Graeme Hammer

List of Publications by Year
in descending order

195 papers	16,981 citations	15504 65 h-index	17592 121 g-index
206 all docs	206 docs citations	206 times ranked	10504 citing authors

#	Article	IF	Citations
1	APSIM â€“ Evolution towards a new generation of agricultural systems simulation. Environmental Modelling and Software, 2014, 62, 327-350.	4.5	1,173
2	Greater Sensitivity to Drought Accompanies Maize Yield Increase in the U.S. Midwest. Science, 2014, 344, 516-519.	12.6	779
3	The critical role of extreme heat for maize production in the United States. Nature Climate Change, 2013, 3, 497-501.	18.8	706
4	Can Changes in Canopy and/or Root System Architecture Explain Historical Maize Yield Trends in the U.S. Corn Belt?. Crop Science, 2009, 49, 299-312.	1.8	594
5	The role of root architectural traits in adaptation of wheat to water-limited environments. Functional Plant Biology, 2006, 33, 823.	2.1	529
6	Models for navigating biological complexity in breeding improved crop plants. Trends in Plant Science, 2006, 11, 587-593.	8.8	364
7	Genotypic variation in seedling root architectural traits and implications for drought adaptation in wheat (Triticum aestivum L.). Plant and Soil, 2008, 303, 115-129.	3.7	343
8	Does Maintaining Green Leaf Area in Sorghum Improve Yield under Drought? II. Dry Matter Production and Yield. Crop Science, 2000, 40, 1037-1048.	1.8	330
9	Prediction of global rainfall probabilities using phases of the Southern Oscillation Index. Nature, 1996, 384, 252-255.	27.8	311
10	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
11	Drought adaptation of stay-green sorghum is associated with canopy development, leaf anatomy, root growth, and water uptake. Journal of Experimental Botany, 2014, 65, 6251-6263.	4.8	264
12	Stay-green: A consequence of the balance between supply and demand for nitrogen during grain filling?. Annals of Applied Biology, 2001, 138, 91-95.	2.5	262
13	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
14	The shifting influence of drought and heat stress for crops in northeast Australia. Global Change Biology, 2015, 21, 4115-4127.	9.5	230
15	Potential yield and water-use efficiency benefits in sorghum from limited maximum transpiration rate. Functional Plant Biology, 2005, 32, 945.	2.1	226
16	QTL for nodal root angle in sorghum (Sorghum bicolor L. Moench) co-locate with QTL for traits associated with drought adaptation. Theoretical and Applied Genetics, 2012, 124, 97-109.	3.6	226
17	Quantifying impacts of enhancing photosynthesis on crop yield. Nature Plants, 2019, 5, 380-388.	9.3	226
18	Characterizing drought stress and trait influence on maize yield under current and future conditions. Global Change Biology, 2014, 20, 867-878.	9.5	212

#	Article	IF	Citations
19	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
20	Nitrogen Dynamics and the Physiological Basis of Stayâ€Green in Sorghum. Crop Science, 2000, 40, 1295-1307.	1.8	207
21	Does Maintaining Green Leaf Area in Sorghum Improve Yield under Drought? I. Leaf Growth and Senescence. Crop Science, 2000, 40, 1026-1037.	1.8	205
22	Water Use Efficiency as a Constraint and Target for Improving the Resilience and Productivity of C₃ and C₄ Crops. Annual Review of Plant Biology, 2019, 70, 781-808.	18.7	202
23	Towards a multiscale crop modelling framework for climate change adaptation assessment. Nature Plants, 2020, 6, 338-348.	9.3	181
24	The role of physiological understanding in plant breeding; from a breeding perspective. Field Crops Research, 1996, 49, 11-37.	5.1	177
