Urs Schmidhalter

List of Publications by Year
in descending order

214 papers	10,280 citations	31949 53 h-index	45285 90 g-index
229 all docs	229 docs citations	229 times ranked	10053 citing authors

#	Article	IF	Citations
1	Drought and salinity: A comparison of their effects on mineral nutrition of plants. Journal of Plant Nutrition and Soil Science, 2005, 168, 541-549.	1.1	798
2	Plant nutrition research: Priorities to meet human needs for food in sustainable ways. Plant and Soil, 2002, 247, 3-24.	1.8	383
3	Short-term and residual availability of nitrogen after long-term application of organic fertilizers on arable land. Journal of Plant Nutrition and Soil Science, 2005, 168, 439-446.	1.1	320
4	Title is missing!. Plant and Soil, 2002, 247, 93-105.	1.8	252
5	Comparison of active and passive spectral sensors in discriminating biomass parameters and nitrogen status in wheat cultivars. Field Crops Research, 2011, 124, 74-84.	2.3	235
6	High resolution topsoil mapping using hyperspectral image and field data in multivariate regression modeling procedures. Geoderma, 2006, 136, 235-244.	2.3	221
7	Carbon and nitrogen mineralization in different upland soils of the subtropics treated with organic materials. Soil Biology and Biochemistry, 2005, 37, 1507-1518.	4.2	198
8	Reflectance estimation of canopy nitrogen content in winter wheat using optimised hyperspectral spectral indices and partial least squares regression. European Journal of Agronomy, 2014, 52, 198-209.	1.9	190
9	Quantification of Water Uptake by Arbuscular Mycorrhizal Hyphae and its Significance for Leaf Growth, Water Relations, and Gas Exchange of Barley Subjected to Drought Stress. Plant Biology, 2005, 7, 706-712.	1.8	186
10	Estimating the nitrogen nutrition index using spectral canopy reflectance measurements. European Journal of Agronomy, 2008, 29, 184-190.	1.9	185
11	Title is missing!. Plant and Soil, 2002, 247, 153-175.	1.8	183
12	Evaluating salt tolerance of wheat genotypes using multiple parameters. European Journal of Agronomy, 2005, 22, 243-253.	1.9	170
13	Precision agriculture: a challenge for crop nutrition management. Plant and Soil, 2002, 247, 143-149.	1.8	157
14	The impact of mineral nutrients in food crops on global human health. Plant and Soil, 2002, 247, 83-90.	1.8	156
15	Molecular mechanisms of potassium and sodium uptake in plants. Plant and Soil, 2002, 247, 43-54.	1.8	151
16	High-Throughput Estimation of Crop Traits: A Review of Ground and Aerial Phenotyping Platforms. IEEE Geoscience and Remote Sensing Magazine, 2021, 9, 200-231.	4.9	141
17	Short-term effects of drought and salinity on mineral nutrient distribution along growing leaves of maize seedlings. Environmental and Experimental Botany, 2007, 60, 268-275.	2.0	131
18	Influence of soil parameters on the effect of 3,4-dimethylpyrazole-phosphate as a nitrification inhibitor. Biology and Fertility of Soils, 2001, 34, 98-102.	2.3	130

#	Article	IF	Citations
19	Digital Counts of Maize Plants by Unmanned Aerial Vehicles (UAVs). Remote Sensing, 2017, 9, 544.	1.8	123
20	Data fusion of spectral, thermal and canopy height parameters for improved yield prediction of drought stressed spring barley. European Journal of Agronomy, 2016, 78, 44-59.	1.9	119
21	Growth, ion content, gas exchange, and water relations of wheat genotypes differing in salt tolerances. Australian Journal of Agricultural Research, 2005, 56, 123.	1.5	114
22	High-throughput phenotyping early plant vigour of winter wheat. European Journal of Agronomy, 2014, 52, 271-278.	1.9	110
23	Quantification of mycorrhizal water uptake via high-resolution on-line water content sensors. Plant and Soil, 2011, 342, 459-468.	1.8	105
