

Andrew C Vanderzaag

List of Publications by Year in descending order

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Version: 2024-02-01

97
papers

2,098
citations

270111

25
h-index

340414

39
g-index

98
all docs

98
docs citations

98
times ranked

2215
citing authors

#	ARTICLE	IF	CITATIONS
1	Manure methane emissions over three years at a swine farm in western Canada. <i>Journal of Environmental Quality</i> , 2022, 51, 301-311.	1.0	4
2	Evaluating the 2019 IPCC refinement for estimating methane conversion factors in Canada. <i>Science of the Total Environment</i> , 2022, 835, 155325.	3.9	6
3	Nutrient recovery abates methane emissions from digestate storage. <i>Bioresource Technology Reports</i> , 2022, 18, 101086.	1.5	2
4	Dairy manure acidification reduces CH ₄ emissions over short and long-term. <i>Environmental Technology (United Kingdom)</i> , 2021, 42, 2797-2804.	1.2	14
5	Regional climate influences manure temperature and methane emissions – A pan-Canadian modelling assessment. <i>Science of the Total Environment</i> , 2021, 750, 142278.	3.9	9
6	A mechanistic model of methane emission from animal slurry with a focus on microbial groups. <i>PLoS ONE</i> , 2021, 16, e0252881.	1.1	8
7	Understanding methane emission from stored animal manure: A review to guide model development. <i>Journal of Environmental Quality</i> , 2021, 50, 817-835.	1.0	30
8	Enhancing hydrolysis and bio-methane generation of extruded lignocellulosic wood waste using microbial pre-treatment. <i>Renewable Energy</i> , 2021, 170, 438-448.	4.3	12
9	Response Curves for Ammonia and Methane Emissions From Stored Liquid Manure Receiving Low Rates of Sulfuric Acid. <i>Frontiers in Sustainable Food Systems</i> , 2021, 5, .	1.8	2
10	Blue Water Footprints of Ontario Dairy Farms. <i>Water (Switzerland)</i> , 2021, 13, 2230.	1.2	3
11	Measuring and modeling soil carbon sequestration under diverse cropping systems in the semiarid prairies of western Canada. <i>Journal of Cleaner Production</i> , 2021, 328, 129614.	4.6	12
12	Development of the DNDC model to improve soil hydrology and incorporate mechanistic tile drainage: A comparative analysis with RZWQM2. <i>Environmental Modelling and Software</i> , 2020, 123, 104577.	1.9	39
13	Assessing the effects of manure application rate and timing on nitrous oxide emissions from managed grasslands under contrasting climate in Canada. <i>Science of the Total Environment</i> , 2020, 716, 135374.	3.9	22
14	Simulating alfalfa regrowth and biomass in eastern Canada using the CSM-CROPGRO-perennial forage model. <i>European Journal of Agronomy</i> , 2020, 113, 125971.	1.9	17
15	Surface Covers Affect Liquid Manure Temperature, Albedo, and Evaporation. <i>Transactions of the ASABE</i> , 2020, 63, 199-210.	1.1	3
16	Does overwintering change the inoculum effect on methane emissions from stored liquid manure?. <i>Journal of Environmental Quality</i> , 2020, 49, 247-255.	1.0	3
17	Effects of Two Manure Additives on Methane Emissions from Dairy Manure. <i>Animals</i> , 2020, 10, 807.	1.0	8
18	Towards an improved methodology for modelling climate change impacts on cropping systems in cool climates. <i>Science of the Total Environment</i> , 2020, 728, 138845.	3.9	19