25	Developmental and physiological traits associated with high yield and stay-green phenotype in wheat. Australian Journal of Agricultural Research, 2008, 59, 354.	1.5	175
26	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
27	Stayâ€green alleles individually enhance grain yield in sorghum under drought by modifying canopy development and water uptake patterns. New Phytologist, 2014, 203, 817-830.	7.3	163
28	QTL for root angle and number in a population developed from bread wheats (Triticum aestivum) with contrasting adaptation to water-limited environments. Theoretical and Applied Genetics, 2013, 126, 1563-1574.	3.6	160
29	Evaluating Plant Breeding Strategies by Simulating Gene Action and Dryland Environment Effects. Agronomy Journal, 2003, 95, 99.	1.8	158
30	Limitedâ€Transpiration Trait May Increase Maize Drought Tolerance in the US Corn Belt. Agronomy Journal, 2015, 107, 1978-1986.	1.8	158
31	Modeling QTL for complex traits: detection and context for plant breeding. Current Opinion in Plant Biology, 2009, 12, 231-240.	7.1	153
32	Crop design for specific adaptation in variable dryland production environments. Crop and Pasture Science, 2014, 65, 614.	1.5	152
33	Morphological and architectural development of root systems in sorghum and maize. Plant and Soil, 2010, 333, 287-299.	3.7	148
34	Variation in Crop Radiationâ€Use Efficiency with Increased Diffuse Radiation. Crop Science, 1992, 32, 1281-1284.	1.8	144
35	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
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

#	Article	IF	Citations
37	Temperature effect on transpiration response of maize plants to vapour pressure deficit. Environmental and Experimental Botany, 2012, 78, 157-162.	4.2	125
38	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
39	A Sunflower Simulation Model: I. Model Development. Agronomy Journal, 1993, 85, 725-735.	1.8	121
40	Improving Genotypic Adaptation in Crops â€“ a Role for Breeders, Physiologists and Modellers. Experimental Agriculture, 1991, 27, 155-175.	0.9	119
41	VERNALIZATION1 Modulates Root System Architecture in Wheat and Barley. Molecular Plant, 2018, 11, 226-229.	8.3	118
42	On Systems Thinking, Systems Biology, and the in Silico Plant. Plant Physiology, 2004, 134, 909-911.	4.8	116
43	Predicting Maize Phenology: Intercomparison of Functions for Developmental Response to Temperature. Agronomy Journal, 2014, 106, 2087-2097.	1.8	112
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 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
46	Stay-green quantitative trait loci's effects on water extraction, transpiration efficiency and seed yield depend on recipient parent background. Functional Plant Biology, 2011, 38, 553.	2.1	103
47	Physiological determinants of maize and sunflower grain yield as affected by nitrogen supply. Field Crops Research, 2009, 113, 256-267.	5.1	95
48	Robust features of future climate change impacts on sorghum yields in West Africa. Environmental Research Letters, 2014, 9, 104006.	5.2	93
49	Tillering in Grain Sorghum over a Wide Range of Population Densities: Identification of a Common Hierarchy for Tiller Emergence, Leaf Area Development and Fertility. Annals of Botany, 2002, 90, 87-98.	2.9	92
50	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
51	Functional dynamics of the nitrogen balance of sorghum. II. Grain filling period. Field Crops Research, 2010, 115, 29-38.	5.1	89
52	Predicting Wheat Yield at the Field Scale by Combining High-Resolution Sentinel-2 Satellite Imagery and Crop Modelling. Remote Sensing, 2020, 12, 1024.	4.0	89
53	Sorghum genotypes differ in high temperature responses for seed set. Field Crops Research, 2015, 171, 32-40.	5.1	83
