

# Fernando E Miguez

## List of Publications by Year in descending order

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Version: 2024-02-01

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	Assessing potential of biochar for increasing water holding capacity of sandy soils. <i>GCB Bioenergy</i> , 2013, 5, 132-143.	5.6	394
2	Nonlinear Regression Models and Applications in Agricultural Research. <i>Agronomy Journal</i> , 2015, 107, 786-798.	1.8	326
3	Soil water improvements with the long-term use of a winter rye cover crop. <i>Agricultural Water Management</i> , 2016, 172, 40-50.	5.6	220
4	Review of Corn Yield Response under Winter Cover Cropping Systems Using Meta-Analytic Methods. <i>Crop Science</i> , 2005, 45, 2318-2329.	1.8	200
5	Simulating long-term impacts of cover crops and climate change on crop production and environmental outcomes in the Midwestern United States. <i>Agriculture, Ecosystems and Environment</i> , 2016, 218, 95-106.	5.3	157
6	The trouble with cover crops: Farmers' experiences with overcoming barriers to adoption. <i>Renewable Agriculture and Food Systems</i> , 2018, 33, 322-333.	1.8	157
7	Meta-analysis of the effects of management factors on <i>Miscanthus giganteus</i> growth and biomass production. <i>Agricultural and Forest Meteorology</i> , 2008, 148, 1280-1292.	4.8	152
8	Brazilian sugarcane ethanol as an expandable green alternative to crude oil use. <i>Nature Climate Change</i> , 2017, 7, 788-792.	18.8	124
9	Evaluating APSIM Maize, Soil Water, Soil Nitrogen, Manure, and Soil Temperature Modules in the Midwestern United States. <i>Agronomy Journal</i> , 2014, 106, 1025-1040.	1.8	123
10	Working landscapes need at least 20% native habitat. <i>Conservation Letters</i> , 2021, 14, e12773.	5.7	116
11	Maximum soil organic carbon storage in Midwest U.S. cropping systems when crops are optimally nitrogen-fertilized. <i>PLoS ONE</i> , 2017, 12, e0172293.	2.5	114
12	Modeling <i>Miscanthus</i> in the Soil and Water Assessment Tool (SWAT) to Simulate Its Water Quality Effects As a Bioenergy Crop. <i>Environmental Science &amp; Technology</i> , 2010, 44, 7138-7144.	10.0	107
13	A methodology and an optimization tool to calibrate phenology of short-day species included in the APSIM PLANT model: Application to soybean. <i>Environmental Modelling and Software</i> , 2014, 62, 465-477.	4.5	103
14	Policies for Ecological Intensification of Crop Production. <i>Trends in Ecology and Evolution</i> , 2019, 34, 282-286.	8.7	103
15	Modeling spatial and dynamic variation in growth, yield, and yield stability of the bioenergy crops <i>Miscanthus giganteus</i> and <i>Panicum virgatum</i> across the conterminous United States. <i>GCB Bioenergy</i> , 2012, 4, 509-520.	5.6	99
16	<i>Miscanthus giganteus</i> productivity: the effects of management in different environments. <i>GCB Bioenergy</i> , 2012, 4, 253-265.	5.6	91
17	Bioenergy crop models: descriptions, data requirements, and future challenges. <i>GCB Bioenergy</i> , 2012, 4, 620-633.	5.6	79
18	A semimechanistic model predicting the growth and production of the bioenergy crop <i>Miscanthus giganteus</i> : description, parameterization and validation. <i>GCB Bioenergy</i> , 2009, 1, 282-296.	5.6	68

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19	Tillage and Crop Rotation Effects on Corn Agronomic Response and Economic Return at Seven Iowa Locations. <i>Agronomy Journal</i> , 2015, 107, 1411-1424.	1.8	62
20	Cover crops use in Midwestern US agriculture: perceived benefits and net returns. <i>Renewable Agriculture and Food Systems</i> , 2020, 35, 38-48.	1.8	62
21	Impact of nitrogen allocation on growth and photosynthesis of <i>Miscanthus</i> ( <i>Miscanthus</i> — <i>giganteus</i> ). <i>GCB Bioenergy</i> , 2012, 4, 688-697.	5.6	61
22	A model for mechanistic and system assessments of biochar effects on soils and crops and trade-offs. <i>GCB Bioenergy</i> , 2016, 8, 1028-1045.	5.6	45
23	Coupling and testing a new soil water module in DSSAT CERES-Maize model for maize production under semi-arid condition. <i>Agricultural Water Management</i> , 2016, 163, 90-99.	5.6	43
24	Conservation Agriculture Practices Increase Potentially Mineralizable Nitrogen: A Meta-analysis. <i>Soil Science Society of America Journal</i> , 2018, 82, 1270-1278.	2.2	38
25	Meta-analysis Constrained by Data: Recommendations to Improve Relevance of Nutrient Management Research. <i>Agronomy Journal</i> , 2017, 109, 2441-2449.	1.8	31
26	Assessing the Biochar Effects on Selected Physical Properties of a Sandy Soil: An Analytical Approach. <i>Communications in Soil Science and Plant Analysis</i> , 2017, 48, 1387-1398.	1.4	30
27	A nonlinear mixed-effects modeling approach for ecological data: Using temporal dynamics of vegetation moisture as an example. <i>Ecology and Evolution</i> , 2019, 9, 10225-10240.	1.9	28
28	Lengthening of maize maturity time is not a widespread climate change adaptation strategy in the US Midwest. <i>Global Change Biology</i> , 2021, 27, 2426-2440.	9.5	26
29	A comprehensive uncertainty quantification of large-scale process-based crop modeling frameworks. <i>Environmental Research Letters</i> , 2021, 16, 084010.	5.2	24
30	Regional techno-economic and life-cycle analysis of the pyrolysis-bioenergy-biochar platform for carbon-negative energy. <i>Biofuels, Bioproducts and Biorefining</i> , 2019, 13, 1428-1438.	3.7	23
31	Biomass sorghum and maize have similar water-use-efficiency under non-drought conditions in the rain-fed Midwest U.S.. <i>Agricultural and Forest Meteorology</i> , 2017, 247, 434-444.	4.8	21
32	Use of inverse modelling and Bayesian optimization for investigating the effect of biochar on soil hydrological properties. <i>Agricultural Water Management</i> , 2018, 208, 268-274.	5.6	20
33	Comparative prediction accuracy of hyperspectral bands for different soybean crop variables: From leaf area to seed composition. <i>Field Crops Research</i> , 2021, 271, 108260.	5.1	20
34	Maize system impacts of cover crop management decisions: A simulation analysis of rye biomass response to planting populations in Iowa, U.S.A.. <i>Agricultural Systems</i> , 2019, 176, 102651.	6.1	19
35	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. <i>Science of the Total Environment</i> , 2022, 820, 153192.	8.0	18
36	Multi-year and Multi-site Establishment of the Perennial Biomass Crop <i>Miscanthus</i> — <i>giganteus</i> Using a Staggered Start Design to Elucidate N Response. <i>Bioenergy Research</i> , 2019, 12, 471-483.	3.9	17

