Seth C Murray

List of Publications by Year
in descending order

87 papers	3,619 citations	172207 29 h-index	149479 56 g-index
96 all docs	96 docs citations	96 times ranked	3999 citing authors

#	Article	IF	Citations
1	Increased Food and Ecosystem Security via Perennial Grains. Science, 2010, 328, 1638-1639.	6.0	397
2	Unmanned Aerial Vehicles for High-Throughput Phenotyping and Agronomic Research. PLoS ONE, 2016, 11, e0159781.	1.1	262
3	Genetic Improvement of Sorghum as a Biofuel Feedstock: I. QTL for Stem Sugar and Grain Nonstructural Carbohydrates. Crop Science, 2008, 48, 2165-2179.	0.8	243
4	Sweet Sorghum Genetic Diversity and Association Mapping for Brix and Height. Plant Genome, 2009, 2, .	1.6	168
5	Genetic Improvement of Sorghum as a Biofuel Feedstock: II. QTL for Stem and Leaf Structural Carbohydrates. Crop Science, 2008, 48, 2180-2193.	0.8	162
6	Genetic diversity and population structure analysis of accessions in the US historic sweet sorghum collection. Theoretical and Applied Genetics, 2009, 120, 13-23.	1.8	127
7	Multitemporal field-based plant height estimation using 3D point clouds generated from small unmanned aerial systems high-resolution imagery. International Journal of Applied Earth Observation and Geoinformation, 2018, 64, 31-42.	1.4	125
8	Plant breeding for harmony between agriculture and the environment. Frontiers in Ecology and the Environment, 2011, 9, 561-568.	1.9	117
9	The effect of artificial selection on phenotypic plasticity in maize. Nature Communications, 2017, 8, 1348.	5.8	105
10	Feasibility of Surface-Enhanced Raman Spectroscopy for Rapid Detection of Aflatoxins in Maize. Journal of Agricultural and Food Chemistry, 2014, 62, 4466-4474.	2.4	94
11	Genome Wide Association Study for Drought, Aflatoxin Resistance, and Important Agronomic Traits of Maize Hybrids in the Sub-Tropics. PLoS ONE, 2015, 10, e0117737.	1.1	89
12	Challenges of Detecting Directional Selection After a Bottleneck: Lessons From Sorghum bicolor. Genetics, 2006, 173, 953-964.	1.2	86
13	A single polyploidization event at the origin of the tetraploid genome of Coffea arabica is responsible for the extremely low genetic variation in wild and cultivated germplasm. Scientific Reports, 2020, 10, 4642.	1.6	86
14	Assessing Lodging Severity over an Experimental Maize (Zea mays L.) Field Using UAS Images. Remote Sensing, 2017, 9, 923.	1.8	72
15	Prediction of Maize Grain Yield before Maturity Using Improved Temporal Height Estimates of Unmanned Aerial Systems. The Plant Phenome Journal, 2019, 2, 1-15.	1.0	52
16	The importance of dominance and genotype-by-environment interactions on grain yield variation in a large-scale public cooperative maize experiment. G3: Genes, Genomes, Genetics, 2021, 11, .	0.8	52
17	Temporal Estimates of Crop Growth in Sorghum and Maize Breeding Enabled by Unmanned Aerial Systems. The Plant Phenome Journal, 2018, 1, 1-10.	1.0	51
18	QTLs for Energyâ€related Traits in a Sweet Ã— Grain Sorghum [<i>Sorghum bicolor</i> (L.) Moench] Mapping Population. Crop Science, 2012, 52, 2040-2049.	0.8	50