54	Experimental and modelling studies of droughtâ€adaptive root architectural traits in wheat (<i>Triticum aestivum</i>L.). Plant Biosystems, 2010, 144, 458-462.	1.6	80

#	Article	IF	Citations
55	Biological reality and parsimony in crop modelsâ€"why we need both in crop improvement!. In Silico Plants, 2019, 1, .	1.9	80
56	Designing crops for adaptation to the drought and highâ€temperature risks anticipated in future climates. Crop Science, 2020, 60, 605-621.	1.8	80
57	Integrating genetic gain and gap analysis to predict improvements in crop productivity. Crop Science, 2020, 60, 582-604.	1.8	80
58	Regulation of tillering in sorghum: environmental effects. Annals of Botany, 2010, 106, 57-67.	2.9	77
59	Modelling the effect of plant water use traits on yield and stay-green expression in sorghum. Functional Plant Biology, 2014, 41, 1019.	2.1	76
60	Integrating modelling and phenotyping approaches to identify and screen complex traits: transpiration efficiency in cereals. Journal of Experimental Botany, 2018, 69, 3181-3194.	4.8	76
61	Addressing Research Bottlenecks to Crop Productivity. Trends in Plant Science, 2021, 26, 607-630.	8.8	76
62	Modeling chickpea growth and development: Phenological development. Field Crops Research, 2006, 99, 1-13.	5.1	75
63	Radiation use efficiency increases when the diffuse component of incident radiation is enhanced under shade. Australian Journal of Agricultural Research, 1998, 49, 665.	1.5	75
64	Genetic Variability and Control of Nodal Root Angle in Sorghum. Crop Science, 2011, 51, 2011-2020.	1.8	73
65	Frost in Northeast Australia: Trends and Influences of Phases of the Southern Oscillation. Journal of Climate, 1996, 9, 1896-1909.	3.2	71
66	Spatial and temporal patterns in Australian wheat yield and their relationship with ENSO. Australian Journal of Agricultural Research, 2002, 53, 77.	1.5	71
67	On the extent of genetic variation for transpiration efficiency in sorghum. Australian Journal of Agricultural Research, 1997, 48, 649.	1.5	69
68	Adaptation of sorghum: characterisation of genotypic flowering responses to temperature and photoperiod. Theoretical and Applied Genetics, 1999, 99, 900-911.	3.6	69
69	Modelling Crop Improvement in a GÃ—EÃ—M Framework via Geneâ€"Traitâ€"Phenotype Relationships. , 2009, , 235-581.		69
70	Tillering in Grain Sorghum over a Wide Range of Population Densities: Modelling Dynamics of Tiller Fertility. Annals of Botany, 2002, 90, 99-110.	2.9	68
71	Modelling the effects of row configuration on sorghum yield reliability in north-eastern Australia. Australian Journal of Agricultural Research, 2005, 56, 11.	1.5	68
72	Evaluating Plant Breeding Strategies by Simulating Gene Action and Dryland Environment Effects. Agronomy Journal, 2003, 95, 99-113.	1.8	67

#	Article	IF	Citations
73	Modelling the nitrogen dynamics of maize crops â€“ Enhancing the APSIM maize model. European Journal of Agronomy, 2018, 100, 118-131.	4.1	66
74	Improved methods for predicting individual leaf area and leaf senescence in maize (Zea mays). Australian Journal of Agricultural Research, 1998, 49, 249.	1.5	66
75	Rainfall Variability at Decadal and Longer Time Scales: Signal or Noise?. Journal of Climate, 2005, 18, 89-96.	3.2	65
76	Pre-anthesis ovary development determines genotypic differences in potential kernel weight in sorghum. Journal of Experimental Botany, 2009, 60, 1399-1408.	4.8	65
77	Modelling environmental effects on phenology and canopy development of diverse sorghum genotypes. Field Crops Research, 2009, 111, 157-165.	5.1	65
