Mathias Neumann Andersen

List of Publications by Year in descending order

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125 papers

6,507 citations

42 h-index 71685 **76** g-index

128 all docs $\begin{array}{c} 128 \\ \text{docs citations} \end{array}$

128 times ranked 5561 citing authors

#	Article	IF	CITATIONS
1	Biochar enhances yield and quality of tomato under reduced irrigation. Agricultural Water Management, 2014, 138, 37-44.	5. 6	319
2	Residual effects of biochar on improving growth, physiology and yield of wheat under salt stress. Agricultural Water Management, 2015, 158, 61-68.	5.6	259
3	ABA regulated stomatal control and photosynthetic water use efficiency of potato (Solanum) Tj ETQq1 1 0.7843	14.rgBT /	/Overlock 10 Ti 236
4	Soluble Invertase Expression Is an Early Target of Drought Stress during the Critical, Abortion-Sensitive Phase of Young Ovary Development in Maize. Plant Physiology, 2002, 130, 591-604.	4.8	217
5	Drought stress effect on carbohydrate concentration in soybean leaves and pods during early reproductive development: its implication in altering pod set. Field Crops Research, 2004, 86, 1-13.	5.1	217
6	Physiological responses of potato (Solanum tuberosum L.) to partial root-zone drying: ABA signalling, leaf gas exchange, and water use efficiency. Journal of Experimental Botany, 2006, 57, 3727-3735.	4.8	198
7	Stomatal control and water use efficiency of soybean (Glycine max L. Merr.) during progressive soil drying. Environmental and Experimental Botany, 2005, 54, 33-40.	4.2	191
8	Biochar Mitigates Salinity Stress in Potato. Journal of Agronomy and Crop Science, 2015, 201, 368-378.	3.5	186
9	Effects of partial root-zone drying on yield, tuber size and water use efficiency in potato under field conditions. Field Crops Research, 2007, 100, 117-124.	5.1	182
10	Loss of pod set caused by drought stress is associated with water status and ABA content of reproductive structures in soybean. Functional Plant Biology, 2003, 30, 271.	2.1	152
11	Varietal differences of quinoa's tolerance to saline conditions. Plant and Soil, 2012, 357, 117-129.	3.7	149
12	Interactive effect of biochar and plant growth-promoting bacterial endophytes on ameliorating salinity stress in maize. Functional Plant Biology, 2015, 42, 770.	2.1	146
13	Deficit irrigation based on drought tolerance and root signalling in potatoes and tomatoes. Agricultural Water Management, 2010, 98, 403-413.	5.6	139
14	Effects of deficit irrigation (DI) and partial root drying (PRD) on gas exchange, biomass partitioning, and water use efficiency in potato. Scientia Horticulturae, 2006, 109, 113-117.	3.6	133
15	A review of drought adaptation in crop plants: changes in vegetative and reproductive physiology induced by ABA-based chemical signals. Australian Journal of Agricultural Research, 2005, 56, 1245.	1.5	131
16	Hydraulic and chemical signals in the control of leaf expansion and stomatal conductance in soybean exposed to drought stress. Functional Plant Biology, 2003, 30, 65.	2.1	127
17	Water Relations and Transpiration of Quinoa (Chenopodium quinoa Willd.) Under Salinity and Soil Drying. Journal of Agronomy and Crop Science, 2011, 197, 348-360.	3.5	126
18	Improved plant nitrogen nutrition contributes to higher water use efficiency in tomatoes under alternate partial root-zone irrigation. Functional Plant Biology, 2010, 37, 175.	2.1	122

