Scott C Chapman

List of Publications by Citations

163 papers	11,842 citations	58 h-index	106 g-index
176 ext. papers	14,151 ext. citations	5 avg, IF	6.28 L-index

#	Paper	IF	Citations
163	An overview of APSIM, a model designed for farming systems simulation. *European Journal of Agronomy*, **2003**, 18, 267-288	5	1689
162	APSIM Evolution towards a new generation of agricultural systems simulation. *Environmental Modelling and Software*, **2014**, 62, 327-350	5.2	809
161	Heat and drought adaptive QTL in a wheat population designed to minimize confounding agronomic effects. *Theoretical and Applied Genetics*, **2010**, 121, 1001-21	6	377
160	Expression profile analysis of the low-oxygen response in Arabidopsis root cultures. *Plant Cell*, **2002** , 14, 2481-94	11.6	314
159	Models for navigating biological complexity in breeding improved crop plants. *Trends in Plant Science*, **2006**, 11, 587-93	13.1	291
158	Adapting APSIM to model the physiology and genetics of complex adaptive traits in field crops. *Journal of Experimental Botany*, **2010**, 61, 2185-202	7	217
157	Raising yield potential of wheat. I. Overview of a consortium approach and breeding strategies. *Journal of Experimental Botany*, **2011**, 62, 439-52	7	216
156	Using a Chlorophyll Meter to Estimate Specific Leaf Nitrogen of Tropical Maize during Vegetative Growth. *Agronomy Journal*, **1997**, 89, 557-562	2.2	212
155	Development of a generic crop model template in the cropping system model APSIM. *European Journal of Agronomy*, **2002**, 18, 121-140	5	198
154	Environment characterization as an aid to wheat improvement: interpreting genotype-environment interactions by modelling water-deficit patterns in North-Eastern Australia. *Journal of Experimental Botany*, **2011**, 62, 1743-55	7	194
153	Selection Improves Drought Tolerance in Tropical Maize Populations: I. Gains in Biomass, Grain Yield, and Harvest Index. *Crop Science*, **1999**, 39, 1306-1315	2.4	193
152	Pheno-Copter: A Low-Altitude, Autonomous Remote-Sensing Robotic Helicopter for High-Throughput Field-Based Phenotyping. *Agronomy*, **2014**, 4, 279-301	3.6	184
151	Breeding for the future: what are the potential impacts of future frost and heat events on sowing and flowering time requirements for Australian bread wheat (Triticum aestivium) varieties?. *Global Change Biology*, **2012**, 18, 2899-914	11.4	177
150	Simulating the yield impacts of organ-level quantitative trait loci associated with drought response in maize: a "gene-to-phenotype" modeling approach. *Genetics*, **2009**, 183, 1507-23	4	175
149	The shifting influence of drought and heat stress for crops in northeast Australia. *Global Change Biology*, **2015**, 21, 4115-27	11.4	173
148	Large-scale characterization of drought pattern: a continent-wide modelling approach applied to the Australian wheatbelt--spatial and temporal trends. *New Phytologist*, **2013**, 198, 801-820	9.8	171
147	A Direct Comparison of Remote Sensing Approaches for High-Throughput Phenotyping in Plant Breeding. *Frontiers in Plant Science*, **2016**, 7, 1131	6.2	155

146	Multi-environment QTL mixed models for drought stress adaptation in wheat. *Theoretical and Applied Genetics*, **2008**, 117, 1077-91	6	141
145	Evaluating Plant Breeding Strategies by Simulating Gene Action and Dryland Environment Effects. *Agronomy Journal*, **2003**, 95, 99	2.2	140
144	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	2.1	139
143	Dynamic monitoring of NDVI in wheat agronomy and breeding trials using an unmanned aerial vehicle. *Field Crops Research*, **2017**, 210, 71-80	5.5	135
142	Grain number and grain weight in wheat lines contrasting for stem water soluble carbohydrate concentration. *Field Crops Research*, **2009**, 112, 43-54	5.5	135
141	Plant adaptation to climate change□opportunities and priorities in breeding. *Crop and Pasture Science*, **2012**, 63, 251	2.2	134
140	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		132
139	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, 527-41	6	129
138	Detection and use of QTL for complex traits in multiple environments. *Current Opinion in Plant Biology*, **2010**, 13, 193-205	9.9	126
137	Trait physiology and crop modelling as a framework to link phenotypic complexity to underlying genetic systems. *Australian Journal of Agricultural Research*, **2005**, 56, 947		126
136	Selection Improves Drought Tolerance in Tropical Maize Populations: II. Direct and Correlated Responses among Secondary Traits. *Crop Science*, **1999**, 39, 1315-1324	2.4	120
135	Identification of QTL for sugar-related traits in a sweet □grain sorghum (Sorghum bicolor L. Moench) recombinant inbred population. *Molecular Breeding*, **2008**, 22, 367-384	3.4	112
134	Contribution of Crop Models to Adaptation in Wheat. *Trends in Plant Science*, **2017**, 22, 472-490	13.1	110
133	Adaptation science for agriculture and natural resource management□rgency and theoretical basis. *Current Opinion in Environmental Sustainability*, **2009**, 1, 69-76	7.2	108
132	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, 503-17	4.6	105
131	Modelling strategies for assessing and increasing the effectiveness of new phenotyping techniques in plant breeding. *Plant Science*, **2019**, 282, 23-39	5.3	103
130	Short-term responses of leaf growth rate to water deficit scale up to whole-plant and crop levels: an integrated modelling approach in maize. *Plant, Cell and Environment*, **2008**, 31, 378-91	8.4	103
129	On systems thinking, systems biology, and the in silico plant. *Plant Physiology*, **2004**, 134, 909-11	6.6	103