78	Genotype-by-Environment Interaction in Grain Sorghum. II. Effects of Temperature and Photoperiod on Ontogeny. Crop Science, 1989, 29, 376.	1.8	64
79	Genetic control of nodal root angle in sorghum and its implications on water extraction. European Journal of Agronomy, 2012, 42, 3-10.	4.1	64
80	Drought stress characterization of post-rainy season (rabi) sorghum in India. Field Crops Research, 2013, 141, 38-46.	5.1	64
81	Connecting Biochemical Photosynthesis Models with Crop Models to Support Crop Improvement. Frontiers in Plant Science, 2016, 7, 1518.	3.6	64
82	A Peanut Simulation Model: I. Model Development and Testing. Agronomy Journal, 1995, 87, 1085-1093.	1.8	59
83	Soil water capture trends over 50 years of single-cross maize (<i>Zea mays</i>L.) breeding in the US corn-belt. Journal of Experimental Botany, 2015, 66, 7339-7346.	4.8	58
84	The GP problem: quantifying gene-to-phenotype relationships. In Silico Biology, 2002, 2, 151-64.	0.9	58
85	Determination of grain number in sorghum. Field Crops Research, 2008, 108, 259-268.	5.1	57
86	Genotype and Water Limitation Effects on Phenology, Growth, and Transpiration Efficiency in Grain Sorghum. Crop Science, 1992, 32, 781-786.	1.8	56
87	Development of a phenotyping platform for high throughput screening of nodal root angle in sorghum. Plant Methods, 2017, 13, 56.	4.3	56
88	Does Increased Leaf Appearance Rate Enhance Adaptation to Postanthesis Drought Stress in Sorghum?. Crop Science, 2011, 51, 2728-2740.	1.8	55
89	Spatial impact of projected changes in rainfall and temperature on wheat yields in Australia. Climatic Change, 2013, 117, 163-179.	3.6	55
90	Genetic variability in high temperature effects on seed-set in sorghum. Functional Plant Biology, 2013, 40, 439.	2.1	54

#	Article	IF	Citations
91	A simple regional-scale model for forecasting sorghum yield across North-Eastern Australia. Agricultural and Forest Meteorology, 2005, 132, 143-153.	4.8	53
92	Regulation of tillering in sorghum: genotypic effects. Annals of Botany, 2010, 106, 69-78.	2.9	53
93	A physiological framework to explain genetic and environmental regulation of tillering in sorghum. New Phytologist, 2014, 203, 155-167.	7.3	53
94	Tackling Gâ€‰Ã—â€‰Eâ€‰Ã—â€‰M interactions to close on-farm yield-gaps: creating novel pathways for crop improvement by predicting contributions of genetics and management to crop productivity. Theoretical and Applied Genetics, 2021, 134, 1625-1644.	3.6	53
95	Effect of Specific Leaf Nitrogen on Radiation Use Efficiency and Growth of Sunflower. Crop Science, 1997, 37, 1201-1208.	1.8	51
96	Improving wheat simulation capabilities in Australia from a cropping systems perspective: water and nitrogen effects on spring wheat in a semi-arid environment. European Journal of Agronomy, 1997, 7, 75-88.	4.1	51
97	Carbon Isotope Discrimination Varies Genetically in C₄ Species. Plant Physiology, 1990, 92, 534-537.	4.8	50
98	Estimating crop area using seasonal time series of Enhanced Vegetation Index from MODIS satellite imagery. Australian Journal of Agricultural Research, 2007, 58, 316.	1.5	50
99	On the dynamic determinants of reproductive failure under drought in maize. In Silico Plants, 2019, 1, .	1.9	49
100	Simulating daily field crop canopy photosynthesis: an integrated software package. Functional Plant Biology, 2018, 45, 362.	2.1	48
101	SOI PHASES AND CLIMATIC RISK TO PEANUT PRODUCTION: A CASE STUDY FOR NORTHERN AUSTRALIA. International Journal of Climatology, 1996, 16, 783-789.	3.5	46
102	On measuring quality of a probabilistic commodity forecast for a system that incorporates seasonal climate forecasts. International Journal of Climatology, 2003, 23, 1195-1210.	3.5	46
