Timothy R Cavagnaro

List of Publications by Year
in descending order

112 papers	5,580 citations	66234 42 h-index	91712 69 g-index
114 all docs	114 docs citations	114 times ranked	6403 citing authors

#	Article	IF	Citations
1	Roots, Nitrogen Transformations, and Ecosystem Services. Annual Review of Plant Biology, 2008, 59, 341-363.	8.6	267
2	A Meta-Analysis and Review of Plant-Growth Response to Humic Substances. Advances in Agronomy, 2014, 124, 37-89.	2.4	254
3	The role of arbuscular mycorrhizas in reducing soil nutrient loss. Trends in Plant Science, 2015, 20, 283-290.	4.3	242
4	Cassava: The Drought, War and Famine Crop in a Changing World. Sustainability, 2010, 2, 3572-3607.	1.6	202
5	The role of arbuscular mycorrhizas in improving plant zinc nutrition under low soil zinc concentrations: a review. Plant and Soil, 2008, 304, 315-325.	1.8	174
6	Ecological intensification and arbuscular mycorrhizas: a metaâ€analysis of tillage and cover crop effects. Journal of Applied Ecology, 2017, 54, 1785-1793.	1.9	166
7	Effects of arbuscular mycorrhizae on tomato yield, nutrient uptake, water relations, and soil carbon dynamics under deficit irrigation in field conditions. Science of the Total Environment, 2016, 566-567, 1223-1234.	3.9	164
8	Why farmers should manage the arbuscular mycorrhizal symbiosis. New Phytologist, 2019, 222, 1171-1175.	3.5	164
9	Branching out: Towards a trait-based understanding of fungal ecology. Fungal Biology Reviews, 2015, 29, 34-41.	1.9	118
10	Mycorrhizal fungi enhance plant nutrient acquisition and modulate nitrogen loss with variable water regimes. Global Change Biology, 2018, 24, e171-e182.	4.2	105
11	Does Biochar Improve Establishment of Tree Seedlings in Saline Sodic Soils?. Land Degradation and Development, 2016, 27, 52-59.	1.8	100
12	Impact of Herbicides on Soil Biology and Function. Advances in Agronomy, 2016, , 133-220.	2.4	98
13	A Concise Review on Multi-Omics Data Integration for Terroir Analysis in Vitis vinifera. Frontiers in Plant Science, 2017, 8, 1065.	1.7	93
14	Rapid accumulation of polyphosphate in extraradical hyphae of an arbuscular mycorrhizal fungus as revealed by histochemistry and a polyphosphate kinase/luciferase system. New Phytologist, 2004, 161, 387-392.	3.5	91
15	Variations in the Chemical Composition of Cassava (Manihot esculenta Crantz) Leaves and Roots As Affected by Genotypic and Environmental Variation. Journal of Agricultural and Food Chemistry, 2012, 60, 4946-4956.	2.4	91
16	Growth and nutritive value of cassava (<i>Manihot esculenta</i> Cranz.) are reduced when grown in elevated CO₂. Plant Biology, 2009, 11, 76-82.	1.8	88
17	Arbuscular mycorrhizas are beneficial under both deficient and toxic soil zinc conditions. Plant and Soil, 2013, 371, 299-312.	1.8	85
18	Soil moisture legacy effects: Impacts on soil nutrients, plants and mycorrhizal responsiveness. Soil Biology and Biochemistry, 2016, 95, 173-179.	4.2	85