128	A Sunflower Simulation Model: I. Model Development. *Agronomy Journal*, **1993**, 85, 725-735	2.2	101
127	Frost trends and their estimated impact on yield in the Australian wheatbelt. *Journal of Experimental Botany*, **2015**, 66, 3611-23	7	98
126	Using biplots to interpret gene expression patterns in plants. *Bioinformatics*, **2002**, 18, 202-4	7.2	93
125	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, 3747-61	7	92
124	Crop design for specific adaptation in variable dryland production environments. *Crop and Pasture Science*, **2014**, 65, 614	2.2	92
123	An integrated approach to maintaining cereal productivity under climate change. *Global Food Security*, **2016**, 8, 9-18	8.3	89
122	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		85
121	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	6.2	82
120	Physiological determinants of maize and sunflower grain yield as affected by nitrogen supply. *Field Crops Research*, **2009**, 113, 256-267	5.5	81
119	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	5	80
118	Using crop simulation to generate genotype by environment interaction effects for sorghum in water-limited environments. *Australian Journal of Agricultural Research*, **2002**, 53, 379		77
117	The Quest for Understanding Phenotypic Variation via Integrated Approaches in the Field Environment. *Plant Physiology*, **2016**, 172, 622-634	6.6	75
116	Functional dynamics of the nitrogen balance of sorghum. II. Grain filling period. *Field Crops Research*, **2010**, 115, 29-38	5.5	74
115	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*, **2016**, 44, 169-183	2.7	73
114	A Weakly Supervised Deep Learning Framework for Sorghum Head Detection and Counting. *Plant Phenomics*, **2019**, 2019, 1525874	7	70
113	Functional dynamics of the nitrogen balance of sorghum: I. N demand of vegetative plant parts. *Field Crops Research*, **2010**, 115, 19-28	5.5	69
112	Dynamic quantification of canopy structure to characterize early plant vigour in wheat genotypes. *Journal of Experimental Botany*, **2016**, 67, 4523-34	7	68
111	Sorghum genotypes differ in high temperature responses for seed set. *Field Crops Research*, **2015**, 171, 32-40	5.5	65

