Fernando E Miguez

List of Publications by Year
in descending order

58 papers	3,498 citations	218677 26 h-index	149698 56 g-index
58 all docs	58 docs citations	58 times ranked	4433 citing authors

#	Article	IF	Citations
1	Development of a data-assimilation system to forecast agricultural systems: A case study of constraining soil water and soil nitrogen dynamics in the APSIM model. Science of the Total Environment, 2022, 820, 153192.	8.0	18
2	BioCro II: a software package for modular crop growth simulations. In Silico Plants, 2022, 4, .	1.9	5
3	How can we estimate optimum fertilizer rates with accuracy and precision?. Agricultural and Environmental Letters, 2022, 7, .	1.2	8
4	Defining relative yield for soil test correlation and calibration trials in the Fertilizer Recommendation Support Tool. Soil Science Society of America Journal, 2022, 86, 1338-1353.	2.2	5
5	Interactive Webâ€based Data Visualization and Analysis Tool for Synthetizing onâ€farm Research Networks Data. Research Synthesis Methods, 2021, 12, 62-73.	8.7	8
6	The older plant gets the sun: Ageâ€related changes in <i>MiscanthusÂÃ—Âgiganteus</i> phenology. GCB Bioenergy, 2021, 13, 4-20.	5.6	9
7	Working landscapes need at least 20% native habitat. Conservation Letters, 2021, 14, e12773.	5.7	116
8	On-Farm Trials Reveal Significant but Uncertain Control of Botrytis cinerea by Aureobasidium pullulans and Potassium Bicarbonate in Organic Grapevines. Frontiers in Plant Science, 2021, 12, 620786.	3.6	8
9	Lengthening of maize maturity time is not a widespread climate change adaptation strategy in the US Midwest. Global Change Biology, 2021, 27, 2426-2440.	9.5	26
10	A comprehensive uncertainty quantification of large-scale process-based crop modeling frameworks. Environmental Research Letters, 2021, 16, 084010.	5.2	24
11	Comparative prediction accuracy of hyperspectral bands for different soybean crop variables: From leaf area to seed composition. Field Crops Research, 2021, 271, 108260.	5.1	20
12	Long-term no-till increases soil nitrogen mineralization but does not affect optimal corn nitrogen fertilization practices relative to inversion tillage. Soil and Tillage Research, 2021, 213, 105080.	5.6	11
13	Topographic effects on soil microclimate and surface cover crop residue decomposition in rolling cropland. Agriculture, Ecosystems and Environment, 2021, 320, 107609.	5.3	7
14	Cover crops use in Midwestern US agriculture: perceived benefits and net returns. Renewable Agriculture and Food Systems, 2020, 35, 38-48.	1.8	62
15	Potentially mineralizable nitrogen: a soil health indicator. Crops & Soils, 2019, 52, 8-10.	0.2	4
16	Regional technoâ€economic and lifeâ€cycle analysis of the pyrolysisâ€bioenergyâ€biochar platform for carbonâ€negative energy. Biofuels, Bioproducts and Biorefining, 2019, 13, 1428-1438.	3.7	23
17	A nonlinear mixedâ€effects modeling approach for ecological data: Using temporal dynamics of vegetation moisture as an example. Ecology and Evolution, 2019, 9, 10225-10240.	1.9	28
18	Multi-year and Multi-site Establishment of the Perennial Biomass Crop Miscanthus Ã— giganteus Using a Staggered Start Design to Elucidate N Response. Bioenergy Research, 2019, 12, 471-483.	3.9	17

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19	Maize system impacts of cover crop management decisions: A simulation analysis of rye biomass response to planting populations in Iowa, U.S.A.. Agricultural Systems, 2019, 176, 102651.	6.1	19
20	Policies for Ecological Intensification of Crop Production. Trends in Ecology and Evolution, 2019, 34, 282-286.	8.7	103
21	Reply to: Brazilian ethanol expansion subject to limitations. Nature Climate Change, 2019, 9, 211-212.	18.8	7
22	A Framework for Visualization and Analysis of Agronomic Field Trials from Onâ€Farm Research Networks. Agronomy Journal, 2019, 111, 2712-2723.	1.8	17
23	Climate Warming Trends in the U.S. Midwest Using Four Thermal Models. Agronomy Journal, 2019, 111, 3230-3243.	1.8	10
24	Where should we apply biochar?. Environmental Research Letters, 2019, 14, 044005.	5.2	17
25	The trouble with cover crops: Farmersâ€™ experiences with overcoming barriers to adoption. Renewable Agriculture and Food Systems, 2018, 33, 322-333.	1.8	157
26	Conservation Agriculture Practices Increase Potentially Mineralizable Nitrogen: A Metaâ€Analysis. Soil Science Society of America Journal, 2018, 82, 1270-1278.	2.2	38
27	Use of inverse modelling and Bayesian optimization for investigating the effect of biochar on soil hydrological properties. Agricultural Water Management, 2018, 208, 268-274.	5.6	20
28	Commentary on â€˜Current economic obstacles to biochar use in agriculture and climate change mitigationâ€™ regarding uncertainty, context-specificity and alternative value sources. Carbon Management, 2017, 8, 215-217.	2.4	7
29	Brazilian sugarcane ethanol as an expandable green alternative to crude oil use. Nature Climate Change, 2017, 7, 788-792.	18.8	124
30	Biomass sorghum and maize have similar water-use-efficiency under non-drought conditions in the rain-fed Midwest U.S.. Agricultural and Forest Meteorology, 2017, 247, 434-444.	4.8	21
31	Assessing the Biochar Effects on Selected Physical Properties of a Sandy Soil: An Analytical Approach. Communications in Soil Science and Plant Analysis, 2017, 48, 1387-1398.	1.4	30
32	All Washed Out? Foliar Nutrient Resorption and Leaching in Senescing Switchgrass. Bioenergy Research, 2017, 10, 305-316.	3.9	4
33	Metaâ€Analysis Constrained by Data: Recommendations to Improve Relevance of Nutrient Management Research. Agronomy Journal, 2017, 109, 2441-2449.	1.8	31
34	Maximum soil organic carbon storage in Midwest U.S. cropping systems when crops are optimally nitrogen-fertilized. PLoS ONE, 2017, 12, e0172293.	2.5	114
35	A model for mechanistic and system assessments of biochar effects on soils and crops and tradeâ€offs. GCB Bioenergy, 2016, 8, 1028-1045.	5.6	45
36	Effects of Plant Density on Plant Growth before and after Recurrent Selection in Maize. Crop Science, 2016, 56, 2882-2894.	1.8	1