103	Physiological determinants of high yielding ultra-narrow row cotton: Canopy development and radiation use efficiency. Field Crops Research, 2013, 148, 86-94.	5.1	44
104	Effect of Radiation Environment on Radiation Use Efficiency and Growth of Sunflower. Crop Science, 1997, 37, 1208-1214.	1.8	43
105	QTL analysis in multiple sorghum populations facilitates the dissection of the genetic and physiological control of tillering. Theoretical and Applied Genetics, 2014, 127, 2253-2266.	3.6	43
106	Exploring profit â€“ Sustainability trade-offs in cropping systems using evolutionary algorithms. Environmental Modelling and Software, 2006, 21, 1368-1374.	4.5	42
107	Genotype and Environment Effects on Dynamics of Harvest Index during Grain Filling in Sorghum. Agronomy Journal, 2003, 95, 199.	1.8	41
108	Hybrid variation for root system efficiency in maize: potential links to drought adaptation. Functional Plant Biology, 2016, 43, 502.	2.1	41

#	Article	IF	Citations
109	Decrease in sorghum grain yield due to the dw3 dwarfing gene is caused by reduction in shoot biomass. Field Crops Research, 2011, 124, 231-239.	5.1	38
110	Yield trends under varying environmental conditions for sorghum and wheat across Australia. Agricultural and Forest Meteorology, 2016, 228-229, 276-285.	4.8	38
111	Molecular Breeding for Complex Adaptive Traits: How Integrating Crop Ecophysiology and Modelling Can Enhance Efficiency. , 2016, , 147-162.		38
112	Genotype and Water Limitation Effects on Transpiration Efficiency in Sorghum. The Journal of Crop Improvement: Innovations in Practiceory and Research, 2000, 2, 265-286.	0.4	35
113	Effects of nitrogen supply on canopy development of maize and sunflower. Crop and Pasture Science, 2011, 62, 1045.	1.5	35
114	In pursuit of a better world: crop improvement and the CGIAR. Journal of Experimental Botany, 2021, 72, 5158-5179.	4.8	35
115	Modelling selection response in plant-breeding programs using crop models as mechanistic gene-to-phenotype (CGM-G2P) multi-trait link functions. In Silico Plants, 2021, 3, .	1.9	35
116	Three Putative Types of El NiÃ±o Revealed by Spatial Variability in Impact on Australian Wheat Yield. Journal of Climate, 2005, 18, 1566-1574.	3.2	32
117	Early-season crop area estimates for winter crops in NE Australia using MODIS satellite imagery. ISPRS Journal of Photogrammetry and Remote Sensing, 2010, 65, 380-387.	11.1	32
118	Reproductive resilience but not root architecture underpins yield improvement under drought in maize. Journal of Experimental Botany, 2021, 72, 5235-5245.	4.8	31
119	Prediction of Sweet Corn Phenology in Subtropical Environments. Agronomy Journal, 1993, 85, 410-415.	1.8	30
120	Genotype-by-Environment Interaction in Grain Sorghum I. Effects of Temperature on Radiation Use Efficiency. Crop Science, 1989, 29, 370.	1.8	28
121	A Sunflower Simulation Model: II. Simulating Production Risks in a Variable Subâ€Tropical Environment. Agronomy Journal, 1993, 85, 735-742.	1.8	28
122	Temperature and Sowing Date Affect the Linear Increase of Sunflower Harvest Index. Agronomy Journal, 1998, 90, 324-328.	1.8	28
123	Simulation Supplements Field Studies to Determine No-Till Dryland Corn Population Recommendations for Semiarid Western Nebraska. Agronomy Journal, 2003, 95, 884-891.	1.8	28
124	Sorghum dwarfing genes can affect radiation capture and radiation use efficiency. Field Crops Research, 2013, 149, 283-290.	5.1	28
125	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
126	Environmental control of potential yield of sunflower in the subtropics. Australian Journal of Agricultural Research, 1997, 48, 231.	1.5	28

