Achim Dobermann

List of Publications by Year
in descending order

99 papers	11,970 citations	28242 55 h-index	37183 96 g-index
101 all docs	101 docs citations	101 times ranked	9773 citing authors

#	Article	IF	Citations
1	Agroecosystems, Nitrogen-use Efficiency, and Nitrogen Management. Ambio, 2002, 31, 132-140.	2.8	1,251
2	MEETINGCEREALDEMANDWHILEPROTECTINGNATURALRESOURCES ANDIMPROVINGENVIRONMENTALQUALITY. Annual Review of Environment and Resources, 2003, 28, 315-358.	5.6	774
3	Nitrogen uptake, fixation and response to fertilizer N in soybeans: A review. Field Crops Research, 2008, 108, 1-13.	2.3	723
4	Rice yields in tropical/subtropical Asia exhibit large but opposing sensitivities to minimum and maximum temperatures. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 14562-14567.	3.3	495
5	Opportunities for increased nitrogen-use efficiency from improved resource management in irrigated rice systems. Field Crops Research, 1998, 56, 7-39.	2.3	458
6	Annual carbon dioxide exchange in irrigated and rainfed maize-based agroecosystems. Agricultural and Forest Meteorology, 2005, 131, 77-96.	1.9	449
7	Improving nitrogen fertilization in rice by sitespecific N management. A review. Agronomy for Sustainable Development, 2010, 30, 649-656.	2.2	436
8	Site-specific nutrient management for intensive rice cropping systems in Asia. Field Crops Research, 2002, 74, 37-66.	2.3	365
9	Internal nutrient efficiencies of irrigated lowland rice in tropical and subtropical Asia. Field Crops Research, 1999, 63, 113-138.	2.3	323
10	Hybrid-maizeâ€"a maize simulation model that combines two crop modeling approaches. Field Crops Research, 2004, 87, 131-154.	2.3	314
11	Anthropogenic Drivers of Ecosystem Change: an Overview. Ecology and Society, 2006, 11, .	1.0	229
12	Management of phosphorus, potassium, and sulfur in intensive, irrigated lowland rice. Field Crops Research, 1998, 56, 113-138.	2.3	225
13	Maize Radiation Use Efficiency under Optimal Growth Conditions. Agronomy Journal, 2005, 97, 72-78.	0.9	221
14	Soil greenhouse gas fluxes and global warming potential in four highâ€yielding maize systems. Global Change Biology, 2007, 13, 1972-1988.	4.2	205
15	Understanding and modeling the effect of temperature and daylength on soybean phenology under high-yield conditions. Field Crops Research, 2007, 100, 257-271.	2.3	197
16	How widespread are yield declines in long-term rice experiments in Asia?. Field Crops Research, 2000, 66, 175-193.	2.3	193
17	Title is missing!. Plant and Soil, 2002, 247, 153-175.	1.8	183
18	A critical assessment of the system of rice intensification (SRI). Agricultural Systems, 2004, 79, 261-281.	3.2	183

