Jill E Cairns

List of Publications by Year
in descending order

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73 papers	7,550 citations	66343 42 h-index	102487 66 g-index
73 all docs	73 docs citations	73 times ranked	7712 citing authors

#	Article	IF	Citations
1	Revisiting strategies to incorporate gender-responsiveness into maize breeding in southern Africa. Outlook on Agriculture, 2022, 51, 178-186.	3.4	8
2	Toward greater sustainability: how investing in soil health may enhance maize productivity in Southern Africa. Renewable Agriculture and Food Systems, 2022, 37, 166-177.	1.8	2
3	Beat the stress: breeding for climate resilience in maize for the tropical rainfed environments. Theoretical and Applied Genetics, 2021, 134, 1729-1752.	3.6	92
4	Genotypic variation in maize (Zea mays) influences rates of soil organic matter mineralization and gross nitrification. New Phytologist, 2021, 231, 2015-2028.	7.3	16
5	Challenges for sustainable maize production of smallholder farmers in sub-Saharan Africa. Journal of Cereal Science, 2021, 101, 103274.	3.7	31
6	Evidence of a plant genetic basis for maize roots impacting soil organic matter mineralization. Soil Biology and Biochemistry, 2021, 161, 108402.	8.8	5
7	Gender inclusivity through maize breeding in Africa: A review of the issues and options for future engagement. Outlook on Agriculture, 2021, 50, 392-405.	3.4	16
8	Low-N stress tolerant maize hybrids have higher fertilizer N recovery efficiency and reduced N-dilution in the grain compared to susceptible hybrids under low N conditions. Plant Production Science, 2020, 23, 417-426.	2.0	9
9	Leaf versus whole-canopy remote sensing methodologies for crop monitoring under conservation agriculture: a case of study with maize in Zimbabwe. Scientific Reports, 2020, 10, 16008.	3.3	5
10	Nitrogen rate impacts on tropical maize nitrogen use efficiency and soil nitrogen depletion in eastern and southern Africa. Nutrient Cycling in Agroecosystems, 2020, 116, 397-408.	2.2	26
11	Line Ã— tester analysis of maize grain yield under acid and nonâ€acid soil conditions. Crop Science, 2020, 60, 991-1003.	1.8	12
12	Increasing Genetic Gains in Maize in Stress-Prone Environments of the Tropics. , 2020, , 97-132.		6
13	Nitrogen fertilizer rate increases plant uptake and soil availability of essential nutrients in continuous maize production in Kenya and Zimbabwe. Nutrient Cycling in Agroecosystems, 2019, 115, 373-389.	2.2	47
14	Evaluating Maize Genotype Performance under Low Nitrogen Conditions Using RGB UAV Phenotyping Techniques. Sensors, 2019, 19, 1815.	3.8	54
15	Phenotyping: New Crop Breeding Frontier. , 2019, , 493-503.		0
16	Identification of donors for low-nitrogen stress with maize lethal necrosis (MLN) tolerance for maize breeding in sub-Saharan Africa. Euphytica, 2019, 215, 80.	1.2	24
17	Climate risk management and rural poverty reduction. Agricultural Systems, 2019, 172, 28-46.	6.1	171
18	Translating High-Throughput Phenotyping into Genetic Gain. Trends in Plant Science, 2018, 23, 451-466.	8.8	525