24	The changes induced in the physiological, biochemical and anatomical characteristics of Vicia faba by the exogenous application of proline under seawater stress. South African Journal of Botany, 2014, 93, 54-63.	1.2	101
25	Malate plays a central role in plant nutrition. Plant and Soil, 2002, 247, 133-139.	1.8	99
26	A proposed role for copper ions in cell wall loosening. Plant and Soil, 2002, 247, 57-67.	1.8	86
27	Comparing the performance of active and passive reflectance sensors to assess the normalized relative canopy temperature and grain yield of drought-stressed barley cultivars. Field Crops Research, 2015, 177, 148-160.	2.3	85
28	High throughput phenotyping of canopy water mass and canopy temperature in well-watered and drought stressed tropical maize hybrids in the vegetative stage. European Journal of Agronomy, 2011, 35, 22-32.	1.9	84
29	Nitrous oxide emission from soil and from a nitrogen-15-labelled fertilizer with the new nitrification inhibitor 3,4-dimethylpyrazole phosphate (DMPP). Biology and Fertility of Soils, 2001, 34, 103-108.	2.3	83
30	Irrigation rate and plant density effects on yield and water use efficiency of drip-irrigated corn. Agricultural Water Management, 2008, 95, 836-844.	2.4	82
31	Improved Salinity Tolerance by Phosphorus Fertilizer in Two Phaseolus vulgaris Recombinant Inbred Lines Contrasting in Their Pâ€Efficiency. Journal of Agronomy and Crop Science, 2016, 202, 497-507.	1.7	81
32	Palladium exposure of barley: uptake and effects. Plant Biology, 2008, 10, 272-276.	1.8	78
33	Effect of foliar fertilization application on the growth and mineral nutrient content of maize seedlings under drought and salinity. Soil Science and Plant Nutrition, 2008, 54, 133-141.	0.8	76
34	Tractorâ€Based Quadrilateral Spectral Reflectance Measurements to Detect Biomass and Total Aerial Nitrogen in Winter Wheat. Agronomy Journal, 2010, 102, 499-506.	0.9	75
35	The Application of EM38: Determination of Soil Parameters, Selection of Soil Sampling Points and Use in Agriculture and Archaeology. Sensors, 2017, 17, 2540.	2.1	74
36	Remotely estimating aerial N status of phenologically differing winter wheat cultivars grown in contrasting climatic and geographic zones in China and Germany. Field Crops Research, 2012, 138, 21-32.	2.3	71

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37	Use of a digital camera as alternative method for non-destructive detection of the leaf chlorophyll content and the nitrogen nutrition status in wheat. Computers and Electronics in Agriculture, 2017, 140, 25-33.	3.7	70
38	Thermal imaging and passive reflectance sensing to estimate the water status and grain yield of wheat under different irrigation regimes. Agricultural Water Management, 2017, 189, 98-110.	2.4	70
39	Effectiveness of 3,4-Dimethylpyrazole Phosphate as Nitrifıcation Inhibitor in Soil as Influenced by Inhibitor Concentration, Application Form, and Soil Matric Potential. Pedosphere, 2008, 18, 378-385.	2.1	67
40	The performance of active spectral reflectance sensors as influenced by measuring distance, device temperature and light intensity. Computers and Electronics in Agriculture, 2014, 100, 24-33.	3.7	67
41	Mechanisms of metal resistance in plants: aluminum and heavy metals. Plant and Soil, 2002, 247, 109-119.	1.8	66
42	Optimal coupling combinations between irrigation frequency and rate for drip-irrigated maize grown on sandy soil. Agricultural Water Management, 2010, 97, 439-448.	2.4	64
43	Development of a quick on-farm test to determine nitrate levels in soil. Journal of Plant Nutrition and Soil Science, 2005, 168, 432-438.	1.1	63