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19	A Comparison of Soil Microbial Community Structure, Protozoa and Nematodes in Field Plots of Conventional and Genetically Modified Maize Expressing the Bacillus thuringiens is CrylAb Toxin. Plant and Soil, 2005, 275, 135-146.	3.7	110
20	Effects of irrigation strategies and soils on field grown potatoes: Yield and water productivity. Agricultural Water Management, 2010, 97, 1923-1930.	5.6	108
21	Phosphorus retention and availability in three contrasting soils amended with rice husk and corn cob biochar at varying pyrolysis temperatures. Geoderma, 2019, 341, 10-17.	5.1	98
22	Effect of nitrogen and water availability of three soil types on yield, radiation use efficiency and evapotranspiration in field-grown quinoa. Agricultural Water Management, 2012, 109, 20-29.	5.6	92
23	Nitrogen dynamics in the soil-plant system under deficit and partial root-zone drying irrigation strategies in potatoes. European Journal of Agronomy, 2008, 28, 65-73.	4.1	84
24	lonic and photosynthetic homeostasis in quinoa challenged by salinity and drought – mechanisms of tolerance. Functional Plant Biology, 2015, 42, 136.	2.1	81
25	Pod Set Related to Photosynthetic Rate and Endogenous ABA in Soybeans Subjected to Different Water Regimes and Exogenous ABA and BA at Early Reproductive Stages. Annals of Botany, 2004, 94, 405-411.	2.9	77
26	Effects of irrigation strategies and soils on field-grown potatoes: Gas exchange and xylem [ABA]. Agricultural Water Management, 2010, 97, 1486-1494.	5.6	76
27	Effects of irrigation strategies and soils on field grown potatoes: Root distribution. Agricultural Water Management, 2011, 98, 1280-1290.	5.6	72
28	The effect of lupins as compared with peas and oats on the yield of the subsequent winter barley crop. European Journal of Agronomy, 2004, 20, 405-418.	4.1	70
29	Water relations and yield of lysimeter-grown strawberries under limited irrigation. Scientia Horticulturae, 2007, 111, 128-132.	3.6	70
30	Effects of Salinity and Soil–Drying on Radiation Use Efficiency, Water Productivity and Yield of Quinoa (<i>Chenopodium quinoa</i> Willd.). Journal of Agronomy and Crop Science, 2012, 198, 173-184.	3.5	68
31	Exposure and effects assessments of Bt-maize on non-target organisms (gastropods,) Tj ETQq1 1 0.784314 rgBT /	Overlock 1.2	10 Tf 50 2 <mark>63</mark>
32	Comparative effects of partial root-zone drying and deficit irrigation on nitrogen uptake in potatoes (Solanum tuberosum L.). Irrigation Science, 2009, 27, 443-448.	2.8	67
33	Impact of Wood Biochar and Its Interactions with Mycorrhizal Fungi, Phosphorus Fertilization and Irrigation Strategies on Potato Growth. Journal of Agronomy and Crop Science, 2017, 203, 131-145.	3.5	67
34	Arabidopsis VARIEGATED 3 encodes a chloroplast-targeted, zinc-finger protein required for chloroplast and palisade cell development. Journal of Cell Science, 2004, 117, 4807-4818.	2.0	65
35	Microbial and microfaunal community structure in cropping systems with genetically modified plants. Pedobiologia, 2007, 51, 195-206.	1.2	64
36	Measurement and modelling of ABA signalling in potato (Solanum tuberosum L.) during partial root-zone drying. Environmental and Experimental Botany, 2008, 63, 385-391.	4.2	61

