

Christine A Watson

List of Publications by Year in descending order

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Version: 2024-02-01

96
papers

6,150
citations

108046

37
h-index

84171

75
g-index

100
all docs

100
docs citations

100
times ranked

7454
citing authors

#	ARTICLE	IF	CITATIONS
1	Supporting wild pollinators in agricultural landscapes through targeted legume mixtures. <i>Agriculture, Ecosystems and Environment</i> , 2022, 323, 107648.	2.5	19
2	Agro-economic prospects for expanding soybean production beyond its current northerly limit in Europe. <i>European Journal of Agronomy</i> , 2022, 133, 126415.	1.9	44
3	Effects of management practices on legume productivity in smallholder farming systems in sub-Saharan Africa. <i>Food and Energy Security</i> , 2022, 11, .	2.0	4
4	Measuring household legume cultivation intensity in sub-Saharan Africa. <i>International Journal of Agricultural Sustainability</i> , 2021, 19, 319-334.	1.3	5
5	Reducing soil erosion in smallholder farming systems in east Africa through the introduction of different crop types. <i>Experimental Agriculture</i> , 2020, 56, 183-195.	0.4	26
6	Re-designing organic grain legume cropping systems using systems agronomy. <i>European Journal of Agronomy</i> , 2020, 112, 125951.	1.9	32
7	Regional land use efficiency and nutritional quality of protein production. <i>Global Food Security</i> , 2020, 26, 100386.	4.0	2
8	Socio-ecological factors determine crop performance in agricultural systems. <i>Scientific Reports</i> , 2020, 10, 4232.	1.6	12
9	Disease suppressive soils vary in resilience to stress. <i>Applied Soil Ecology</i> , 2020, 149, 103482.	2.1	13
10	Reviews and syntheses: Review of causes and sources of N ₂ and NO ₃ leaching from organic arable crop rotations. <i>Biogeosciences</i> , 2019, 16, 2795-2819.	1.3	50
11	Farmer perceptions of legumes and their functions in smallholder farming systems in east Africa. <i>International Journal of Agricultural Sustainability</i> , 2019, 17, 205-218.	1.3	35
12	Linking Arable Cropping and Livestock Production for Efficient Recycling of N and P. , 2019, , 169-188.		1
13	Risks and opportunities of increasing yields in organic farming. A review. <i>Agronomy for Sustainable Development</i> , 2018, 38, 1.	2.2	149
14	Demographic quantification of carbon and nitrogen dynamics associated with root turnover in white clover. <i>Plant, Cell and Environment</i> , 2018, 41, 2045-2056.	2.8	1
15	A framework of connections between soil and people can help improve sustainability of the food system and soil functions. <i>Ambio</i> , 2018, 47, 269-283.	2.8	34
16	Grain legume yields are as stable as other spring crops in long-term experiments across northern Europe. <i>Agronomy for Sustainable Development</i> , 2018, 38, 63.	2.2	55
17	Factors influencing crop rotation strategies on organic farms with different time periods since conversion to organic production. <i>Biological Agriculture and Horticulture</i> , 2017, 33, 14-27.	0.5	28
18	Changes in soil C and N stocks and C:N stoichiometry 21 years after land use change on an arable mineral topsoil. <i>Geoderma</i> , 2017, 303, 19-26.	2.3	26