110	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	2.1	65
109	Breeder friendly phenotyping. *Plant Science*, **2020**, 295, 110396	5.3	62
108	Application of Population Genetic Theory and Simulation Models to Efficiently Pyramid Multiple Genes via Marker-Assisted Selection. *Crop Science*, **2007**, 47, 582-588	2.4	61
107	Developmental and growth controls of tillering and water-soluble carbohydrate accumulation in contrasting wheat (Triticum aestivum L.) genotypes: can we dissect them?. *Journal of Experimental Botany*, **2013**, 64, 143-60	7	60
106	Genotype by environment interactions affecting grain sorghum. I. Characteristics that confound interpretation of hybrid yield. *Australian Journal of Agricultural Research*, **2000**, 51, 197		59
105	Relationships between height and yield in near-isogenic spring wheats that contrast for major reduced height genes. *Euphytica*, **2007**, 157, 391-397	2.1	57
104	Genomics approaches for the identification of genes determining important traits in sugarcane. *Field Crops Research*, **2005**, 92, 137-147	5.5	57
103	Aerial Imagery Analysis - Quantifying Appearance and Number of Sorghum Heads for Applications in Breeding and Agronomy. *Frontiers in Plant Science*, **2018**, 9, 1544	6.2	55
102	Recent changes in southern Australian frost occurrence: implications for wheat production risk. *Crop and Pasture Science*, **2016**, 67, 801	2.2	54
101	Transcriptional response of sugarcane roots to methyl jasmonate. *Plant Science*, **2005**, 168, 761-772	5.3	50
100	Global Adaptation of Spring Bread and Durum Wheat Lines Near-Isogenic for Major Reduced Height Genes. *Crop Science*, **2006**, 46, 603-613	2.4	50
99	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	7	50
98	Characterization of drought stress environments for upland rice and maize in central Brazil. *Euphytica*, **2008**, 162, 395-410	2.1	49
97	Predictions of heading date in bread wheat (Triticum aestivum L.) using QTL-based parameters of an ecophysiological model. *Journal of Experimental Botany*, **2014**, 65, 5849-65	7	48
96	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	2.2	48
95	Progress over 20 years of sunflower breeding in central Argentina. *Field Crops Research*, **2007**, 100, 61-72	5.5	45
94	Genotype by environment interaction and indirect selection for yield in sunflower: I. Two-mode pattern analysis of oil and biomass yield across environments in Argentina. *Field Crops Research*, **2001**, 72, 17-38	5.5	45
93	Modelling the nitrogen dynamics of maize crops Enhancing the APSIM maize model. *European Journal of Agronomy*, **2018**, 100, 118-131	5	44

92	Genetic variability in high temperature effects on seed-set in sorghum. *Functional Plant Biology*, **2013**, 40, 439-448	2.7	44
91	Assessment of the Potential Impacts of Wheat Plant Traits across Environments by Combining Crop Modeling and Global Sensitivity Analysis. *PLoS ONE*, **2016**, 11, e0146385	3.7	44
90	Differential gene expression of wheat progeny with contrasting levels of transpiration efficiency. *Plant Molecular Biology*, **2006**, 61, 863-81	4.6	42
89	Genotype by environment effects and selection for drought tolerance in tropical maize. I. Two mode pattern analysis of yield. *Euphytica*, **1997**, 95, 01-09	2.1	41
88	Relationships between hard-seededness and seed weight in mungbean (Vigna radiata) assessed by QTL analysis. *Plant Breeding*, **2005**, 124, 292-298	2.4	41
87	The GP problem: quantifying gene-to-phenotype relationships. *In Silico Biology*, **2002**, 2, 151-64	2	41
86	Evaluation of reduced-tillering (tin) wheat lines in managed, terminal water deficit environments. *Journal of Experimental Botany*, **2013**, 64, 3439-51	7	38
85	Lodging reduces sucrose accumulation of sugarcane in the wet and dry tropics. *Australian Journal of Agricultural Research*, **2002**, 53, 1183		37
84	Evaluation of a reduced-tillering (tin) gene in wheat lines grown across different production environments. *Crop and Pasture Science*, **2012**, 63, 128	2.2	36
83	Velocity of temperature and flowering time in wheat - assisting breeders to keep pace with climate change. *Global Change Biology*, **2016**, 22, 921-33	11.4	35
82	Designing crops for adaptation to the drought and high-temperature risks anticipated in future climates. *Crop Science*, **2020**, 60, 605-621	2.4	34
81	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	6	33
80	EasyPCC: Benchmark Datasets and Tools for High-Throughput Measurement of the Plant Canopy Coverage Ratio under Field Conditions. *Sensors*, **2017**, 17,	3.8	30
79	On the dynamic determinants of reproductive failure under drought in maize. *In Silico Plants*, **2019**, 1,	3.2	29
78	Genotype by environment effects and selection for drought tolerance in tropical maize. II. Three-mode pattern analysis. *Euphytica*, **1997**, 95, 11-20	2.1	29
77	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		29
76	Projected impact of future climate on water-stress patterns across the Australian wheatbelt. *Journal of Experimental Botany*, **2017**, 68, 5907-5921	7	28
75	Genotypic variability in the response to elevated CO of wheat lines differing in adaptive traits. *Functional Plant Biology*, **2013**, 40, 172-184	2.7	28