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19	Increased dairy farm methane concentrations linked to anaerobic digester in a five-year study. <i>Journal of Environmental Quality</i> , 2020, 49, 509-515.	1.0	2
20	Assessment of Open-path Spectrometer Accuracy at Low Path-integrated Methane Concentrations. <i>Atmosphere</i> , 2020, 11, 184.	1.0	8
21	An improved laboratory method shows that freezing intensity increases N ₂ O emissions. <i>Canadian Journal of Soil Science</i> , 2020, , 1-14.	0.5	3
22	Ammonia and greenhouse gas emissions from slurry storage - A review. <i>Agriculture, Ecosystems and Environment</i> , 2020, 300, 106963.	2.5	112
23	Acidification of Residual Manure in Liquid Dairy Manure Storages and Its Effect on Greenhouse Gas Emissions. <i>Frontiers in Sustainable Food Systems</i> , 2020, 4, .	1.8	6
24	Assessing the Impacts of Climate Variability on Fertilizer Management Decisions for Reducing Nitrogen Losses from Corn Silage Production. <i>Journal of Environmental Quality</i> , 2019, 48, 1006-1015.	1.0	20
25	Intermittent agitation of liquid manure: effects on methane, microbial activity, and temperature in a farm-scale study. <i>Journal of the Air and Waste Management Association</i> , 2019, 69, 1096-1106.	0.9	6
26	Understanding the Fertilizer Management Impacts on Water and Nitrogen Dynamics for a Corn Silage Tile-Drained System in Canada. <i>Journal of Environmental Quality</i> , 2019, 48, 1016-1028.	1.0	16
27	Greenhouse Gas Mitigation through Dairy Manure Acidification. <i>Journal of Environmental Quality</i> , 2019, 48, 1435-1443.	1.0	17
28	Greenhouse gas emissions from gradually-filled liquid dairy manure storages with different levels of inoculant. <i>Nutrient Cycling in Agroecosystems</i> , 2019, 115, 455-467.	1.1	4
29	Assessing alfalfa production under historical and future climate in eastern Canada: DNDC model development and application. <i>Environmental Modelling and Software</i> , 2019, 122, 104540.	1.9	26
30	Surface and subsurface N ₂ O losses from dairy cropping systems. <i>Nutrient Cycling in Agroecosystems</i> , 2019, 114, 277-293.	1.1	0
31	Assessing greenhouse gas emissions from outdoor cattle sleeping areas in Cameroon. <i>Scientific African</i> , 2019, 4, e00088.	0.7	1
32	Assessment of Gaseous Emissions from Cattle Abattoir Wastes in Cameroon. <i>AgriEngineering</i> , 2019, 1, 145-152.	1.7	2
33	Ammonia Emissions Measured Using Two Different GasFinder Open-Path Lasers. <i>Atmosphere</i> , 2019, 10, 261.	1.0	4
34	Improving farm profitability also reduces the carbon footprint of milk production in intensive dairy production systems. <i>Journal of Cleaner Production</i> , 2019, 229, 1018-1028.	4.6	28
35	Comparison of two gap-filling techniques for nitrous oxide fluxes from agricultural soil. <i>Canadian Journal of Soil Science</i> , 2019, 99, 12-24.	0.5	12
36	Comparing hydrological frameworks for simulating crop biomass, water and nitrogen dynamics in a tile drained soybean-corn system: Cascade vs computational approach. <i>Journal of Hydrology X</i> , 2019, 2, 100015.	0.8	18

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37	Quantifying greenhouse gas emissions from municipal solid waste dumpsites in Cameroon. <i>Waste Management</i> , 2019, 87, 947-953.	3.7	34
38	On the systematic underestimation of methane conversion factors in IPCC guidance. <i>Waste Management</i> , 2018, 75, 499-502.	3.7	3
39	Ammonia emissions from the field application of liquid dairy manure after anaerobic digestion or mechanical separation in Ontario, Canada. <i>Agricultural and Forest Meteorology</i> , 2018, 258, 89-95.	1.9	16
40	Liquid manure storage temperature is affected by storage design and management practices—A modelling assessment. <i>Agriculture, Ecosystems and Environment</i> , 2018, 260, 47-57.	2.5	21
41	Comparing the performance of the DNDC, Holos, and VSMB models for predicting the water partitioning of various crops and sites across Canada. <i>Canadian Journal of Soil Science</i> , 2018, 98, 212-231.	0.5	11
42	Targeting Bacteria and Methanogens To Understand the Role of Residual Slurry as an Inoculant in Stored Liquid Dairy Manure. <i>Applied and Environmental Microbiology</i> , 2018, 84, .	1.4	21
43	Ammonia emissions from liquid manure storages are affected by anaerobic digestion and solid-liquid separation. <i>Agricultural and Forest Meteorology</i> , 2018, 258, 80-88.	1.9	25
44	Year-round methane emissions from liquid dairy manure in a cold climate reveal hysteretic pattern. <i>Agricultural and Forest Meteorology</i> , 2018, 258, 56-65.	1.9	21
45	Emission factors of greenhouse gases from layer and broiler barns in Cameroon. <i>Atmospheric Environment</i> , 2018, 176, 54-59.	1.9	3
46	Methane emissions from storage of digestate at a dairy manure biogas facility. <i>Agricultural and Forest Meteorology</i> , 2018, 258, 96-107.	1.9	47
47	Characterising effects of management practices, snow cover, and soil texture on soil temperature: Model development in DNDC. <i>Biosystems Engineering</i> , 2018, 168, 54-72.	1.9	47
48	Potential methane emission reductions for two manure treatment technologies. <i>Environmental Technology (United Kingdom)</i> , 2018, 39, 851-858.	1.2	22
49	The challenge of reconciling bottom-up agricultural methane emissions inventories with top-down measurements. <i>Agricultural and Forest Meteorology</i> , 2018, 248, 48-59.	1.9	25
50	Reduction in Methane Emissions From Acidified Dairy Slurry Is Related to Inhibition of Methanosarcina Species. <i>Frontiers in Microbiology</i> , 2018, 9, 2806.	1.5	32
51	Sodium Persulfate and Potassium Permanganate Inhibit Methanogens and Methanogenesis in Stored Liquid Dairy Manure. <i>Journal of Environmental Quality</i> , 2018, 47, 786-794.	1.0	6
52	Long-term Trends in Corn Yields and Soil Carbon under Diversified Crop Rotations. <i>Journal of Environmental Quality</i> , 2018, 47, 635-643.	1.0	81
53	Synergistic effects of complementary production systems help reduce livestock environmental burdens. <i>Journal of Cleaner Production</i> , 2018, 200, 858-865.	4.6	5
54	Inactivation of Avian Influenza Viruses on Porous and Non-porous Surfaces is Enhanced by Elevating Absolute Humidity. <i>Transboundary and Emerging Diseases</i> , 2017, 64, 1254-1261.	1.3	17

