Scott C Chapman

List of Publications by Year
in descending order

168 papers	16,039 citations	15503 65 h-index	18128 120 g-index
176 all docs	176 docs citations	176 times ranked	10583 citing authors

#	Article	IF	Citations
1	An overview of APSIM, a model designed for farming systems simulation. European Journal of Agronomy, 2003, 18, 267-288.	4.1	2,073
2	APSIM â€“ Evolution towards a new generation of agricultural systems simulation. Environmental Modelling and Software, 2014, 62, 327-350.	4.5	1,173
3	Heat and drought adaptive QTL in a wheat population designed to minimize confounding agronomic effects. Theoretical and Applied Genetics, 2010, 121, 1001-1021.	3.6	484
4	Models for navigating biological complexity in breeding improved crop plants. Trends in Plant Science, 2006, 11, 587-593.	8.8	364
5	Expression Profile Analysis of the Low-Oxygen Response in Arabidopsis Root Cultures[W]. Plant Cell, 2002, 14, 2481-2494.	6.6	362
6	Adapting APSIM to model the physiology and genetics of complex adaptive traits in field crops. Journal of Experimental Botany, 2010, 61, 2185-2202.	4.8	275
7	Using a Chlorophyll Meter to Estimate Specific Leaf Nitrogen of Tropical Maize during Vegetative Growth. Agronomy Journal, 1997, 89, 557-562.	1.8	266
8	Raising yield potential of wheat. I. Overview of a consortium approach and breeding strategies. Journal of Experimental Botany, 2011, 62, 439-452.	4.8	262
9	Environment characterization as an aid to wheat improvement: interpreting genotypeâ€“environment interactions by modelling water-deficit patterns in North-Eastern Australia. Journal of Experimental Botany, 2011, 62, 1743-1755.	4.8	256
10	A Direct Comparison of Remote Sensing Approaches for High-Throughput Phenotyping in Plant Breeding. Frontiers in Plant Science, 2016, 7, 1131.	3.6	248
11	Largeâ€scale characterization of drought pattern: a continentâ€wide modelling approach applied to the Australian wheatbelt â€“ spatial and temporal trends. New Phytologist, 2013, 198, 801-820.	7.3	244
12	Breeding for the future: what are the potential impacts of future frost and heat events on sowing and flowering time requirements for <scp>A</scp>ustralian bread wheat (<i><scp>T</scp>riticum) Tj ETQq0 0 0 rgBT /Overload 10 Tf 50	9.5	24[illegible]
13	Selection Improves Drought Tolerance in Tropical Maize Populations: I. Gains in Biomass, Grain Yield, and Harvest Index. Crop Science, 1999, 39, 1306-1315.	1.8	237
14	Development of a generic crop model template in the cropping system model APSIM. European Journal of Agronomy, 2002, 18, 121-140.	4.1	236
15	Pheno-Copter: A Low-Altitude, Autonomous Remote-Sensing Robotic Helicopter for High-Throughput Field-Based Phenotyping. Agronomy, 2014, 4, 279-301.	3.0	233
16	The shifting influence of drought and heat stress for crops in northeast Australia. Global Change Biology, 2015, 21, 4115-4127.	9.5	230
17	Dynamic monitoring of NDVI in wheat agronomy and breeding trials using an unmanned aerial vehicle. Field Crops Research, 2017, 210, 71-80.	5.1	217
18	Simulating the Yield Impacts of Organ-Level Quantitative Trait Loci Associated With Drought Response in Maize: A â€œGene-to-Phenotypeâ€• Modeling Approach. Genetics, 2009, 183, 1507-1523.	2.9	210

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19	Contribution of Crop Models to Adaptation in Wheat. Trends in Plant Science, 2017, 22, 472-490.	8.8	201
20	Plant adaptation to climate changeâ€"opportunities and priorities in breeding. Crop and Pasture Science, 2012, 63, 251.	1.5	194
21	Modelling strategies for assessing and increasing the effectiveness of new phenotyping techniques in plant breeding. Plant Science, 2019, 282, 23-39.	3.6	173
22	Genotype by environment interactions affecting grain sorghum. II. Frequencies of different seasonal patterns of drought stress are related to location effects on hybrid yields. Australian Journal of Agricultural Research, 2000, 51, 209.	1.5	171