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19	Temporary Storage or Permanent Removal? The Division of Nitrogen between Biotic Assimilation and Denitrification in Stormwater Biofiltration Systems. PLoS ONE, 2014, 9, e90890.	1.1	84
20	Effects of silver sulfide nanomaterials on mycorrhizal colonization of tomato plants and soil microbial communities in biosolid-amended soil. Environmental Pollution, 2015, 206, 256-263.	3.7	80
21	Arbuscular mycorrhizas enhance plant interception of leached nutrients. Functional Plant Biology, 2011, 38, 219.	1.1	79
22	Drought adversely affects tuber development and nutritional quality of the staple crop cassava (Manihot esculenta Crantz). Functional Plant Biology, 2013, 40, 195.	1.1	79
23	Impacts of compost application on the formation and functioning of arbuscular mycorrhizas. Soil Biology and Biochemistry, 2014, 78, 38-44.	4.2	79
24	The mycorrhizal pathway of zinc uptake contributes to zinc accumulation in barley and wheat grain. BMC Plant Biology, 2019, 19, 133.	1.6	76
25	Total cyanide content of cassava food products in Australia. Journal of Food Composition and Analysis, 2012, 25, 79-82.	1.9	74
26	Uptake of zinc and phosphorus by plants is affected by zinc fertiliser material and arbuscular mycorrhizas. Plant and Soil, 2014, 376, 165-175.	1.8	74
27	Arbuscular mycorrhizas modify tomato responses to soil zinc and phosphorus addition. Biology and Fertility of Soils, 2012, 48, 285-294.	2.3	73
28	Chemical ecology in coupled human and natural systems: people, manioc, multitrophic interactions and global change. Chemoecology, 2010, 20, 109-133.	0.6	72
29	Arbuscular mycorrhizal fungi increase grain zinc concentration and modify the expression of root ZIP transporter genes in a modern barley (Hordeum vulgare) cultivar. Plant Science, 2018, 274, 163-170.	1.7	70
30	Cassava aboutâ€<scp>FACE</scp>: Greater than expected yield stimulation of cassava (<i><scp>M</scp>anihot esculenta</i>) by future <scp>CO</scp>₂ levels. Global Change Biology, 2012, 18, 2661-2675.	4.2	68
31	Arbuscular Mycorrhizas Reduce Nitrogen Loss via Leaching. PLoS ONE, 2012, 7, e29825.	1.1	64
32	How important is the mycorrhizal pathway for plant Zn uptake?. Plant and Soil, 2015, 390, 157-166.	1.8	63
33	Nutrient interactions and arbuscular mycorrhizas: a meta-analysis of a mycorrhiza-defective mutant and wild-type tomato genotype pair. Plant and Soil, 2014, 384, 79-92.	1.8	61
34	Global DNA Methylation Patterns Can Play a Role in Defining Terroir in Grapevine (Vitis vinifera cv.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	1.7	58
35	Reforestation with native mixedâ€species plantings in a temperate continental climate effectively sequesters and stabilizes carbon within decades. Global Change Biology, 2015, 21, 1552-1566.	4.2	57
36	Do ammonia-oxidizing archaea respond to soil Cu contamination similarly asammonia-oxidizing bacteria?. Plant and Soil, 2009, 324, 209-217.	1.8	53