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19	Reversal of Rice Yield Decline in a Longâ€Term Continuous Cropping Experiment. Agronomy Journal, 2000, 92, 633-643.	0.9	166
20	Estimating maize nutrient uptake requirements. Field Crops Research, 2010, 118, 158-168.	2.3	163
21	Fine-resolution mapping of soil organic carbon based on multivariate secondary data. Geoderma, 2006, 132, 471-489.	2.3	150
22	Performance of Siteâ€Specific Nutrient Management for Irrigated Rice in Southeast China. Agronomy Journal, 2001, 93, 869-878.	0.9	149
23	Do organic amendments improve yield trends and profitability in intensive rice systems?. Field Crops Research, 2003, 83, 191-213.	2.3	146
24	Synthetic Ionâ€Exchange Resins: Soil and Environmental Studies. Journal of Environmental Quality, 1996, 25, 13-24.	1.0	141
25	Fertilizer inputs, nutrient balance, and soil nutrient-supplying power in intensive, irrigated rice systems. I. Potassium uptake and K balance. Nutrient Cycling in Agroecosystems, 1996, 46, 1-10.	1.1	139
26	Soybean Sowing Date: The Vegetative, Reproductive, and Agronomic Impacts. Crop Science, 2008, 48, 727-740.	0.8	138
27	Soil organic matter and the indigenous nitrogen supply of intensive irrigated rice systems in the tropics. Plant and Soil, 1996, 182, 267-278.	1.8	126
28	Soil Electrical Conductivity and Water Content Affect Nitrous Oxide and Carbon Dioxide Emissions in Intensively Managed Soils. Journal of Environmental Quality, 2006, 35, 1999-2010.	1.0	119
29	Evaluation of NASA Satelliteâ€• and Modelâ€Derived Weather Data for Simulation of Maize Yield Potential in China. Agronomy Journal, 2010, 102, 9-16.	0.9	109
30	African soil properties and nutrients mapped at 30Âm spatial resolution using two-scale ensemble machine learning. Scientific Reports, 2021, 11, 6130.	1.6	103
31	Direct measurement of soil chemical properties on-the-go using ion-selective electrodes. Computers and Electronics in Agriculture, 2005, 48, 272-294.	3.7	94
32	Simulation of soybean growth and yield in near-optimal growth conditions. Field Crops Research, 2010, 119, 161-174.	2.3	92
33	Growth and Nitrogen Fixation in High-Yielding Soybean: Impact of Nitrogen Fertilization. Agronomy Journal, 2009, 101, 958-970.	0.9	91
34	Soil Fertility and Indigenous Nutrient Supply in Irrigated Rice Domains of Asia. Agronomy Journal, 2003, 95, 913-923.	0.9	90
35	Rice in cropping systemsâ€"Modelling transitions between flooded and non-flooded soil environments. European Journal of Agronomy, 2012, 39, 9-24.	1.9	86
36	Leaf area index simulation in soybean grown under near-optimal conditions. Field Crops Research, 2008, 108, 82-92.	2.3	79

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37	A research vision for food systems in the 2020s: Defying the status quo. Global Food Security, 2020, 26, 100397.	4.0	78
38	On-farm soil N supply and N nutrition in the riceâ€“wheat system of Nepal and Bangladesh. Field Crops Research, 1999, 64, 273-286.	2.3	77
39	Translating the Sustainable Development Goals into action: A participatory backcasting approach for developing national agricultural transformation pathways. Global Food Security, 2016, 10, 71-79.	4.0	77
40	Fertilizer inputs, nutrient balance and soil nutrient supplying power in intensive, irrigated rice system. III. Phosphorus. Nutrient Cycling in Agroecosystems, 1996, 46, 111-125.	1.1	76
41	Biosolids as Nitrogen Source for Irrigated Maize and Rainfed Sorghum. Soil Science Society of America Journal, 2002, 66, 531-543.	1.2	76
42	Classification of Crop Yield Variability in Irrigated Production Fields. Agronomy Journal, 2003, 95, 1105-1120.	0.9	76
43	An algorithm for spatially constrained classification of categorical and continuous soil properties. Geoderma, 2006, 136, 504-523.	2.3	71
44	Features, Applications, and Limitations of the Hybridâ€Maize Simulation Model. Agronomy Journal, 2006, 98, 737-748.	0.9	70
45	Agronomic improvements can make future cereal systems in South Asia far more productive and result in a lower environmental footprint. Global Change Biology, 2016, 22, 1054-1074.	4.2	70
46	Sampling optimization based on secondary information and its utilization in soil carbon mapping. Geoderma, 2006, 133, 345-362.	2.3	69
47	Maizeâ€N: A Decision Tool for Nitrogen Management in Maize. Agronomy Journal, 2011, 103, 1276-1283.	0.9	67
48	Closing yield gaps in maize production in Southeast Asia through site-specific nutrient management. Field Crops Research, 2014, 156, 219-230.	2.3	66
49	Nitrogen Use Efficiency of Irrigated Corn for Three Cropping Systems in Nebraska. Agronomy Journal, 2011, 103, 76-84.	0.9	65
50	Net Biome Productivity of Irrigated and Rainfed Maizeâ€“Soybean Rotations: Modeling vs. Measurements. Agronomy Journal, 2007, 99, 1404-1423.	0.9	64
51	Exploring Future Food Provision Scenarios for China. Environmental Science & Technology, 2019, 53, 1385-1393.	4.6	62
52	Screening Yield Monitor Data Improves Grain Yield Maps. Agronomy Journal, 2004, 96, 1091-1102.	0.9	61
53	Estimating Indigenous Nutrient Supplies for Siteâ€Specific Nutrient Management in Irrigated Rice. Agronomy Journal, 2003, 95, 924-935.	0.9	60
54	Integrated assessment of cropping systems in the Eastern Indo-Gangetic plain. Field Crops Research, 2006, 99, 35-47.	2.3	60