23	Use of crop models to understand genotype by environment interactions for drought in real-world and simulated plant breeding trials. Euphytica, 2008, 161, 195-208.	1.2	166
24	Multi-environment QTL mixed models for drought stress adaptation in wheat. Theoretical and Applied Genetics, 2008, 117, 1077-1091.	3.6	160
25	Grain number and grain weight in wheat lines contrasting for stem water soluble carbohydrate concentration. Field Crops Research, 2009, 112, 43-54.	5.1	159
26	Evaluating Plant Breeding Strategies by Simulating Gene Action and Dryland Environment Effects. Agronomy Journal, 2003, 95, 99.	1.8	158
27	Crop design for specific adaptation in variable dryland production environments. Crop and Pasture Science, 2014, 65, 614.	1.5	152
28	Selection Improves Drought Tolerance in Tropical Maize Populations: II. Direct and Correlated Responses among Secondary Traits. Crop Science, 1999, 39, 1315-1324.	1.8	151
29	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.	3.6	151
30	Detection and use of QTL for complex traits in multiple environments. Current Opinion in Plant Biology, 2010, 13, 193-205.	7.1	146
31	Trait physiology and crop modelling as a framework to link phenotypic complexity to underlying genetic systems. Australian Journal of Agricultural Research, 2005, 56, 947.	1.5	142
32	Quantification of the effects of VRN1 and Ppd-D1 to predict spring wheat (Triticum aestivum) heading time across diverse environments. Journal of Experimental Botany, 2013, 64, 3747-3761.	4.8	141
33	Identification of QTL for sugar-related traits in a sweetÂÃ—Âgrain sorghum (Sorghum bicolor L. Moench) recombinant inbred population. Molecular Breeding, 2008, 22, 367-384.	2.1	138
34	Breeder friendly phenotyping. Plant Science, 2020, 295, 110396.	3.6	135
35	Frost trends and their estimated impact on yield in the Australian wheatbelt. Journal of Experimental Botany, 2015, 66, 3611-3623.	4.8	131
36	Multi-Spectral Imaging from an Unmanned Aerial Vehicle Enables the Assessment of Seasonal Leaf Area Dynamics of Sorghum Breeding Lines. Frontiers in Plant Science, 2017, 8, 1532.	3.6	129

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37	Global Wheat Head Detection (GWHD) Dataset: A Large and Diverse Dataset of High-Resolution RGB-Labelled Images to Develop and Benchmark Wheat Head Detection Methods. Plant Phenomics, 2020, 2020, 3521852.	5.9	128
38	Adaptation science for agriculture and natural resource management â€" urgency and theoretical basis. Current Opinion in Environmental Sustainability, 2009, 1, 69-76.	6.3	127
39	Shortâ€term responses of leaf growth rate to water deficit scale up to wholeâ€plant and crop levels: an integrated modelling approach in maize. Plant, Cell and Environment, 2008, 31, 378-391.	5.7	122
40	Estimation of plant height using a high throughput phenotyping platform based on unmanned aerial vehicle and self-calibration: Example for sorghum breeding. European Journal of Agronomy, 2018, 95, 24-32.	4.1	122
41	A Sunflower Simulation Model: I. Model Development. Agronomy Journal, 1993, 85, 725-735.	1.8	121
42	On Systems Thinking, Systems Biology, and the in Silico Plant. Plant Physiology, 2004, 134, 909-911.	4.8	116
43	A Weakly Supervised Deep Learning Framework for Sorghum Head Detection and Counting. Plant Phenomics, 2019, 2019, 1525874.	5.9	114
44	Genotype by environment interactions affecting grain sorghum. III. Temporal sequences and spatial patterns in the target population of environments. Australian Journal of Agricultural Research, 2000, 51, 223.	1.5	111
45	Using biplots to interpret gene expression patterns in plants. Bioinformatics, 2002, 18, 202-204.	4.1	110
46	Identification of Differentially Expressed Transcripts from Maturing Stem of Sugarcane by in silico Analysis of Stem Expressed Sequence Tags and Gene Expression Profiling. Plant Molecular Biology, 2004, 54, 503-517.	3.9	110
