Jonathan P Lynch

List of Publications by Year
in descending order

230 papers	25,927 citations	4120 87 h-index	8370 147 g-index
248 all docs	248 docs citations	248 times ranked	12967 citing authors

#	Article	IF	Citations
1	Root angle in maize influences nitrogen capture and is regulated by calcineurin Bâ€like protein <scp>(CBL)</scp>â€interacting serine/threonineâ€protein kinase 15 (<scp><i>ZmCIPK15</i></scp>). Plant, Cell and Environment, 2022, 45, 837-853.	2.8	46
2	Soil penetration by maize roots is negatively related to ethyleneâ€induced thickening. Plant, Cell and Environment, 2022, 45, 789-804.	2.8	23
3	Stomata-mediated interactions between plants, herbivores, and the environment. Trends in Plant Science, 2022, 27, 287-300.	4.3	51
4	Phenotyping cowpea for seedling root architecture reveals root phenes important for breeding phosphorus efficient varieties. Crop Science, 2022, 62, 326-345.	0.8	11
5	Harnessing root architecture to address global challenges. Plant Journal, 2022, 109, 415-431.	2.8	93
6	Future roots for future soils. Plant, Cell and Environment, 2022, 45, 620-636.	2.8	39
7	Theoretical evidence that root penetration ability interacts with soil compaction regimes to affect nitrate capture. Annals of Botany, 2022, 129, 315-330.	1.4	11
8	Integrated root phenotypes for improved rice performance under low nitrogen availability. Plant, Cell and Environment, 2022, 45, 805-822.	2.8	23
9	Root anatomical phenotypes related to growth under low nitrogen availability in maize (Zea mays L.) hybrids. Plant and Soil, 2022, 474, 265-276.	1.8	4
10	Anatomics: High-throughput phenotyping of plant anatomy. Trends in Plant Science, 2022, 27, 520-523.	4.3	19
11	Improving Soil Resource Uptake by Plants Through Capitalizing on Synergies Between Root Architecture and Anatomy and Root-Associated Microorganisms. Frontiers in Plant Science, 2022, 13, 827369.	1.7	30
12	Multiâ€objective optimization of root phenotypes for nutrient capture using evolutionary algorithms. Plant Journal, 2022, 111, 38-53.	2.8	9
13	Gradual domestication of root traits in the earliest maize from TehuacÃ¡n. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2110245119.	3.3	8
14	Root and xylem anatomy varies with root length, root order, soil depth and environment in intermediate wheatgrass (KernzaÂ®) and alfalfa. Annals of Botany, 2022, 130, 367-382.	1.4	12
15	Developmental Morphology and Anatomy Shed Light on Both Parallel and Convergent Evolution of the Umbellate Inflorescence in Monocots, Underlain by a New Variant of Metatopy. Frontiers in Plant Science, 2022, 13, 873505.	1.7	3
16	Edaphic stress interactions: Important yet poorly understood drivers of plant production in future climates. Field Crops Research, 2022, 283, 108547.	2.3	12
17	Spatiotemporal responses of rice root architecture and anatomy to drought. Plant and Soil, 2022, 479, 443-464.	1.8	15
18	Root metaxylem and architecture phenotypes integrate to regulate water use under drought stress. Plant, Cell and Environment, 2021, 44, 49-67.	2.8	48

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19	Three-dimensional imaging reveals that positions of cyst nematode feeding sites relative to xylem vessels differ between susceptible and resistant wheat. Plant Cell Reports, 2021, 40, 393-403.	2.8	8
20	Multiseriate cortical sclerenchyma enhance root penetration in compacted soils. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	61
21	Genetic control of root architectural traits in KDML105 chromosome segment substitution lines under well-watered and drought stress conditions. Plant Production Science, 2021, 24, 512-529.	0.9	7
22	Silencing the alarm: an insect salivary enzyme closes plant stomata and inhibits volatile release. New Phytologist, 2021, 230, 793-803.	3.5	34
23	A Comparative Analysis of Quantitative Metrics of Root Architecture. Plant Phenomics, 2021, 2021, 6953197.	2.5	16
24	Nodal root diameter and node number in maize (<i>Zea mays</i> L.) interact to influence plant growth under nitrogen stress. Plant Direct, 2021, 5, e00310.	0.8	13
25	The ability of maize roots to grow through compacted soil is not dependent on the amount of roots formed. Field Crops Research, 2021, 264, 108013.	2.3	10
26	Increased seminal root number associated with domestication improves nitrogen and phosphorus acquisition in maize seedlings. Annals of Botany, 2021, 128, 453-468.	1.4	23
27	DIRT/3D: 3D root phenotyping for field-grown maize (<i>Zea mays</i>). Plant Physiology, 2021, 187, 739-757.	2.3	32
28	Root anatomy and soil resource capture. Plant and Soil, 2021, 466, 21-63.	1.8	95
29	Root hair phenotypes influence nitrogen acquisition in maize. Annals of Botany, 2021, 128, 849-858.	1.4	21
30	Plant roots sense soil compaction through restricted ethylene diffusion. Science, 2021, 371, 276-280.	6.0	145
31	Root Traits for Improving N Acquisition Efficiency. , 2021, , 163-180.		0
32	The importance of dominance and genotype-by-environment interactions on grain yield variation in a large-scale public cooperative maize experiment. G3: Genes, Genomes, Genetics, 2021, 11, .	0.8	52
33	Relative utility of agronomic, phenological, and morphological traits for assessing genotypeâ€byâ€environment interaction in maize inbreds. Crop Science, 2020, 60, 62-81.	0.8	21
34	Parental effects and provisioning under drought and low phosphorus stress in common bean. Food and Energy Security, 2020, 9, e192.	2.0	7
35	Genetic components of root architecture and anatomy adjustments to waterâ€deficit stress in spring barley. Plant, Cell and Environment, 2020, 43, 692-711.	2.8	37
36	Spatio-Temporal Variation in Water Uptake in Seminal and Nodal Root Systems of Barley Plants Grown in Soil. Frontiers in Plant Science, 2020, 11, 1247.	1.7	20

