucousness in a bread wheat (Triticum aestivum L.) population adapted to southern Australian conditions. Theoretical and Applied Genetics, 2012, 124, 697-711.	1.8	76
103	Addressing Research Bottlenecks to Crop Productivity. Trends in Plant Science, 2021, 26, 607-630.	4.3	76
104	Unlocking the genetic diversity of Creole wheats. Scientific Reports, 2016, 6, 23092.	1.6	75
105	Elucidating the genetic basis of biomass accumulation and radiation use efficiency in spring wheat and its role in yield potential. Plant Biotechnology Journal, 2019, 17, 1276-1288.	4.1	75
106	Wheat root systems as a breeding target for climate resilience. Theoretical and Applied Genetics, 2021, 134, 1645-1662.	1.8	74
107	Source - sink effects on grain weight of bread wheat, durum wheat, and triticale at different locations. Australian Journal of Agricultural Research, 2006, 57, 227.	1.5	73
108	Applying innovations and new technologies for international collaborative wheat improvement. Journal of Agricultural Science, 2006, 144, 95-110.	0.6	73

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109	Breeding for drought and heat tolerance in wheat. Theoretical and Applied Genetics, 2021, 134, 1753-1769.	1.8	70
110	<i>Leaf Posture</i>, Grain Yield, Growth, Leaf Structure, and Carbon Isotope Discrimination in Wheat. Crop Science, 1993, 33, 1273-1279.	0.8	69
111	Trade-off between grain weight and grain number in wheat depends on GxE interaction: A case study of an elite CIMMYT panel (CIMCOG). European Journal of Agronomy, 2018, 92, 17-29.	1.9	68
112	Osmotic Adjustment in Wheat in Relation to Grain Yield under Water Deficit Environments. Agronomy Journal, 2005, 97, 1062-1071.	0.9	67
113	Avoiding lodging in irrigated spring wheat. II. Genetic variation of stem and root structural properties. Field Crops Research, 2016, 196, 64-74.	2.3	67
114	Avoiding lodging in irrigated spring wheat. I. Stem and root structural requirements. Field Crops Research, 2016, 196, 325-336.	2.3	67
115	Drought Adaptive Traits and Wide Adaptation in Elite Lines Derived from Resynthesized Hexaploid Wheat. Crop Science, 2011, 51, 1617-1626.	0.8	66
116	Climate change impact on Mexico wheat production. Agricultural and Forest Meteorology, 2018, 263, 373-387.	1.9	66
117	More fertile florets and grains per spike can be achieved at higher temperature in wheat lines with high spike biomass and sugar content at booting. Functional Plant Biology, 2014, 41, 482.	1.1	64
118	Stem solidness and its relationship to water-soluble carbohydrates: association with wheat yield under water deficit. Functional Plant Biology, 2010, 37, 166.	1.1	63
119	Dynamics of floret development determining differences in spike fertility in an elite population of wheat. Field Crops Research, 2015, 172, 21-31.	2.3	63
120	How can we improve crop genotypes to increase stress resilience and productivity in a future climate? A new crop screening method based on productivity and resistance to abiotic stress. Journal of Experimental Botany, 2016, 67, 5593-5603.	2.4	63
121	Exploring high temperature responses of photosynthesis and respiration to improve heat tolerance in wheat. Journal of Experimental Botany, 2019, 70, 5051-5069.	2.4	63
122	Wheat Management in Warm Environments: Effect of Organic and Inorganic Fertilizers, Irrigation Frequency, and Mulching. Agronomy Journal, 1999, 91, 975-983.	0.9	62
123	Changes in grain weight as a consequence of de-graining treatments at pre- and post-anthesis in synthetic hexaploid lines of wheat (Triticum durum x T. tauschii). Functional Plant Biology, 2000, 27, 183.	1.1	62
124	Evaluating genetic diversity for heat tolerance traits in Mexican wheat landraces. Genetic Resources and Crop Evolution, 1999, 46, 37-45.	0.8	60
125	Genomeâ€Wide Association Study for Adaptation to Agronomic Plant Density: A Component of High Yield Potential in Spring Wheat. Crop Science, 2015, 55, 2609-2619.	0.8	60
126	Foliar Abscisic Acid-To-Ethylene Accumulation and Response Regulate Shoot Growth Sensitivity to Mild Drought in Wheat. Frontiers in Plant Science, 2016, 7, 461.	1.7	60

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127	Integration of phenotyping and genetic platforms for a better understanding of wheat performance under drought. Journal of Experimental Botany, 2014, 65, 6167-6177.	2.4	59