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37	A Framework for Visualization and Analysis of Agronomic Field Trials from On-Farm Research Networks. <i>Agronomy Journal</i> , 2019, 111, 2712-2723.	1.8	17
38	Where should we apply biochar?. <i>Environmental Research Letters</i> , 2019, 14, 044005.	5.2	17
39	Autumnal leaf senescence in <i>Miscanthus</i> — <i>giganteus</i> and leaf [N] differ by stand age. <i>Journal of Experimental Botany</i> , 2015, 66, 4395-4401.	4.8	13
40	A Spatial Modeling Framework to Evaluate Domestic Biofuel-Induced Potential Land Use Changes and Emissions. <i>Environmental Science &amp; Technology</i> , 2014, 48, 140123152522000.	10.0	12
41	Long-term no-till increases soil nitrogen mineralization but does not affect optimal corn nitrogen fertilization practices relative to inversion tillage. <i>Soil and Tillage Research</i> , 2021, 213, 105080.	5.6	11
42	Changes in Kernel Filling with Selection for Grain Yield in a Maize Population. <i>Crop Science</i> , 2015, 55, 521-526.	1.8	10
43	Nonlinear Regression Models and Applications. <i>Assa, Cssa and Sssa</i> , 0, , 401-447.	0.6	10
44	Climate Warming Trends in the U.S. Midwest Using Four Thermal Models. <i>Agronomy Journal</i> , 2019, 111, 3230-3243.	1.8	10
45	The older plant gets the sun: Age-related changes in <i>Miscanthus</i> — <i>giganteus</i> phenology. <i>GCB Bioenergy</i> , 2021, 13, 4-20.	5.6	9
46	Interactive Web-based Data Visualization and Analysis Tool for Synthesizing on-Farm Research Networks Data. <i>Research Synthesis Methods</i> , 2021, 12, 62-73.	8.7	8
47	On-Farm Trials Reveal Significant but Uncertain Control of <i>Botrytis cinerea</i> by <i>Aureobasidium pullulans</i> and Potassium Bicarbonate in Organic Grapevines. <i>Frontiers in Plant Science</i> , 2021, 12, 620786.	3.6	8
48	How can we estimate optimum fertilizer rates with accuracy and precision?. <i>Agricultural and Environmental Letters</i> , 2022, 7, .	1.2	8
49	Commentary on "Current economic obstacles to biochar use in agriculture and climate change mitigation" regarding uncertainty, context-specificity and alternative value sources. <i>Carbon Management</i> , 2017, 8, 215-217.	2.4	7
50	Reply to: Brazilian ethanol expansion subject to limitations. <i>Nature Climate Change</i> , 2019, 9, 211-212.	18.8	7
51	Topographic effects on soil microclimate and surface cover crop residue decomposition in rolling cropland. <i>Agriculture, Ecosystems and Environment</i> , 2021, 320, 107609.	5.3	7
52	BioCro II: a software package for modular crop growth simulations. <i>In Silico Plants</i> , 2022, 4, .	1.9	5
53	Defining relative yield for soil test correlation and calibration trials in the Fertilizer Recommendation Support Tool. <i>Soil Science Society of America Journal</i> , 2022, 86, 1338-1353.	2.2	5
54	All Washed Out? Foliar Nutrient Resorption and Leaching in Senescing Switchgrass. <i>Bioenergy Research</i> , 2017, 10, 305-316.	3.9	4

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55	Potentially mineralizable nitrogen: a soil health indicator. <i>Crops &amp; Soils</i> , 2019, 52, 8-10.	0.2	4
56	Maize and Prairie Root Contributions to Soil CO <sub>2</sub> Emissions in the Field. <i>Crop Science</i> , 2016, 56, 2791-2801.	1.8	3
57	Response to Zhang et al.'s Comment on "Modeling Miscanthus in the Soil and Water Assessment Tool (SWAT) to Simulate Its Water Quality Effects as a Bioenergy Crop". <i>Environmental Science &amp; Technology</i> , 2011, 45, 6213-6214.	10.0	1
58	Effects of Plant Density on Plant Growth before and after Recurrent Selection in Maize. <i>Crop Science</i> , 2016, 56, 2882-2894.	1.8	1