44	Interactive effects of salinity and macronutrient level on wheat. II. Composition. Journal of Plant Nutrition, 1997, 20, 1169-1182.	0.9	62
45	Legume Decomposition and Nitrogen Release When Applied as Green Manures to Tropical Vegetable Production Systems. Agronomy Journal, 2000, 92, 253-260.	0.9	62
46	Spatial distributions and net deposition rates of mineral elements in the elongating wheat (Triticum) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	1.6	61
47	Characterisation of soil texture variability using the apparent soil electrical conductivity at a highly variable site. Computers and Geosciences, 2012, 39, 98-110.	2.0	61
48	Drip Irrigation Frequency: The Effects and Their Interaction with Nitrogen Fertilization on Sandy Soil Water Distribution, Maize Yield and Water Use Efficiency Under Egyptian Conditions. Journal of Agronomy and Crop Science, 2008, 194, 180-192.	1.7	60
49	Nitrogen status and biomass determination of oilseed rape by laser-induced chlorophyll fluorescence. European Journal of Agronomy, 2009, 30, 238-242.	1.9	60
50	Identification of stay-green and early senescence phenotypes in high-yielding winter wheat, and their relationship to grain yield and grain protein concentration using high-throughput phenotyping techniques. Functional Plant Biology, 2014, 41, 227.	1.1	60
51	Interaction of soil pH and phosphorus efficacy: Long-term effects of P fertilizer and lime applications on wheat, barley, and sugar beet. Ambio, 2018, 47, 41-49.	2.8	60
52	Spectral measurements of the total aerial N and biomass dry weight in maize using a quadrilateral-view optic. Field Crops Research, 2008, 106, 94-103.	2.3	59
53	Can changes in leaf water potential be assessed spectrally?. Functional Plant Biology, 2011, 38, 523.	1.1	59
54	A Comparison of Screening Criteria for Salt Tolerance in Wheat under Field and Controlled Environmental Conditions. Journal of Agronomy and Crop Science, 2009, 195, 356-367.	1.7	58

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55	Optimising three-band spectral indices to assess aerial N concentration, N uptake and aboveground biomass of winter wheat remotely in China and Germany. ISPRS Journal of Photogrammetry and Remote Sensing, 2014, 92, 112-123.	4.9	54
56	Salinity and the growth of non-halophytic grass leaves: the role of mineral nutrient distribution. Functional Plant Biology, 2005, 32, 973.	1.1	53
57	EFFECT OF FOLIAR APPLICATION OF AMINOACIDS ON PLANT YIELD AND PHYSIOLOGICAL PARAMETERS IN BEAN PLANTS IRRIGATED WITH SEAWATER. Acta Biologica Colombiana, 2014, 20, 140-152.	0.1	52
58	Integrated assessment of agronomic, environmental and ecosystem economic benefits of blending use of controlled-release and common urea in wheat production. Journal of Cleaner Production, 2021, 287, 125572.	4.6	52
59	Field calibration of a capacitance soil water probe in heterogeneous fields. Soil Research, 2004, 42, 289.	0.6	50
60	Mid-season prediction of grain yield and protein content of spring barley cultivars using high-throughput spectral sensing. European Journal of Agronomy, 2017, 90, 108-116.	1.9	49
61	Improving grain yield and protein concentration of maize (Zea mays L.) simultaneously by appropriate hybrid selection and nitrogen management. Field Crops Research, 2020, 249, 107754.	2.3	49
62	Spectral assessment of drought tolerance indices and grain yield in advanced spring wheat lines grown under full and limited water irrigation. Agricultural Water Management, 2017, 182, 1-12.	2.4	48
63	Abscisic Acid Receptors and Coreceptors Modulate Plant Water Use Efficiency and Water Productivity. Plant Physiology, 2019, 180, 1066-1080.	2.3	48
