Patricio Grassini

List of Publications by Year
in descending order

80 papers	6,861 citations	37 h-index (94433)	75 g-index (74163)
85 all docs	85 docs citations	85 times ranked	5976 citing authors

#	Article	IF	Citations
1	Yield gap analysis with local to global relevanceâ€"A review. Field Crops Research, 2013, 143, 4-17.	5.1	1,111
2	Distinguishing between yield advances and yield plateaus in historical crop production trends. Nature Communications, 2013, 4, 2918.	12.8	611
3	Can sub-Saharan Africa feed itself?. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 14964-14969.	7.1	564
4	A global perspective on sustainable intensification research. Nature Sustainability, 2020, 3, 262-268.	23.7	260
5	High-yield maize with large net energy yield and small global warming intensity. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 1074-1079.	7.1	256
6	How good is good enough? Data requirements for reliable crop yield simulations and yield-gap analysis. Field Crops Research, 2015, 177, 49-63.	5.1	253
7	High-yield irrigated maize in the Western U.S. Corn Belt: I. On-farm yield, yield potential, and impact of agronomic practices. Field Crops Research, 2011, 120, 142-150.	5.1	249
8	Use of agro-climatic zones to upscale simulated crop yield potential. Field Crops Research, 2013, 143, 44-55.	5.1	234
9	Limits to maize productivity in Western Corn-Belt: A simulation analysis for fully irrigated and rainfed conditions. Agricultural and Forest Meteorology, 2009, 149, 1254-1265.	4.8	211
10	Closing yield gaps for rice self-sufficiency in China. Nature Communications, 2019, 10, 1725.	12.8	179
11	From field to atlas: Upscaling of location-specific yield gap estimates. Field Crops Research, 2015, 177, 98-108.	5.1	145
12	Potential for crop production increase in Argentina through closure of existing yield gaps. Field Crops Research, 2015, 184, 145-154.	5.1	144
13	Soybean yield gaps and water productivity in the western U.S. Corn Belt. Field Crops Research, 2015, 179, 150-163.	5.1	132
14	Assessing causes of yield gaps in agricultural areas with diversity in climate and soils. Agricultural and Forest Meteorology, 2017, 247, 170-180.	4.8	121
15	High-yield irrigated maize in the Western U.S. Corn Belt: II. Irrigation management and crop water productivity. Field Crops Research, 2011, 120, 133-141.	5.1	114
16	Impact of derived global weather data on simulated crop yields. Global Change Biology, 2013, 19, 3822-3834.	9.5	113
17	Is soybean yield limited by nitrogen supply?. Field Crops Research, 2017, 213, 204-212.	5.1	106
18	Creating long-term weather data from thin air for crop simulation modeling. Agricultural and Forest Meteorology, 2015, 209-210, 49-58.	4.8	94

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19	Can ratoon cropping improve resource use efficiencies and profitability of rice in central China?. Field Crops Research, 2019, 234, 66-72.	5.1	94
20	Sustainable intensification for a larger global rice bowl. Nature Communications, 2021, 12, 7163.	12.8	82
21	From grid to field: Assessing quality of gridded weather data for agricultural applications. European Journal of Agronomy, 2017, 82, 163-172.	4.1	79
22	Climate and Management Factors Influence Soybean Yield Potential in a Subtropical Environment. Agronomy Journal, 2016, 108, 1447-1454.	1.8	76
23	Testing Remote Sensing Approaches for Assessing Yield Variability among Maize Fields. Agronomy Journal, 2014, 106, 24-32.	1.8	73
24	Estimating yield gaps at the cropping system level. Field Crops Research, 2017, 206, 21-32.	5.1	73
25	A Systematic Review of Durum Wheat: Enhancing Production Systems by Exploring Genotype, Environment, and Management (G Ã— E Ã— M) Synergies. Frontiers in Plant Science, 2020, 11, 568657.	3.6	71
26	Water productivity of rainfed maize and wheat: A local to global perspective. Agricultural and Forest Meteorology, 2018, 259, 364-373.	4.8	70
27	Can crop simulation models be used to predict local to regional maize yields and total production in the U.S. Corn Belt?. Field Crops Research, 2016, 192, 1-12.	5.1	67
28	Benchmarking sunflower water productivity in semiarid environments. Field Crops Research, 2009, 110, 251-262.	5.1	64
29	Climate and agronomy, not genetics, underpin recent maize yield gains in favorable environments. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	62
30	Sifting and winnowing: Analysis of farmer field data for soybean in the US North-Central region. Field Crops Research, 2018, 221, 130-141.	5.1	61
31	Yield gap analysis of US rice production systems shows opportunities for improvement. Field Crops Research, 2016, 196, 276-283.	5.1	59
32	Drivers of spatial and temporal variation in soybean yield and irrigation requirements in the western US Corn Belt. Field Crops Research, 2014, 163, 32-46.	5.1	46
33	Southeast Asia must narrow down the yield gap to continue to be a major rice bowl. Nature Food, 2022, 3, 217-226.	14.0	45
34	Soybean. CSSA Special Publication - Crop Science Society of America, 0, , 311-355.	0.1	44
35	Assessing the influence of row spacing on soybean yield using experimental and producer survey data. Field Crops Research, 2019, 230, 98-106.	5.1	43
36	Beyond the plot: technology extrapolation domains for scaling out agronomic science. Environmental Research Letters, 2018, 13, 054027.	5.2	41