47	An integrated approach to maintaining cereal productivity under climate change. Global Food Security, 2016, 8, 9-18.	8.1	110
48	Using crop simulation to generate genotype by environment interaction effects for sorghum in water-limited environments. Australian Journal of Agricultural Research, 2002, 53, 379.	1.5	108
49	The quest for understanding phenotypic variation via integrated approaches in the field environment. Plant Physiology, 2016, 172, pp.00592.2016.	4.8	99
50	Dynamic quantification of canopy structure to characterize early plant vigour in wheat genotypes. Journal of Experimental Botany, 2016, 67, 4523-4534.	4.8	98
51	Comparison of ground cover estimates from experiment plots in cotton, sorghum and sugarcane based on images and ortho-mosaics captured by UAV. Functional Plant Biology, 2017, 44, 169.	2.1	98
52	Physiological determinants of maize and sunflower grain yield as affected by nitrogen supply. Field Crops Research, 2009, 113, 256-267.	5.1	95
53	Functional dynamics of the nitrogen balance of sorghum: I. N demand of vegetative plant parts. Field Crops Research, 2010, 115, 19-28.	5.1	91
54	Functional dynamics of the nitrogen balance of sorghum. II. Grain filling period. Field Crops Research, 2010, 115, 29-38.	5.1	89

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55	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.	4.8	88
56	Assessment of the Potential Impacts of Wheat Plant Traits across Environments by Combining Crop Modeling and Global Sensitivity Analysis. PLoS ONE, 2016, 11, e0146385.	2.5	86
57	An assessment of the genetic relationship between sweet and grain sorghums, within Sorghum bicolor ssp. bicolor (L.) Moench, using AFLP markers. Euphytica, 2007, 157, 161-176.	1.2	83
58	Sorghum genotypes differ in high temperature responses for seed set. Field Crops Research, 2015, 171, 32-40.	5.1	83
59	Recent changes in southern Australian frost occurrence: implications for wheat production risk. Crop and Pasture Science, 2016, 67, 801.	1.5	80
60	Designing crops for adaptation to the drought and highâ€temperature risks anticipated in future climates. Crop Science, 2020, 60, 605-621.	1.8	80
61	Predictions of heading date in bread wheat (Triticum aestivum L.) using QTL-based parameters of an ecophysiological model. Journal of Experimental Botany, 2014, 65, 5849-5865.	4.8	74
62	Aerial Imagery Analysis â€“ Quantifying Appearance and Number of Sorghum Heads for Applications in Breeding and Agronomy. Frontiers in Plant Science, 2018, 9, 1544.	3.6	74
63	Application of Population Genetic Theory and Simulation Models to Efficiently Pyramid Multiple Genes via Markerâ€Assisted Selection. Crop Science, 2007, 47, 582-588.	1.8	73
64	Genotype by environment interactions affecting grain sorghum. I. Characteristics that confound interpretation of hybrid yield. Australian Journal of Agricultural Research, 2000, 51, 197.	1.5	72
65	Genomics approaches for the identification of genes determining important traits in sugarcane. Field Crops Research, 2005, 92, 137-147.	5.1	70
66	Global Adaptation of Spring Bread and Durum Wheat Lines Nearâ€Isogenic for Major Reduced Height Genes. Crop Science, 2006, 46, 603-613.	1.8	67
67	Evaluating Plant Breeding Strategies by Simulating Gene Action and Dryland Environment Effects. Agronomy Journal, 2003, 95, 99-113.	1.8	67
68	Modelling the nitrogen dynamics of maize crops â€“ Enhancing the APSIM maize model. European Journal of Agronomy, 2018, 100, 118-131.	4.1	66
69	Combining Crop Growth Modeling and Statistical Genetic Modeling to Evaluate Phenotyping Strategies. Frontiers in Plant Science, 2019, 10, 1491.	3.6	65
70	Relationships between height and yield in near-isogenic spring wheats that contrast for major reduced height genes. Euphytica, 2007, 157, 391-397.	1.2	63
71	Global Wheat Head Detection 2021: An Improved Dataset for Benchmarking Wheat Head Detection Methods. Plant Phenomics, 2021, 2021, 9846158.	5.9	60