128	Genome-wide association study reveals genomic regions controlling root and shoot traits at late growth stages in wheat. Annals of Botany, 2019, 124, 993-1006.	1.4	59
129	QTL analysis and fine mapping of a QTL for yield-related traits in wheat grown in dry and hot environments. Theoretical and Applied Genetics, 2020, 133, 239-257.	1.8	59
130	Heat Stress Adaptation in Elite Lines Derived from Synthetic Hexaploid Wheat. Crop Science, 2015, 55, 2719-2735.	0.8	58
131	Elite Haplotypes of a Protein Kinase Gene TaSnRK2.3 Associated with Important Agronomic Traits in Common Wheat. Frontiers in Plant Science, 2017, 08, 368.	1.7	58
132	Effects of the 7DL.7Ag translocation from Lophopyrum elongatum on wheat yield and related morphophysiological traits under different environments. Plant Breeding, 2003, 122, 379-384.	1.0	57
133	Limitations to photosynthesis under light and heat stress in three high-yielding wheat genotypes. Journal of Plant Physiology, 2003, 160, 657-666.	1.6	57
134	Gene action of canopy temperature in bread wheat under diverse environments. Theoretical and Applied Genetics, 2010, 120, 1107-1117.	1.8	56
135	Genomic Prediction with Pedigree and Genotype Ã— Environment Interaction in Spring Wheat Grown in South and West Asia, North Africa, and Mexico. G3: Genes, Genomes, Genetics, 2017, 7, 481-495.	0.8	56
136	An integrated framework reinstating the environmental dimension for GWAS and genomic selection in crops. Molecular Plant, 2021, 14, 874-887.	3.9	56
137	Association between canopy reflectance indices and yield and physiological traits in bread wheat under drought and well-irrigated conditions. Australian Journal of Agricultural Research, 2004, 55, 1139.	1.5	54
138	Predicting dark respiration rates of wheat leaves from hyperspectral reflectance. Plant, Cell and Environment, 2019, 42, 2133-2150.	2.8	54
139	Identification of Earliness Per Se Flowering Time Locus in Spring Wheat through a Genomeâ€Wide Association Study. Crop Science, 2016, 56, 2962-2672.	0.8	53
140	Precise estimation of genomic regions controlling lodging resistance using a set of reciprocal chromosome segment substitution lines in rice. Scientific Reports, 2016, 6, 30572.	1.6	53
141	Climate impact and adaptation to heat and drought stress of regional and global wheat production. Environmental Research Letters, 2021, 16, 054070.	2.2	52
142	Physiological factors associated with genotype by environment interaction in wheat. Field Crops Research, 2002, 75, 139-160.	2.3	51
143	Relationships between Grain Yield, Flag Leaf Morphology, Carbon Isotope Discrimination and Ash Content in Irrigated Wheat. Journal of Agronomy and Crop Science, 2004, 190, 395-401.	1.7	49
144	PAPER PRESENTED AT INTERNATIONAL WORKSHOP ON INCREASING WHEAT YIELD POTENTIAL, CIMMYT, OBREGON, MEXICO, 20â€"24 MARCH 2006 Association of source/sink traits with yield, biomass and radiation use efficiency among random sister lines from three wheat crosses in a high-yield environment. Journal of Agricultural Science, 2007, 145, 3-16.	0.6	49

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145	Genetic and molecular bases of yield-associated traits: a translational biology approach between rice and wheat. Theoretical and Applied Genetics, 2014, 127, 1463-1489.	1.8	49
146	Breeding for Yield Potential has Increased Deep Soil Water Extraction Capacity in Irrigated Wheat. Crop Science, 2013, 53, 2090-2104.	0.8	48
147	Genetic variation for photosynthetic capacity and efficiency in spring wheat. Journal of Experimental Botany, 2020, 71, 2299-2311.	2.4	48
148	Breeding customâ€designed crops for improved drought adaptation. Genetics & Genomics Next, 2021, 2, e202100017.	0.8	48
149	Interpreting Treatment Ã— Environment Interaction in Agronomy Trials. Agronomy Journal, 2001, 93, 949-960.	0.9	47
150	Global crop improvement networks to bridge technology gaps. Journal of Experimental Botany, 2012, 63, 1-12.	2.4	47
151	High Throughput Field Phenotyping for Plant Height Using UAV-Based RGB Imagery in Wheat Breeding Lines: Feasibility and Validation. Frontiers in Plant Science, 2021, 12, 591587.	1.7	46
152	Association Mapping and Nucleotide Sequence Variation in Five Drought Tolerance Candidate Genes in Spring Wheat. Plant Genome, 2013, 6, plantgenome2013.04.0010.	1.6	45