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19	Phenotypic and Genetic Characterization of a Maize Association Mapping Panel Developed for the Identification of New Sources of Resistance to <i>Aspergillus flavus</i> and Aflatoxin Accumulation. Crop Science, 2013, 53, 2374-2383.	0.8	50
20	An Openâ€Source Firstâ€Generation Molecular Genetic Map from a Sugarbeet Ã— Table Beet Cross and Its Extension to Physical Mapping. Crop Science, 2007, 47, S-27.	0.8	47
21	A multi-environment trial analysis shows slight grain yield improvement in Texas commercial maize. Field Crops Research, 2013, 149, 167-176.	2.3	46
22	Influence of Genetic Background on Anthocyanin and Copigment Composition and Behavior during Thermoalkaline Processing of Maize. Journal of Agricultural and Food Chemistry, 2015, 63, 5528-5538.	2.4	44
23	Utility of Climatic Information via Combining Ability Models to Improve Genomic Prediction for Yield Within the Genomes to Fields Maize Project. Frontiers in Genetics, 2020, 11, 592769.	1.1	44
24	Genomeâ€Wide Association Mapping of Aspergillus flavus and Aflatoxin Accumulation Resistance in Maize. Crop Science, 2015, 55, 1857-1867.	0.8	43
25	An empirical evaluation of three vibrational spectroscopic methods for detection of aflatoxins in maize. Food Chemistry, 2015, 173, 629-639.	4.2	43
26	Maize genomes to fields (G2F): 2014â€“2017 field seasons: genotype, phenotype, climatic, soil, and inbred ear image datasets. BMC Research Notes, 2020, 13, 71.	0.6	38
27	Big Data Driven Agriculture: Big Data Analytics in Plant Breeding, Genomics, and the Use of Remote Sensing Technologies to Advance Crop Productivity. The Plant Phenome Journal, 2019, 2, 1-8.	1.0	37
28	Analysis of the genes controlling three quantitative traits in three diverse plant species reveals the molecular basis of quantitative traits. Scientific Reports, 2020, 10, 10074.	1.6	37
29	Phenomic selection and prediction of maize grain yield from nearâ€infrared reflectance spectroscopy ofÂkernels. The Plant Phenome Journal, 2020, 3, e20002.	1.0	36
30	Selection Mapping of Loci for Quantitative Disease Resistance in a Diverse Maize Population. Genetics, 2008, 180, 583-599.	1.2	35
31	Position Statement on Crop Adaptation to Climate Change. Crop Science, 2011, 51, 2337-2343.	0.8	33
32	Accurate prediction of maize grain yield using its contributing genes for gene-based breeding. Genomics, 2020, 112, 225-236.	1.3	32
33	Genetic Variation for Maize Epicuticular Wax Response to Drought Stress at Flowering. Journal of Agronomy and Crop Science, 2012, 198, 161-172.	1.7	30
34	Hallauerâ€™s TusÃ³n: a decade of selection for tropical-to-temperate phenological adaptation in maize. Heredity, 2015, 114, 229-240.	1.2	30
35	Temporal Vegetation Indices and Plant Height from Remotely Sensed Imagery Can Predict Grain Yield and Flowering Time Breeding Value in Maize via Machine Learning Regression. Remote Sensing, 2021, 13, 2141.	1.8	30
36	Targeted mapping of quantitative trait locus regions for rhizomatousness in chromosome SBI-01 and analysis of overwintering in a Sorghum bicolorÃÃ—ÂS. propinquum population. Molecular Breeding, 2013, 31, 153-162.	1.0	29