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37	Arbuscular mycorrhizas modify plant responses to soil zinc addition. Plant and Soil, 2010, 329, 307-313.	1.8	52
38	Ensuring planetary survival: the centrality of organic carbon in balancing the multifunctional nature of soils. Critical Reviews in Environmental Science and Technology, 2022, 52, 4308-4324.	6.6	52
39	Metabolic activity of Glomus intraradices in Arum â€•and Paris â€type arbuscular mycorrhizal colonization. New Phytologist, 2005, 166, 611-618.	3.5	51
40	The dual benefit of arbuscular mycorrhizal fungi under soil zinc deficiency and toxicity: linking plant physiology and gene expression. Plant and Soil, 2017, 420, 375-388.	1.8	48
41	Carbon allocation to the rhizosphere is affected by drought and nitrogen addition. Journal of Ecology, 2021, 109, 3699-3709.	1.9	48
42	Hybrid brown coal-urea fertiliser reduces nitrogen loss compared to urea alone. Science of the Total Environment, 2017, 601-602, 1496-1504.	3.9	47
43	The effects of soil phosphorus and zinc availability on plant responses to mycorrhizal fungi: a physiological and molecular assessment. Scientific Reports, 2019, 9, 14880.	1.6	47
44	Winery wastewater inhibits seed germination and vegetative growth of common crop species. Journal of Hazardous Materials, 2010, 180, 63-70.	6.5	46
45	Growth, nutrition, and soil respiration of a mycorrhiza-defective tomato mutant and its mycorrhizal wild-type progenitor. Functional Plant Biology, 2008, 35, 228.	1.1	44
46	Functional stoichiometry of soil microbial communities after amendment with stabilised organic matter. Soil Biology and Biochemistry, 2014, 76, 170-178.	4.2	42
47	Biologically Regulated NutrientÂSupply Systems. Advances in Agronomy, 2015, 129, 293-321.	2.4	41
48	Impact of an arbuscular mycorrhizal fungus on the growth and nutrition of fifteen crop and pasture plant species. Functional Plant Biology, 2019, 46, 732.	1.1	41
49	Local and distal effects of arbuscular mycorrhizal colonization on direct pathway Pi uptake and root growth in Medicago truncatula. Journal of Experimental Botany, 2015, 66, 4061-4073.	2.4	40
50	Evaluation of phosphorus in thermally converted sewage sludge: P pools and availability to wheat. Plant and Soil, 2017, 418, 307-317.	1.8	40
51	Lignite amendment has limited impacts on soil microbial communities and mineral nitrogen availability. Applied Soil Ecology, 2015, 95, 140-150.	2.1	39
52	Age versus stage: does ontogeny modify the effect of phosphorus and arbuscular mycorrhizas on aboveâ€•and belowâ€ground defence in forage sorghum?. Plant, Cell and Environment, 2014, 37, 929-942.	2.8	38
53	Soil respiration, microbial biomass and nutrient availability in soil amended with high and low C/N residue â€" Influence of interval between residue additions. Soil Biology and Biochemistry, 2016, 95, 189-197.	4.2	38
54	Interactive effects of temperature and drought on cassava growth and toxicity: implications for food security?. Global Change Biology, 2016, 22, 3461-3473.	4.2	36

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55	A slow release brown coal-urea fertiliser reduced gaseous N loss from soil and increased silver beet yield and N uptake. Science of the Total Environment, 2019, 649, 793-800.	3.9	35
56	Backseat driving? Accessing phosphate beyond the rhizosphere-depletion zone. Trends in Plant Science, 2001, 6, 194-195.	4.3	34
57	Nitrogen Dynamics in Soil Fertilized with Slow Release Brown Coal-Urea Fertilizers. Scientific Reports, 2018, 8, 14577.	1.6	34
58	Previous land use and climate influence differences in soil organic carbon following reforestation of agricultural land with mixed-species plantings. Agriculture, Ecosystems and Environment, 2016, 227, 61-72.	2.5	33
59	Variable effects of arbuscular mycorrhizal fungal inoculation on physiological and molecular measures of root and stomatal conductance of diverse <i>Medicago truncatula</i> accessions. Plant, Cell and Environment, 2019, 42, 285-294.	2.8	32
60	Root effects on the spatial and temporal dynamics of oxygen in sand-based laboratory-scale constructed biofilters. Ecological Engineering, 2013, 58, 414-422.	1.6	31
61	A slow release nitrogen fertiliser produced by simultaneous granulation and superheated steam drying of urea with brown coal. Chemical and Biological Technologies in Agriculture, 2016, 3, .	1.9	29
62	Resource allocation to growth or luxury consumption drives mycorrhizal responses. Ecology Letters, 2019, 22, 1757-1766.	3.0	29
63	Global data on earthworm abundance, biomass, diversity and corresponding environmental properties. Scientific Data, 2021, 8, 136.	2.4	29
64	Do lignite-derived organic amendments improve early-stage pasture growth and key soil biological and physicochemical properties?. Crop and Pasture Science, 2014, 65, 899.	0.7	28
65	Using mycorrhiza-defective mutant genotypes of non-legume plant species to study the formation and functioning of arbuscular mycorrhiza: a review. Mycorrhiza, 2015, 25, 587-597.	1.3	28
66	Arbuscular mycorrhizas in southeastern Australian processing tomato farm soils. Plant and Soil, 2011, 340, 327-336.	1.8	27
67	Interactions between soil properties, soil microbes and plants in remnant-grassland and old-field areas: a reciprocal transplant approach. Plant and Soil, 2018, 433, 127-145.	1.8	27
68	Assessing changes in structural vegetation and soil properties following riparian restoration. Agriculture, Ecosystems and Environment, 2018, 252, 22-29.	2.5	26
69	Mycorrhizal effects on growth and nutrition of tomato under elevated atmospheric carbon dioxide. Functional Plant Biology, 2007, 34, 730.	1.1	26
70	A novel ¹³C pulseâ€labelling method to quantify the contribution of rhizodeposits to soil respiration in a grassland exposed to drought and nitrogen addition. New Phytologist, 2021, 230, 857-866.	3.5	25
71	Scales that matter: guiding effective monitoring of soil properties in restored riparian zones. Geoderma, 2014, 228-229, 173-181.	2.3	24
72	Effects of plant roots and arbuscular mycorrhizas on soil phosphorus leaching. Science of the Total Environment, 2020, 722, 137847.	3.9	24