153	CGIAR modeling approaches for resourceâ€constrained scenarios: I. Accelerating crop breeding for a changing climate. Crop Science, 2020, 60, 547-567.	0.8	45
154	Wheat grain number: Identification of favourable physiological traits in an elite doubled-haploid population. Field Crops Research, 2014, 168, 126-134.	2.3	44
155	Baseline simulation for global wheat production with CIMMYT mega-environment specific cultivars. Field Crops Research, 2017, 202, 122-135.	2.3	44
156	Different uncertainty distribution between high and low latitudes in modelling warming impacts on wheat. Nature Food, 2020, 1, 63-69.	6.2	43
157	Molecular mapping of high temperature tolerance in bread wheat adapted to the Eastern Gangetic Plain region of India. Field Crops Research, 2013, 154, 201-210.	2.3	42
158	Spike photosynthesis measured at high throughput indicates genetic variation independent of flag leaf photosynthesis. Field Crops Research, 2020, 255, 107866.	2.3	42
159	Recognizing the hidden half in wheat: root system attributes associated with drought tolerance. Journal of Experimental Botany, 2021, 72, 5117-5133.	2.4	42
160	Genetic dissection of heat and drought stress QTLs in phenology-controlled synthetic-derived recombinant inbred lines in spring wheat. Molecular Breeding, 2019, 39, 1.	1.0	41
161	Identification of heat tolerant wheat lines showing genetic variation in leaf respiration and other physiological traits. Euphytica, 2017, 213, 1.	0.6	38
162	Increased ranking change in wheat breeding under climate change. Nature Plants, 2021, 7, 1207-1212.	4.7	37

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163	PAPER PRESENTED AT INTERNATIONAL WORKSHOP ON INCREASING WHEAT YIELD POTENTIAL, CIMMYT, OBREGON, MEXICO, 20â€"24 MARCH 2006 An economic assessment of the use of physiological selection for stomatal aperture-related traits in the CIMMYT wheat breeding programme. Journal of Agricultural Science, 2007, 145, 187-194.	0.6	36
164	Variation in developmental patterns among elite wheat lines and relationships with yield, yield components and spike fertility. Field Crops Research, 2016, 196, 294-304.	2.3	36
165	Physical robustness of canopy temperature models for crop heat stress simulation across environments and production conditions. Field Crops Research, 2018, 216, 75-88.	2.3	36
166	Role of Modelling in International Crop Research: Overview and Some Case Studies. Agronomy, 2018, 8, 291.	1.3	36
167	A wheat phenotyping network to incorporate physiological traits for climate change in South Asia. Field Crops Research, 2014, 168, 156-167.	2.3	35
168	Improving global integration of crop research. Science, 2017, 357, 359-360.	6.0	34
169	Utilizing Highâ€Throughput Phenotypic Data for Improved Phenotypic Selection of Stressâ€Adaptive Traits in Wheat. Crop Science, 2017, 57, 648-659.	0.8	34
170	Combining Results from Augmented Designs over Sites. Agronomy Journal, 2001, 93, 389-395.	0.9	34
171	Grain Yield Potential Strategies in an Elite Wheat Doubleâ€Haploid Population Grown in Contrasting Environments. Crop Science, 2013, 53, 2577-2587.	0.8	33
172	Evaluation of Physiological and Morphological Traits for Improving Spring Wheat Adaptation to Terminal Heat Stress. Plants, 2021, 10, 455.	1.6	33
173	Exploring Genetic Resources to Increase Adaptation of Wheat to Climate Change. , 2015, , 355-368.		32
174	Heritability, correlated response, and indirect selection involving spectral reflectance indices and grain yield in wheat. Australian Journal of Agricultural Research, 2007, 58, 432.	1.5	31
175	Genomicâ€enabled Prediction Accuracies Increased by Modeling Genotype Ã— Environment Interaction in Durum Wheat. Plant Genome, 2018, 11, 170112.	1.6	31
176	Adapting irrigated and rainfed wheat to climate change in semi-arid environments: Management, breeding options and land use change. European Journal of Agronomy, 2019, 109, 125915.	1.9	31
177	Genomic variants affecting homoeologous gene expression dosage contribute to agronomic trait variation in allopolyploid wheat. Nature Communications, 2022, 13, 826.	5.8	31
178	Mining wheat germplasm collections for yield enhancing traits. Euphytica, 2001, 119, 25-32.	0.6	30
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