64	Simulation of satellite reflectance data using high-frequency ground based hyperspectral canopy measurements for in-season estimation of grain yield and grain nitrogen status in winter wheat. ISPRS Journal of Photogrammetry and Remote Sensing, 2019, 149, 176-187.	4.9	48
65	Lanthanum uptake from soil and nutrient solution and its effects on plant growth. Journal of Plant Nutrition and Soil Science, 2005, 168, 574-580.	1.1	47
66	Spectral high-throughput assessments of phenotypic differences in biomass and nitrogen partitioning during grain filling of wheat under high yielding Western European conditions. Field Crops Research, 2013, 141, 16-26.	2.3	47
67	Evaluation of wavelengths and spectral reflectance indices for high-throughput assessment of growth, water relations and ion contents of wheat irrigated with saline water. Agricultural Water Management, 2019, 212, 358-377.	2.4	47
68	Spatial distributions of inorganic ions and sugars contributing to osmotic adjustment in the elongating wheat leaf under saline soil conditions. Functional Plant Biology, 1998, 25, 591.	1.1	47
69	Assessing the vertical footprint of reflectance measurements to characterize nitrogen uptake and biomass distribution in maize canopies. Field Crops Research, 2012, 129, 14-20.	2.3	46
70	Evaluation of Yield and Drought Using Active and Passive Spectral Sensing Systems at the Reproductive Stage in Wheat. Frontiers in Plant Science, 2017, 8, 379.	1.7	46
71	Comparison of the EM38 and EM38-MK2 electromagnetic induction-based sensors for spatial soil analysis at field scale. Computers and Electronics in Agriculture, 2015, 110, 267-280.	3.7	45
72	Evaluating RGB Imaging and Multispectral Active and Hyperspectral Passive Sensing for Assessing Early Plant Vigor in Winter Wheat. Sensors, 2018, 18, 2931.	2.1	44

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73	Germination and seedling growth of carrots under salinity and moisture stress. Plant and Soil, 1991, 132, 243-251.	1.8	42
74	High-Throughput Field Phenotyping Traits of Grain Yield Formation and Nitrogen Use Efficiency: Optimizing the Selection of Vegetation Indices and Growth Stages. Frontiers in Plant Science, 2019, 10, 1672.	1.7	42
75	EFFECTS OF SALINITY AND MACRONUTRIENT LEVELS ON MICRONUTRIENTS IN WHEAT. Journal of Plant Nutrition, 2001, 24, 273-281.	0.9	41
76	Effects of urease and nitrification inhibitors added to urea on nitrous oxide emissions from a loess soil. Journal of Plant Nutrition and Soil Science, 2009, 172, 651-660.	1.1	40
77	Comparing hyperspectral index optimization algorithms to estimate aerial N uptake using multi-temporal winter wheat datasets from contrasting climatic and geographic zones in China and Germany. Agricultural and Forest Meteorology, 2013, 180, 44-57.	1.9	40
78	Title is missing!. Plant and Soil, 2002, 247, 71-80.	1.8	39
79	A Comparison of Plant Temperatures as Measured by Thermal Imaging and Infrared Thermometry. Journal of Agronomy and Crop Science, 2012, 198, 415-429.	1.7	38
80	Effect of salinity on tissue architecture in expanding wheat leaves. Planta, 2005, 220, 838-848.	1.6	36
81	Nitrogen release from plant-derived and industrially processed organic fertilizers used in organic horticulture. Journal of Plant Nutrition and Soil Science, 2006, 169, 549-556.	1.1	36
82	Potential for Using Plant Xylem Sap to Evaluate Inorganic Nutrient Availability in Soil. Soil Science and Plant Nutrition, 2005, 51, 333-341.	0.8	35
83	Water integration by plants root under non-uniform soil salinity. Irrigation Science, 2008, 27, 83-95.	1.3	35
84	Nitrogen availability of various biogas residues applied to ryegrass. Journal of Plant Nutrition and Soil Science, 2013, 176, 572-584.	1.1	35
