

# Steve W Culman

## List of Publications by Year in descending order

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77  
papers

4,484  
citations

136740

32  
h-index

110170

64  
g-index

80  
all docs

80  
docs citations

80  
times ranked

4060  
citing authors

#	ARTICLE	IF	CITATIONS
1	Minimum dataset and metadata guidelines for soil test correlation and calibration research. Soil Science Society of America Journal, 2022, 86, 19-33.	1.2	13
2	Microbial feedbacks on soil organic matter dynamics underlying the legacy effect of diversified cropping systems. Soil Biology and Biochemistry, 2022, 167, 108584.	4.2	14
3	Persistent soil carbon enhanced in Mollisols by well-managed grasslands but not annual grain or dairy forage cropping systems. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	60
4	Multi-Criteria Assessment of the Economic and Environmental Sustainability Characteristics of Intermediate Wheatgrass Grown as a Dual-Purpose Grain and Forage Crop. Sustainability, 2022, 14, 3548.	1.6	14
5	Linking soil microbial community structure to potential carbon mineralization: A continental scale assessment of reduced tillage. Soil Biology and Biochemistry, 2022, 168, 108618.	4.2	17
6	An evaluation of carbon indicators of soil health in long-term agricultural experiments. Soil Biology and Biochemistry, 2022, 172, 108708.	4.2	63
7	Rigorous, empirical, and quantitative: a proposed pipeline for soil health assessments. Soil Biology and Biochemistry, 2022, 170, 108710.	4.2	20
8	Reply to Chen et al.: Soil organic carbon stocks and persistence of surface 30 cm of Mollisols. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	0
9	Knowledge gaps in organic research: understanding interactions of cover crops and tillage for weed control and soil health. Organic Agriculture, 2021, 11, 13-25.	1.2	13
10	Vacant lot soil degradation and mowing frequency shape communities of belowground invertebrates and urban spontaneous vegetation. Urban Ecosystems, 2021, 24, 737-752.	1.1	10
11	Soil balancing within organic farming: negotiating meanings and boundaries in an alternative agricultural community of practice. Agriculture and Human Values, 2021, 38, 449-465.	1.7	7
12	The Effect of Incubation Temperature on the Species Composition of Phytophthora, Phytophthium, and Pythium Communities Associated with Soybean. Phytobiomes Journal, 2021, 5, 133-144.	1.4	4
13	Does crop rotation affect soil organic matter stratification in tillage systems?. Soil and Tillage Research, 2021, 209, 104932.	2.6	22
14	Short-term responses of soils and crops to gypsum application on organic farms. Agronomy Journal, 2021, 113, 4220-4230.	0.9	2
15	Organic Corn Production Practices and Profitability in the Eastern U.S. Corn Belt. Sustainability, 2021, 13, 8682.	1.6	4
16	Base cation saturation ratios vs. sufficiency level of nutrients: A false dichotomy in practice. Agronomy Journal, 2021, 113, 5623-5634.	0.9	6
17	Base cation saturation ratios, soil health, and yield in organic field crops. Agronomy Journal, 2021, 113, 4190-4200.	0.9	9
18	Which management practices influence soil health in Midwest organic corn systems?. Agronomy Journal, 2021, 113, 4201-4219.	0.9	12