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37	Root phenotypic diversity in common bean reveals contrasting strategies for soil resource acquisition among gene pools and races. Crop Science, 2020, 60, 3261-3277.	0.8	11
38	Should Root Plasticity Be a Crop Breeding Target?. Frontiers in Plant Science, 2020, 11, 546.	1.7	105
39	Root anatomical traits contribute to deeper rooting of maize under compacted field conditions. Journal of Experimental Botany, 2020, 71, 4243-4257.	2.4	48
40	Comparative phenomics of annual grain legume root architecture. Crop Science, 2020, 60, 2574-2593.	0.8	26
41	Genetic control of root anatomical plasticity in maize. Plant Genome, 2020, 13, e20003.	1.6	39
42	Root secondary growth: an unexplored component of soil resource acquisition. Annals of Botany, 2020, 126, 205-218.	1.4	36
43	Genetic control of root architectural plasticity in maize. Journal of Experimental Botany, 2020, 71, 3185-3197.	2.4	37
44	Maize genomes to fields (G2F): 2014â€"2017 field seasons: genotype, phenotype, climatic, soil, and inbred ear image datasets. BMC Research Notes, 2020, 13, 71.	0.6	38
45	Multiscale computational models can guide experimentation and targeted measurements for crop improvement. Plant Journal, 2020, 103, 21-31.	2.8	36
46	Multiple Integrated Root Phenotypes Are Associated with Improved Drought Tolerance. Plant Physiology, 2020, 183, 1011-1025.	2.3	76
47	Utility of Climatic Information via Combining Ability Models to Improve Genomic Prediction for Yield Within the Genomes to Fields Maize Project. Frontiers in Genetics, 2020, 11, 592769.	1.1	44
48	An Analysis of Soil Coring Strategies to Estimate Root Depth in Maize (<i>Zea mays</i>) and Common Bean (<i>Phaseolus vulgaris</i>). Plant Phenomics, 2020, 2020, 3252703.	2.5	8
49	Laser ablation tomography for visualization of root colonization by edaphic organisms. Journal of Experimental Botany, 2019, 70, 5327-5342.	2.4	62
50	Root cortical anatomy is associated with differential pathogenic and symbiotic fungal colonization in maize. Plant, Cell and Environment, 2019, 42, 2999-3014.	2.8	26
51	Shovelomics root traits assessed on the EURoot maize panel are highly heritable across environments but show low genotype-by-nitrogen interaction. Euphytica, 2019, 215, 1.	0.6	13
52	A case study on the efficacy of root phenotypic selection for edaphic stress tolerance in low-input agriculture: Common bean breeding in Mozambique. Field Crops Research, 2019, 244, 107612.	2.3	34
53	Genotypic variation and nitrogen stress effects on root anatomy in maize are node specific. Journal of Experimental Botany, 2019, 70, 5311-5325.	2.4	47
54	Seedling root architecture and its relationship with seed yield across diverse environments in Phaseolus vulgaris. Field Crops Research, 2019, 237, 53-64.	2.3	76