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37	Reduced nitrogen leaching by intercropping maize with red fescue on sandy soils in North Europe: a combined field and modeling study. Plant and Soil, 2015, 388, 67-85.	3.7	59
38	Decomposition processes under Bt (Bacillus thuringiensis) maize: Results of a multi-site experiment. Soil Biology and Biochemistry, 2006, 38, 195-199.	8.8	54
39	Evaluation of effects of transgenic Bt maize on microarthropods in a European multi-site experiment. Pedobiologia, 2007, 51, 207-218.	1.2	51
40	Capability of the †Ball-Berry' model for predicting stomatal conductance and water use efficiency of potato leaves under different irrigation regimes. Scientia Horticulturae, 2009, 122, 346-354.	3.6	48
41	Consequences for Protaphorura armata (Collembola: Onychiuridae) following exposure to genetically modified Bacillus thuringiensis (Bt) maize and non-Bt maize. Environmental Pollution, 2006, 142, 212-216.	7.5	47
42	Gas-exchange, water use efficiency and yield responses of elite potato (Solanum tuberosum L.) cultivars to changes in atmospheric carbon dioxide concentration, temperature and relative humidity. Agricultural and Forest Meteorology, 2014, 187, 36-45.	4.8	47
43	Climate change is expected to increase yield and water use efficiency of wheat in the North China Plain. Agricultural Water Management, 2019, 222, 193-203.	5.6	47
44	Mechanism of orthophosphate (PO <mml:math)="" etqq0<="" td="" tj="" xmlns:mml="http://www.w3.org/1998/Math/MathML"><td>0 0 rgBT /0</td><td>Overlock 10 T</td></mml:math>	0 0 rgBT /0	Overlock 10 T
	different biochars. Environmental Technology and Innovation, 2020, 17, 100572.	0.1	.,
45	Effect of partial root zone drying and deficit irrigation on nitrogen and phosphorus uptake in potato. Agricultural Water Management, 2015, 159, 66-76.	5.6	46
46	Arbuscular mycorrhizal fungi alleviate abiotic stresses in potato plants caused by low phosphorus and deficit irrigation/partial root-zone drying. Journal of Agricultural Science, 2018, 156, 46-58.	1.3	45
47	Simulation of potato yield in temperate condition by the AquaCrop model. Agricultural Water Management, 2017, 191, 113-123.	5.6	44
48	Did water-saving irrigation protect water resources over the past 40 years? A global analysis based on water accounting framework. Agricultural Water Management, 2021, 249, 106793.	5.6	44
49	Optimising crop production and nitrate leaching in China: Measured and simulated effects of straw incorporation and nitrogen fertilisation. European Journal of Agronomy, 2016, 80, 32-44.	4.1	43
50	Effects of reclaimed water irrigation and nitrogen fertilization on the chemical properties and microbial community of soil. Journal of Integrative Agriculture, 2017, 16, 679-690.	3.5	42
51	Acclimation to higher VPD and temperature minimized negative effects on assimilation and grain yield of wheat. Agricultural and Forest Meteorology, 2018, 248, 119-129.	4.8	40
52	A Short Overview of Measures for Securing Water Resources for Irrigated Crop Production. Journal of Agronomy and Crop Science, 2014, 200, 333-343.	3.5	36
53	Responses by earthworms to reduced tillage in herbicide tolerant maize and Bt maize cropping systems. Pedobiologia, 2007, 51, 219-227.	1.2	35
54	Dry matter production, radiation interception and radiation use efficiency of potato in response to temperature and nitrogen application regimes. Agricultural and Forest Meteorology, 2017, 232, 595-605.	4.8	34