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55	A comparative life cycle assessment highlighting the trade-offs of a liquid manure separator-composter in a Canadian dairy farm system. <i>Journal of Cleaner Production</i> , 2017, 143, 824-835.	4.6	15
56	The consideration of time step in calculating grey water footprints of agricultural cropping systems. <i>Ecological Indicators</i> , 2017, 78, 31-36.	2.6	11
57	Do volatile solids from bedding materials increase greenhouse gas emissions for stored dairy manure?. <i>Canadian Journal of Soil Science</i> , 2017, , .	0.5	3
58	Greenhouse gas and ammonia emissions from production of compost bedding on a dairy farm. <i>Waste Management</i> , 2017, 70, 45-52.	3.7	39
59	A 3-D model to predict the temperature of liquid manure within storage tanks. <i>Biosystems Engineering</i> , 2017, 163, 50-65.	1.9	18
60	Impact of manure storage conditions and time on decomposition and losses from liquid dairy manure stored in a temperate climate. <i>Canadian Journal of Soil Science</i> , 2017, , .	0.5	5
61	Dairy Manure Total Solid Levels Impact CH ₄ Flux and Abundance of Methanogenic Archaeal Communities. <i>Journal of Environmental Quality</i> , 2017, 46, 232-236.	1.0	13
62	Characterizing the Performance of Gas-Permeable Membranes as an Ammonia Recovery Strategy from Anaerobically Digested Dairy Manure. <i>Membranes</i> , 2017, 7, 59.	1.4	26
63	Performance of an Agricultural Wetland-Reservoir-Irrigation Management System. <i>Water (Switzerland)</i> , 2017, 9, 472.	1.2	6
64	Water Use and Conservation on a Free-Stall Dairy Farm. <i>Water (Switzerland)</i> , 2017, 9, 977.	1.2	11
65	Treatment of Potato Farm Wastewater with Coagulation. <i>Applied Engineering in Agriculture</i> , 2017, 33, 95-101.	0.3	3
66	Integrated water resources management: a case study of on-farm water use for potato processing. <i>Water Practice and Technology</i> , 2016, 11, 66-74.	1.0	2
67	The Extent of Manure Removal from Storages and Its Impact on Gaseous Emissions. <i>Journal of Environmental Quality</i> , 2016, 45, 2023-2029.	1.0	14
68	Greenhouse Gas Emissions from Stored Dairy Slurry from Multiple Farms. <i>Journal of Environmental Quality</i> , 2016, 45, 1822-1828.	1.0	13
69	Performance of a Constructed Wetland and Pretreatment System Receiving Potato Farm Wash Water. <i>Water (Switzerland)</i> , 2016, 8, 183.	1.2	18
70	Constructed Wetlands for Agricultural Wastewater Treatment in Northeastern North America: A Review. <i>Water (Switzerland)</i> , 2016, 8, 173.	1.2	31
71	Micrometeorological measurements over 3 years reveal differences in N ₂ O emissions between annual and perennial crops. <i>Global Change Biology</i> , 2016, 22, 1244-1255.	4.2	65
72	Does Fall Removal of the Dairy Manure Sludge in a Storage Tank Reduce Subsequent Methane Emissions?. <i>Journal of Environmental Quality</i> , 2016, 45, 2038-2043.	1.0	17