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73	The state of the worldâ€™s urban ecosystems: What can we learn from trees, fungi, and bees?. Plants People Planet, 2020, 2, 482-498.	1.6	23
74	Healthy soils: The backbone of productive, safe and sustainable urban agriculture. Journal of Cleaner Production, 2022, 341, 130808.	4.6	21
75	Irrigation of an established vineyard with winery cleaning agent solution (simulated winery) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 5 123, 93-102.	2.4	20
76	Soluble organic components of winery wastewater and implications for reuse. Agricultural Water Management, 2013, 120, 5-10.	2.4	20
77	Interactions between nocturnal turbulent flux, storage and advection at an â€œidealâ€• eucalypt woodland site. Biogeosciences, 2017, 14, 3027-3050.	1.3	20
78	A key role for arbuscular mycorrhiza in plant acquisition of P from sewage sludge recycled to soil. Soil Biology and Biochemistry, 2017, 115, 11-20.	4.2	19
79	Rapid prediction of particulate, humus and resistant fractions of soil organic carbon in reforested lands using infrared spectroscopy. Journal of Environmental Management, 2017, 193, 290-299.	3.8	18
80	Who participates in conservation incentive programs? Absentee and group landholders are in the mix. Land Use Policy, 2018, 72, 410-419.	2.5	18
81	Physiological and morphological responses of industrial hemp (Cannabis sativa L.) to water deficit. Industrial Crops and Products, 2022, 187, 115331.	2.5	16
82	The influence of crediting and permanence periods on Australian forest-based carbon offset supply. Land Use Policy, 2020, 97, 104800.	2.5	15
83	Challenges in applying scientific evidence to width recommendations for riparian management in agricultural <scp>A</scp>ustralia. Ecological Management and Restoration, 2015, 16, 50-57.	0.7	13
84	Evidence for speciesâ€specific plant responses to soil microbial communities from remnant and degraded land provides promise for restoration. Austral Ecology, 2018, 43, 301-308.	0.7	13
85	Variable water cycles have a greater impact on wheat growth and soil nitrogen response than constant watering. Plant Science, 2020, 290, 110146.	1.7	13
86	Wine Terroir and the Soil Bacteria: An Amplicon Sequencingâ€"Based Assessment of the Barossa Valley and Its Sub-Regions. Frontiers in Microbiology, 2020, 11, 597944.	1.5	13
87	Reallocation of nitrogen and phosphorus from roots drives regrowth of grasses and sedges after defoliation under deficit irrigation and nitrogen enrichment. Journal of Ecology, 2021, 109, 4071-4080.	1.9	13
88	Using measured stocks of biomass and litter carbon to constrain modelled estimates of sequestration of soil organic carbon under contrasting mixed-species environmental plantings. Science of the Total Environment, 2018, 615, 348-359.	3.9	12
89	The effect of zinc fertilisation and arbuscular mycorrhizal fungi on grain quality and yield of contrasting barley cultivars. Functional Plant Biology, 2020, 47, 122.	1.1	12
90	Enhancement of sorghum grain yield and nutrition: A role for arbuscular mycorrhizal fungi regardless of soil phosphorus availability. Plants People Planet, 2022, 4, 143-156.	1.6	12