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55	Root phenotypes for improved nutrient capture: an underexploited opportunity for global agriculture. New Phytologist, 2019, 223, 548-564.	3.5	400
56	<i>RootRobot: A Field-based Platform for Maize Root System Architecture Phenotyping</i>. , 2019, , .		5
57	Single and Multi-trait GWAS Identify Genetic Factors Associated with Production Traits in Common Bean Under Abiotic Stress Environments. G3: Genes, Genomes, Genetics, 2019, 9, 1881-1892.	0.8	76
58	Ethylene modulates root cortical senescence in barley. Annals of Botany, 2018, 122, 95-105.	1.4	18
59	Large Crown Root Number Improves Topsoil Foraging and Phosphorus Acquisition. Plant Physiology, 2018, 177, 90-104.	2.3	86
60	Reduced root cortical burden improves growth and grain yield under low phosphorus availability in maize. Plant, Cell and Environment, 2018, 41, 1579-1592.	2.8	77
61	A mechanistic framework for auxin dependent Arabidopsis root hair elongation to low external phosphate. Nature Communications, 2018, 9, 1409.	5.8	146
62	Rice auxin influx carrier OsAUX1 facilitates root hair elongation in response to low external phosphate. Nature Communications, 2018, 9, 1408.	5.8	110
63	Rightsizing root phenotypes for drought resistance. Journal of Experimental Botany, 2018, 69, 3279-3292.	2.4	163
64	Functional implications of root cortical senescence for soil resource capture. Plant and Soil, 2018, 423, 13-26.	1.8	37
65	Buffered delivery of phosphate to Arabidopsis alters responses to low phosphate. Journal of Experimental Botany, 2018, 69, 1207-1219.	2.4	32
66	Reduction in Root Secondary Growth as a Strategy for Phosphorus Acquisition. Plant Physiology, 2018, 176, 691-703.	2.3	99
67	The Xerobranching Response Represses Lateral Root Formation When Roots Are Not in Contact with Water. Current Biology, 2018, 28, 3165-3173.e5.	1.8	94
68	Co-optimization of axial root phenotypes for nitrogen and phosphorus acquisition in common bean. Annals of Botany, 2018, 122, 485-499.	1.4	73
69	Maize Genomes to Fields: 2014 and 2015 field season genotype, phenotype, environment, and inbred ear image datasets. BMC Research Notes, 2018, 11, 452.	0.6	25
70	Greater lateral root branching density in maize improves phosphorus acquisition from low phosphorus soil. Journal of Experimental Botany, 2018, 69, 4961-4970.	2.4	85
71	Root cortical senescence decreases root respiration, nutrient content and radial water and nutrient transport in barley. Plant, Cell and Environment, 2017, 40, 1392-1408.	2.8	79
72	Shaping 3D Root System Architecture. Current Biology, 2017, 27, R919-R930.	1.8	162

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73	The effect of artificial selection on phenotypic plasticity in maize. Nature Communications, 2017, 8, 1348.	5.8	105
74	O<scp>pen</scp>S<scp>im</scp>R<scp>oot</scp>: widening the scope and application of root architectural models. New Phytologist, 2017, 215, 1274-1286.	3.5	158
75	Root Cortical Senescence Improves Growth under Suboptimal Availability of N, P, and K. Plant Physiology, 2017, 174, 2333-2347.	2.3	61
76	Genome-wide association mapping and agronomic impact of cowpea root architecture. Theoretical and Applied Genetics, 2017, 130, 419-431.	1.8	69
77	Crops In Silico: Generating Virtual Crops Using an Integrative and Multi-scale Modeling Platform. Frontiers in Plant Science, 2017, 8, 786.	1.7	102
78	Morphological Plant Modeling: Unleashing Geometric and Topological Potential within the Plant Sciences. Frontiers in Plant Science, 2017, 8, 900.	1.7	61
79	Plants <i>in silico</i>: why, why now and what?â€"an integrative platform for plant systems biology research. Plant, Cell and Environment, 2016, 39, 1049-1057.	2.8	66
80	Legume shovelomics: Highâ€"Throughput phenotyping of common bean (Phaseolus vulgaris L.) and cowpea (Vigna unguiculata subsp, unguiculata) root architecture in the field. Field Crops Research, 2016, 192, 21-32.	2.3	112
81	Temperature and light drive manganese accumulation and stress in crops across three major plant families. Environmental and Experimental Botany, 2016, 132, 66-79.	2.0	19
82	Reduced crown root number improves water acquisition under water deficit stress in maize (<i>Zea) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	2.4	195
83	Genetic Variability in Phosphorus Responses of Rice Root Phenotypes. Rice, 2016, 9, 29.	1.7	89
84	Spatiotemporal variation of nitrate uptake kinetics within the maize (<i>Zea mays</i>L.) root system is associated with greater nitrate uptake and interactions with architectural phenes. Journal of Experimental Botany, 2016, 67, 3763-3775.	2.4	42
85	Foliar Nutrient Distribution Patterns in Sympatric Maple Species Reflect Contrasting Sensitivity to Excess Manganese. PLoS ONE, 2016, 11, e0157702.	1.1	11
86	The hidden half of crop yields. Nature Plants, 2015, 1, 15117.	4.7	89
87	Digital imaging of root traits (DIRT): a high-throughput computing and collaboration platform for field-based root phenomics. Plant Methods, 2015, 11, 51.	1.9	146
88	Opportunities and challenges in the subsoil: pathways to deeper rooted crops. Journal of Experimental Botany, 2015, 66, 2199-2210.	2.4	320
89	Root phenes that reduce the metabolic costs of soil exploration: opportunities for 21st century agriculture. Plant, Cell and Environment, 2015, 38, 1775-1784.	2.8	229
90	Next generation shovelomics: set up a tent and REST. Plant and Soil, 2015, 388, 1-20.	1.8	112

