Holger Meinke

List of Publications by Year
in descending order

130 papers	9,318 citations	76196 40 h-index	40881 93 g-index
133 all docs	133 docs citations	133 times ranked	8684 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.	1.9	2,073
2	Adapting agriculture to climate change. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 19691-19696.	3.3	1,515
3	Potential applications of subseasonalâ€toâ€seasonal (<scp>S2S</scp>) predictions. Meteorological Applications, 2017, 24, 315-325.	0.9	265
4	Impacts of the Maddenâ€“Julian Oscillation on Australian Rainfall and Circulation. Journal of Climate, 2009, 22, 1482-1498.	1.2	247
5	The vulnerability of Australian rural communities to climate variability and change: Part IIâ€"Integrating impacts with adaptive capacity. Environmental Science and Policy, 2010, 13, 18-27.	2.4	238
6	Development of a generic crop model template in the cropping system model APSIM. European Journal of Agronomy, 2002, 18, 121-140.	1.9	236
7	Ecoâ€efficient Agriculture: Concepts, Challenges, and Opportunities. Crop Science, 2010, 50, S-109.	0.8	227
8	Seasonal and Inter-Annual Climate Forecasting: The New Tool for Increasing Preparedness to Climate Variability and Change In Agricultural Planning And Operations. Climatic Change, 2005, 70, 221-253.	1.7	215
9	Actionable climate knowledge: from analysis to synthesis. Climate Research, 2006, 33, 101-110.	0.4	178
10	Near-global impact of the Madden-Julian Oscillation on rainfall. Geophysical Research Letters, 2006, 33, .	1.5	153
11	The vulnerability of Australian rural communities to climate variability and change: Part Iâ€"Conceptualising and measuring vulnerability. Environmental Science and Policy, 2010, 13, 8-17.	2.4	140
12	Adaptation science for agriculture and natural resource management â€" urgency and theoretical basis. Current Opinion in Environmental Sustainability, 2009, 1, 69-76.	3.1	127
13	A Sunflower Simulation Model: I. Model Development. Agronomy Journal, 1993, 85, 725-735.	0.9	121
14	Modelling global change impacts on wheat cropping in south-east Queensland, Australia. Environmental Modelling and Software, 1999, 14, 297-306.	1.9	117
15	Beyond climate-smart agriculture: toward safe operating spaces for global food systems. Agriculture and Food Security, 2013, 2, .	1.6	109
16	Potential deep drainage under wheat crops in a Mediterranean climate. I. Temporal and spatial variability. Australian Journal of Agricultural Research, 2001, 52, 45.	1.5	106
17	Molecular mechanisms of salinity tolerance in rice. Crop Journal, 2021, 9, 506-520.	2.3	91
18	Rice in cropping systemsâ€"Modelling transitions between flooded and non-flooded soil environments. European Journal of Agronomy, 2012, 39, 9-24.	1.9	86