72	Progress over 20 years of sunflower breeding in central Argentina. Field Crops Research, 2007, 100, 61-72.	5.1	58

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73	Characterization of drought stress environments for upland rice and maize in central Brazil. Euphytica, 2008, 162, 395-410.	1.2	58
74	The GP problem: quantifying gene-to-phenotype relationships. In Silico Biology, 2002, 2, 151-64.	0.9	58
75	Relationships between hard-seededness and seed weight in mungbean (Vigna radiata) assessed by QTL analysis. Plant Breeding, 2005, 124, 292-298.	1.9	57
76	Transcriptional response of sugarcane roots to methyl jasmonate. Plant Science, 2005, 168, 761-772.	3.6	57
77	Variation for and relationships among biomass and grain yield component traits conferring improved yield and grain weight in an elite wheat population grown in variable yield environments. Crop and Pasture Science, 2009, 60, 717.	1.5	55
78	Genetic variability in high temperature effects on seed-set in sorghum. Functional Plant Biology, 2013, 40, 439.	2.1	54
79	Velocity of temperature and flowering time in wheat â€“ assisting breeders to keep pace with climate change. Global Change Biology, 2016, 22, 921-933.	9.5	53
80	Identification of Earliness Per Se Flowering Time Locus in Spring Wheat through a Genomeâ€Wide Association Study. Crop Science, 2016, 56, 2962-2672.	1.8	53
81	EasyPCC: Benchmark Datasets and Tools for High-Throughput Measurement of the Plant Canopy Coverage Ratio under Field Conditions. Sensors, 2017, 17, 798.	3.8	52
82	Modelling impact of early vigour on wheat yield in dryland regions. Journal of Experimental Botany, 2019, 70, 2535-2548.	4.8	51
83	Modelling of Genotype by Environment Interaction and Prediction of Complex Traits across Multiple Environments as a Synthesis of Crop Growth Modelling, Genetics and Statistics. , 2016, , 55-82.		51
84	Title is missing!. Euphytica, 1997, 95, 01-09.	1.2	50
85	Genotype by environment interaction and indirect selection for yield in sunflower. Field Crops Research, 2001, 72, 17-38.	5.1	49
86	Evaluation of a reduced-tillering (tin) gene in wheat lines grown across different production environments. Crop and Pasture Science, 2012, 63, 128.	1.5	49
87	Projected impact of future climate on water-stress patterns across the Australian wheatbelt. Journal of Experimental Botany, 2017, 68, 5907-5921.	4.8	49
88	On the dynamic determinants of reproductive failure under drought in maize. In Silico Plants, 2019, 1, .	1.9	49
89	Evaluation of reduced-tillering (tin) wheat lines in managed, terminal water deficit environments. Journal of Experimental Botany, 2013, 64, 3439-3451.	4.8	46
90	Improving process-based crop models to better capture genotypeÃ—environmentÃ—management interactions. Journal of Experimental Botany, 2019, 70, 2389-2401.	4.8	46

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91	Lodging reduces sucrose accumulation of sugarcane in the wet and dry tropics. Australian Journal of Agricultural Research, 2002, 53, 1183.	1.5	44
92	Differential gene expression of wheat progeny with contrasting levels of transpiration efficiency. Plant Molecular Biology, 2006, 61, 863-881.	3.9	44
93	Pixel size of aerial imagery constrains the applications of unmanned aerial vehicle in crop breeding. ISPRS Journal of Photogrammetry and Remote Sensing, 2019, 154, 1-9.	11.1	41
94	Simultaneous selection of major and minor genes: use of QTL to increase selection efficiency of coleoptile length of wheat (Triticum aestivum L.). Theoretical and Applied Genetics, 2009, 119, 65-74.	3.6	40
95	Molecular Breeding for Complex Adaptive Traits: How Integrating Crop Ecophysiology and Modelling Can Enhance Efficiency. , 2016, , 147-162.		38
96	Genotypic variability in the response to elevated CO2 of wheat lines differing in adaptive traits. Functional Plant Biology, 2013, 40, 172.	2.1	37
97	Evaluation of the Phenotypic Repeatability of Canopy Temperature in Wheat Using Continuous-Terrestrial and Airborne Measurements. Frontiers in Plant Science, 2019, 10, 875.	3.6	36