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37	Do shallow water tables contribute to high and stable maize yields in the US Corn Belt?. Global Food Security, 2018, 18, 27-34.	8.1	41
38	Contribution of persistent factors to yield gaps in high-yield irrigated maize. Field Crops Research, 2016, 186, 124-132.	5.1	40
39	Insufficient nitrogen supply from symbiotic fixation reduces seasonal crop growth and nitrogen mobilization to seed in highly productive soybean crops. Plant, Cell and Environment, 2020, 43, 1958-1972.	5.7	35
40	Can there be a green revolution in Sub-Saharan Africa without large expansion of irrigated crop production?. Global Food Security, 2013, 2, 203-209.	8.1	34
41	Fostering a climate-smart intensification for oil palm. Nature Sustainability, 2021, 4, 595-601.	23.7	34
42	Crop Yield Potential, Yield Trends, and Global Food Security in a Changing Climate. ICP Series on Climate Change Impacts, Adaptation, and Mitigation, 2010, , 37-51.	0.4	33
43	Improvements to the Hybrid-Maize model for simulating maize yields in harsh rainfed environments. Field Crops Research, 2017, 204, 180-190.	5.1	33
44	Spatial frameworks for robust estimation of yield gaps. Nature Food, 2021, 2, 773-779.	14.0	32
45	On-farm sugarcane yield and yield components as influenced by number of harvests. Field Crops Research, 2019, 240, 134-142.	5.1	30
46	Benchmarking impact of nitrogen inputs on grain yield and environmental performance of producer fields in the western US Corn Belt. Agriculture, Ecosystems and Environment, 2020, 294, 106865.	5.3	30
47	Yield gaps in intensive rice-maize cropping sequences in the humid tropics of Indonesia. Field Crops Research, 2019, 237, 12-22.	5.1	29
48	Assessing variation in maize grain nitrogen concentration and its implications for estimating nitrogen balance in the US North Central region. Field Crops Research, 2019, 240, 185-193.	5.1	29
49	High-yield maizeâ€"soybean cropping systems in the US Corn Belt. , 2015, , 17-41.		28
50	Nitrogen limitation in high-yield soybean: Seed yield, N accumulation, and N-use efficiency. Field Crops Research, 2019, 237, 74-81.	5.1	26
51	Rooting for food security in Sub-Saharan Africa. Environmental Research Letters, 2017, 12, 114036.	5.2	24
52	Rotation Impact on Onâ€Farm Yield and Inputâ€Use Efficiency in Highâ€Yield Irrigated Maizeâ€"Soybean Systems. Agronomy Journal, 2016, 108, 2313-2321.	1.8	23
53	Science in the Supply Chain: Collaboration Opportunities for Advancing Sustainable Agriculture in the United States. Agricultural and Environmental Letters, 2017, 2, 170015.	1.2	22
54	Critical period for seed number determination in soybean as determined by crop growth rate, duration, and dry matter accumulation. Field Crops Research, 2021, 261, 108016.	5.1	22