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19	Potential benefits of drought and heat tolerance for adapting maize to climate change in tropical environments. Climate Risk Management, 2018, 19, 106-119.	3.2	68
20	Phenotyping Conservation Agriculture Management Effects on Ground and Aerial Remote Sensing Assessments of Maize Hybrid Performance in Zimbabwe. Proceedings (mdpi), 2018, 2, 367.	0.2	1
21	A framework for priority-setting in climate smart agriculture research. Agricultural Systems, 2018, 167, 161-175.	6.1	95
22	When the going gets tough: Performance of stress tolerant maize during the 2015/16 (El NiÃ±o) and 2016/17 (La NiÃ±a) season in southern Africa. Agriculture, Ecosystems and Environment, 2018, 268, 79-89.	5.3	20
23	Developing and deploying climate-resilient maize varieties in the developing world. Current Opinion in Plant Biology, 2018, 45, 226-230.	7.1	79
24	High-throughput method for ear phenotyping and kernel weight estimation in maize using ear digital imaging. Plant Methods, 2018, 14, 49.	4.3	37
25	High-Throughput Phenotyping of Canopy Cover and Senescence in Maize Field Trials Using Aerial Digital Canopy Imaging. Remote Sensing, 2018, 10, 330.	4.0	96
26	Phenotyping Conservation Agriculture Management Effects on Ground and Aerial Remote Sensing Assessments of Maize Hybrids Performance in Zimbabwe. Remote Sensing, 2018, 10, 349.	4.0	37
27	Genome-Wide Association Mapping and Genomic Prediction Analyses Reveal the Genetic Architecture of Grain Yield and Flowering Time Under Drought and Heat Stress Conditions in Maize. Frontiers in Plant Science, 2018, 9, 1919.	3.6	102
28	Phenotyping: New Crop Breeding Frontier. , 2018, , 1-11.		3
29	Rapid breeding and varietal replacement are critical to adaptation of cropping systems in the developing world to climate change. Global Food Security, 2017, 12, 31-37.	8.1	287
30	Potential for Scaling up Climate Smart Agricultural Practices: Examples from Sub-Saharan Africa. Climate Change Management, 2017, , 185-203.	0.8	12
31	Diallel analysis of acid soil tolerant and susceptible maize inbred lines for grain yield under acid and non-acid soil conditions. Euphytica, 2017, 213, 1.	1.2	7
32	Gains in Maize Genetic Improvement in Eastern and Southern Africa: I. CIMMYT Hybrid Breeding Pipeline. Crop Science, 2017, 57, 168-179.	1.8	94
33	Comparative Performance of Ground vs. Aerially Assessed RGB and Multispectral Indices for Early-Growth Evaluation of Maize Performance under Phosphorus Fertilization. Frontiers in Plant Science, 2017, 8, 2004.	3.6	80
34	Onâ€Farm Yield Gains with Stressâ€Tolerant Maize in Eastern and Southern Africa. Agronomy Journal, 2017, 109, 406-417.	1.8	60
35	Genetic Diversity among Selected Elite CIMMYT Maize Hybrids in East and Southern Africa. Crop Science, 2017, 57, 2395-2404.	1.8	10
36	Gains in Maize Genetic Improvement in Eastern and Southern Africa: II. CIMMYT Openâ€Pollinated Variety Breeding Pipeline. Crop Science, 2017, 57, 180-191.	1.8	63

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37	A Novel Remote Sensing Approach for Prediction of Maize Yield Under Different Conditions of Nitrogen Fertilization. Frontiers in Plant Science, 2016, 7, 666.	3.6	98
38	Factors preventing the performance of oxygen isotope ratios as indicators of grain yield in maize. Planta, 2016, 243, 355-368.	3.2	9
39	Maize systems under climate change in sub-Saharan Africa. International Journal of Climate Change Strategies and Management, 2015, 7, 247-271.	2.9	91
40	Conservation agriculture in Southern Africa: Advances in knowledge. Renewable Agriculture and Food Systems, 2015, 30, 328-348.	1.8	126
41	New Technologies for Phenotyping. , 2015, , 1-14.		3
42	Unmanned aerial platform-based multi-spectral imaging for field phenotyping of maize. Plant Methods, 2015, 11, 35.	4.3	248
43	Metabolite profiles of maize leaves in drought, heat and combined stress field trials reveal the relationship between metabolism and grain yield. Plant Physiology, 2015, 169, pp.01164.2015.	4.8	233
44	Field high-throughput phenotyping: the new crop breeding frontier. Trends in Plant Science, 2014, 19, 52-61.	8.8	1,306
45	Molecular mapping across three populations reveals a QTL hotspot region on chromosome 3 for secondary traits associated with drought tolerance in tropical maize. Molecular Breeding, 2014, 34, 701-715.	2.1	66
46	Adapting maize production to climate change in sub-Saharan Africa. Food Security, 2013, 5, 345-360.	5.3	319
47	Infrared Thermal Imaging as a Rapid Tool for Identifying Waterâ€Stress Tolerant Maize Genotypes of Different Phenology. Journal of Agronomy and Crop Science, 2013, 199, 75-84.	3.5	94
48	Effectiveness of selection at <scp>CIMMYT</scp>'s main maize breeding sites in Mexico for performance at sites in Africa and vice versa. Plant Breeding, 2013, 132, 299-304.	1.9	5
49	High-Throughput and Precision Phenotyping for Cereal Breeding Programs. , 2013, , 341-374.		17
50	Identification of Drought, Heat, and Combined Drought and Heat Tolerant Donors in Maize. Crop Science, 2013, 53, 1335-1346.	1.8	247
51	Relationship of Line per se and Testcross Performance for Grain Yield of Tropical Maize in Drought and Wellâ€Watered Trials. Crop Science, 2013, 53, 1228-1236.	1.8	11
52	Genomic Tools and Strategies for Breeding Climate Resilient Cereals. , 2013, , 213-239.		13
53	Effectiveness of Genomic Prediction of Maize Hybrid Performance in Different Breeding Populations and Environments. G3: Genes, Genomes, Genetics, 2012, 2, 1427-1436.	1.8	242
54	Genome-enabled prediction of genetic values using radial basis function neural networks. Theoretical and Applied Genetics, 2012, 125, 759-771.	3.6	180