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19	Implications of choosing different interpolation methods: A case study for soil test phosphorus. <i>Crop, Forage and Turfgrass Management</i> , 2021, 7, e20126.	0.2	4
20	The prevalence and practice of soil balancing among organic corn farmers. <i>Renewable Agriculture and Food Systems</i> , 2021, 36, 365-374.	0.8	4
21	Calibration of Mehlich-3 with Bray P1 and Ammonium Acetate in the Tri-State Region of Ohio, Indiana and Michigan. <i>Communications in Soil Science and Plant Analysis</i> , 2020, 51, 86-97.	0.6	10
22	From the Ground Up: Prairies on Reclaimed Mine Landâ€™Impacts on Soil and Vegetation. <i>Land</i> , 2020, 9, 455.	1.2	7
23	Grinding and spectra replication often improves midâ€™DRIFTS predictions of soil properties. <i>Soil Science Society of America Journal</i> , 2020, 84, 914-929.	1.2	17
24	Do soil test levels and fertilization with phosphorus and potassium impact field crop tissue concentrations?. <i>Agronomy Journal</i> , 2020, 112, 3024-3036.	0.9	9
25	Optimizing acquisition parameters in diffuse reflectance infrared Fourier transform spectroscopy of soils. <i>Soil Science Society of America Journal</i> , 2020, 84, 930-948.	1.2	12
26	Long-Term Evidence Shows that Crop-Rotation Diversification Increases Agricultural Resilience to Adverse Growing Conditions in North America. <i>One Earth</i> , 2020, 2, 284-293.	3.6	219
27	Grain Yield Response of Corn ( <i>Zea mays</i> L.) to Nitrogen Management Practices and Flooding. <i>Plants</i> , 2020, 9, 348.	1.6	3
28	Improved soil biological health increases corn grain yield in N fertilized systems across the Corn Belt. <i>Scientific Reports</i> , 2020, 10, 3917.	1.6	38
29	Soil test phosphorus and phosphorus balance trends: A countyâ€™level analysis in Ohio. <i>Agronomy Journal</i> , 2020, 112, 1617-1624.	0.9	8
30	Tuning support vector machines regression models improves prediction accuracy of soil properties in MIR spectroscopy. <i>Geoderma</i> , 2020, 365, 114227.	2.3	70
31	Assessing the sensitivity and repeatability of permanganate oxidizable carbon as a soil health metric: An interlab comparison across soils. <i>Geoderma</i> , 2020, 366, 114235.	2.3	36
32	Effects of defoliation and row spacing on intermediate wheatgrass I: Grain production. <i>Agronomy Journal</i> , 2020, 112, 1748-1763.	0.9	31
33	Effects of defoliation and row spacing on intermediate wheatgrass II: Forage yield and economics. <i>Agronomy Journal</i> , 2020, 112, 1862-1880.	0.9	29
34	Perennial grain crop roots and nitrogen management shape soil food webs and soil carbon dynamics. <i>Soil Biology and Biochemistry</i> , 2019, 137, 107573.	4.2	56
35	Long-term application of low C:N residues enhances maize yield and soil nutrient pools across Kenya. <i>Nutrient Cycling in Agroecosystems</i> , 2019, 114, 261-276.	1.1	18
36	How Does Phosphorus Restriction Impact Soil Health Parameters in Midwestern Cornâ€™Soybean Systems?. <i>Agronomy Journal</i> , 2019, 111, 1682-1692.	0.9	7

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37	Effects of Gypsum Application Rate and Frequency on Corn Response to Nitrogen. <i>Agronomy Journal</i> , 2019, 111, 1109-1117.	0.9	14
38	Harvesting forage of the perennial grain crop kernza ( <i>Thinopyrum intermedium</i> ) increases root biomass and soil nitrogen cycling. <i>Plant and Soil</i> , 2019, 437, 241-254.	1.8	48
39	Farmer-Focused Tools to Improve Soil Health Monitoring on Smallholder Farms in the Morogoro Region of Tanzania. <i>Plant Health Progress</i> , 2018, 19, 56-63.	0.8	2
40	Perennial grain on a Midwest Alfisol shows no sign of early soil carbon gain. <i>Renewable Agriculture and Food Systems</i> , 2018, 33, 360-372.	0.8	30
41	Historical perspective of soil balancing theory and identifying knowledge gaps: A review. <i>Crops &amp; Soils</i> , 2018, 51, 40-47.	0.1	4
42	How Does Nitrogen and Perenniality Influence Belowground Biomass and Nitrogen Use Efficiency in Small Grain Cereals?. <i>Crop Science</i> , 2018, 58, 2110-2120.	0.8	33
43	Over-Fertilization Does Not Build Soil Test Phosphorus and Potassium in Ohio. <i>Agronomy Journal</i> , 2018, 110, 56-65.	0.9	32
44	Managing for Multifunctionality in Perennial Grain Crops. <i>BioScience</i> , 2018, 68, 294-304.	2.2	113
45	Absolute values and precision of emerging soil health indicators as affected by soil sieve size. <i>Communications in Soil Science and Plant Analysis</i> , 2018, 49, 1934-1942.	0.6	9
46	Repeatability and Spatiotemporal Variability of Emerging Soil Health Indicators Relative to Routine Soil Nutrient Tests. <i>Soil Science Society of America Journal</i> , 2018, 82, 939-948.	1.2	36
47	Sources of Variability that Compromise Mineralizable Carbon as a Soil Health Indicator. <i>Soil Science Society of America Journal</i> , 2018, 82, 243-252.	1.2	49
48	Soil Protein as a Rapid Soil Health Indicator of Potentially Available Organic Nitrogen. <i>Agricultural and Environmental Letters</i> , 2018, 3, 180006.	0.8	65
49	Biological and Biochemical Tests for Assessing Soil Fertility. <i>Assa, Cssa and Sssa</i> , 2017, , 134-147.	0.6	2
50	Management Options for Contaminated Urban Soils to Reduce Public Exposure and Maintain Soil Health. <i>Journal of Environmental Quality</i> , 2017, 46, 420-430.	1.0	13
51	Historical Perspective of Soil Balancing Theory and Identifying Knowledge Gaps: A Review. <i>Crop, Forage and Turfgrass Management</i> , 2017, 3, 1-7.	0.2	9
52	Quantification of Soil Permanganate Oxidizable C (POXC) Using Infrared Spectroscopy. <i>Soil Science Society of America Journal</i> , 2017, 81, 277-288.	1.2	28
53	Low Soil Phosphorus and Potassium Limit Soybean Grain Yield in Ohio. <i>Crop, Forage and Turfgrass Management</i> , 2017, 3, cftm2016.12.0081.	0.2	6
54	A Pipeline Strategy for Grain Crop Domestication. <i>Crop Science</i> , 2016, 56, 917-930.	0.8	101