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19	Understanding effects of multiple farm management practices on barley performance. <i>European Journal of Agronomy</i> , 2017, 90, 43-52.	1.9	11
20	Grain Legume Production and Use in European Agricultural Systems. <i>Advances in Agronomy</i> , 2017, , 235-303.	2.4	176
21	Trade-Offs between Economic and Environmental Impacts of Introducing Legumes into Cropping Systems. <i>Frontiers in Plant Science</i> , 2016, 7, 669.	1.7	111
22	A Comparative Nitrogen Balance and Productivity Analysis of Legume and Non-legume Supported Cropping Systems: The Potential Role of Biological Nitrogen Fixation. <i>Frontiers in Plant Science</i> , 2016, 7, 1700.	1.7	60
23	Predicting the effect of rotation design on N, P, K balances on organic farms using the NDICEA model. <i>Renewable Agriculture and Food Systems</i> , 2016, 31, 471-484.	0.8	8
24	Predicting the effect of rotation design on N, P, K balances on organic farms using the NDICEA model - CORRIGENDUM. <i>Renewable Agriculture and Food Systems</i> , 2016, 31, 574-574.	0.8	0
25	A cropping system assessment frameworkâ€”Evaluating effects of introducing legumes into crop rotations. <i>European Journal of Agronomy</i> , 2016, 76, 186-197.	1.9	123
26	Grain legume decline and potential recovery in European agriculture: a review. <i>Agronomy for Sustainable Development</i> , 2016, 36, 1.	2.2	146
27	Residue-C effects on denitrification vary with soil depth. <i>Soil Biology and Biochemistry</i> , 2016, 103, 365-375.	4.2	9
28	Quantifying annual variations in field scale element flows and balances is essential for sustainable nutrient management in farming systems. <i>Biological Agriculture and Horticulture</i> , 2016, 32, 110-126.	0.5	2
29	Engineering a plant community to deliver multiple ecosystem services. <i>Ecological Applications</i> , 2015, 25, 1034-1043.	1.8	83
30	Improving intercropping: a synthesis of research in agronomy, plant physiology and ecology. <i>New Phytologist</i> , 2015, 206, 107-117.	3.5	805
31	Seasonal nitrous oxide emissions from field soils under reduced tillage, compost application or organic farming. <i>Agriculture, Ecosystems and Environment</i> , 2014, 189, 171-180.	2.5	41
32	Soil Phosphorus Management in Organic Cropping Systems: From Current Practices to Avenues for a More Efficient Use of P Resources. , 2014, , 23-45.		17
33	Investigating the Use of Silage Effluent to Improve Available Phosphorus from Gafsa Phosphate Rock. <i>Communications in Soil Science and Plant Analysis</i> , 2014, 45, 332-346.	0.6	1
34	Red clover increases micronutrient concentrations in forage mixtures. <i>Field Crops Research</i> , 2014, 169, 99-106.	2.3	16
35	Micronutrient concentrations in relation to phenological development of red clover (<i>Trifolium pratense</i> L.), perennial ryegrass (<i>Lolium perenne</i> L.) Tj ETQq1 1 0.784314 rgBT/Overlo <i>Forage Science</i> , 2014, 69, 276-284.	1.2	12
36	Issues and pressures facing the future of soil carbon stocks with particular emphasis on Scottish soils. <i>Journal of Agricultural Science</i> , 2014, 152, 699-715.	0.6	4

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37	Micronutrient concentrations in common and novel forage species and varieties grown on two contrasting soils. <i>Grass and Forage Science</i> , 2013, 68, 427-436.	1.2	29
38	Nitrous oxide mitigation in UK agriculture. <i>Soil Science and Plant Nutrition</i> , 2013, 59, 3-15.	0.8	49
39	Modeling Biological Dinitrogen Fixation of Field Pea with a Process-Based Simulation Model. <i>Agronomy Journal</i> , 2013, 105, 670-678.	0.9	13
40	Nitrous oxide emissions from European agriculture – an analysis of variability and drivers of emissions from field experiments. <i>Biogeosciences</i> , 2013, 10, 2671-2682.	1.3	108
41	The effect of co-composted cabbage and ground phosphate rock on the early growth and P uptake of oilseed rape and perennial ryegrass. <i>Journal of Plant Nutrition and Soil Science</i> , 2012, 175, 595-603.	1.1	8
42	Legumes intercropped with spring barley contribute to increased biomass production and carry-over effects. <i>Journal of Agricultural Science</i> , 2012, 150, 584-594.	0.6	33
43	Elemental status (Cu, Mo, Co, B, S and Zn) of Scottish agricultural soils compared with a soil-based risk assessment. <i>Soil Use and Management</i> , 2012, 28, 167-176.	2.6	8
44	Using soil and plant properties and farm management practices to improve the micronutrient composition of food and feed. <i>Journal of Geochemical Exploration</i> , 2012, 121, 15-24.	1.5	25
45	Revisiting herbage sample collection and preparation procedures to minimise risks of trace element contamination. <i>European Journal of Agronomy</i> , 2012, 43, 33-39.	1.9	18
46	Models of biological nitrogen fixation of legumes. A review. <i>Agronomy for Sustainable Development</i> , 2011, 31, 155-172.	2.2	129
47	Nitrous oxide emissions and nitrate leaching in an arable rotation resulting from the presence of an intercrop. <i>Agriculture, Ecosystems and Environment</i> , 2011, 141, 153-161.	2.5	86
48	Influence of ley duration on the yield and quality of the subsequent cereal crop (spring oats) in an organically managed long-term crop rotation experiment. <i>Organic Agriculture</i> , 2011, 1, 147-159.	1.2	13
49	Revisiting the Multiple Benefits of Historical Crop Rotations within Contemporary UK Agricultural Systems. <i>Agroecology and Sustainable Food Systems</i> , 2011, 35, 163-179.	0.9	15
50	Arable plant communities as indicators of farming practice. <i>Agriculture, Ecosystems and Environment</i> , 2010, 138, 17-26.	2.5	100
51	Improving Bioavailability of Phosphate Rock for Organic Farming. <i>Sustainable Agriculture Reviews</i> , 2010, , 99-117.	0.6	10
52	Plant Nutrients in Organic Farming. , 2009, , 73-88.		12
53	Biological indicators of soil quality in organic farming systems. <i>Renewable Agriculture and Food Systems</i> , 2009, 24, 308-318.	0.8	33
54	Considerations for Scottish soil monitoring in the European context. <i>European Journal of Soil Science</i> , 2009, 60, 833-843.	1.8	10