74	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	5.5	27
73	Improving process-based crop models to better capture genotype×environment×management interactions. *Journal of Experimental Botany*, **2019**, 70, 2389-2401	7	26
72	Global adaptation patterns of Australian and CIMMYT spring bread wheat. *Theoretical and Applied Genetics*, **2007**, 115, 819-35	6	25
71	Modelling impact of early vigour on wheat yield in dryland regions. *Journal of Experimental Botany*, **2019**, 70, 2535-2548	7	24
70	Identification of Earliness Per Se Flowering Time Locus in Spring Wheat through a Genome-Wide Association Study. *Crop Science*, **2016**, 56, 2962-2672	2.4	24
69	Defining Sunflower Selection Strategies for a Highly Heterogeneous Target Population of Environments. *Crop Science*, **2006**, 46, 136-144	2.4	24
68	A Sunflower Simulation Model: II. Simulating Production Risks in a Variable Sub-Tropical Environment. *Agronomy Journal*, **1993**, 85, 735-742	2.2	24
67	Effects of nitrogen supply on canopy development of maize and sunflower. *Crop and Pasture Science*, **2011**, 62, 1045	2.2	23
66	Identification of differentially expressed genes in wheat undergoing gradual water deficit stress using a subtractive hybridisation approach. *Plant Science*, **2005**, 168, 661-670	5.3	23
65	Spatial and seasonal effects confounding interpretation of sunflower yields in Argentina. *Field Crops Research*, **2002**, 73, 107-120	5.5	23
64	Changes in agronomic traits of sunflower hybrids over 20 years of breeding in central Argentina. *Field Crops Research*, **2007**, 100, 73-81	5.5	22
63	Evaluation of the Phenotypic Repeatability of Canopy Temperature in Wheat Using Continuous-Terrestrial and Airborne Measurements. *Frontiers in Plant Science*, **2019**, 10, 875	6.2	21
62	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	5.7	21
61	SensorDB: a virtual laboratory for the integration, visualization and analysis of varied biological sensor data. *Plant Methods*, **2015**, 11, 53	5.8	21
60	Genotypic Differences in Effects of Short Episodes of High-Temperature Stress during Reproductive Development in Sorghum. *Crop Science*, **2016**, 56, 1561-1572	2.4	21
59	Combining Crop Growth Modeling and Statistical Genetic Modeling to Evaluate Phenotyping Strategies. *Frontiers in Plant Science*, **2019**, 10, 1491	6.2	21
58	Genotype by environment interaction and indirect selection for yield in sunflower. *Field Crops Research*, **2001**, 72, 39-50	5.5	20
57	From QTLs to Adaptation Landscapes: Using Genotype-To-Phenotype Models to Characterize G×E Over Time. *Frontiers in Plant Science*, **2019**, 10, 1540	6.2	20

56	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	5.5	19
55	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		19
54	Molecular Breeding for Complex Adaptive Traits: How Integrating Crop Ecophysiology and Modelling Can Enhance Efficiency **2016**, 147-162		19
53	Improvement of Predictive Ability by Uniform Coverage of the Target Genetic Space. *G3: Genes, Genomes, Genetics*, **2016**, 6, 3733-3747	3.2	18
52	Grain Yield Improvement in Water-Limited Environments215-249		18
51	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	5.5	18
50	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	11.8	17
49	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, 961-972	2.7	17
48	Multivariate Analyses to Display Interactions between Environment and General or Specific Combining Ability in Hybrid Crops. *Crop Science*, **2006**, 46, 957-967	2.4	16
47	Mega-Environment Differences Affecting Genetic Progress for Yield and Relative Value of Component Traits. *Crop Science*, **2010**, 50, 574-583	2.4	15
46	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	5.5	14
45	Predicting leaf area development of sunflower. *Field Crops Research*, **1993**, 34, 101-112	5.5	14
44	Evaluating Plant Breeding Strategies by Simulating Gene Action and Dryland Environment Effects. *Agronomy Journal*, **2003**, 95, 99-113	2.2	14
43	Global Wheat Head Detection 2021: An Improved Dataset for Benchmarking Wheat Head Detection Methods. *Plant Phenomics*, **2021**, 2021, 9846158	7	14
42	Indirect selection using reference and probe genotype performance in multi-environment trials. *Crop and Pasture Science*, **2011**, 62, 313	2.2	13
41	Quantifying high temperature risks and their potential effects on sorghum production in Australia. *Field Crops Research*, **2017**, 211, 77-88	5.5	12
40	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	5.8	10
39	Direct and Indirect Costs of Frost in the Australian Wheatbelt. *Ecological Economics*, **2018**, 150, 122-136	5.6	9