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91	Arbuscular mycorrhizal fungal inoculation and soil zinc fertilisation affect the productivity and the bioavailability of zinc and iron in durum wheat. Mycorrhiza, 2019, 29, 445-457.	1.3	11
92	Remnant woodland biodiversity gains under 10Âyears of revealedâ€price incentive payments. Journal of Applied Ecology, 2019, 56, 1827-1838.	1.9	10
93	Quantifying blue carbon and nitrogen stocks in surface soils of temperate coastal wetlands. Soil Research, 2021, 59, 619-629.	0.6	10
94	Interactions between arbuscular mycorrhizal fungi and a mycorrhizaâ€defective mutant tomato: does a noninfective fungus alter the ability of an infective fungus to colonise the roots â€" and vice versa?. New Phytologist, 2004, 164, 485-491.	3.5	9
95	Gold Nanomaterial Uptake from Soil Is Not Increased by Arbuscular Mycorrhizal Colonization of Solanum Lycopersicum (Tomato). Nanomaterials, 2016, 6, 68.	1.9	8
96	Generating spatially and statistically representative maps of environmental variables to test the efficiency of alternative sampling protocols. Agriculture, Ecosystems and Environment, 2017, 243, 103-113.	2.5	8
97	Highâ€throughput phenotyping reveals growth of Medicago truncatula is positively affected by arbuscular mycorrhizal fungi even at high soil phosphorus availability. Plants People Planet, 2020, 3, 600.	1.6	8
98	Mycorrhizal growth and phosphorus responses of tomato differ with source but not application rate of phosphorus fertilisers. Applied Soil Ecology, 2021, 166, 104089.	2.1	8
99	Root and arbuscular mycorrhizal effects on soil nutrient loss are modulated by soil texture. Applied Soil Ecology, 2021, 167, 104097.	2.1	8
100	Bioavailability of zinc and iron in durum wheat: A tradeâ€off between grain weight and nutrition?. Plants People Planet, 2021, 3, 627-639.	1.6	7
101	The incorporation of fungal to bacterial ratios and plant ecosystem effect traits into a state-and-transition model of land-use change in semi-arid grasslands. Agriculture, Ecosystems and Environment, 2015, 201, 11-19.	2.5	6
102	Site preparation impacts on soil biotic and abiotic properties, weed control, and native grass establishment. Restoration Ecology, 2021, 29, e13297.	1.4	6
103	Nitrogen Fertilisation Increases Specific Root Respiration in Ectomycorrhizal but Not in Arbuscular Mycorrhizal Plants: A Meta-Analysis. Frontiers in Plant Science, 2021, 12, 711720.	1.7	5
104	Development of an organomineral fertiliser formulation that improves tomato growth and sustains arbuscular mycorrhizal colonisation. Science of the Total Environment, 2022, 815, 151977.	3.9	5
105	Arbuscular mycorrhizas increased tomato biomass and nutrition but did not affect local soil P availability or 16S bacterial community in the field. Science of the Total Environment, 2022, 819, 152620.	3.9	5
106	Developing a vision for improved monitoring and reporting of riparian restoration projects. Ecological Management and Restoration, 2011, 12, e11-e16.	0.7	4
107	Thermochemolysis of winery wastewater particulatesâ€"Molecular structural implications for water reuse. Journal of Analytical and Applied Pyrolysis, 2012, 97, 164-170.	2.6	4
108	A tribute to Sally E. Smith. New Phytologist, 2020, 228, 397-402.	3.5	1

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109	Soil organic matter in a stressed world. Soil Research, 2021, 59, i.	0.6	1
110	Frequency Versus Quantity: Phenotypic Response of Two Wheat Varieties to Water and Nitrogen Variability. Journal of Soil Science and Plant Nutrition, 2021, 21, 1631-1641.	1.7	1
111	Predicting Carbon Stocks Following Reforestation of Pastures: A Sampling Scenarioâ€Based Approach for Testing the Utility of Fieldâ€Measured and Remotely Derived Variables. Land Degradation and Development, 2017, 28, 1122-1133.	1.8	0
112	Soil Microbial Community Responses After Amendment with Thermally Altered Pinus radiata Needles. Microbial Ecology, 2020, 79, 409-419.	1.4	0