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91	Evolution of US maize (Zea mays L.) root architectural and anatomical phenes over the past 100 years corresponds to increased tolerance of nitrogen stress. Journal of Experimental Botany, 2015, 66, 2347-2358.	2.4	153
92	Root anatomical phenes predict root penetration ability and biomechanical properties in maize (Zea) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	2.4	135
93	Intensive field phenotyping of maize (<i>Zea mays</i>L.) root crowns identifies phenes and phene integration associated with plant growth and nitrogen acquisition. Journal of Experimental Botany, 2015, 66, 5493-5505.	2.4	88
94	Reduced frequency of lateral root branching improves N capture from low-N soils in maize. Journal of Experimental Botany, 2015, 66, 2055-2065.	2.4	158
95	Phene Synergism between Root Hair Length and Basal Root Growth Angle for Phosphorus Acquisition. Plant Physiology, 2015, 167, 1430-1439.	2.3	158
96	Reduced Lateral Root Branching Density Improves Drought Tolerance in Maize. Plant Physiology, 2015, 168, 1603-1615.	2.3	248
97	Manganese phytotoxicity: new light on an old problem. Annals of Botany, 2015, 116, 313-319.	1.4	156
98	Utility of root cortical aerenchyma under water limited conditions in tropical maize (Zea mays L.). Field Crops Research, 2015, 171, 86-98.	2.3	77
99	QTL mapping and phenotypic variation of root anatomical traits in maize (Zea mays L.). Theoretical and Applied Genetics, 2015, 128, 93-106.	1.8	49
100	Reduced Root Cortical Cell File Number Improves Drought Tolerance in Maize. Plant Physiology, 2014, 166, 1943-1955.	2.3	154
101	Image-Based High-Throughput Field Phenotyping of Crop Roots. Plant Physiology, 2014, 166, 470-486.	2.3	239
102	Large Root Cortical Cell Size Improves Drought Tolerance in Maize. Plant Physiology, 2014, 166, 2166-2178.	2.3	148
103	Field Phenotyping of Soybean Roots for Drought Stress Tolerance. Agronomy, 2014, 4, 418-435.	1.3	158
104	Low Crown Root Number Enhances Nitrogen Acquisition from Low-Nitrogen Soils in Maize. Plant Physiology, 2014, 166, 581-589.	2.3	183
105	Root anatomical phenes associated with water acquisition from drying soil: targets for crop improvement. Journal of Experimental Botany, 2014, 65, 6155-6166.	2.4	262
106	Root cortical aerenchyma inhibits radial nutrient transport in maize (Zea mays). Annals of Botany, 2014, 113, 181-189.	1.4	57
107	The Optimal Lateral Root Branching Density for Maize Depends on Nitrogen and Phosphorus Availability. Plant Physiology, 2014, 166, 590-602.	2.3	286
108	QTL mapping and phenotypic variation for root architectural traits in maize (Zea mays L.). Theoretical and Applied Genetics, 2014, 127, 2293-2311.	1.8	90