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19	Providing Seasonal-to-Interannual Climate Information for Risk Management and Decision-making. Procedia Environmental Sciences, 2010, 1, 81-101.	1.3	84
20	Potential soil water extraction by sunflower on a range of soils. Field Crops Research, 1993, 32, 59-81.	2.3	77
21	Correlation between temperature and phenology prediction error in rice (Oryza sativa L.). Agricultural and Forest Meteorology, 2011, 151, 1545-1555.	1.9	77
22	Increasing profits and reducing risks in crop production using participatory systems simulation approaches. Agricultural Systems, 2001, 70, 493-513.	3.2	76
23	Biochar increases plant-available water in a sandy loam soil under an aerobic rice crop system. Solid Earth, 2014, 5, 939-952.	1.2	73
24	Challenges for weed management in African rice systems in a changing climate. Journal of Agricultural Science, 2011, 149, 427-435.	0.6	69
25	Tissue-Specific Regulation of Na+ and K+ Transporters Explains Genotypic Differences in Salinity Stress Tolerance in Rice. Frontiers in Plant Science, 2019, 10, 1361.	1.7	67
26	Operational seasonal forecasting of crop performance. Philosophical Transactions of the Royal Society B: Biological Sciences, 2005, 360, 2109-2124.	1.8	66
27	Rainfall Variability at Decadal and Longer Time Scales: Signal or Noise?. Journal of Climate, 2005, 18, 89-96.	1.2	65
28	Improving wheat simulation capabilities in Australia from a cropping systems perspective III. The integrated wheat model (I_WHEAT). European Journal of Agronomy, 1998, 8, 101-116.	1.9	63
29	Towards groundwater neutral cropping systems in the Alluvial Fans of the North China Plain. Agricultural Water Management, 2016, 165, 131-140.	2.4	60
30	Predicting optimum crop designs using crop models and seasonal climate forecasts. Scientific Reports, 2018, 8, 2231.	1.6	60
31	A Peanut Simulation Model: I. Model Development and Testing. Agronomy Journal, 1995, 87, 1085-1093.	0.9	59
32	The Australian National Windbreaks Program: overview and summary of results. Australian Journal of Experimental Agriculture, 2002, 42, 649.	1.0	58
33	Probabilistic Forecasts of the Onset of the North Australian Wet Season. Monthly Weather Review, 2007, 135, 3506-3520.	0.5	58
34	Modelling the role of algae in rice crop nutrition and soil organic carbon maintenance. European Journal of Agronomy, 2012, 39, 35-43.	1.9	58
35	Spatial impact of projected changes in rainfall and temperature on wheat yields in Australia. Climatic Change, 2013, 117, 163-179.	1.7	55
36	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.	1.9	51

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37	The intrinsic plasticity of farm businesses and their resilience to change. An Australian example. Field Crops Research, 2011, 124, 157-170.	2.3	50
38	The impact of extreme climatic events on pasture-based dairy systems: a review. Crop and Pasture Science, 2017, 68, 1158.	0.7	50
39	The State of the Art in Modeling Waterlogging Impacts on Plants: What Do We Know and What Do We Need to Know. Earth's Future, 2020, 8, e2020EF001801.	2.4	49
40	SOI PHASES AND CLIMATIC RISK TO PEANUT PRODUCTION: A CASE STUDY FOR NORTHERN AUSTRALIA. International Journal of Climatology, 1996, 16, 783-789.	1.5	46
41	Plant neurobiology and green plant intelligence: science, metaphors and nonsense. Journal of the Science of Food and Agriculture, 2008, 88, 363-370.	1.7	45
42	Crop traits enabling yield gains under more frequent extreme climatic events. Science of the Total Environment, 2022, 808, 152170.	3.9	45
43	Properties of a clay soil from 1.5 to 3.5years after biochar application and the impact on rice yield. Geoderma, 2016, 276, 7-18.	2.3	43
44	Weather, climate, and farmers: an overview. Meteorological Applications, 2006, 13, 7.	0.9	42
45	Examining the yield potential of barley near-isogenic lines using a genotype by environment by management analysis. European Journal of Agronomy, 2019, 105, 41-51.	1.9	41
46	The interface between land use systems research and policy: Multiple arrangements and leverages. Land Use Policy, 2009, 26, 434-442.	2.5	40
47	Resilience achieved via multiple compensating subsystems: The immediate impacts of COVID-19 control measures on the agri-food systems of Australia and New Zealand. Agricultural Systems, 2021, 187, 103025.	3.2	40
48	Assessing exceptional drought with a cropping systems simulator: a case study for grain production in northeast Australia. Agricultural Systems, 1998, 57, 315-332.	3.2	38
49	Climate change shifts forward flowering and reduces crop waterlogging stress. Environmental Research Letters, 2021, 16, 094017.	2.2	38
50	Global change impacts on wheat production along an environmental gradient in south Australia. Environment International, 2001, 27, 195-200.	4.8	36
51	Key weather extremes affecting potato production in The Netherlands. European Journal of Agronomy, 2012, 37, 11-22.	1.9	36
52	Assessing the sustainability of wheat-based cropping systems using simulation modelling: sustainabilityÂ=Â42?. Sustainability Science, 2014, 9, 1-16.	2.5	36
53	A regulator of early flowering in barley (Hordeum vulgare L.). PLoS ONE, 2018, 13, e0200722.	1.1	36
54	Towards delivering on the sustainable development goals in greenhouse production systems. Resources, Conservation and Recycling, 2021, 169, 105379.	5.3	35