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55	Root morphology and water transport of <i>Pistacia lentiscus</i> seedlings under contrasting water supply: A test of the pipe stem theory. <i>Environmental and Experimental Botany</i> , 2008, 62, 343-350.	2.0	33
56	Research in organic production systems—past, present and future. <i>Journal of Agricultural Science</i> , 2008, 146, 1-19.	0.6	48
57	Estimating resource use efficiencies in organic agriculture: a review of budgeting approaches used. <i>Journal of the Science of Food and Agriculture</i> , 2007, 87, 2782-2790.	1.7	23
58	Soil physical fertility, soil structure and rooting conditions after ploughing organically managed grass/clover swards. <i>Soil Use and Management</i> , 2007, 23, 20-27.	2.6	24
59	Nitrous oxide emissions, cereal growth, N recovery and soil nitrogen status after ploughing organically managed grass/clover swards. <i>Soil Use and Management</i> , 2007, 23, 145-155.	2.6	37
60	SPACSYS: Integration of a 3D root architecture component to carbon, nitrogen and water cycling—Model description. <i>Ecological Modelling</i> , 2007, 200, 343-359.	1.2	129
61	Polysaccharides and monosaccharides in the hyphosphere of the arbuscular mycorrhizal fungi <i>Glomus E3</i> and <i>Glomus tenue</i> . <i>Soil Biology and Biochemistry</i> , 2007, 39, 680-683.	4.2	40
62	Controls on soil nitrogen cycling and microbial community composition across land use and incubation temperature. <i>Soil Biology and Biochemistry</i> , 2007, 39, 744-756.	4.2	253
63	Output and sustainability of organic ley/arable crop rotations at two sites in northern Scotland. <i>Journal of Agricultural Science</i> , 2006, 144, 435-447.	0.6	21
64	Response of organically managed grassland to available phosphorus and potassium in the soil and supplementary fertilization: field trials using grass-clover leys cut for silage. <i>Soil Use and Management</i> , 2005, 21, 370-376.	2.6	11
65	Prospects, advantages and limitations of future crop production systems dependent upon the management of soil processes. <i>Annals of Applied Biology</i> , 2005, 146, 203-215.	1.3	26
66	Influences of Root Diameter, Tree Age, Soil Depth and Season on Fine Root Survivorship in <i>Prunus avium</i> . <i>Plant and Soil</i> , 2005, 276, 15-22.	1.8	119
67	The role of crop rotations in determining soil structure and crop growth conditions. <i>Canadian Journal of Soil Science</i> , 2005, 85, 557-577.	0.5	168
68	Root development in the Mediterranean shrub <i>Pistacia lentiscus</i> as affected by nursery treatments. <i>Journal of Arid Environments</i> , 2005, 61, 1-12.	1.2	19
69	The role of plants and land management in sequestering soil carbon in temperate arable and grassland ecosystems. <i>Geoderma</i> , 2005, 128, 130-154.	2.3	187
70	Developing Existing Plant Root System Architecture Models to Meet Future Agricultural Challenges. <i>Advances in Agronomy</i> , 2005, 85, 181-219.	2.4	45
71	Functional aspects of root architecture and mycorrhizal inoculation with respect to nutrient uptake capacity. <i>Mycorrhiza</i> , 2004, 14, 177-184.	1.3	68
72	The potential role of arbuscular mycorrhizal (AM) fungi in the bioprotection of plants against soil-borne pathogens in organic and/or other sustainable farming systems. <i>Pest Management Science</i> , 2004, 60, 149-157.	1.7	266