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109	Root foraging elicits niche complementarity-dependent yield advantage in the ancient â€˜three sistersâ€™ (maize/bean/squash) polyculture. Annals of Botany, 2014, 114, 1719-1733.	1.4	87
110	Root Cortical Aerenchyma Enhances Nitrogen Acquisition from Low-Nitrogen Soils in Maize. Plant Physiology, 2014, 166, 726-735.	2.3	153
111	Root Traits for Improving Nitrogen Acquisition Efficiency. , 2014, , 181-192.		2
112	Spatial distribution and phenotypic variation in root cortical aerenchyma of maize (Zea mays L.). Plant and Soil, 2013, 367, 263-274.	1.8	32
113	Integration of root phenes for soil resource acquisition. Frontiers in Plant Science, 2013, 4, 355.	1.7	203
114	Root cortical burden influences drought tolerance in maize. Annals of Botany, 2013, 112, 429-437.	1.4	117
115	Steep, cheap and deep: an ideotype to optimize water and N acquisition by maize root systems. Annals of Botany, 2013, 112, 347-357.	1.4	971
116	Phenotypic Diversity of Root Anatomical and Architectural Traits in <i>Zea</i> Species. Crop Science, 2013, 53, 1042-1055.	0.8	98
117	Responses to low phosphorus in high and low foliar anthocyanin coleus (Solenostemon) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50	1.1	35
118	Complementarity in root architecture for nutrient uptake in ancient maize/bean and maize/bean/squash polycultures. Annals of Botany, 2012, 110, 521-534.	1.4	156
119	New roots for agriculture: exploiting the root phenome. Philosophical Transactions of the Royal Society B: Biological Sciences, 2012, 367, 1598-1604.	1.8	236
120	RootScan: Software for high-throughput analysis of root anatomical traits. Plant and Soil, 2012, 357, 189-203.	1.8	96
121	Root Phenes for Enhanced Soil Exploration and Phosphorus Acquisition: Tools for Future Crops. Plant Physiology, 2011, 156, 1041-1049.	2.3	793
122	Theoretical evidence for the functional benefit of root cortical aerenchyma in soils with low phosphorus availability. Annals of Botany, 2011, 107, 829-841.	1.4	165
123	Parallel Sequencing of Expressed Sequence Tags from Two Complementary DNA Libraries for High and Low Phosphorus Adaptation in Common Beans. Plant Genome, 2011, 4, .	1.6	6
124	Genotypic variation for root traits of maize (Zea mays L.) from the Purhepecha Plateau under contrasting phosphorus availability. Field Crops Research, 2011, 121, 350-362.	2.3	99
125	Shovelomics: high throughput phenotyping of maize (Zea mays L.) root architecture in the field. Plant and Soil, 2011, 341, 75-87.	1.8	545
126	Strategies and agronomic interventions to improve the phosphorus-use efficiency of farming systems. Plant and Soil, 2011, 349, 89-120.	1.8	343

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127	Phenotypic variability and modelling of root structure of wild Lupinus angustifolius genotypes. Plant and Soil, 2011, 348, 345-364.	1.8	48
128	Plant and microbial strategies to improve the phosphorus efficiency of agriculture. Plant and Soil, 2011, 349, 121-156.	1.8	678
129	Root Cortical Aerenchyma Enhances the Growth of Maize on Soils with Suboptimal Availability of Nitrogen, Phosphorus, and Potassium Â Â. Plant Physiology, 2011, 156, 1190-1201.	2.3	278
130	Optimizing reproductive phenology in a two-resource world: a dynamic allocation model of plant growth predicts later reproduction in phosphorus-limited plants. Annals of Botany, 2011, 108, 391-404.	1.4	38
131	Root responses to neighbouring plants in common bean are mediated by nutrient concentration rather than self/non-self recognition. Functional Plant Biology, 2011, 38, 941.	1.1	49
132	The utility of phenotypic plasticity of root hair length for phosphorus acquisition. Functional Plant Biology, 2010, 37, 313.	1.1	122
133	The opening of Pandoraâ€™s Box: climate change impacts on soil fertility and crop nutrition in developing countries. Plant and Soil, 2010, 335, 101-115.	1.8	244
134	Root cortical aerenchyma improves the drought tolerance of maize (<i>Zea mays</i> L.). Plant, Cell and Environment, 2010, 33, 740-749.	2.8	283
135	Optimizing Vetch Nitrogen Production and Corn Nitrogen Accumulation under Noâ€Till Management. Agronomy Journal, 2010, 102, 1491-1499.	0.9	40
136	Will nutrient-efficient genotypes mine the soil? Effects of genetic differences in root architecture in common bean (Phaseolus vulgaris L.) on soil phosphorus depletion in a low-input agro-ecosystem in Central America. Field Crops Research, 2010, 115, 67-78.	2.3	47
137	Multiple stress response and belowground competition in multilines of common bean (Phaseolus) Tj ETQq1 1 0.784314 rgBT /Overlock	2.3	49
138	Invited Talk: Structural-Functional Model SimRoot and its Applications. , 2009, , .		0
139	Phosphorus runoff from a phosphorus deficient soil under common bean (Phaseolus vulgaris L.) and soybean (Glycine max L.) genotypes with contrasting root architecture. Plant and Soil, 2009, 317, 1-16.	1.8	23
140	Plant phenology: a critical controller of soil resource acquisition. Journal of Experimental Botany, 2009, 60, 1927-1937.	2.4	229
141	Delayed reproduction in <i>Arabidopsis thaliana</i> improves fitness in soil with suboptimal phosphorus availability. Plant, Cell and Environment, 2008, 31, 1432-1441.	2.8	63
142	Ethylene insensitivity impedes a subset of responses to phosphorus deficiency in tomato and petunia. Plant, Cell and Environment, 2008, 31, 1744-1755.	2.8	89
143	Root strategies for phosphorus acquisition. Plant Ecophysiology, 2008, , 83-116.	1.5	161
144	Key interactions between nutrient limitation and climatic factors in temperate forests: a synthesis of the sugar maple literature. Canadian Journal of Forest Research, 2008, 38, 401-414.	0.8	80

