Bruno Gerard

List of Publications by Year
in descending order

73 papers	4,598 citations	94269 37 h-index	106150 65 g-index
76 all docs	76 docs citations	76 times ranked	5077 citing authors

#	Article	IF	Citations
1	Smart Investments in Sustainable Food Production: Revisiting Mixed Crop-Livestock Systems. Science, 2010, 327, 822-825.	6.0	633
2	Limited potential of no-till agriculture for climate change mitigation. Nature Climate Change, 2014, 4, 678-683.	8.1	594
3	A fourth principle is required to define Conservation Agriculture in sub-Saharan Africa: The appropriate use of fertilizer to enhance crop productivity. Field Crops Research, 2014, 155, 10-13.	2.3	265
4	Conservation Agriculture in mixed cropâ€"livestock systems: Scoping crop residue trade-offs in Sub-Saharan Africa and South Asia. Field Crops Research, 2012, 132, 175-184.	2.3	231
5	Conservation agriculture for sustainable intensification in South Asia. Nature Sustainability, 2020, 3, 336-343.	11.5	135
6	Diversity of wild and cultivated pearl millet accessions (Pennisetum glaucum [L.] R. Br.) in Niger assessed by microsatellite markers. Theoretical and Applied Genetics, 2006, 114, 49-58.	1.8	125
7	Fields on fire: Alternatives to crop residue burning in India. Science, 2019, 365, 536-538.	6.0	121
8	Re-examining appropriate mechanization in Eastern and Southern Africa: two-wheel tractors, conservation agriculture, and private sector involvement. Food Security, 2015, 7, 889-904.	2.4	105
9	Trends in productivity of crops, fallow and rangelands in Southwest Niger: Impact of land use, management and variable rainfall. Journal of Hydrology, 2009, 375, 65-77.	2.3	86
10	Complementary practices supporting conservation agriculture in southern Africa. A review. Agronomy for Sustainable Development, 2018, 38, 1.	2.2	83
11	Selection for Earlier Flowering Crop Associated with Climatic Variations in the Sahel. PLoS ONE, 2011, 6, e19563.	1.1	82
12	Niger-wide assessment of in situ sorghum genetic diversity with microsatellite markers. Theoretical and Applied Genetics, 2008, 116, 903-913.	1.8	73
13	Identifying determinants, pressures and trade-offs of crop residue use in mixed smallholder farms in Sub-Saharan Africa and South Asia. Agricultural Systems, 2015, 134, 107-118.	3.2	71
14	Sub-surface drip fertigation with conservation agriculture in a rice-wheat system: A breakthrough for addressing water and nitrogen use efficiency. Agricultural Water Management, 2019, 216, 273-283.	2.4	71
15	Changes in the diversity and geographic distribution of cultivated millet (Pennisetum glaucum (L.) R.) Tj ETQq1 1 0.784314 rgBT /Overlo Resources and Crop Evolution, 2009, 56, 223-236.	0.8	70
16	Conservation agriculture based sustainable intensification: Increasing yields and water productivity for smallholders of the Eastern Gangetic Plains. Field Crops Research, 2019, 238, 1-17.	2.3	70
17	Achieving the sustainable development goals in agriculture: The crucial role of nitrogen in cereal-based systems. Advances in Agronomy, 2020, , 39-116.	2.4	67
18	Scaling â€" from â€œreaching manyâ€•to sustainable systems change at scale: A critical shift in mindset. Agricultural Systems, 2019, 176, 102652.	3.2	66