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55	Comparison of Permanganateâ€Oxidizable Carbon and Mineralizable Carbon for Assessment of Organic Matter Stabilization and Mineralization. <i>Soil Science Society of America Journal</i> , 2016, 80, 1352-1364.	1.2	181
56	Going where no grains have gone before: From early to mid-succession. <i>Agriculture, Ecosystems and Environment</i> , 2016, 223, 223-238.	2.5	108
57	Water Quality and Nutrient Management Extension Programs in Ohio. <i>Journal of Contemporary Water Research and Education</i> , 2015, 156, 48-55.	0.7	3
58	Effect of Planting Date and Starter Fertilizer on Soybean Grain Yield. <i>Crop, Forage and Turfgrass Management</i> , 2015, 1, 1-6.	0.2	20
59	Microbial community structure and abundance in the rhizosphere and bulk soil of a tomato cropping system that includes cover crops. <i>Applied Soil Ecology</i> , 2014, 77, 42-50.	2.1	57
60	Root traits and soil properties in harvested perennial grassland, annual wheat, and never-tilled annual wheat. <i>Plant and Soil</i> , 2014, 381, 405-420.	1.8	79
61	Soil respiration and litter decomposition responses to nitrogen fertilization rate in no-till corn systems. <i>Agriculture, Ecosystems and Environment</i> , 2013, 179, 35-40.	2.5	84
62	Soil and Water Quality Rapidly Responds to the Perennial Grain Kernza Wheatgrass. <i>Agronomy Journal</i> , 2013, 105, 735-744.	0.9	192
63	Shortâ€and Longâ€Term Labile Soil Carbon and Nitrogen Dynamics Reflect Management and Predict Corn Agronomic Performance. <i>Agronomy Journal</i> , 2013, 105, 493-502.	0.9	151
64	Permanganate Oxidizable Carbon Reflects a Processed Soil Fraction that is Sensitive to Management. <i>Soil Science Society of America Journal</i> , 2012, 76, 494-504.	1.2	436
65	Nematode community responses to a moisture gradient and grazing along a restored riparian corridor. <i>European Journal of Soil Biology</i> , 2012, 50, 32-38.	1.4	20
66	Choice of organic amendments in tomato transplants has lasting effects on bacterial rhizosphere communities and crop performance in the field. <i>Applied Soil Ecology</i> , 2011, 48, 94-101.	2.1	49
67	Abundance, diversity and connectance of soil food web channels along environmental gradients in an agricultural landscape. <i>Soil Biology and Biochemistry</i> , 2011, 43, 2374-2383.	4.2	55
68	Harvested perennial grasslands provide ecological benchmarks for agricultural sustainability. <i>Agriculture, Ecosystems and Environment</i> , 2010, 137, 3-12.	2.5	154
69	Long-term impacts of high-input annual cropping and unfertilized perennial grass production on soil properties and belowground food webs in Kansas, USA. <i>Agriculture, Ecosystems and Environment</i> , 2010, 137, 13-24.	2.5	161
70	No-tillage conversion of harvested perennial grassland to annual cropland reduces root biomass, decreases active carbon stocks, and impacts soil biota. <i>Agriculture, Ecosystems and Environment</i> , 2010, 137, 25-32.	2.5	112
71	Plant-soil biodiversity relationships and nutrient retention in agricultural riparian zones of the Sacramento Valley, California. <i>Agroforestry Systems</i> , 2010, 80, 41-60.	0.9	40
72	Biodiversity is associated with indicators of soil ecosystem functions over a landscape gradient of agricultural intensification. <i>Landscape Ecology</i> , 2010, 25, 1333-1348.	1.9	104

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73	Increased Food and Ecosystem Security via Perennial Grains. <i>Science</i> , 2010, 328, 1638-1639.	6.0	397
74	T-REX: software for the processing and analysis of T-RFLP data. <i>BMC Bioinformatics</i> , 2009, 10, 171.	1.2	362
75	Analysis of T-RFLP data using analysis of variance and ordination methods: A comparative study. <i>Journal of Microbiological Methods</i> , 2008, 75, 55-63.	0.7	136
76	Microbial community response to soil solarization in Nepal's rice-wheat cropping system. <i>Soil Biology and Biochemistry</i> , 2006, 38, 3359-3371.	4.2	66
77	Quality or Quantity? Determining the Impact of Fine Root Traits on Soil Health in Row Crop Agriculture. <i>Journal of Soil Science and Plant Nutrition</i> , 0, , 1.	1.7	3