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55	Metabolic and Phenotypic Responses of Greenhouse-Grown Maize Hybrids to Experimentally Controlled Drought Stress. Molecular Plant, 2012, 5, 401-417.	8.3	251
56	Dissecting Maize Productivity: Ideotypes Associated with Grain Yield under Drought Stress and Wellâ€watered Conditions. Journal of Integrative Plant Biology, 2012, 54, 1007-1020.	8.5	84
57	Maize Production in a Changing Climate. Advances in Agronomy, 2012, 114, 1-58.	5.2	199
58	Prediction of grain yield using reflectance spectra of canopy and leaves in maize plants grown under different water regimes. Field Crops Research, 2012, 128, 82-90.	5.1	144
59	Phenotyping for Abiotic Stress Tolerance in Maize^F. Journal of Integrative Plant Biology, 2012, 54, 238-249.	8.5	104
60	Use of thermography for high throughput phenotyping of tropical maize adaptation in water stress. Computers and Electronics in Agriculture, 2011, 79, 67-74.	7.7	94
61	Influence of the soil physical environment on rice (Oryza sativa L.) response to drought stress and its implications for drought research. Field Crops Research, 2011, 121, 303-310.	5.1	69
62	Does susceptibility to heat stress confound screening for drought tolerance in rice?. Functional Plant Biology, 2011, 38, 261.	2.1	47
63	Molecular Characterization of a Diverse Maize Inbred Line Collection and its Potential Utilization for Stress Tolerance Improvement. Crop Science, 2011, 51, 2569-2581.	1.8	57
64	Genetic Analysis of Heat Tolerance at Anthesis in Rice. Crop Science, 2010, 50, 1633-1641.	1.8	160
65	Identification of Physiological Traits Underlying Cultivar Differences in Drought Tolerance in Rice and Wheat. Journal of Agronomy and Crop Science, 2009, 195, 30-46.	3.5	196
66	Improvement of Drought Resistance in Rice. Advances in Agronomy, 2009, , 41-99.	5.2	122
67	Investigating early vigour in upland rice (Oryza sativa L.): Part II. Identification of QTLs controlling early vigour under greenhouse and field conditions. Field Crops Research, 2009, 113, 207-217.	5.1	34
68	Investigating early vigour in upland rice (Oryza sativa L.): Part I. Seedling growth and grain yield in competition with weeds. Field Crops Research, 2009, 113, 197-206.	5.1	67
69	Mapping quantitative trait loci associated with root growth in upland rice (Oryza sativa L.) exposed to soil water-deficit in fields with contrasting soil properties. Field Crops Research, 2009, 114, 108-118.	5.1	29
70	Identification of deletion mutants with improved performance under water-limited environments in rice (Oryza sativa L.). Field Crops Research, 2009, 114, 159-168.	5.1	8
71	SNP discovery at candidate genes for drought responsiveness in rice. , 2009, , 311-324.		1
72	Effect of soil mechanical impedance on root growth of two rice varieties under field drought stress. Plant and Soil, 2004, 267, 309-318.	3.7	60

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73	Linking droughtâ€resistance mechanisms to drought avoidance in upland rice using a QTL approach: progress and new opportunities to integrate stomatal and mesophyll responses. Journal of Experimental Botany, 2002, 53, 989-1004.	4.8	316