98	Title is missing!. Euphytica, 1997, 95, 11-20.	1.2	35
99	Effects of nitrogen supply on canopy development of maize and sunflower. Crop and Pasture Science, 2011, 62, 1045.	1.5	35
100	From QTLs to Adaptation Landscapes: Using Genotype-To-Phenotype Models to Characterize GÃ—E Over Time. Frontiers in Plant Science, 2019, 10, 1540.	3.6	33
101	Do wheat breeders have suitable genetic variation to overcome short coleoptiles and poor establishment in the warmer soils of future climates?. Functional Plant Biology, 2016, 43, 961.	2.1	32
102	Improvement of Predictive Ability by Uniform Coverage of the Target Genetic Space. G3: Genes, Genomes, Genetics, 2016, 6, 3733-3747.	1.8	32
103	Global adaptation patterns of Australian and CIMMYT spring bread wheat. Theoretical and Applied Genetics, 2007, 115, 819-835.	3.6	31
104	Defining Sunflower Selection Strategies for a Highly Heterogeneous Target Population of Environments. Crop Science, 2006, 46, 136-144.	1.8	30
105	Effect of drought during early reproductive development on growth of cultivars of groundnut (Arachis hypogaea L.). I. Utilization of radiation and water during drought. Field Crops Research, 1993, 32, 193-210.	5.1	29
106	A Sunflower Simulation Model: II. Simulating Production Risks in a Variable Subâ€Tropical Environment. Agronomy Journal, 1993, 85, 735-742.	1.8	28
107	Genotypic Differences in Effects of Short Episodes of Highâ€Temperature Stress during Reproductive Development in Sorghum. Crop Science, 2016, 56, 1561-1572.	1.8	28
108	Evolution and application of digital technologies to predict crop type and crop phenology in agriculture. In Silico Plants, 2021, 3, .	1.9	27

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109	A wiring diagram to integrate physiological traits of wheat yield potential. Nature Food, 2022, 3, 318-324.	14.0	27
110	Genotype by environment interaction and indirect selection for yield in sunflower. Field Crops Research, 2001, 72, 39-50.	5.1	26
111	Spatial and seasonal effects confounding interpretation of sunflower yields in Argentina. Field Crops Research, 2002, 73, 107-120.	5.1	26
112	Scaling up high-throughput phenotyping for abiotic stress selection in the field. Theoretical and Applied Genetics, 2021, 134, 1845-1866.	3.6	26
113	Improving Biomass and Grain Yield Prediction of Wheat Genotypes on Sodic Soil Using Integrated High-Resolution Multispectral, Hyperspectral, 3D Point Cloud, and Machine Learning Techniques. Remote Sensing, 2021, 13, 3482.	4.0	26
114	Evaluation of CIMMYT conventional and synthetic spring wheat germplasm in rainfed sub-tropical environments. II. Grain yield components and physiological traits. Field Crops Research, 2011, 124, 195-204.	5.1	25
115	SensorDB: a virtual laboratory for the integration, visualization and analysis of varied biological sensor data. Plant Methods, 2015, 11, 53.	4.3	25
116	The value of adapting to climate change in Australian wheat farm systems: farm to cross-regional scale. Agriculture, Ecosystems and Environment, 2015, 211, 112-125.	5.3	25
117	Changes in agronomic traits of sunflower hybrids over 20 years of breeding in central Argentina. Field Crops Research, 2007, 100, 73-81.	5.1	24
118	Identification of differentially expressed genes in wheat undergoing gradual water deficit stress using a subtractive hybridisation approach. Plant Science, 2005, 168, 661-670.	3.6	23
119	Crop and environmental attributes underpinning genotype by environment interaction in synthetic-derived bread wheat evaluated in Mexico and Australia. Australian Journal of Agricultural Research, 2008, 59, 447.	1.5	23
120	Quantifying high temperature risks and their potential effects on sorghum production in Australia. Field Crops Research, 2017, 211, 77-88.	5.1	23