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145	Root traits of common bean genotypes used in breeding programs for disease resistance. Pesquisa Agropecuaria Brasileira, 2008, 43, 707-712.	0.9	14
146	Ethylene modulates genetic, positional, and nutritional regulation of root plagiogravitropism. Functional Plant Biology, 2007, 34, 41.	1.1	42
147	Roots of the Second Green Revolution. Australian Journal of Botany, 2007, 55, 493.	0.3	1,025
148	Method for evaluation of root hairs of common bean genotypes. Pesquisa Agropecuaria Brasileira, 2007, 42, 1365-1368.	0.9	18
149	Compensation among root classes in Phaseolus vulgaris L.. Plant and Soil, 2007, 290, 307-321.	1.8	35
150	Rhizoeconomics: The Roots of Shoot Growth Limitations. Hortscience: A Publication of the American Society for Hortcultural Science, 2007, 42, 1107-1109.	0.5	51
151	Corrigendum to: Genetic mapping of basal root gravitropism and phosphorus acquisition efficiency in common bean. Functional Plant Biology, 2006, 33, 207.	1.1	3
152	QTL Analysis of Adventitious Root Formation in Common Bean under Contrasting Phosphorus Availability. Crop Science, 2006, 46, 1609-1621.	0.8	147
153	Quantitative Trait Loci for Root Architecture Traits Correlated with Phosphorus Acquisition in Common Bean. Crop Science, 2006, 46, 413-423.	0.8	221
154	Architectural Tradeoffs between Adventitious and Basal Roots for Phosphorus Acquisition. Plant and Soil, 2006, 279, 347-366.	1.8	129
155	Detection of quantitative trait loci for seminal root traits in maize (Zea mays L.) seedlings grown under differential phosphorus levels. Theoretical and Applied Genetics, 2006, 113, 1-10.	1.8	157
156	Whole-Plant Adaptations to Low Phosphorus Availability. , 2006, , 209-242.		6
157	Differences in the success of sugar maple and red maple seedlings on acid soils are influenced by nutrient dynamics and light environment. Plant, Cell and Environment, 2005, 28, 874-885.	2.8	25
158	Mapping of QTLs for lateral root branching and length in maize (Zea mays L.) under differential phosphorus supply. Theoretical and Applied Genetics, 2005, 111, 688-695.	1.8	224
159	Rhizoeconomics: Carbon costs of phosphorus acquisition. Plant and Soil, 2005, 269, 45-56.	1.8	365
160	Mapping of QTL controlling root hair length in maize (Zea mays L.) under phosphorus deficiency. Plant and Soil, 2005, 270, 299-310.	1.8	218
161	Root architectural tradeoffs for water and phosphorus acquisition. Functional Plant Biology, 2005, 32, 737.	1.1	378
162	Topsoil foraging and phosphorus acquisition efficiency in maize (Zea mays). Functional Plant Biology, 2005, 32, 749.	1.1	191