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55	Scale-Dependent Correlations among Soil Properties in Two Tropical Lowland Rice Fields. Soil Science Society of America Journal, 1997, 61, 1483-1496.	1.2	56
56	Fuzzy mapping of soil fertility â€” a case study on irrigated riceland in the Philippines. Geoderma, 1997, 77, 317-339.	2.3	56
57	Creating Spatially Contiguous Yield Classes for Siteâ€Specific Management. Agronomy Journal, 2003, 95, 1121-1131.	0.9	51
58	Sources of soil variation in an acid Ultisol of the Philippines. Geoderma, 1995, 68, 173-191.	2.3	47
59	Changes in soil phosphorus fractions in a calcareous paddy soil under intensive rice cropping. Plant and Soil, 2006, 288, 141-154.	1.8	47
60	Agronomic and environmental causes of yield and nitrogen use efficiency gaps in Chinese rice farming systems. European Journal of Agronomy, 2018, 93, 40-49.	1.9	47
61	Southeast Asia must narrow down the yield gap to continue to be a major rice bowl. Nature Food, 2022, 3, 217-226.	6.2	45
62	Phosphorus Fertilizer Effects on Soil Phosphorus Pools in Acid Upland Soils. Soil Science Society of America Journal, 2002, 66, 652-660.	1.2	44
63	Processing of Yield Map Data. Precision Agriculture, 2005, 6, 193-212.	3.1	44
64	Cereal area and nitrogen use efficiency are drivers of future nitrogen fertilizer consumption. Science in China Series C: Life Sciences, 2005, 48, 745-758.	1.3	39
65	Nutrient adsorption kinetics of ion exchange resin capsules: A study with soils of international origin. Communications in Soil Science and Plant Analysis, 1994, 25, 1329-1353.	0.6	38
66	Factors causing field variation of direct-seeded flooded rice. Geoderma, 1994, 62, 125-150.	2.3	38
67	Mapping soil texture classes using field textuing, particle size distribution and local knowledge by both conventional and geostatisical methods. European Journal of Soil Science, 1999, 50, 457-479.	1.8	38
68	Nitrogen and the future of agriculture: 20Âyears on. Ambio, 2022, 51, 17-24.	2.8	38
69	What is a plant nutrient? Changing definitions to advance science and innovation in plant nutrition. Plant and Soil, 2022, 476, 11-23.	1.8	38
70	Identification of Relationships between Cotton Yield, Quality, and Soil Properties. Agronomy Journal, 2004, 96, 1588-1597.	0.9	37
71	Comparison of partial and complete soil K budgets under intensive rice cropping in the Mekong Delta, Vietnam. Agriculture, Ecosystems and Environment, 2006, 116, 121-131.	2.5	37
72	Performance of Site-Specific Nutrient Management for Irrigated, Transplanted Rice in Northwest India. Agronomy Journal, 2007, 99, 1436-1447.	0.9	37