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73	Field Nitrogen Losses Induced by Application Timing of Digestate from Dairy Manure Biogas Production. <i>Journal of Environmental Quality</i> , 2016, 45, 1829-1837.	1.0	14
74	Impact of the oasis effect on wind tunnel measurements of ammonia volatilization from urea. <i>Canadian Journal of Soil Science</i> , 2016, 96, 485-495.	0.5	5
75	Measured versus modeled methane emissions from separated liquid dairy manure show large model underestimates. <i>Agriculture, Ecosystems and Environment</i> , 2016, 230, 261-270.	2.5	46
76	Usage and attitudes of water conservation on Ontario dairy farms. <i>The Professional Animal Scientist</i> , 2016, 32, 236-242.	0.7	13
77	Methane emissions from digestate at an agricultural biogas plant. <i>Bioresource Technology</i> , 2016, 216, 914-922.	4.8	58
78	Treatment of potato farm wastewater with sand filtration. <i>Environmental Technology (United Kingdom)</i> , 2016, 37, 112-118.	1.2	8
79	Allocation factors and issues in agricultural carbon footprint: a case study of the Canadian pork industry. <i>Journal of Cleaner Production</i> , 2016, 113, 587-595.	4.6	18
80	An ecoregion-specific ammonia emissions inventory of Ontario dairy farming: Mitigation potential of diet and manure management practices. <i>Atmospheric Environment</i> , 2016, 126, 1-14.	1.9	12
81	Measurements of emission factors from a naturally ventilated commercial barn for dairy cows in a cold climate. <i>Biosystems Engineering</i> , 2014, 127, 103-114.	1.9	30
82	Measuring methane emissions from two dairy farms: Seasonal and manure-management effects. <i>Agricultural and Forest Meteorology</i> , 2014, 194, 259-267.	1.9	59
83	Gas emissions from liquid dairy manure: complete versus partial storage emptying. <i>Nutrient Cycling in Agroecosystems</i> , 2014, 99, 95-105.	1.1	26
84	Silage effluent management: A review. <i>Journal of Environmental Management</i> , 2014, 143, 113-122.	3.8	54
85	Carbon footprint of Canadian dairy products: Calculations and issues. <i>Journal of Dairy Science</i> , 2013, 96, 6091-6104.	1.4	86
86	Towards an inventory of methane emissions from manure management that is responsive to changes on Canadian farms. <i>Environmental Research Letters</i> , 2013, 8, 035008.	2.2	34
87	Evaluation of a Surface Flow Constructed Wetland Treating Abattoir Wastewater. <i>Applied Engineering in Agriculture</i> , 2012, 28, 757-766.	0.3	14
88	Impact of modified tillage on runoff and nutrient loads from potato fields in Prince Edward Island. <i>Agricultural Water Management</i> , 2011, 98, 1782-1788.	2.4	18
89	Strategies to mitigate nitrous oxide emissions from land applied manure. <i>Animal Feed Science and Technology</i> , 2011, 166-167, 464-479.	1.1	59
90	Methane emissions from stored liquid dairy manure in a cold climate. <i>Animal Feed Science and Technology</i> , 2011, 166-167, 581-589.	1.1	33

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91	Survival of <i>Escherichia coli</i> in agricultural soil and presence in tile drainage and shallow groundwater. Canadian Journal of Soil Science, 2010, 90, 495-505.	0.5	24
92	Effects of winter storage conditions and subsequent agitation on gaseous emissions from liquid dairy manure. Canadian Journal of Soil Science, 2010, 90, 229-239.	0.5	25
93	Permeable Synthetic Covers for Controlling Emissions from Liquid Dairy Manure. Applied Engineering in Agriculture, 2010, 26, 287-297.	0.3	40
94	Greenhouse Gas Emissions from Surface Flow and Subsurface Flow Constructed Wetlands Treating Dairy Wastewater. Journal of Environmental Quality, 2010, 39, 460-471.	1.0	45
95	Gas Emissions from Straw Covered Liquid Dairy Manure During Summer Storage and Autumn Agitation. Transactions of the ASABE, 2009, 52, 599-608.	1.1	46
96	Floating Covers to Reduce Gas Emissions from Liquid Manure Storages: A Review. Applied Engineering in Agriculture, 2008, 24, 657-671.	0.3	64
97	Ammonia Emissions from Surface Flow and Subsurface Flow Constructed Wetlands Treating Dairy Wastewater. Journal of Environmental Quality, 2008, 37, 2028-2036.	1.0	22