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37	Soil water improvements with the long-term use of a winter rye cover crop. Agricultural Water Management, 2016, 172, 40-50.	5.6	220
38	Maize and Prairie Root Contributions to Soil CO 2 Emissions in the Field. Crop Science, 2016, 56, 2791-2801.	1.8	3
39	Simulating long-term impacts of cover crops and climate change on crop production and environmental outcomes in the Midwestern United States. Agriculture, Ecosystems and Environment, 2016, 218, 95-106.	5.3	157
40	Coupling and testing a new soil water module in DSSAT CERES-Maize model for maize production under semi-arid condition. Agricultural Water Management, 2016, 163, 90-99.	5.6	43
41	Nonlinear Regression Models and Applications in Agricultural Research. Agronomy Journal, 2015, 107, 786-798.	1.8	326
42	Tillage and Crop Rotation Effects on Corn Agronomic Response and Economic Return at Seven Iowa Locations. Agronomy Journal, 2015, 107, 1411-1424.	1.8	62
43	Changes in Kernel Filling with Selection for Grain Yield in a Maize Population. Crop Science, 2015, 55, 521-526.	1.8	10
44	Autumnal leaf senescence in<i>Miscanthus</i>Ã—<i>giganteus</i>and leaf [N] differ by stand age. Journal of Experimental Botany, 2015, 66, 4395-4401.	4.8	13
45	A methodology and an optimization tool to calibrate phenology of short-day species included in the APSIM PLANT model: Application to soybean. Environmental Modelling and Software, 2014, 62, 465-477.	4.5	103
46	A Spatial Modeling Framework to Evaluate Domestic Biofuel-Induced Potential Land Use Changes and Emissions. Environmental Science & Technology, 2014, 48, 140123152522000.	10.0	12
47	Evaluating APSIM Maize, Soil Water, Soil Nitrogen, Manure, and Soil Temperature Modules in the Midwestern United States. Agronomy Journal, 2014, 106, 1025-1040.	1.8	123
48	Assessing potential of biochar for increasing waterâ€holding capacity of sandy soils. GCB Bioenergy, 2013, 5, 132-143.	5.6	394
49	<scp><i>M</i></scp><i>iscanthus</i>ÂÃ—Â<i>giganteus</i> productivity: the effects of management in different environments. GCB Bioenergy, 2012, 4, 253-265.	5.6	91
50	Modeling spatial and dynamic variation in growth, yield, and yield stability of the bioenergy crops <i><scp>M</scp>iscanthusÂ</i>Ã—Â<i>giganteus</i> and <i><scp>P</scp>anicum virgatum</i> across the conterminous <scp>U</scp>nited <scp>S</scp>tates. GCB Bioenergy, 2012, 4, 509-520.	5.6	99
51	Bioenergy crop models: descriptions, data requirements, and future challenges. GCB Bioenergy, 2012, 4, 620-633.	5.6	79
52	Impact of nitrogen allocation on growth and photosynthesis of Miscanthus (<i>MiscanthusÂÃ—Âgiganteus</i>). GCB Bioenergy, 2012, 4, 688-697.	5.6	61
53	Response to Zhang et al.â€™s Comment on â€œModeling Miscanthus in the Soil and Water Assessment Tool (SWAT) to Simulate Its Water Quality Effects as a Bioenergy Cropâ€• Environmental Science & Technology, 2011, 45, 6213-6214.	10.0	1
54	Modeling Miscanthus in the Soil and Water Assessment Tool (SWAT) to Simulate Its Water Quality Effects As a Bioenergy Crop. Environmental Science & Technology, 2010, 44, 7138-7144.	10.0	107

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55	A semimechanistic model predicting the growth and production of the bioenergy crop <i>Miscanthus</i>Ã—<i>giganteus:</i> description, parameterization and validation. GCB Bioenergy, 2009, 1, 282-296.	5.6	68
56	Meta-analysis of the effects of management factors on MiscanthusÃ—giganteus growth and biomass production. Agricultural and Forest Meteorology, 2008, 148, 1280-1292.	4.8	152
57	Review of Corn Yield Response under Winter Cover Cropping Systems Using Metaâ€Analytic Methods. Crop Science, 2005, 45, 2318-2329.	1.8	200
58	Nonlinear Regression Models and Applications. Assa, Cssa and Sssa, 0, , 401-447.	0.6	10