121	UAV-Thermal imaging and agglomerative hierarchical clustering techniques to evaluate and rank physiological performance of wheat genotypes on sodic soil. ISPRS Journal of Photogrammetry and Remote Sensing, 2021, 173, 221-237.	11.1	23
122	Evaluation of water status of wheat genotypes to aid prediction of yield on sodic soils using UAV-thermal imaging and machine learning. Agricultural and Forest Meteorology, 2021, 307, 108477.	4.8	22
123	The Value of Tactical Adaptation to El NiÃ±oâ€“Southern Oscillation for East Australian Wheat. Climate, 2018, 6, 77.	2.8	21
124	Predicting leaf area development of sunflower. Field Crops Research, 1993, 34, 101-112.	5.1	20
125	Linking genetic maps and simulation to optimize breeding for wheat flowering time in current and future climates. Crop Science, 2020, 60, 678-699.	1.8	20
126	Effect of drought during early reproductive development on growth of cultivars of groundnut (Arachis hypogaea L.). II. Biomass production, pod development and yield. Field Crops Research, 1993, 32, 211-225.	5.1	19

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127	Multivariate Analyses to Display Interactions between Environment and General or Specific Combining Ability in Hybrid Crops. Crop Science, 2006, 46, 957-967.	1.8	19
128	Sorghum Biomass Prediction Using Uav-Based Remote Sensing Data and Crop Model Simulation. , 2018, , .		19
129	Limiting transpiration rate in high evaporative demand conditions to improve Australian wheat productivity. In Silico Plants, 2021, 3, .	1.9	19
130	Megaâ€Environment Differences Affecting Genetic Progress for Yield and Relative Value of Component Traits. Crop Science, 2010, 50, 574-583.	1.8	18
131	Coupling of machine learning methods to improve estimation of ground coverage from unmanned aerial vehicle (UAV) imagery for high-throughput phenotyping of crops. Functional Plant Biology, 2021, 48, 766-779.	2.1	18
132	Integrating crop growth models with remote sensing for predicting biomass yield of sorghum. In Silico Plants, 2021, 3, .	1.9	18
133	Indirect selection using reference and probe genotype performance in multi-environment trials. Crop and Pasture Science, 2011, 62, 313.	1.5	15
134	Effect of drought during early reproductive development on the dynamics of yield development of cultivars of groundnut (Arachis hypogaea L.). Field Crops Research, 1993, 32, 227-242.	5.1	14
135	Frost Trends and their Estimated Impact on Yield in the Australian Wheatbelt. Procedia Environmental Sciences, 2015, 29, 171-172.	1.4	13
136	Direct and Indirect Costs of Frost in the Australian Wheatbelt. Ecological Economics, 2018, 150, 122-136.	5.7	13
137	Effect of drought during pod filling on utilization of water and on growth of cultivars of groundnut (Arachis hypogaea L.). Field Crops Research, 1993, 32, 243-255.	5.1	12
138	Economic assessment of wheat breeding options for potential improved levels of post head-emergence frost tolerance. Field Crops Research, 2017, 213, 75-88.	5.1	11
139	Unsupervised Plot-Scale LAI Phenotyping via UAV-Based Imaging, Modelling, and Machine Learning. Plant Phenomics, 2022, 2022, .	5.9	11
140	Determining Crop Growth Dynamics in Sorghum Breeding Trials Through Remote and Proximal Sensing Technologies. , 2018, , .		10
141	Sorghum Crop Modeling and Its Utility in Agronomy and Breeding. Agronomy, 0, , 215-239.	0.2	10
142	Detecting Sorghum Plant and Head Features from Multispectral UAV Imagery. Plant Phenomics, 2021, 2021, 9874650.	5.9	10
143	Detection of calcium, magnesium, and chlorophyll variations of wheat genotypes on sodic soils using hyperspectral red edge parameters. Environmental Technology and Innovation, 2022, 27, 102469.	6.1	10
144	Quantifying the effects of varietal typesÂÃ—Âmanagement on the spatial variability of sorghum biomass across US environments. GCB Bioenergy, 2022, 14, 411-433.	5.6	9

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145	Genotype-specific P-spline response surfaces assist interpretation of regional wheat adaptation to climate change. In Silico Plants, 2021, 3, .	1.9	8