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19	Integrating crops and livestock in subtropical agricultural systems. Journal of the Science of Food and Agriculture, 2012, 92, 1010-1015.	1.7	63
20	Genetic mitigation strategies to tackle agricultural GHG emissions: The case for biological nitrification inhibition technology. Plant Science, 2017, 262, 165-168.	1.7	62
21	Use of the APSIM model in long term simulation to support decision making regarding nitrogen management for pearl millet in the Sahel. European Journal of Agronomy, 2010, 32, 144-154.	1.9	60
22	Millet response to microdose fertilization in southâ€“western Niger: Effect of antecedent fertility management and environmental factors. Field Crops Research, 2015, 171, 165-175.	2.3	59
23	The influence of vegetation pattern on the productivity, diversity and stability of vegetation: The case of `brousse tigrÃ©e' in the Sahel. Acta Oecologica, 1999, 20, 147-158.	0.5	58
24	Effect of planting technique and amendment type on pearl millet yield, nutrient uptake, and water use on degraded land in Niger. Nutrient Cycling in Agroecosystems, 2007, 76, 203-217.	1.1	58
25	Enabling smallholder farmers to sustainably improve their food, energy and water nexus while achieving environmental and economic benefits. Renewable and Sustainable Energy Reviews, 2020, 120, 109645.	8.2	58
26	Agricultural labor, COVID-19, and potential implications for food security and air quality in the breadbasket of India. Agricultural Systems, 2020, 185, 102954.	3.2	58
27	Evaluation of application timing in fertilizer micro-dosing technology on millet production in Niger, West Africa. Nutrient Cycling in Agroecosystems, 2008, 80, 257-265.	1.1	52
28	Nutrient Management and Use Efficiency in Wheat Systems of South Asia. Advances in Agronomy, 2014, 125, 171-259.	2.4	48
29	Inter-connection between land use/land cover change and herdersâ€™/farmersâ€™ livestock feed resource management strategies: a case study from three Ethiopian eco-environments. Agriculture, Ecosystems and Environment, 2014, 188, 150-162.	2.5	48
30	Where to Target Conservation Agriculture for African Smallholders? How to Overcome Challenges Associated with its Implementation? Experience from Eastern and Southern Africa. Environments - MDPI, 2015, 2, 338-357.	1.5	48
31	Enhancing Smallholder Access to Agricultural Machinery Services: Lessons from Bangladesh. Journal of Development Studies, 2017, 53, 1502-1517.	1.2	48
32	Energy-efficient, sustainable crop production practices benefit smallholder farmers and the environment across three countries in the Eastern Gangetic Plains, South Asia. Journal of Cleaner Production, 2020, 246, 118982.	4.6	46
33	High Throughput Field Phenotyping for Plant Height Using UAV-Based RGB Imagery in Wheat Breeding Lines: Feasibility and Validation. Frontiers in Plant Science, 2021, 12, 591587.	1.7	46
34	Food security and agriculture in the Western Highlands of Guatemala. Food Security, 2019, 11, 817-833.	2.4	45
35	Tradeoffs around crop residue biomass in smallholder crop-livestock systems â€“ Whatâ€™s next?. Agricultural Systems, 2015, 134, 119-128.	3.2	44
36	Improving rural livelihoods as a â€œmoving targetâ€: trajectories of change in smallholder farming systems of Western Kenya. Regional Environmental Change, 2015, 15, 1395-1407.	1.4	44

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37	Different uncertainty distribution between high and low latitudes in modelling warming impacts on wheat. Nature Food, 2020, 1, 63-69.	6.2	43
38	Multi-Temporal and Spectral Analysis of High-Resolution Hyperspectral Airborne Imagery for Precision Agriculture: Assessment of Wheat Grain Yield and Grain Protein Content. Remote Sensing, 2018, 10, 930.	1.8	41
39	Tradeoffs between groundwater conservation and air pollution from agricultural fires in northwest India. Nature Sustainability, 2019, 2, 580-583.	11.5	41
40	Improving cereal productivity and farmersâ€™ income using a strategic application of fertilizers in West Africa. , 2007, , 201-208.		34
41	Spatio-temporal dynamics of genetic diversity in Sorghum bicolor in Niger. Theoretical and Applied Genetics, 2010, 120, 1301-1313.	1.8	33
42	Spatial fieldsâ€™ dispersion as a farmer strategy to reduce agro-climatic risk at the household level in pearl millet-based systems in the Sahel: A modeling perspective. Agricultural and Forest Meteorology, 2011, 151, 215-227.	1.9	32
43	Improving smallholder farmersâ€™ gross margins and labor-use efficiency across a range of cropping systems in the Eastern Gangetic Plains. World Development, 2021, 138, 105266.	2.6	32
44	Maize intercropping in the milpa system. Diversity, extent and importance for nutritional security in the Western Highlands of Guatemala. Scientific Reports, 2021, 11, 3696.	1.6	32
45	Assessing sustainability in agricultural landscapes: a review of approaches^{1,2}. Environmental Reviews, 2018, 26, 299-315.	2.1	28
46	Responsible plant nutrition: A new paradigm to support food system transformation. Global Food Security, 2022, 33, 100636.	4.0	28
47	Modeling hydraulic properties of sandy soils of Niger using pedotransfer functions. Geoderma, 2007, 141, 407-415.	2.3	26
48	Application of Remote Sensing for Phenotyping Tar Spot Complex Resistance in Maize. Frontiers in Plant Science, 2019, 10, 552.	1.7	26
49	Radiative transfer model inversion using high-resolution hyperspectral airborne imagery â€“ Retrieving maize LAI to access biomass and grain yield. Field Crops Research, 2022, 282, 108449.	2.3	23
50	Non-destructive measurement of plant growth and nitrogen status of pearl millet with low-altitude aerial photography. Soil Science and Plant Nutrition, 1997, 43, 993-998.	0.8	22
51	Targeting rural development interventions: Empirical agent-based modeling in Nigerien villages. Agricultural Systems, 2011, 104, 354-364.	3.2	21
52	Simulating Rural Environmentally and Socio-Economically Constrained Multi-Activity and Multi-Decision Societies in a Low-Data Context: A Challenge Through Empirical Agent-Based Modeling. Jasss, 2010, 13, .	1.0	20
53	Sparing or sharing land? Views from agricultural scientists. Biological Conservation, 2021, 259, 109167.	1.9	19
54	Supplementation with groundnut haulms for sheep fattening in the West African Sahel. Tropical Animal Health and Production, 2007, 39, 207-216.	0.5	18