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73	Crop protection-what will shape the future picture?. <i>Pest Management Science</i> , 2004, 60, 105-112.	1.7	13
74	The Role of Uncomposted Materials, Composts, Manures, and Compost Extracts in Reducing Pest and Disease Incidence and Severity in Sustainable Temperate Agricultural and Horticultural Crop Production—A Review. <i>Critical Reviews in Plant Sciences</i> , 2004, 23, 453-479.	2.7	213
75	Seasonal patterns of fine-root production and mortality in <i>Prunus avium</i> in Scotland. <i>Canadian Journal of Forest Research</i> , 2004, 34, 1534-1537.	0.8	9
76	Appropriateness of nutrient budgets for environmental risk assessment: a case study of outdoor pig production. <i>European Journal of Agronomy</i> , 2003, 20, 117-126.	1.9	31
77	The influence of arbuscular mycorrhizal colonization and environment on root development in soil. <i>European Journal of Soil Science</i> , 2003, 54, 751-757.	1.8	30
78	The role of arbuscular mycorrhizal fungi in sustainable cropping systems. <i>Advances in Agronomy</i> , 2003, 79, 185-225.	2.4	94
79	The Importance of Root Dynamics in Cropping Systems Research. <i>The Journal of Crop Improvement: Innovations in Practice and Research</i> , 2003, 8, 127-155.	0.4	14
80	N, P and K budgets for crop rotations on nine organic farms in the UK. <i>Soil Use and Management</i> , 2003, 19, 112-118.	2.6	89
81	The Agronomic and Economic Potential of Break Crops for Ley/Arable Rotations in Temperate Organic Agriculture. <i>Advances in Agronomy</i> , 2002, , 369-427.	2.4	82
82	Influence of organic ley—arable management and afforestation in sandy loam to clay loam soils on fluxes of N ₂ O and CH ₄ in Scotland. <i>Agriculture, Ecosystems and Environment</i> , 2002, 90, 305-317.	2.5	36
83	Arbuscular mycorrhizal fungi in low input agriculture. , 2002, , 211-222.		21
84	A review of farm-scale nutrient budgets for organic farms as a tool for management of soil fertility. <i>Soil Use and Management</i> , 2002, 18, 264-273.	2.6	134
85	Managing soil fertility in organic farming systems. <i>Soil Use and Management</i> , 2002, 18, 239-247.	2.6	324
86	Agronomic and environmental implications of organic farming systems. <i>Advances in Agronomy</i> , 2001, 70, 261-327.	2.4	247
87	The fate of nitrogen from incorporated cover crop and green manure residues. <i>Nutrient Cycling in Agroecosystems</i> , 2000, 56, 153-163.	1.1	125
88	Environment-induced Modifications to Root Longevity in <i>Lolium perenne</i> and <i>Trifolium repens</i> . <i>Annals of Botany</i> , 2000, 85, 397-401.	1.4	50
89	The Beneficial Rhizosphere: a dynamic entity. <i>Applied Soil Ecology</i> , 2000, 15, 99-104.	2.1	55
90	Title is missing!. <i>Nutrient Cycling in Agroecosystems</i> , 1999, 53, 259-267.	1.1	109

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91	Estimation of N ₂ -fixation by grass?white clover mixtures in cut or grazed swards. Soil Use and Management, 1997, 13, 165-167.	2.6	8
92	The environmental impact of intensive systems of animal production in the lowlands. Animal Science, 1996, 63, 353-361.	1.3	5
93	Purchases and Sales of N, P and K, Soil Inorganic N and Nitrate Leaching on an Organic Horticultural Holding. Biological Agriculture and Horticulture, 1994, 10, 189-195.	0.5	3
94	N, P and K on organic farms: herbage and cereal production, purchases and sales. Journal of Agricultural Science, 1993, 120, 353-360.	0.6	17
95	Soil inorganic-N and nitrate leaching on organic farms. Journal of Agricultural Science, 1993, 120, 361-369.	0.6	31
96	Influence of Different Vegetation Management Regimes on Nitrogen Partitioning Within Agriforestry Systems. , 1992, , 695-696.		0