38	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	5.5	9
37	Linking genetic maps and simulation to optimize breeding for wheat flowering time in current and future climates. *Crop Science*, **2020**, 60, 678-699	2.4	9
36	Sorghum Biomass Prediction Using Uav-Based Remote Sensing Data and Crop Model Simulation **2018**,		9
35	Frost Trends and their Estimated Impact on Yield in the Australian Wheatbelt. *Procedia Environmental Sciences*, **2015**, 29, 171-172		8
34	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	11.8	8
33	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	2.7	7
32	Integrating crop growth models with remote sensing for predicting biomass yield of sorghum. *In Silico Plants*, **2021**, 3,	3.2	7
31	Evolution and application of digital technologies to predict crop type and crop phenology in agriculture. *In Silico Plants*, **2021**, 3,	3.2	7
30	Economic assessment of wheat breeding options for potential improved levels of post head-emergence frost tolerance. *Field Crops Research*, **2017**, 213, 75-88	5.5	6
29	Determining Crop Growth Dynamics in Sorghum Breeding Trials Through Remote and Proximal Sensing Technologies **2018**,		6
28	The Value of Tactical Adaptation to El Niño Southern Oscillation for East Australian Wheat. *Climate* , **2018**, 6, 77	3.1	6
27	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	5	6
26	Osmotic adjustment inSorghum bicolor (L. Moench) grown under moisture stress in soil and osmotically modified solution cultures. *Plant and Soil*, **1988**, 107, 57-62	4.2	5
25	Sorghum Crop Modeling and Its Utility in Agronomy and Breeding. *Agronomy*, **2016**,	0.8	4
24	Detecting Sorghum Plant and Head Features from Multispectral UAV Imagery. *Plant Phenomics*, **2021**, 2021, 9874650	7	4
23	Can Seasonal Climate Forecasts Predict Movements in Grain Prices?. *Atmospheric and Oceanographic Sciences Library*, **2000**, 367-380		4
22	Scaling up high-throughput phenotyping for abiotic stress selection in the field. *Theoretical and Applied Genetics*, **2021**, 134, 1845-1866	6	4
21	The case for evidence-based policy to support stress-resilient cropping systems. *Food and Energy Security*, **2017**, 6, 5-11	4.1	3

20	A new probabilistic forecasting model for canopy temperature with consideration of periodicity and parameter variation. *Agricultural and Forest Meteorology*, **2019**, 265, 88-98	5.8	3
19	Limiting transpiration rate in high evaporative demand conditions to improve Australian wheat productivity. *In Silico Plants*, **2021**, 3,	3.2	3
18	An analysis of simulated yield data for pepper shows how genotype environment interaction in yield can be understood in terms of yield components and their QTLs. *Crop Science*, **2021**, 61, 1826-1842	2.4	3
17	A standardized workflow to utilise a grid-computing system through advanced message queuing protocols. *Environmental Modelling and Software*, **2016**, 84, 304-310	5.2	2
16	Projected Impact of Future Climate on Drought Patterns in Complex Rainfed Environments. *Procedia Environmental Sciences*, **2015**, 29, 190-191		2
15	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	2.6	2
14	Visible, Near Infrared, and Thermal Spectral Radiance On-Board UAVs for High-Throughput Phenotyping of Plant Breeding Trials **2018**, 275-299		2
13	Sorghum Crop Modeling and Its Utility in Agronomy and Breeding. *Agronomy*,215-239	0.8	2
12	Genotype-specific P-spline response surfaces assist interpretation of regional wheat adaptation to climate change. *In Silico Plants*, **2021**, 3,	3.2	2
11	UAV-thermal imaging: A technological breakthrough for monitoring and quantifying crop abiotic stress to help sustain productivity on sodic soils A case review on wheat. *Remote Sensing Applications: Society and Environment*, **2021**, 23, 100583	2.8	2
10	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	5.9	2
9	Reversing yield declines of a sub-tropical vertisol. *Communications in Soil Science and Plant Analysis*, **1995**, 26, 1105-1119	1.5	1
8	Simulated breeding with QU-GENE graphical user interface. *Methods in Molecular Biology*, **2014**, 1145, 131-42	1.4	1
7	Comparison of Modelling Strategies to Estimate Phenotypic Values from an Unmanned Aerial Vehicle with Spectral and Temporal Vegetation Indexes. *Remote Sensing*, **2021**, 13, 2827	5	1
6	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	7	1
5	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	0.3	1
4	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	7	1
3	Estimating Photosynthetic Attributes from High-Throughput Canopy Hyperspectral Sensing in Sorghum.. *Plant Phenomics*, **2022**, 2022, 9768502	7	0

2	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	4.8	0
1	A wiring diagram to integrate physiological traits of wheat yield potential. *Nature Food*, **2022**, 3, 318-324	14.4	0