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163	Assessment of Inequality of Root Hair Density in Arabidopsis thaliana using the Gini Coefficient: a Close Look at the Effect of Phosphorus and its Interaction with Ethylene. Annals of Botany, 2005, 95, 287-293.	1.4	39
164	Modelling Applicability of Fractal Analysis to Efficiency of Soil Exploration by Roots. Annals of Botany, 2004, 94, 119-128.	1.4	59
165	The contribution of lateral rooting to phosphorus acquisition efficiency in maize (Zea mays) seedlings. Functional Plant Biology, 2004, 31, 949.	1.1	189
166	QTL mapping of root hair and acid exudation traits and their relationship to phosphorus uptake in common bean. Plant and Soil, 2004, 265, 17-29.	1.8	243
167	Optimization modeling of plant root architecture for water and phosphorus acquisition. Journal of Theoretical Biology, 2004, 226, 331-340.	0.8	131
168	Mineral stress: the missing link in understanding how global climate change will affect plants in real world soils. Field Crops Research, 2004, 90, 101-115.	2.3	184
169	Spatial mapping of phosphorus influx in bean root systems using digital autoradiography. Journal of Experimental Botany, 2004, 55, 2269-2280.	2.4	39
170	Genetic mapping of basal root gravitropism and phosphorus acquisition efficiency in common bean. Functional Plant Biology, 2004, 31, 959.	1.1	187
171	Photosynthetic and antioxidant enzyme responses of sugar maple and red maple seedlings to excess manganese in contrasting light environments. Functional Plant Biology, 2004, 31, 1005.	1.1	44
172	Growth, gas exchange, water relations, and ion composition of Phaseolus species grown under saline conditions. Field Crops Research, 2003, 80, 207-222.	2.3	120
173	Regulation of Root Elongation under Phosphorus Stress Involves Changes in Ethylene Responsiveness. Plant Physiology, 2003, 131, 1381-1390.	2.3	215
174	Ethylene and phosphorus availability have interacting yet distinct effects on root hair development. Journal of Experimental Botany, 2003, 54, 2351-2361.	2.4	143
175	A critical test of the two prevailing theories of plant response to nutrient availability. American Journal of Botany, 2003, 90, 143-152.	0.8	88
176	Physiological roles for aerenchyma in phosphorus-stressed roots. Functional Plant Biology, 2003, 30, 493.	1.1	192
177	Genetic variation for adventitious rooting in response to low phosphorus availability: potential utility for phosphorusacquisition from stratified soils. Functional Plant Biology, 2003, 30, 973.	1.1	148
178	Topsoil Foraging and Its Role in Plant Competitiveness for Phosphorus in Common Bean. Crop Science, 2003, 43, 598.	0.8	91
179	Salinity Tolerance in <i>Phaseolus</i> Species during Early Vegetative Growth. Crop Science, 2002, 42, 2184-2192.	0.8	70
180	Salinity Tolerance of<i>Phaseolus</i>Species during Germination and Early Seedling Growth. Crop Science, 2002, 42, 1584-1594.	0.8	126

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181	Lack of evidence for programmed root senescence in common bean (Phaseolus vulgaris) grown at different levels of phosphorus supply. New Phytologist, 2002, 153, 63-71.	3.5	45
182	Effect of phosphorus availability on basal root shallowness in common bean. , 2002, , 69-79.		5
183	Buffered Phosphorus Fertilizer Improves Growth and Drought Tolerance of Woody Landscape Plants. Journal of Environmental Horticulture, 2002, 20, 214-219.	0.3	2
184	Root Gravitropism and Below-ground Competition among Neighbouring Plants: A Modelling Approach. Annals of Botany, 2001, 88, 929-940.	1.4	129
185	Induction of a Major Leaf Acid Phosphatase Does Not Confer Adaptation to Low Phosphorus Availability in Common Bean. Plant Physiology, 2001, 125, 1901-1911.	2.3	92
186	A decline in nitrogen availability affects plant responses to ozone. New Phytologist, 2001, 151, 413-425.	3.5	34
187	Effect of phosphorus availability on basal root shallowness in common bean. Plant and Soil, 2001, 232, 69-79.	1.8	220
188	Title is missing!. Plant and Soil, 2001, 236, 221-235.	1.8	112
189	Root hairs confer a competitive advantage under low phosphorus availability. Plant and Soil, 2001, 236, 243-250.	1.8	245
190	Topsoil foraging â€“ an architectural adaptation of plants to low phosphorus availability. Plant and Soil, 2001, 237, 225-237.	1.8	700
191	The effect of phosphorus availability on the carbon economy of contrasting common bean (Phaseolus) Tj ETQq1 1 0.784314 rgBT /Over	2.4	202
192	The importance of root gravitropism for inter-root competition and phosphorus acquisition efficiency: results from a geometric simulation model. Plant and Soil, 2000, 218/2, 159-171.	1.8	197
193	The efficiency of Arabidopsis thaliana (Brassicaceae) root hairs in phosphorus acquisition. American Journal of Botany, 2000, 87, 964-970.	0.8	174
194	Plant growth and phosphorus accumulation of wild type and two root hair mutants of Arabidopsis thaliana (Brassicaceae). American Journal of Botany, 2000, 87, 958-963.	0.8	157
195	Tolerance of tropical common bean genotypes to manganese toxicity: Performance under different growing conditions. Journal of Plant Nutrition, 1999, 22, 511-525.	0.9	24
196	Subcellular and tissue Mn compartmentation in bean leaves under Mn toxicity stress. Functional Plant Biology, 1999, 26, 811.	1.1	57
197	Improvement of Rhododendron and Forsythia Growth with Buffered-Phosphorus Fertilizer. Journal of Environmental Horticulture, 1999, 17, 153-157.	0.3	1
198	Title is missing!. Plant and Soil, 1998, 206, 181-190.	1.8	41