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73	Agronomic and economic evaluation of site-specific nutrient management for irrigated wheat in northwest India. Nutrient Cycling in Agroecosystems, 2008, 82, 15-31.	1.1	37
74	Educating and Training a Workforce for Nutrition in a Post-2015 World. Advances in Nutrition, 2015, 6, 639-647.	2.9	36
75	Nitrogen Response and Economics for Irrigated Corn in Nebraska. Agronomy Journal, 2011, 103, 67-75.	0.9	35
76	Comparing apples with oranges. Nature, 2012, 485, 176-177.	13.7	35
77	How good is a reconnaissance soil map for agronomic purposes?. Soil Use and Management, 1996, 12, 33-43.	2.6	34
78	Agitated soil measurement method for integrated on-the-go mapping of soil pH, potassium and nitrate contents. Computers and Electronics in Agriculture, 2008, 60, 212-225.	3.7	34
79	Phosphorus Fertilizer Effects on Soil Phosphorus Pools in Acid Upland Soils. Soil Science Society of America Journal, 2002, 66, 652.	1.2	30
80	Responsible plant nutrition: A new paradigm to support food system transformation. Global Food Security, 2022, 33, 100636.	4.0	28
81	Nutritional physiology of the rice plants and productivity decline of irrigated rice systems in the tropics. Soil Science and Plant Nutrition, 1997, 43, 1101-1106.	0.8	27
82	Biosolids as Nitrogen Source for Irrigated Maize and Rainfed Sorghum. Soil Science Society of America Journal, 2002, 66, 531.	1.2	27
83	Spatial and Temporal Variability of Transplanted Rice at the Field Scale. Agronomy Journal, 1995, 87, 712-720.	0.9	25
84	Insufficient geographic characterization and analysis in the planning, execution and dissemination of agronomic research?. Field Crops Research, 2002, 76, 45-54.	2.3	20
85	Nitrogen Response of Grain Sorghum in Rotation with Soybean. Agronomy Journal, 2007, 99, 808-813.	0.9	19
86	Co-benefits of nutrient management tailored to smallholder agriculture. Global Food Security, 2021, 30, 100570.	4.0	19
87	The potential for soybean to diversify the production of plant-based protein in the UK. Science of the Total Environment, 2021, 767, 144903.	3.9	17
88	Sustainable intensification of agriculture in sub-Saharan Africa: first things first. Frontiers of Agricultural Science and Engineering, 2020, 7, 376.	0.9	17
89	Exploiting Co-Benefits of Increased Rice Production and Reduced Greenhouse Gas Emission through Optimized Crop and Soil Management. PLoS ONE, 2015, 10, e0140023.	1.1	15
90	Cereal area and nitrogen use efficiency are drivers of future nitrogen fertilizer consumption. Science in China Series C: Life Sciences, 2005, 48 Spec No, 745-58.	1.3	15

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91	Comment on â€œCarbon budget of mature no-till ecosystem in North Central Region of the United Statesâ€. Agricultural and Forest Meteorology, 2006, 136, 83-84.	1.9	14
92	Steady agronomic and genetic interventions are essential for sustaining productivity in intensive rice cropping. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	13
93	Growing innovations for the bioeconomy. Nature Plants, 2015, 1, 15193.	4.7	12
94	All hat and no cattle: Accountability following the UN food systems summit. Global Food Security, 2021, 30, 100569.	4.0	11
95	The nitrogen economy of rice-livestock systems in Uruguay. Global Food Security, 2021, 30, 100566.	4.0	11
96	Improving Nitrogen Fertilization in Rice by Site-Specific N Management. , 2011, , 943-952.		9
97	Cropping Systems: Irrigated Continuous Rice Systems of Tropical and Subtropical Asia. , 2004, , 349-354.		1
98	Avoiding a Rice Crisis: What Needs to Be Done?. Assa, Cssa and Sssa, 0, , 49-55.	0.6	0
99	Used Wisely, Fertilizers Will Feed Africa and Protect its Unique Biodiversity. , 2022, 1, .		0