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55	Yield and crop growth of table potato affected by different split-N fertigation regimes in sandy soil. European Journal of Agronomy, 2018, 92, 41-50.	4.1	34
56	Carbon retention in the soil–plant system under different irrigation regimes. Agricultural Water Management, 2010, 98, 419-424.	5. 6	33
57	Root signal controls pod growth in drought-stressed soybean during the critical, abortion-sensitive phase of pod development. Field Crops Research, 2004, 85, 159-166.	5.1	32
58	Next Generation Sequencing Bulk Segregant Analysis of Potato Support that Differential Flux into the Cholesterol and Stigmasterol Metabolite Pools Is Important for Steroidal Glycoalkaloid Content. Potato Research, 2016, 59, 81-97.	2.7	32
59	Can mulching of maize straw complement deficit irrigation to improve water use efficiency and productivity of winter wheat in North China Plain?. Agricultural Water Management, 2019, 213, 1-11.	5. 6	32
60	Agricultural studies of GM maize and the field experimental infrastructure of ECOGEN. Pedobiologia, 2007, 51, 175-184.	1.2	31
61	Screening tomato genotypes for adaptation to high temperature in West Africa. Acta Agriculturae Scandinavica - Section B Soil and Plant Science, 2013, 63, 516-522.	0.6	31
62	Effect of different fertilization and irrigation methods on nitrogen uptake, intercepted radiation and yield of okra (Abelmoschus esculentum L.) grown in the Keta Sand Spit of Southeast Ghana. Agricultural Water Management, 2015, 147, 34-42.	5.6	30
63	Radiation interception and radiation use efficiency of potato affected by different N fertigation and irrigation regimes. European Journal of Agronomy, 2016, 81, 129-137.	4.1	30
64	A RVI/LAI-reference curve to detect N stress and guide N fertigation using combined information from spectral reflectance and leaf area measurements in potato. European Journal of Agronomy, 2017, 87, 1-7.	4.1	30
65	Using ground-based spectral reflectance sensors and photography to estimate shoot N concentration and dry matter of potato. Computers and Electronics in Agriculture, 2018, 144, 154-163.	7.7	29
66	Biomass production and water use efficiency in perennial grasses during and after drought stress. GCB Bioenergy, 2018, 10, 12-27.	5.6	29
67	Decentralised water and wastewater treatment technologies to produce functional water for irrigation. Agricultural Water Management, 2010, 98, 385-402.	5. 6	28
68	Biochar amendment of fluvioâ€glacial temperate sandy subsoil: Effects on maize water uptake, growth and physiology. Journal of Agronomy and Crop Science, 2018, 204, 123-136.	3.5	28
69	Random forest regression results in accurate assessment of potato nitrogen status based on multispectral data from different platforms and the critical concentration approach. Field Crops Research, 2021, 268, 108158.	5.1	28
70	Ovary abscisic acid concentration does not induce kernel abortion in field-grown maize subjected to drought. European Journal of Agronomy, 2001, 15, 119-129.	4.1	27
71	Modelling of root ABA synthesis, stomatal conductance, transpiration and potato production under water saving irrigation regimes. Agricultural Water Management, 2010, 98, 425-439.	5. 6	27
72	Modeling root length density of field grown potatoes under different irrigation strategies and soil textures using artificial neural networks. Field Crops Research, 2014, 162, 99-107.	5.1	27

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73	A quantitative approach to developing more mechanistic gas exchange models for field grown potato: A new insight into chemical and hydraulic signalling. Agricultural and Forest Meteorology, 2009, 149, 1541-1551.	4.8	23
74	Impact of heat-wave at high and low VPD on photosynthetic components of wheat and their recovery. Environmental and Experimental Botany, 2018, 147, 138-146.	4.2	23
75	Effects of Bt-maize material on the life cycle of the land snail Cantareus aspersus. Applied Soil Ecology, 2009, 42, 236-242.	4.3	22
76	Leaching of human pathogens in repacked soil lysimeters and contamination of potato tubers under subsurface drip irrigation in Denmark. Water Research, 2011, 45, 4367-4380.	11.3	22
77	Influence of soil water potential and slurry type on denitrification activity. Soil Biology and Biochemistry, 1996, 28, 977-980.	8.8	21
78	Potato canopy growth, yield and soil water dynamics under different irrigation systems. Agricultural Water Management, 2018, 202, 9-18.	5.6	21
79	Impact of rice straw biochar and irrigation on maize yield, intercepted radiation and water productivity in a tropical sandy clay loam. Field Crops Research, 2019, 243, 107628.	5.1	19
80	Biochar and alternate wetting-drying cycles improving rhizosphere soil nutrients availability and tobacco growth by altering root growth strategy in Ferralsol and Anthrosol. Science of the Total Environment, 2022, 806, 150513.	8.0	19
81	Cytosolic glutamine synthetase is important for photosynthetic efficiency and water use efficiency in potato as revealed by high-throughput sequencing QTL analysis. Theoretical and Applied Genetics, 2015, 128, 2143-2153.	3.6	18
82	Integrated modelling of crop production and nitrate leaching with the Daisy model. MethodsX, 2016, 3, 350-363.	1.6	18
83	Effects of Reclaimed Water Irrigation on Microbial Diversity and Composition of Soil with Reducing Nitrogen Fertilization. Water (Switzerland), 2018, 10, 365.	2.7	18
84	Land Use and Land Cover Changes in the Owabi Reservoir Catchment, Ghana: Implications for Livelihoods and Management. Geosciences (Switzerland), 2019, 9, 286.	2.2	18
85	Safe and high quality food production using low quality waters and improved irrigation systems and management: SAFIR. Agricultural Water Management, 2010, 98, 377-384.	5.6	16
86	Nutrient uptake and growth of potato: Arbuscular mycorrhiza symbiosis interacts with quality and quantity of amended biochars. Journal of Plant Nutrition and Soil Science, 2020, 183, 220-232.	1.9	15
87	Elevational shifts in foliarâ€soil <scp>Î′¹⁵N</scp> in the Hengduan Mountains and different potential mechanisms. Global Change Biology, 2022, 28, 5480-5491.	9.5	15
88	Can miscanthus C ₄ photosynthesis compete with festulolium C ₃ photosynthesis in a temperate climate?. GCB Bioenergy, 2017, 9, 18-30.	5.6	14
89	Nonlinear sorption of phosphorus onto plant biomass-derived biochars at different pyrolysis temperatures. Environmental Technology and Innovation, 2020, 19, 100808.	6.1	14
90	Partial root-zone drying irrigation increases water-use efficiency of tobacco plants amended with biochar. Industrial Crops and Products, 2021, 166, 113487.	5.2	14