#	Article	IF	Citations
199	Effects of phosphorus availability and vesicular-arbuscular mycorrhizas on the carbon budget of common bean (Phaseolus vulgaris). New Phytologist, 1998, 139, 647-656.	3.5	112
200	The Role of Nutrient-Efficient Crops in Modern Agriculture. The Journal of Crop Improvement: Innovations in Practiceory and Research, 1998, 1, 241-264.	0.4	59
201	Light and Excess Manganese. Plant Physiology, 1998, 118, 493-504.	2.3	206
202	The Role of Nutrient-Efficient Crops in Modern Agriculture. The Journal of Crop Improvement: Innovations in Practiceory and Research, 1998, 1, 241-264.	0.4	43
203	Response to Phosphorus Availability during Vegetative and Reproductive Growth of Chrysanthemum: I. Whole-plant Carbon Dioxide Exchange. Journal of the American Society for Horticultural Science, 1998, 123, 215-222.	0.5	16
204	Fractal geometry of bean root systems: correlations between spatial and fractal dimension. American Journal of Botany, 1997, 84, 26-33.	0.8	88
205	Effects of manganese toxicity on leaf CO2 assimilation of contrasting common bean genotypes. Physiologia Plantarum, 1997, 101, 872-880.	2.6	38
206	Ethylene and plant responses to nutritional stress. Physiologia Plantarum, 1997, 100, 613-619.	2.6	145
207	Title is missing!. Euphytica, 1997, 95, 325-338.	0.6	77
208	SimRoot: Modelling and visualization of root systems. Plant and Soil, 1997, 188, 139-151.	1.8	197
209	Title is missing!. Plant and Soil, 1997, 195, 221-232.	1.8	144
210	Salinity stress inhibits calcium loading into the xylem of excised barley (Hordeum vulgare) roots. New Phytologist, 1997, 135, 419-427.	3.5	35
211	Utilization of Phosphorus Substrates by Contrasting Common Bean Genotypes. Crop Science, 1996, 36, 936-941.	0.8	35
212	Phosphorus Distribution and Remobilization in Bean Plants as Influenced by Phosphorus Nutrition. Crop Science, 1996, 36, 929-935.	0.8	86
213	Effect of phosphorus deficiency on growth angle of basal roots in Phaseolus vulgaris. New Phytologist, 1996, 132, 281-288.	3.5	281
214	Phosphorus responses of C3and C4species. Journal of Experimental Botany, 1996, 47, 497-505.	2.4	90
215	Phosphorus Distribution and Remobilization in Bean Plants as Influenced by Phosphorus Nutrition. , 1996, 36, 929.		1
216	Genetic Variation for Phosphorus Efficiency of Common Bean in Contrasting Soil Types: I. Vegetative Response. Crop Science, 1995, 35, 1086-1093.	0.8	133

#	Article	IF	Citations
217	Genetic Variation for Phosphorus Efficiency of Common Bean in Contrasting Soil Types: II. Yield Response. Crop Science, 1995, 35, 1094-1099.	0.8	88
218	Characters Related to Leaf Photosynthesis in Wild Populations and Landraces of Common Bean. Crop Science, 1995, 35, 1468-1476.	0.8	34
219	Germanium accumulation and toxicity in barley. Journal of Plant Nutrition, 1995, 18, 1417-1426.	0.9	28
220	Adaptation of Beans (Phaseolus vulgaris L.) to Low Phosphorus Availability. Hortscience: A Publication of the American Society for Hortcultural Science, 1995, 30, 1165-1171.	0.5	135
221	Photosynthetic Nitrogenâ€Use Efficiency in Relation to Leaf Longevity in Common Bean. Crop Science, 1994, 34, 1284-1290.	0.8	22
222	Modeling the belowground response of plants and soil biota to edaphic and climatic changeâ€"What can we expect to gain?. Plant and Soil, 1994, 165, 149-160.	1.8	28
223	Carbon cost of root systems: an architectural approach. Plant and Soil, 1994, 165, 161-169.	1.8	106
224	Growth and Architecture of Seedling Roots of Common Bean Genotypes. Crop Science, 1993, 33, 1253-1257.	0.8	139
225	Shoot Nitrogen Dynamics in Tropical Common Bean. Crop Science, 1992, 32, 392-397.	0.8	50
226	Variation in Characters Related to Leaf Photosynthesis in Wild Bean Populations. Crop Science, 1992, 32, 633-640.	0.8	36
227	Vegetative Growth of the Common Bean in Response to Phosphorus Nutrition. Crop Science, 1991, 31, 380-387.	0.8	178
228	SALT STRESS DISTURBS THE CALCIUM NUTRITION OF BARLEY (HORDEUM VULGARE L.). New Phytologist, 1985, 99, 345-354.	3.5	155
229	Influx and Efflux of P in Roots of Intact Maize Plants. Plant Physiology, 1984, 76, 336-341.	2.3	58
230	Modeling Resource Interactions Under Multiple Edaphic Stresses. Advances in Agricultural Systems Modeling, 0, , 273-294.	0.3	11