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37	Unoccupied aerial system enabled functional modeling of maize height reveals dynamic expression of loci. Plant Direct, 2020, 4, e00223.	0.8	28
38	Registration of Maize Germplasm Lines Tx736, Tx739, and Tx740 for Reducing Preharvest Aflatoxin Accumulation. Journal of Plant Registrations, 2012, 6, 88-94.	0.4	26
39	Plant science decadal vision 2020â€"2030: Reimagining the potential of plants for a healthy and sustainable future. Plant Direct, 2020, 4, e00252.	0.8	26
40	Maize Genomes to Fields: 2014 and 2015 field season genotype, phenotype, environment, and inbred ear image datasets. BMC Research Notes, 2018, 11, 452.	0.6	25
41	Confirmation of QTL Reducing Aflatoxin in Maize Testcrosses. Crop Science, 2011, 51, 2489-2498.	0.8	24
42	Characterizing canopy height with UAS structure-from-motion photogrammetryâ€"results analysis of a maize field trial with respect to multiple factors. Remote Sensing Letters, 2018, 9, 753-762.	0.6	24
43	The Genomic Basis for Short-Term Evolution of Environmental Adaptation in Maize. Genetics, 2019, 213, 1479-1494.	1.2	23
44	High throughput can produce better decisions than high accuracy when phenotyping plant populations. Crop Science, 2021, 61, 3301-3313.	0.8	22
45	Four Parent Maize (FPM) Population: Effects of Mating Designs on Linkage Disequilibrium and Mapping Quantitative Traits. Plant Genome, 2018, 11, 170102.	1.6	21
46	Relative utility of agronomic, phenological, and morphological traits for assessing genotypeâ€byâ€environment interaction in maize inbreds. Crop Science, 2020, 60, 62-81.	0.8	21
47	Genomeâ€Wide Association and Metabolic Pathway Analysis of Corn Earworm Resistance in Maize. Plant Genome, 2018, 11, 170069.	1.6	20
48	Assessing the impact of corn variety and Texas terroir on flavor and alcohol yield in new-make bourbon whiskey. PLoS ONE, 2019, 14, e0220787.	1.1	19
49	Validation of functional polymorphisms affecting maize plant height by unoccupied aerial systems discovers novel temporal phenotypes. G3: Genes, Genomes, Genetics, 2021, 11, .	0.8	18
50	Characterization of Genetic Diversity and Linkage Disequilibrium of ZmLOX4 and ZmLOX5 Loci in Maize. PLoS ONE, 2013, 8, e53973.	1.1	18
51	Root system size and root hair length are key phenes for nitrate acquisition and biomass production across natural variation in Arabidopsis. Journal of Experimental Botany, 2022, 73, 3569-3583.	2.4	18
52	Combining Ability for Total Phenols and Secondary Traits in a Diverse Set of Colored (Red, Blue, and) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	0.8	17
53	Identification of Resistance to Aflatoxin Accumulation and Yield Potential in Maize Hybrids in the Southeast Regional Aflatoxin Trials (SERAT). Crop Science, 2017, 57, 202-215.	0.8	17
54	R/UAStools::plotshpcreate: Create Multi-Polygon Shapefiles for Extraction of Research Plot Scale Agriculture Remote Sensing Data. Frontiers in Plant Science, 2020, 11, 511768.	1.7	17

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55	Rapid Estimation of Phenolic Content in Colored Maize by Nearâ€Infrared Reflectance Spectroscopy and Its Use in Breeding. Crop Science, 2015, 55, 2234-2243.	0.8	16
56	Unoccupied aerial systems discovered overlooked loci capturing the variation of entire growing period in maize. Plant Genome, 2021, 14, e20102.	1.6	16
57	Diallel Analysis of Diverse Maize Germplasm Lines for Resistance to Aflatoxin Accumulation. Crop Science, 2013, 53, 394-402.	0.8	15
58	Report from the conference, â€˜identifying obstacles to applying big data in agricultureâ€™. Precision Agriculture, 2021, 22, 306-315.	3.1	15
59	Estimation of Rhizome Composition and Overwintering Ability in Perennial Sorghum spp. Using Near-Infrared Spectroscopy (NIRS). Bioenergy Research, 2013, 6, 822-829.	2.2	12
60	Rust and Thinning Management Effect on Cup Quality and Plant Performance for Two Cultivars of <i>Coffea arabica</i> L. Journal of Agricultural and Food Chemistry, 2018, 66, 5281-5292.	2.4	12
61	Fourâ€Parent Maize (FPM) Population: Development and Phenotypic Characterization. Crop Science, 2018, 58, 1106-1117.	0.8	11
62	Diallel Analysis of Diverse Maize Germplasm Lines for Agronomic Characteristics. Crop Science, 2014, 54, 2547-2556.	0.8	9
63	UAS imaging for automated crop lodging detection: a case study over an experimental maize field. Proceedings of SPIE, 2017, , .	0.8	9
64	Tx741, Tx777, Tx779, Tx780, and Tx782 Inbred Maize Lines for Yield and Southern United States Stress Adaptation. Journal of Plant Registrations, 2019, 13, 258-269.	0.4	9
65	Differentiation of Seed, Sugar, and Biomass-Producing Genotypes in Saccharinae Species. , 2013, , 479-502.		7
66	Molecular characterization and phylogenetic analysis of ZmMCUs in maize. Biologia (Poland), 2015, 70, 599-605.	0.8	7
67	Registration of Perennial <i>Sorghum bicolor</i> Ã— <i>S. propinquum</i> Line PSH12TX09. Journal of Plant Registrations, 2017, 11, 76-79.	0.4	7
68	Association of Insect-Derived Ear Injury With Yield and Aflatoxin of Maize Hybrids Varying in Bt Transgenes. Environmental Entomology, 2019, 48, 1401-1411.	0.7	7
69	Estimation and classification of popping expansion capacity in popcorn breeding programs using NIR spectroscopy. Journal of Cereal Science, 2020, 91, 102861.	1.8	7
70	Corn and sorghum phenotyping using a fixed-wing UAV-based remote sensing system. Proceedings of SPIE, 2016, , .	0.8	6
71	A proposal to use gamete cycling in vitro to improve crops and livestock. Nature Biotechnology, 2013, 31, 877-880.	9.4	5
72	Evaluation of Elite Maize Inbred Lines for Reduced <i>Aspergillus flavus</i> Infection, Aflatoxin Accumulation, and Agronomic Traits. Crop Science, 2019, 59, 2562-2571.	0.8	5