146	Comparison of Modelling Strategies to Estimate Phenotypic Values from an Unmanned Aerial Vehicle with Spectral and Temporal Vegetation Indexes. Remote Sensing, 2021, 13, 2827.	4.0	8
147	UAV-thermal imaging: A technological breakthrough for monitoring and quantifying crop abiotic stress to help sustain productivity on sodic soils â€“ A case review on wheat. Remote Sensing Applications: Society and Environment, 2021, 23, 100583.	1.5	8
148	Osmotic adjustment inSorghum bicolor (L. Moench) grown under moisture stress in soil and osmotically modified solution cultures. Plant and Soil, 1988, 107, 57-62.	3.7	7
149	Using a gene-based phenology model to identify optimal flowering periods of spring wheat in irrigated mega-environments. Journal of Experimental Botany, 2021, 72, 7203-7218.	4.8	7
150	Estimating Photosynthetic Attributes from High-Throughput Canopy Hyperspectral Sensing in Sorghum. Plant Phenomics, 2022, 2022, 9768502.	5.9	7
151	Evaluation of drought tolerance of wheat genotypes in rain-fed sodic soil environments using high-resolution UAV remote sensing techniques. Biosystems Engineering, 2022, 217, 68-82.	4.3	6
152	A new probabilistic forecasting model for canopy temperature with consideration of periodicity and parameter variation. Agricultural and Forest Meteorology, 2019, 265, 88-98.	4.8	5
153	An analysis of simulated yield data for pepper shows how genotype Ã— environment interaction in yield can be understood in terms of yield components and their QTLs. Crop Science, 2021, 61, 1826-1842.	1.8	5
154	Visible, Near Infrared, and Thermal Spectral Radiance On-Board UAVs for High-Throughput Phenotyping of Plant Breeding Trials. , 2018, , 275-299.		5
155	Sorghum Crop Modeling and Its Utility in Agronomy and Breeding. Agronomy, 2016, , .	0.2	4
156	The case for evidenceâ€based policy to support stressâ€resilient cropping systems. Food and Energy Security, 2017, 6, 5-11.	4.3	4
157	Improving estimation of in-season crop water use and health of wheat genotypes on sodic soils using spatial interpolation techniques and multi-component metrics. Agricultural Water Management, 2021, 255, 107007.	5.6	4
158	Can Seasonal Climate Forecasts Predict Movements in Grain Prices?. Atmospheric and Oceanographic Sciences Library, 2000, , 367-380.	0.1	4
159	Phenological optimization of late reproductive phase for raising wheat yield potential in irrigated mega-environments. Journal of Experimental Botany, 2022, 73, 4236-4249.	4.8	4
160	Integrating a crop growth model and radiative transfer model to improve estimation of crop traits based on deep learning. Journal of Experimental Botany, 2022, 73, 6558-6574.	4.8	3
161	Designing the sorghum crop model in APSIM to simulate the physiology and genetics of complex adaptive traits. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2009, 153, S222.	1.8	2
162	Projected Impact of Future Climate on Drought Patterns in Complex Rainfed Environments. Procedia Environmental Sciences, 2015, 29, 190-191.	1.4	2

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163	A standardized workflow to utilise a grid-computing system through advanced message queuing protocols. Environmental Modelling and Software, 2016, 84, 304-310.	4.5	2
164	Reversing yield declines of a subâ€tropical vertisol. Communications in Soil Science and Plant Analysis, 1995, 26, 1105-1119.	1.4	1
165	Integrated High-Throughput Phenotyping with High Resolution Multispectral, Hyperspectral and 3D Point Cloud Techniques for Screening Wheat Genotypes on Sodic Soils. Proceedings (mdpi), 2019, 36, 206.	0.2	1
166	Simulated Breeding with QU-GENE Graphical User Interface. Methods in Molecular Biology, 2014, 1145, 131-142.	0.9	1
167	UAV-Thermal Imaging: A Robust Technology to Evaluate in-field Crop Water Stress and Yield Variation of Wheat Genotypes. , 2020, , .		1
168	Domain Adaptation for Plant Organ Detection with Style Transfer. , 2021, , .		1