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55	Carbon sequestration potential, challenges, and strategies towards climate action in smallholder agricultural systems of South Asia. , 2022, 1, 86-101.		18
56	Testing the impact of social forces on the evolution of Sahelian farming systems: A combined agent-based modeling and anthropological approach. Ecological Modelling, 2010, 221, 2714-2727.	1.2	17
57	DOES SIZE MATTER? A CRITICAL REVIEW OF META-ANALYSIS IN AGRONOMY. Experimental Agriculture, 2019, 55, 200-229.	0.4	17
58	Aerial photography to determine fertiliser effects on pearl millet and Guiera senegalensis growth. Plant and Soil, 1999, 210, 167-178.	1.8	16
59	Carbon sequestration potential through conservation agriculture in Africa has been largely overestimated. Soil and Tillage Research, 2020, 196, 104300.	2.6	15
60	Indian agriculture, air pollution, and public health in the age of COVID. World Development, 2020, 135, 105064.	2.6	15
61	Title is missing!. Plant and Soil, 2001, 228, 265-273.	1.8	14
62	Potential for Scaling up Climate Smart Agricultural Practices: Examples from Sub-Saharan Africa. Climate Change Management, 2017, , 185-203.	0.6	12
63	Variation in vegetation cover and livestock mobility needs in Sahelian West Africa. Journal of Land Use Science, 2016, 11, 76-95.	1.0	10
64	ESTIMATION OF SPATIAL VARIABILITY IN PEARL MILLET GROWTH WITH NON-DESTRUCTIVE METHODS. Experimental Agriculture, 2001, 37, 373-389.	0.4	9
65	Reply to 'No-till agriculture and climate change mitigation'. Nature Climate Change, 2015, 5, 489-489.	8.1	9
66	Design and Testing of a Global Positioning Systemâ€Based Radiometer for Precision Mapping of Pearl Millet Total Dry Matter in the Sahel. Agronomy Journal, 2000, 92, 1086-1095.	0.9	6
67	Response to Sommer et al. (2014) Fertiliser use is not required as a fourth principle to define conservation agriculture. Field Crops Research, 2014, 167, 159.	2.3	5
68	Sustainable intensification of African agriculture: a necessity, but not yet a reality. Frontiers of Agricultural Science and Engineering, 2020, 7, 383.	0.9	4
69	Reconstituting family transitions of Sahelian western Niger 1950-2000: an agent-based modelling approach in a low data context. CyberGeo, 0, , .	0.0	4
70	Response to Sommer et al. (2014) â€œFertilizer use is not required as a fourth principle to define Conservation Agricultureâ€• Field Crops Research, 2014, 169, 149.	2.3	2
71	A Method to Determine the Appropriate Spatial Resolution Required for Monitoring Crop Growth in a given Agricultural Landscape. , 2008, , .		1
72	Comparison between SAR and wind scatterometers data for surface parameters monitoring over a sahelian agropastoral area. , 0, , .		0

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73	Non-destructive measurement of plant growth and nitrogen status of pearl millet with low-altitude aerial photography. , 1997, , 373-378.		0