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73	A diallel analysis of a maize donor population response to in vivo maternal haploid induction: II. Haploid male fertility. Crop Science, 2020, 60, 873-882.	0.8	5
74	Accurate prediction of complex traits for individuals and offspring from parents using a simple, rapid, and efficient method for gene-based breeding in cotton and maize. Plant Science, 2022, 316, 111153.	1.7	5
75	Quality Protein Maize Germplasm Characterized for Amino Acid Profiles and Endosperm Opacity. Crop Science, 2014, 54, 863-872.	0.8	4
76	High clearance phenotyping systems for season-long measurement of corn, sorghum and other row crops to complement unmanned aerial vehicle systems. Proceedings of SPIE, 2016, , .	0.8	4
77	Development of novel perennial <i>Sorghum bicolor</i> Ã— <i>S. propinquum</i> hybrids. Crop Science, 2020, 60, 863-872.	0.8	3
78	Registration of tropical populations of maize selected in parallel for early flowering time across the United States. Journal of Plant Registrations, 2022, 16, 100-108.	0.4	3
79	Yield, Insect-Derived Ear Injury, and Aflatoxin Among Developmental and Commercial Maize Hybrids Adapted to the North American Subtropics. Journal of Economic Entomology, 2020, 113, 2950-2958.	0.8	2
80	Effect of grain coverage disruption on aflatoxins in maize andÂsorghum. , 2021, 4, e20143.		2
81	Phenomic data-facilitated rust and senescence prediction in maize using machine learning algorithms. Scientific Reports, 2022, 12, 7571.	1.6	2
82	Perennial Questions of Hydrology and Climateâ€"Response. Science, 2010, 330, 33-34.	6.0	1
83	Comprehensive UAV agricultural remote-sensing research at Texas A M University. Proceedings of SPIE, 2016, , .	0.8	1
84	MULTI-platform uas imaging for crop height estimation: Performance analysis over an experimental maize field. , 2017, , .		1
85	A response to Honnay <i>et al</i>.. Frontiers in Ecology and the Environment, 2012, 10, 121-122.	1.9	0
86	The Agronomic Science Foundationâ€"Impacting Our Societies for More Than 50 Years. CSA News, 2019, 64, 21-22.	0.1	0
87	Control of Aflatoxin using Atoxigenic Strains and Irrigation Management is Complicated by Maize Hybrid Diversity. Crop Science, 0, , .	0.8	0