#	Article	IF	Citations
127	Forecasting regional crop production using SOI phases: an example for the Australian peanut industry. Australian Journal of Agricultural Research, 1997, 48, 789.	1.5	28
128	Genotype-by-Environment Interaction in Grain Sorghum. III. Modeling the Impact in Field Environments. Crop Science, 1989, 29, 385.	1.8	28
129	Crop science: A foundation for advancing predictive agriculture. Crop Science, 2020, 60, 544-546.	1.8	26
130	Simulation Supplements Field Studies to Determine No-Till Dryland Corn Population Recommendations for Semiarid Western Nebraska. Agronomy Journal, 2003, 95, 884.	1.8	25
131	Genetic Variation in Potential Kernel Size Affects Kernel Growth and Yield of Sorghum. Crop Science, 2010, 50, 685-695.	1.8	25
132	Leaf Nitrogen Content and Minimum Temperature Interactions Affect Radiationâ€Use Efficiency in Peanut. Crop Science, 1993, 33, 476-481.	1.8	24
133	Improving Estimates of Individual Leaf Area of Sunflower. Agronomy Journal, 2000, 92, 761-765.	1.8	24
134	Quantifying high temperature risks and their potential effects on sorghum production in Australia. Field Crops Research, 2017, 211, 77-88.	5.1	23
135	A General Systems Approach to Applying Seasonal Climate Forecasts. Atmospheric and Oceanographic Sciences Library, 2000, , 51-65.	0.1	23
136	Linking biophysical and genetic models to integrate physiology, molecular biology and plant breeding.. , 2002, , 167-187.		23
137	Improving wheat simulation capabilities in Australia from a cropping systems perspective II. Testing simulation capabilities of wheat growth. European Journal of Agronomy, 1998, 8, 83-99.	4.1	22
138	Dry matter accumulation and distribution in five cultivars of maize (Zea mays): relationships and procedures for use in crop modelling. Australian Journal of Agricultural Research, 1999, 50, 513.	1.5	22
139	A Peanut Simulation Model: II. Assessing Regional Production Potential. Agronomy Journal, 1995, 87, 1093-1099.	1.8	21
140	Radiation use efficiency increased over a century of maize (<i>Zea mays</i>L.) breeding in the US corn belt. Journal of Experimental Botany, 2022, 73, 5503-5513.	4.8	21
141	Reply to 'Temperature and drought effects on maize yield'. Nature Climate Change, 2014, 4, 234-234.	18.8	20
142	Genotypic variation in whole-plant transpiration efficiency in sorghum only partly aligns with variation in stomatal conductance. Functional Plant Biology, 2019, 46, 1072.	2.1	20
143	Predicting phenotypes from genetic, environment, management, and historical data using CNNs. Theoretical and Applied Genetics, 2021, 134, 3997-4011.	3.6	20
144	Reliability of production of quick to medium maturity maize in areas of variable rainfall in north-east Australia. Australian Journal of Experimental Agriculture, 2008, 48, 326.	1.0	20

#	Article	IF	Citations
145	Physiological determinants of high yielding ultra-narrow row cotton: Biomass accumulation and partitioning. Field Crops Research, 2012, 134, 122-129.	5.1	19
146	Sorghum Biomass Prediction Using Uav-Based Remote Sensing Data and Crop Model Simulation. , 2018, , .		19
147	Limiting transpiration rate in high evaporative demand conditions to improve Australian wheat productivity. In Silico Plants, 2021, 3, .	1.9	19
148	Integrating crop growth models with remote sensing for predicting biomass yield of sorghum. In Silico Plants, 2021, 3, .	1.9	18
149	Sustained improvement in tolerance to water deficit accompanies maize yield increase in temperate environments. Crop Science, 2022, 62, 2138-2150.	1.8	18