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55	Seasonal and Inter-Annual Climate Forecasting: The New Tool for Increasing Preparedness to Climate Variability and Change in Agricultural Planning and Operations. , 2005, , 221-253.		35
56	Assessing linear interpolation to generate daily radiation and temperature data for use in crop simulations. European Journal of Agronomy, 2004, 21, 133-148.	1.9	34
57	The best farm-level irrigation strategy changes seasonally with fluctuating water availability. Agricultural Water Management, 2012, 103, 33-42.	2.4	34
58	Identifying optimal sowing and flowering periods for barley in Australia: a modelling approach. Agricultural and Forest Meteorology, 2020, 282-283, 107871.	1.9	34
59	Evaluation of radiation and temperature data generators in the Australian tropics and sub-tropics using crop simulation models. Agricultural and Forest Meteorology, 1995, 72, 295-316.	1.9	33
60	From rainfall to farm incomesâ€"transforming advice for Australian drought policy. II. Forecasting farm incomes. Australian Journal of Agricultural Research, 2007, 58, 1004.	1.5	33
61	Three Putative Types of El NiÃ±o Revealed by Spatial Variability in Impact on Australian Wheat Yield. Journal of Climate, 2005, 18, 1566-1574.	1.2	32
62	Managing Climatic Risks to Combat Land Degradation and Enhance Food security: Key Information Needs. Procedia Environmental Sciences, 2010, 1, 305-312.	1.3	31
63	Identification of new QTL for salt tolerance from rice variety Pokkali. Journal of Agronomy and Crop Science, 2020, 206, 202-213.	1.7	31
64	Development and use of a barley crop simulation model to evaluate production management strategies in north-eastern Australia. Australian Journal of Agricultural Research, 1996, 47, 997.	1.5	29
65	From rainfall to farm incomesâ€"transforming advice for Australian drought policy. I. Development and testing of a bioeconomic modelling system. Australian Journal of Agricultural Research, 2007, 58, 993.	1.5	29
66	Yield formation and tillering dynamics of direct-seeded rice in flooded and nonflooded soils in the Huai River Basin of China. Field Crops Research, 2010, 116, 252-259.	2.3	29
67	Genetic factors increasing barley grain yields under soil waterlogging. Food and Energy Security, 2020, 9, e238.	2.0	29
68	A Sunflower Simulation Model: II. Simulating Production Risks in a Variable Subâ€Tropical Environment. Agronomy Journal, 1993, 85, 735-742.	0.9	28
69	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
70	Climatic risk to peanut production: a simulation study for Northern Australia. Australian Journal of Experimental Agriculture, 1995, 35, 777.	1.0	27
71	Negative relationship between dry matter intake and the temperature-humidity index with increasing heat stress in cattle: a global meta-analysis. International Journal of Biometeorology, 2021, 65, 2099-2109.	1.3	26
72	Comparing water options for irrigation farmers using Modern Portfolio Theory. Agricultural Water Management, 2012, 115, 1-9.	2.4	24