85	Influence of sodium polyacrylate on the water-holding capacity of three different soils and effects on growth of wheat. Soil Use and Management, 2006, 20, 207-209.	2.6	33
86	Highâ€Throughput Sensing of Aerial Biomass and Aboveâ€Ground Nitrogen Uptake in the Vegetative Stage of Wellâ€Watered and Drought Stressed Tropical Maize Hybrids. Crop Science, 2011, 51, 479-489.	0.8	32
87	The gradient between pre-dawn rhizoplane and bulk soil matric potentials, and its relation to the pre-dawn root and leaf water potentials of four species. Plant, Cell and Environment, 1997, 20, 953-960.	2.8	31
88	Gaseous Nitrogen Losses from a Cambisol Cropped to Spring Wheat with Urea Sizes and Placement Depths. Soil Science Society of America Journal, 2009, 73, 1335-1344.	1.2	31
89	Potassium fertiliser enhances the salt-tolerance of common bean (Phaseolus vulgarisL.). Journal of Horticultural Science and Biotechnology, 2014, 89, 185-192.	0.9	31
90	Evaluation of Both SPAD Reading and SPAD Index on Estimating the Plant Nitrogen Status of Winter Wheat. International Journal of Plant Production, 2020, 14, 67-75.	1.0	31

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91	Short-Term Effect of Drought and Salinity on Growth and Mineral Elements in Wheat Seedlings. Journal of Plant Nutrition, 2006, 29, 2227-2243.	0.9	30
92	Evaluation of active and passive sensor systems in the field to phenotype maize hybrids with high-throughput. Field Crops Research, 2013, 154, 236-245.	2.3	30
93	High-Throughput Phenotyping of Wheat and Barley Plants Grown in Single or Few Rows in Small Plots Using Active and Passive Spectral Proximal Sensing. Sensors, 2016, 16, 1860.	2.1	30
94	Referencing laser and ultrasonic height measurements of barleycultivars by using a herbometre as standard. Crop and Pasture Science, 2016, 67, 1215.	0.7	30
95	High-Throughput Field Phenotyping of Leaves, Leaf Sheaths, Culms and Ears of Spring Barley Cultivars at Anthesis and Dough Ripeness. Frontiers in Plant Science, 2017, 8, 1920.	1.7	30
96	Hyperspectral reflectance sensing to assess the growth and photosynthetic properties of wheat cultivars exposed to different irrigation rates in an irrigated arid region. PLoS ONE, 2017, 12, e0183262.	1.1	30
97	Assessing the Suitability of Various Physiological Traits to Screen Wheat Genotypes for Salt Tolerance. Journal of Integrative Plant Biology, 2007, 49, 1352-1360.	4.1	29
98	Ammonia loss from urea in grassland and its mitigation by the new urease inhibitor 2-NPT. Journal of Agricultural Science, 2016, 154, 1453-1462.	0.6	29
99	Sequence of drought response of maize seedlings in drying soil. Physiologia Plantarum, 1998, 104, 159-168.	2.6	28
100	An Evaluation of Different NIR-Spectral Pre-Treatments to Derive the Soil Parameters C and N of a Humus-Clay-Rich Soil. Sensors, 2021, 21, 1423.	2.1	28
101	Interactive effects of salinity and macronutrient level on wheat. I. Growth. Journal of Plant Nutrition, 1997, 20, 1155-1167.	0.9	27
102	Transfer of a near infrared spectroscopy laboratory application to an online process analyser for in situ monitoring of anaerobic digestion. Bioresource Technology, 2013, 129, 39-50.	4.8	27
103	Performance of nitrification inhibitors with different nitrogen fertilizers and soil textures. Journal of Plant Nutrition and Soil Science, 2019, 182, 694-700.	1.1	27
104	Carbohydrate deposition and partitioning in elongating leaves of wheat under saline soil conditions. Functional Plant Biology, 2000, 27, 363.	1.1	26
105	Nitrogen fertilizerâ€“induced mineralization of soil organic C and N in six contrasting soils of Bangladesh. Journal of Plant Nutrition and Soil Science, 2007, 170, 210-218.	1.1	26