150	Implications of Seasonal Climate Forecasts on World Wheat Trade: A Stochastic, Dynamic Analysis. Canadian Journal of Agricultural Economics, 2004, 52, 289-312.	2.1	17
151	Estimating winter crop area across seasons and regions using time-sequential MODIS imagery. International Journal of Remote Sensing, 2011, 32, 4281-4310.	2.9	17
152	Preface to Special Issue: Complex traits and plant breedingâ€"can we understand the complexities of gene-to-phenotype relationships and use such knowledge to enhance plant breeding outcomes?. Australian Journal of Agricultural Research, 2005, 56, 869.	1.5	16
153	Yield and Maturity of Ultraâ€Narrow Row Cotton in High Input Production Systems. Agronomy Journal, 2010, 102, 843-848.	1.8	16
154	Are crop and detailed physiological models equally â€˜mechanisticâ€™ for predicting the genetic variability of whole-plant behaviour? The nexus between mechanisms and adaptive strategies. In Silico Plants, 2020, 2, .	1.9	16
155	Plant production in water-limited environments. Journal of Experimental Botany, 2021, 72, 5097-5101.	4.8	15
156	Predicting Tillering of Diverse Sorghum Germplasm across Environments. Crop Science, 2017, 57, 78-87.	1.8	14
157	Large-scale genome-wide association study reveals that drought-induced lodging in grain sorghum is associated with plant height and traits linked to carbon remobilisation. Theoretical and Applied Genetics, 2020, 133, 3201-3215.	3.6	14
158	Differences in temperature response of phenological development among diverse Ethiopian sorghum genotypes are linked to racial grouping and agroecological adaptation. Crop Science, 2020, 60, 977-990.	1.8	12
159	Dissecting and modelling the comparative adaptation to water limitation of sorghum and maize: role of transpiration efficiency, transpiration rate and height. In Silico Plants, 2021, 3, .	1.9	11
160	Effects of Planting Time and Harvest Age on Cassava (Manihot esculenta) in Northern Australia. I. Crop Growth and Yield in Moist Environments. Experimental Agriculture, 1987, 23, 401-414.	0.9	10
161	Improving wheat simulation capabilities in Australia from a cropping systems perspective: water and nitrogen effects on spring wheat in a semi-arid environment. Developments in Crop Science, 1997, , 99-112.	0.1	10
162	Determining Crop Growth Dynamics in Sorghum Breeding Trials Through Remote and Proximal Sensing Technologies. , 2018, , .		10

#	Article	IF	Citations
163	The Impacts of Flowering Time and Tillering on Grain Yield of Sorghum Hybrids across Diverse Environments. Agronomy, 2020, 10, 135.	3.0	10
164	Sorghum Crop Modeling and Its Utility in Agronomy and Breeding. Agronomy, 0, , 215-239.	0.2	10
165	Detecting Sorghum Plant and Head Features from Multispectral UAV Imagery. Plant Phenomics, 2021, 2021, 9874650.	5.9	10
166	Genetic control of leaf angle in sorghum and its effect on light interception. Journal of Experimental Botany, 2022, 73, 801-816.	4.8	10
167	Modelling temperature, photoperiod and vernalization responses of Brunonia australis (Goodeniaceae) and Calandrinia sp. (Portulacaceae) to predict flowering time. Annals of Botany, 2013, 111, 629-639.	2.9	9
168	Sorghum. , 2021, , 196-221.		9
169	Cardinal Temperatures and Thermal Time for Seed Germination of Brunonia australis (Goodeniaceae) and Calandrinia sp. (Portulacaceae). Hortscience: A Publication of the American Society for Hortcultural Science, 2011, 46, 753-758.	1.0	9
170	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
171	Using Seasonal Climate Forecasts in Forecasting the Australian Wheat Crop. Atmospheric and Oceanographic Sciences Library, 2000, , 351-366.	0.1	8