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73	Assessing Strategies for Orobanche sp. Control Using a Combined Seedbank and Competition Model. Agronomy Journal, 2005, 97, 1551-1559.	0.9	23
74	Effects of soil- and climate data aggregation on simulated potato yield and irrigation water requirement. Science of the Total Environment, 2020, 710, 135589.	3.9	23
75	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.	1.9	22
76	A Peanut Simulation Model: II. Assessing Regional Production Potential. Agronomy Journal, 1995, 87, 1093-1099.	0.9	21
77	Assessing the sustainability of wheat-based cropping systems using APSIM: model parameterisation and evaluation. Australian Journal of Agricultural Research, 2007, 58, 75.	1.5	21
78	Impact of crop management and environment on the spatio-temporal variance of potato yield at regional scale. Field Crops Research, 2021, 270, 108213.	2.3	21
79	Barley yellow dwarf viruses: infection mechanisms and breeding strategies. Euphytica, 2017, 213, 1.	0.6	20
80	Inferential, Nonparametric Statistics to Assess the Quality of Probabilistic Forecast Systems. Monthly Weather Review, 2007, 135, 351-362.	0.5	19
81	On the relation between weather variables and sorghum ergot infection. Australian Journal of Agricultural Research, 2000, 51, 313.	1.5	19
82	On tactical crop management using seasonal climate forecasts and simulation modelling: a case study for wheat. Scientia Agricola, 1997, 54, 121-129.	0.6	18
83	Preface: Climate Predictions for Better Agricultural Risk Management. Australian Journal of Agricultural Research, 2007, 58, 935.	1.5	18
84	Genome wide association study reveals novel QTL for barley yellow dwarf virus resistance in wheat. BMC Genomics, 2019, 20, 891.	1.2	18
85	Simulating cropâ€“parasitic weed interactions using APSIM: Model evaluation and application. European Journal of Agronomy, 2006, 24, 257-267.	1.9	17
86	Microhair on the adaxial leaf surface of salt secreting halophytic Oryza coarctata Roxb. show distinct morphotypes: Isolation for molecular and functional analysis. Plant Science, 2019, 285, 248-257.	1.7	16
87	Using Seasonal Climate Forecasts to Manage Dryland Crops in Northern Australia â€" Experiences from the 1997/98 Seasons. Atmospheric and Oceanographic Sciences Library, 2000, , 149-165.	0.1	15
88	Effects of sorghum ergot on grain sorghum production: a preliminary climatic analysis. Australian Journal of Agricultural Research, 1997, 48, 1241.	1.5	15
89	Modelling crop growth and yield under the environmental changes induced by windbreaks 1. Model development and validation. Australian Journal of Experimental Agriculture, 2002, 42, 875.	1.0	14
90	Modelling crop growth and yield under the environmental changes induced by windbreaks. 2. Simulation of potential benefits at selected sites in Australia. Australian Journal of Experimental Agriculture, 2002, 42, 887.	1.0	14

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91	Effect of artificial wind shelters on the growth and yield of rainfed crops. Australian Journal of Experimental Agriculture, 2002, 42, 841.	1.0	14
92	Designing high-yielding wheat crops under late sowing: a case study in southern China. Agronomy for Sustainable Development, 2022, 42, .	2.2	14
93	Impacts of climate change and climate variability on the competitiveness of wheat and beef cattle production in Emerald, north-east Australia. Environment International, 2001, 27, 155-160.	4.8	13
94	Nitrogen Use and Crop Performance of Rice under Aerobic Conditions in a Semiarid Subtropical Environment. Agronomy Journal, 2014, 106, 199-211.	0.9	12
95	Cropping systems strategy for effective management of Fusarium wilt in safflower. Field Crops Research, 2014, 156, 191-198.	2.3	11
96	Adaptive irrigation infrastructure â€" linking insights from human-water interactions and adaptive pathways. Current Opinion in Environmental Sustainability, 2019, 40, 37-42.	3.1	11
97	Barley yellow dwarf virus infection affects physiology, morphology, grain yield and flour pasting properties of wheat. Crop and Pasture Science, 2019, 70, 16.	0.7	11
98	Implications of data aggregation method on crop model outputs â€" The case of irrigated potato systems in Tasmania, Australia. European Journal of Agronomy, 2021, 126, 126276.	1.9	11
99	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
100	Probabilistic methods for seasonal forecasting in a changing climate: Coxâ€type regression models. International Journal of Climatology, 2010, 30, 2277-2288.	1.5	10
101	Wild barley shows a wider diversity in genes regulating heading date compared with cultivated barley. Euphytica, 2019, 215, 1.	0.6	10
102	A two-step approach to quantify photothermal effects on pre-flowering rice phenology. Field Crops Research, 2014, 155, 14-22.	2.3	9
103	Strategic double cropping on Vertisols: A viable rainfed cropping option in the Indian SAT to increase productivity and reduce risk. European Journal of Agronomy, 2015, 62, 26-37.	1.9	9
104	Identification of New QTL Contributing to Barley Yellow Dwarf Virus-PAV (BYDV-PAV) Resistance in Wheat. Plant Disease, 2019, 103, 2798-2803.	0.7	9
105	Farmersâ€™ views on the future prospects of aerobic rice culture in Pakistan. Land Use Policy, 2015, 42, 517-526.	2.5	8
106	A screening method to detect <scp>BYDV</scp>â€<scp>PAV</scp> resistance in cereals under glasshouse conditions. Plant Pathology, 2018, 67, 1987-1996.	1.2	7
107	Prediction of sorghum downy mildew risk in Australia using daily weather data. Australasian Plant Pathology, 2000, 29, 108.	0.5	6
108	Seasonal climate forecasts and adoption by agriculture. Eos, 2005, 86, 227.	0.1	6