106	Influence of ambient light and temperature on laser-induced chlorophyll fluorescence measurements. European Journal of Agronomy, 2010, 32, 169-176.	1.9	26
107	Sensitivity of Vegetation Indices for Estimating Vegetative N Status in Winter Wheat. Sensors, 2019, 19, 3712.	2.1	26
108	Advancing High-Throughput Phenotyping of Wheat in Early Selection Cycles. Remote Sensing, 2020, 12, 574.	1.8	26

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109	Current Soil Nutrient Status of Intensively Managed Greenhouses. Pedosphere, 2012, 22, 825-833.	2.1	25
110	Passive Reflectance Sensing and Digital Image Analysis Allows for Assessing the Biomass and Nitrogen Status of Wheat in Early and Late Tillering Stages. Frontiers in Plant Science, 2018, 9, 1478.	1.7	25
111	Spectral reflectance indices as a rapid and nondestructive phenotyping tool for estimating different morphophysiological traits of contrasting spring wheat germplasms under arid conditions. Turk Tarim Ve Ormancilik Dergisi/Turkish Journal of Agriculture and Forestry, 2015, 39, 572-587.	0.8	25
112	Theory and Guidelines for the Application of the Geophysical Sensor EM38. Sensors, 2019, 19, 4293.	2.1	24
113	Spectral assessments of wheat plants grown in pots and containers under saline conditions. Functional Plant Biology, 2013, 40, 409.	1.1	23
114	Comparative performance of spectral and thermographic properties of plants and physiological traits for phenotyping salinity tolerance of wheat cultivars under simulated field conditions. Functional Plant Biology, 2017, 44, 134.	1.1	23
115	Performance of optimized hyperspectral reflectance indices and partial least squares regression for estimating the chlorophyll fluorescence and grain yield of wheat grown in simulated saline field conditions. Plant Physiology and Biochemistry, 2019, 144, 300-311.	2.8	23
116	Kinetics and Spatial Distribution of Leaf Elongation of Wheat (Triticum aestivum L.) under Saline Soil Conditions. International Journal of Plant Sciences, 2000, 161, 575-582.	0.6	22
117	The Legume Content in Multispecies Mixtures as Estimated with Near Infrared Reflectance Spectroscopy Method Validation. Agronomy Journal, 2005, 97, 18-25.	0.9	22
118	Abiotic soil properties and the occurrence of Rhizoctonia crown and root rot in sugar beet. Journal of Plant Nutrition and Soil Science, 2009, 172, 661-668.	1.1	22
119	Effect of nitrogen fertilization on Fusarium head blight in spring barley. Crop Protection, 2016, 88, 18-27.	1.0	22
120	Comparative Performance of Spectral Reflectance Indices and Multivariate Modeling for Assessing Agronomic Parameters in Advanced Spring Wheat Lines Under Two Contrasting Irrigation Regimes. Frontiers in Plant Science, 2019, 10, 1537.	1.7	22
121	Environmental, human health, and ecosystem economic performance of long-term optimizing nitrogen management for wheat production. Journal of Cleaner Production, 2021, 311, 127620.	4.6	22
122	Development of Near Infrared Reflectance Spectroscopy Calibrations to Estimate Legume Content of Multispecies Legume-Grass Mixtures. Agronomy Journal, 2005, 97, 11-17.	0.9	21
123	N2O, NH3 and NOx Emissions as a Function of Urea Granule Size and Soil Type Under Aerobic Conditions. Water, Air, and Soil Pollution, 2006, 175, 127-148.	1.1	21
124	Siteâ€specific effects of variable water supply and nitrogen fertilisation on winter wheat. Journal of Plant Nutrition and Soil Science, 2014, 177, 509-523.	1.1	21
125	Nitrogen Use Efficiency and Carbon Traits of High-Yielding European Hybrid vs. Line Winter Wheat Cultivars: Potentials and Limitations. Frontiers in Plant Science, 2019, 9, 1988.	1.7	21