172	Effects of Planting Time and Harvest Age on Cassava (<i>Manihot esculenta</i>) in Northern Australia. II. Crop Growth and Yield in a Seasonally-Dry Environment. Experimental Agriculture, 1987, 23, 415-424.	0.9	7
173	Juvenility and flowering of Brunonia australis (Goodeniaceae) and Calandrinia sp. (Portulacaceae) in relation to vernalization and daylength. Annals of Botany, 2011, 108, 215-220.	2.9	7
174	Perspectives on Applications of Hierarchical Gene-To-Phenotype (G2P) Maps to Capture Non-stationary Effects of Alleles in Genomic Prediction. Frontiers in Plant Science, 2021, 12, 663565.	3.6	7
175	Estimating Photosynthetic Attributes from High-Throughput Canopy Hyperspectral Sensing in Sorghum. Plant Phenomics, 2022, 2022, 9768502.	5.9	7
176	Highlights of Drought Policy and Related Science in Australia and the U.S.A.. Water International, 2001, 26, 349-357.	1.0	6
177	The roles of credibility and transdisciplinarity in modelling to support future crop improvement. In Silico Plants, 2020, 2, .	1.9	6
178	Simulating the effect of flowering time on maize individual leaf area in contrasting environmental scenarios. Journal of Experimental Botany, 2020, 71, 5577-5588.	4.8	6
179	The development of strategies for improved agricultural systems and land-use management. Systems Approaches for Sustainable Agricultural Development, 1994, , 81-96.	0.2	5
180	An integrated framework for predicting the risk of experiencing temperature conditions that may trigger late-maturity alpha-amylase in wheat across Australia. Crop and Pasture Science, 2020, 71, 1.	1.5	5

#	Article	IF	Citations
181	Physiological trait networks enhance understanding of crop growth and water use in contrasting environments. Plant, Cell and Environment, 2022, 45, 2554-2572.	5.7	5
182	Floral ontogeny of Brunonia australis (Goodeniaceae) and Calandrinia sp. (Portulacaceae). Australian Journal of Botany, 2010, 58, 61.	0.6	4
183	Sorghum Crop Modeling and Its Utility in Agronomy and Breeding. Agronomy, 2016, , .	0.2	4
184	Comparing the Value of Seasonal Climate Forecasting Systems in Managing Cropping Systems. Atmospheric and Oceanographic Sciences Library, 2000, , 183-195.	0.1	4
185	Can Seasonal Climate Forecasts Predict Movements in Grain Prices?. Atmospheric and Oceanographic Sciences Library, 2000, , 367-380.	0.1	4
186	Genetic Manipulation of Root System Architecture to Improve Drought Adaptation in Sorghum. Compendium of Plant Genomes, 2016, , 207-226.	0.5	3
187	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
188	Effects of Seasonal Climate Variability and the Use of Climate Forecasts on Wheat Supply in the United States, Australia, and Canada. ASA Special Publication, 0, , 101-123.	0.8	2
189	Spatial and temporal patterns of lodging in grain sorghum (Sorghum bicolor) in Australia. Crop and Pasture Science, 2020, 71, 379.	1.5	2
190	The development of strategies for improved agricultural systems and land-use management. , 1994, , 81-96.		2
191	Modelling Heat and Drought Adaptation in Crops. Proceedings (mdpi), 2019, 36, 190.	0.2	1
192	Effects of Seasonal Climate Variability and the Use of Climate Forecasts on Wheat Supply in the United States, Australia, and Canada. ASA Special Publication, 2001, , .	0.8	0
193	Foreword to â€˜Interdrought IV â€“ Improving Crop Adaptation to Water-limited Environmentsâ€™. Crop and Pasture Science, 2014, 65, i.	1.5	0
194	How Do Crops Balance Water Supply and Demand when Water Is Limiting?. Proceedings (mdpi), 2020, 36, .	0.2	0
195	Integrating Crop Modelling, Physiology, Genetics and Breeding to Aid Crop Improvement for Changing Environments in the Australian Wheatbelt. Proceedings (mdpi), 2019, 36, 4.	0.2	0