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91	Plants with lengthened phenophases increase their dominance under warming in an alpine plant community. Science of the Total Environment, 2020, 728, 138891.	8.0	13
92	Influence of harvest time and frequency on light interception and biomass yield of festulolium and tall fescue cultivated on a peatland. European Journal of Agronomy, 2016, 81, 150-160.	4.1	11
93	Environmental constraints to net primary productivity at northern latitudes: A study across scales of radiation interception and biomass production of potato. International Journal of Applied Earth Observation and Geoinformation, 2021, 94, 102232.	2.8	11
94	Contrasting Waterâ€Use Efficiency (<scp>WUE</scp>) Responses of a Potato Mapping Population and Capability of Modified Ballâ€Berry Model to Predict Stomatal Conductance and <scp>WUE</scp> Measured at Different Environmental Conditions. Journal of Agronomy and Crop Science, 2015, 201, 81-94.	3.5	10
95	Domestic wastewater infiltration process in desert sandy soil and its irrigation prospect analysis. Ecotoxicology and Environmental Safety, 2021, 208, 111419.	6.0	10
96	Physiological and Growth Responses of Potato (Solanum Tuberosum L.) to Air Temperature and Relative Humidity under Soil Water Deficits. Plants, 2022, 11, 1126.	3.5	9
97	Physiological factors affecting intrinsic water use efficiency of potato clones within a dihaploid mapping population under well-watered and drought-stressed conditions. Scientia Horticulturae, 2014, 178, 61-69.	3.6	8
98	Tomato yield and water use efficiency – coupling effects between growth stage specific soil water deficits. Acta Agriculturae Scandinavica - Section B Soil and Plant Science, 2015, 65, 460-469.	0.6	8
99	Modelling agro-environmental variables under data availability limitations and scenario managements in an alluvial region of the North China Plain. Environmental Modelling and Software, 2019, 111, 94-107.	4.5	8
100	Interactions between biochar, arbuscular mycorrhizal fungi and photosynthetic processes in potato (Solanum tuberosum L.). Science of the Total Environment, 2022, 816, 151649.	8.0	8
101	Human activities modulate greening patterns: a case study for southern Xinjiang in China based on long time series analysis. Environmental Research Letters, 2022, 17, 044012.	5.2	8
102	The impact of various sprinkler irrigation patterns on spatial soil moisture variation in Vertisols. Precision Agriculture, 2009, 10, 16-33.	6.0	7
103	WATER SAVING IRRIGATION STRATEGIES FOR PROCESSING TOMATO. Acta Horticulturae, 2009, , 69-76.	0.2	7
104	Effect of root pruning and irrigation regimes on leaf water relations and xylem ABA and ionic concentrations in pear trees. Agricultural Water Management, 2014, 135, 84-89.	5.6	7
105	New Rootsnap Sensor Reveals the Ameliorating Effect of Biochar on In Situ Root Growth Dynamics of Maize in Sandy Soil. Frontiers in Plant Science, 2020, 11, 949.	3.6	7
106	Soil compaction limits root development, radiation-use efficiency and yield of three winter wheat (<i>Triticum aestivum</i> L.) cultivars. Acta Agriculturae Scandinavica - Section B Soil and Plant Science, 2013, 63, 409-419.	0.6	6
107	Low-temperature leaf photosynthesis of a <i>Miscanthus</i> positively to shoot growth rate and specific leaf area. Annals of Botany, 2016, 117, 1229-1239.	2.9	6
108	Effect of rice straw biochar and irrigation on growth, dry matter yield and radiationâ€use efficiency of maize grown on an Acrisol in Ghana. Journal of Agronomy and Crop Science, 2020, 206, 296-307.	3.5	6