126	Legume Decomposition and Nitrogen Release When Applied as Green Manures to Tropical Vegetable Production Systems. Semigroup Forum, 2000, 92, 253.	0.3	21

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127	The potential for online monitoring of short-term process dynamics in anaerobic digestion using near-infrared spectroscopy. Biomass and Bioenergy, 2013, 48, 224-230.	2.9	20
128	Combining biophysical parameters, spectral indices and multivariate hyperspectral models for estimating yield and water productivity of spring wheat across different agronomic practices. PLoS ONE, 2019, 14, e0212294.	1.1	20
129	Factors influencing phosphorus placement and effects on yield and yield parameters: A meta-analysis. Soil and Tillage Research, 2022, 216, 105257.	2.6	20
130	Tomato Crop Response to Shortâ€Duration Legume Green Manures in Tropical Vegetable Systems. Agronomy Journal, 2000, 92, 245-253.	0.9	19
131	Development of a diurnal dehydration index for spring barley phenotyping. Functional Plant Biology, 2014, 41, 1249.	1.1	19
132	Passive reflectance sensing and digital image analysis for assessing quality parameters of mango fruits. Scientia Horticulturae, 2016, 212, 136-147.	1.7	19
133	Shift of grain protein composition in bread wheat under summer drought events. Journal of Plant Nutrition and Soil Science, 2017, 180, 49-55.	1.1	18
134	MEASURING AND MODELING ROOT WATER UPTAKE BASED ON 36CHLORIDE DISCRIMINATION IN A SILT LOAM SOIL AFFECTED BY GROUNDWATER. Soil Science, 1994, 158, 97-105.	0.9	17
135	Near Infrared Spectroscopy Calibrations for the Estimation of Process Parameters of Anaerobic Digestion of Energy Crops and Livestock Residues. Journal of Near Infrared Spectroscopy, 2011, 19, 479-493.	0.8	17
136	Drip Irrigation Frequency: The Effects and Their Interaction with Nitrogen Fertilization on Maize Growth and Nitrogen Use Efficiency under Arid Conditions. Journal of Agronomy and Crop Science, 2011, 197, 186-201.	1.7	17
137	Passive reflectance sensing using optimized two- and three-band spectral indices for quantifying the total nitrogen yield of maize. Computers and Electronics in Agriculture, 2020, 173, 105403.	3.7	17
138	Improved evaluation of field experiments by accounting for inherent soil variability. European Journal of Agronomy, 2017, 89, 1-15.	1.9	16
139	Prediction of multi-year winter wheat yields at the field level with satellite and climatological data. Computers and Electronics in Agriculture, 2022, 194, 106777.	3.7	16
140	Transpiration/biomass ratio for carrots as affected by salinity, nutrient supply and soil aeration. Plant and Soil, 1991, 135, 125-132.	1.8	15
141	Use of modelling to understand nutrient acquisition by plants. Plant and Soil, 2002, 247, 123-130.	1.8	15
142	Evaluation of the differential osmotic adjustments between roots and leaves of maize seedlings with single or combined NPK-nutrient supply. Functional Plant Biology, 2007, 34, 228.	1.1	15
143	Precision Farming â€“ Adaptation of Land Use Management to Small Scale Heterogeneity. , 2008, , 121-199.		15
144	Effects of Gypsum Particle Size on Reclaiming Saline-Sodic Soils in Egypt. Communications in Soil Science and Plant Analysis, 2015, 46, 1112-1122.	0.6	15

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145	On the use of spectral reflectance indices to assess agroâ€morphological traits of wheat plants grown under simulated saline field conditions. Journal of Agronomy and Crop Science, 2017, 203, 406-428.	1.7	15
146	Effect of Time of Day and Sky Conditions on Different Vegetation Indices Calculated from Active and Passive Sensors and Images Taken from UAV. Remote Sensing, 2021, 13, 1691.	1.8	15