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109	Over-Optimistic Projected Future Wheat Yield Potential in the North China Plain: The Role of Future Climate Extremes. Agronomy, 2022, 12, 145.	1.3	6
110	Influence of air and soil temperatures on grafted and self-rooted Passiflora hybrids. Scientia Horticulturae, 1990, 43, 237-246.	1.7	5
111	Climate and Security in Asia and the Pacific (Food, Water and Energy). Advances in Global Change Research, 2014, , 129-198.	1.6	5
112	Event frequency and severity of sorghum ergot in Australia. Australian Journal of Agricultural Research, 2000, 51, 457.	1.5	5
113	Agronomical, biochemical and histological response of resistant and susceptible wheat and barley under BYDV stress. PeerJ, 2018, 6, e4833.	0.9	5
114	Effect of climate variability on event frequency of sorghum ergot in Australia. Australian Journal of Agricultural Research, 2003, 54, 599.	1.5	4
115	Europe's diminishing bread basket. Nature Climate Change, 2014, 4, 541-542.	8.1	4
116	Nitrogen availability, water-filled pore space, and N2O-N fluxes after biochar application and nitrogen fertilization. Pesquisa Agropecuaria Brasileira, 2016, 51, 1203-1212.	0.9	4
117	Challenges in assessing the regional feasibility of local water storage. Water International, 2019, 44, 854-870.	0.4	4
118	From inferential statistics to climate knowledge. Advances in Geosciences, 0, 6, 211-216.	12.0	4
119	Participatory Crossover Analysis to Support Discussions about Investments in Irrigation Water Sources. Water (Switzerland), 2019, 11, 1318.	1.2	3
120	The role of modeling and systems thinking in contemporary agriculture. , 2019, , 39-47.		3
121	Developing rural community health risk assessments for climate change: a Tasmanian pilot study. Rural and Remote Health, 0, , .	0.4	3
122	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
123	Barley Phenology: Physiological and Molecular Mechanisms for Heading Date and Modelling of Genotypeâ€Environmentâ€•Management Interactions. , 0, , .		2
124	Developing rural community health risk assessments for climate change: a Tasmanian pilot study. Rural and Remote Health, 2015, 15, 3174.	0.4	1
125	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
126	Stochastic Model for Simulating Maize Yield. Transactions of the ASABE, 2012, 55, 1107-1120.	1.1	0

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127	The Sustainability of Organic Grain Production on the Canadian Prairiesâ€"A Review. , 2016, , 289-312.		0
128	Tasmaniaâ€™s Bioeconomy: Employing the Seven Capitals to Sustain Innovative and Entrepreneurial Agrifood Value Chains. Economic Complexity and Evolution, 2017, , 117-139.	0.1	0
129	Whole-farm system models in practice: diverse applications. Burleigh Dodds Series in Agricultural Science, 2019, , 151-172.	0.1	0
130	Contingency planning for drought â€" a case study in coping with agrometeorological risks and uncertainties. , 2007, , 415-433.		0