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109	Screening for intrinsic water use efficiency in a potato dihaploid mapping population under progressive drought conditions. Acta Agriculturae Scandinavica - Section B Soil and Plant Science, 2015, 65, 400-411.	0.6	5
110	Rice straw biochar and irrigation effect on yield and water productivity of okra. Agronomy Journal, 2020, 112, 3012-3023.	1.8	5
111	Physiological Manipulation and Yield Response of Wheat Grown with Split Root System under Deficit Irrigation. Pakistan Journal of Agricultural Research, 2019, 32, .	0.2	5
112	Abiotic mechanisms for biochar effects on soil N2O emission. International Agrophysics, 2019, 33, 537-546.	1.7	5
113	HEAT TOLERANCE IN FIELD GROWN TOMATOES (LYCOPERSICON ESCULENTUM MILL.) UNDER SEMI-ARID CONDITIONS OF WEST AFRICA. Acta Horticulturae, 2013, , 99-106.	0.2	4
114	Rice yield estimation based on forecasting the future condition of groundwater salinity in the Caspian coastal strip of Guilan Province, Iran. Environmental Monitoring and Assessment, 2019, 191, 492.	2.7	4
115	Diurnal and Seasonal Mapping of Water Deficit Index and Evapotranspiration by an Unmanned Aerial System: A Case Study for Winter Wheat in Denmark. Remote Sensing, 2021, 13, 2998.	4.0	4
116	The use of oil palm empty fruit bunches as a soil amendmentto improve growth and yield of crops. A meta-analysis. Agronomy for Sustainable Development, 2022, 42, 1.	5.3	4
117	PARTIAL ROOT ZONE DRYING (PRD) SUSTAINS YIELD OF POTATOES (SOLANUM TUBEROSUM L.) AT REDUCED WATER SUPPLY. Acta Horticulturae, 2008, , 581-586.	0.2	3
118	WASTE WATER REUSE PATHWAYS FOR PROCESSING TOMATO. Acta Horticulturae, 2009, , 61-68.	0.2	3
119	Development of a Low-Cost Solar-Powered Water Supply System for Small-Scale Drip Irrigation Farms in Sub-Saharan Africa: Dosing Tank and Bell Siphon Perspective. Journal of Irrigation and Drainage Engineering - ASCE, 2018, 144, .	1.0	3
120	PARTIAL ROOT-ZONE DRYING (PRD) FEASIBILITY ON POTATO IN A SUB-HUMID CLIMATE. Acta Horticulturae, 2014, , 495-502.	0.2	2
121	TREATED WASTEWATER REUSE ON POTATO (SOLANUM TUBEROSUM). Acta Horticulturae, 2014, , 105-112.	0.2	2
122	SUSTAINABLE USE OF WATER RESOURCES: FIELD APPLICATION OF DEFICIT IRRIGATION STRATEGIES IN PROCESSING TOMATO. Acta Horticulturae, 2013, , 77-84.	0.2	1
123	Impacts of controlled drainage during winter on the physiology and yield of winter wheat in Denmark. Agricultural Water Management, 2019, 216, 118-126.	5.6	1
124	Changes in phosphorus fractions in three tropical soils amended with corn cob and rice husk biochars. Communications in Soil Science and Plant Analysis, 2020, 51, 1331-1340.	1.4	1
125	Does Biochar Particle Size, Application Rate and Irrigation Regime Interact to Affect Soil Water Holding Capacity, Maize Growth and Nutrient Uptake?. Journal of Soil Science and Plant Nutrition, 2021, 21, 3180-3193.	3.4	1