147	Urease inhibitors: opportunities for meeting EU national obligations to reduce ammonia emission ceilings by 2030 in EU countries. Environmental Research Letters, 2021, 16, 084047.	2.2	15
148	Sensitivity of root and leaf water status in maize (Zea mays) subjected to mild soil dryness. Functional Plant Biology, 1998, 25, 307.	1.1	15
149	COMPARATIVE EFFICACY OF UREA FERTILIZATION VIA SUPERGRANULES VERSUS PRILLS ON NITROGEN DISTRIBUTION, YIELD RESPONSE AND NITROGEN USE EFFICIENCY OF SPRING WHEAT. Journal of Plant Nutrition, 2011, 34, 779-797.	0.9	14
150	Thermal phenotyping of stomatal sensitivity in spring barley. Journal of Agronomy and Crop Science, 2017, 203, 483-493.	1.7	14
151	Interactive Effects of N-, P- and K-Nutrition and Drought Stress on the Development of Maize Seedlings. Agriculture (Switzerland), 2017, 7, 90.	1.4	14
152	Effects of combined application of acidified biogas slurry and chemical fertilizer on crop production and N soil fertility. European Journal of Agronomy, 2021, 123, 126224.	1.9	14
153	Daytime, Temporal, and Seasonal Variations of N2O Emissions in an Upland Cropping System of the Humid Tropics. Communications in Soil Science and Plant Analysis, 2007, 38, 189-204.	0.6	13
154	Spectral assessments of phenotypic differences in spike development during grain filling affected by varying N supply in wheat. Journal of Plant Nutrition and Soil Science, 2013, 176, 952-963.	1.1	13
155	Nitrous oxide emission from tea soil under different fertilizer managements in Japan. Catena, 2015, 135, 304-312.	2.2	13
156	Modeling the Effects of Soil Variability, Topography, and Management on the Yield of Barley. Frontiers in Environmental Science, 2018, 6, .	1.5	13
157	Estimating growth and photosynthetic properties of wheat grown in simulated saline field conditions using hyperspectral reflectance sensing and multivariate analysis. Scientific Reports, 2019, 9, 16473.	1.6	13
158	Temporal and Spectral Optimization of Vegetation Indices for Estimating Grain Nitrogen Uptake and Late-Seasonal Nitrogen Traits in Wheat. Sensors, 2019, 19, 4640.	2.1	13
159	Optimal coupling combinations between the irrigation rate and glycinebetaine levels for improving yield and water use efficiency of drip-irrigated maize grown under arid conditions. Agricultural Water Management, 2014, 140, 69-78.	2.4	12
160	Green Window Approach for improving nitrogen management by farmers in small-scale wheat fields. Journal of Agricultural Science, 2015, 153, 446-454.	0.6	12
161	Influence of Climate Conditions on the Temporal Development of Wheat Yields in a Long-Term Experiment in an Area with Pleistocene Loess. Climate, 2020, 8, 100.	1.2	12
162	Using optimized three-band spectral indices to assess canopy N uptake in corn and wheat. European Journal of Agronomy, 2021, 127, 126286.	1.9	12

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163	Combining Hyperspectral Reflectance Indices and Multivariate Analysis to Estimate Different Units of Chlorophyll Content of Spring Wheat under Salinity Conditions. Plants, 2022, 11, 456.	1.6	12
164	MensuraÃ§Ã£o da condutividade elÃ©trica do solo por induÃ§Ã£o e sua correlaÃ§Ã£o com fatores de produÃ§Ã£o. Engenharia Agricola, 2005, 25, 420-426.	0.2	11
165	Influence of Soil Organic Carbon on Greenhouse Gas Emission Potential After Application of Biogas Residues or Cattle Slurry: Results from a Pot Experiment. Pedosphere, 2017, 27, 807-821.	2.1	11
166	Adaptation of ecotypes and cultivars of subterranean clover (Trifolium subterraneum L.) to German environmental conditions and its suitability as living mulch. Genetic Resources and Crop Evolution, 2018, 65, 2057-2068.	0.8	11
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