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55	Simulating rice and maize yield potential in the humid tropical environment of Indonesia. European Journal of Agronomy, 2018, 101, 10-19.	4.1	21
56	Assessing environment types for maize, soybean, and wheat in the United States as determined by spatio-temporal variation in drought and heat stress. Agricultural and Forest Meteorology, 2021, 307, 108513.	4.8	18
57	Impact of urbanization trends on production of key staple crops. Ambio, 2022, 51, 1158-1167.	5.5	18
58	Simulating Switchgrass Growth and Development under Potential and Water-Limiting Conditions. Agronomy Journal, 2009, 101, 564-571.	1.8	17
59	Assessing explanatory factors for variation in on-farm irrigation in US maize-soybean systems. Agricultural Water Management, 2018, 197, 34-40.	5.6	17
60	A spatial framework for ex-ante impact assessment of agricultural technologies. Global Food Security, 2019, 20, 72-81.	8.1	17
61	Field validation of a farmer supplied data approach to close soybean yield gaps in the US North Central region. Agricultural Systems, 2022, 200, 103434.	6.1	17
62	Robust spatial frameworks for leveraging research on sustainable crop intensification. Global Food Security, 2017, 14, 18-22.	8.1	14
63	Benchmarking irrigation water use in producer fields in the US central Great Plains. Environmental Research Letters, 2019, 14, 054009.	5.2	13
64	Assessing benefits of artificial drainage on soybean yield in the North Central US region. Agricultural Water Management, 2021, 243, 106425.	5.6	13
65	Soybean. , 2021, , 282-319.		12
66	Co-ordination between primordium formation and leaf appearance in soybean (Glycine max) as influenced by temperature. Field Crops Research, 2017, 210, 197-206.	5.1	11
67	From sunlight to seed: Assessing limits to solar radiation capture and conversion in agro-ecosystems. Agricultural and Forest Meteorology, 2020, 280, 107775.	4.8	11
68	Combining field-level data and remote sensing to understand impact of management practices on producer yields. Field Crops Research, 2020, 257, 107932.	5.1	11
69	Assessing approaches for stratifying producer fields based on biophysical attributes for regional yield-gap analysis. Field Crops Research, 2020, 254, 107825.	5.1	11
70	Climate Change and Management Impacts on Soybean N Fixation, Soil N Mineralization, N2O Emissions, and Seed Yield. Frontiers in Plant Science, 2022, 13, 849896.	3.6	8
71	Sugarcane Yield and Yield Components as Affected by Harvest Time. Sugar Tech, 2021, 23, 819-826.	1.8	7
72	Influence of weather and endogenous cycles on spatiotemporal yield variation in oil palm. Agricultural and Forest Meteorology, 2022, 314, 108789.	4.8	7

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73	Variable demand as a means to more sustainable biofuels and biobased materials. Biofuels, Bioproducts and Biorefining, 2021, 15, 15-31.	3.7	6
74	Disentangling management factors influencing nitrogen balance in producer fields in the western Corn Belt. Agricultural Systems, 2021, 193, 103245.	6.1	5
75	Management strategies for earlyâ€•and lateâ€planted soybean in the northâ€central United States. Agronomy Journal, 2020, 112, 2928-2943.	1.8	4
76	Luck versus Skill: Is Nitrogen Balance in Irrigated Maize Fields Driven by Persistent or Random Factors?. Environmental Science & Technology, 2021, 55, 749-756.	10.0	3
77	A machine learning interpretation of the contribution of foliar fungicides to soybean yield in the northâ€central United States. Scientific Reports, 2021, 11, 18769.	3.3	3
78	Quantifying and Managing Corn Water Use Efficiencies under Irrigated and Rainfed Conditions in Nebraska Using the Hybrid-Maize Simulation Model. Advances in Agricultural Systems Modeling, 0, , 113-138.	0.3	2
79	Uncertainty is more than a number or colour: Involving experts in uncertainty assessments of yield gaps. Agricultural Systems, 2022, 195, 103311.	6.1	2
80	Spatial Frameworks to Support Agronomic Innovation. Crops & Soils, 2021, 54, 46-51.	0.2	0