Ian C Dodd

List of Publications by Year
in descending order

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129 papers	9,254 citations	31976 53 h-index	42399 92 g-index
132 all docs	132 docs citations	132 times ranked	8425 citing authors

#	Article	IF	Citations
1	<scp>ABA</scp> regulation of root growth during soil drying and recovery can involve auxin response. Plant, Cell and Environment, 2022, 45, 871-883.	5.7	32
2	Plant responses to heterogeneous salinity: agronomic relevance and research priorities. Annals of Botany, 2022, 129, 499-518.	2.9	13
3	Biâ€directional, longâ€distance hormonal signalling between roots and shoots of soil water availability. Physiologia Plantarum, 2022, 174, e13697.	5.2	6
4	Ethylene inhibits rice root elongation in compacted soil via ABA- and auxin-mediated mechanisms. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	34
5	Drought and re-watering modify ethylene production and sensitivity, and are associated with coffee anthesis. Environmental and Experimental Botany, 2021, 181, 104289.	4.2	11
6	Cryptochrome 1a of tomato mediates long-distance signaling of soil water deficit. Plant Science, 2021, 303, 110763.	3.6	3
7	Agronomic and physiological responses of potato subjected to soil compaction and/or drying. Annals of Applied Biology, 2021, 178, 328-340.	2.5	8
8	Abscisic acid mediates barley rhizosheath formation under mild soil drying by promoting root hair growth and auxin response. Plant, Cell and Environment, 2021, 44, 1935-1945.	5.7	20
9	Root hairs are the most important root trait for rhizosheath formation of barley (<i>Hordeum) Tj ETQq1 1 0.784314 rgBT /Overlock 1 45-57.	2.9	47
10	Regulation of algal and cyanobacterial auxin production, physiology, and application in agriculture: an overview. Journal of Applied Phycology, 2021, 33, 2995-3023.	2.8	23
11	Different abscisic acidâ€deficient mutants show unique morphological and hydraulic responses to high air humidity. Physiologia Plantarum, 2021, 172, 1795-1807.	5.2	6
12	Adaptation to chronic drought modifies soil microbial community responses to phytohormones. Communications Biology, 2021, 4, 516.	4.4	14
13	Addressing Research Bottlenecks to Crop Productivity. Trends in Plant Science, 2021, 26, 607-630.	8.8	76
14	Overproduction of <scp>ABA</scp> in rootstocks alleviates salinity stress in tomato shoots. Plant, Cell and Environment, 2021, 44, 2966-2986.	5.7	30
15	Abscisic Acid Mediates Drought-Enhanced Rhizosheath Formation in Tomato. Frontiers in Plant Science, 2021, 12, 658787.	3.6	13
16	Girdling changes root and shoot hormonal balance but does not alter drought-induced stomatal closure in soybean. Environmental and Experimental Botany, 2021, 192, 104657.	4.2	8
17	Genetic Analysis of Root-to-Shoot Signaling and Rootstock-Mediated Tolerance to Water Deficit in Tomato. Genes, 2021, 12, 10.	2.4	10
18	Impact of overexpression of 9-cis-epoxycarotenoid dioxygenase on growth and gene expression under salinity stress. Plant Science, 2020, 295, 110268.	3.6	29

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19	SHui, an EU-Chinese cooperative project to optimize soil and water management in agricultural areas in the XXI century. International Soil and Water Conservation Research, 2020, 8, 1-14.	6.5	5
20	Microbial inoculum development for ameliorating crop drought stress: A case study of Variovorax paradoxus 5C-2. New Biotechnology, 2020, 56, 103-113.	4.4	20
21	Aluminum-induced stomatal closure is related to low root hydraulic conductance and high ABA accumulation. Environmental and Experimental Botany, 2020, 179, 104233.	4.2	21
22	Maintenance of Photosynthesis as Leaves Age Improves Whole Plant Water Use Efficiency in an Australian Wheat Cultivar. Agronomy, 2020, 10, 1102.	3.0	3
23	Effects of Phosphate Shortage on Root Growth and Hormone Content of Barley Depend on Capacity of the Roots to Accumulate ABA. Plants, 2020, 9, 1722.	3.5	13
24	Irrigation frequency transiently alters whole plant gas exchange, water and hormone status, but irrigation volume determines cumulative growth in two herbaceous crops. Environmental and Experimental Botany, 2020, 176, 104101.	4.2	11
25	Phytohormone Profiles of Lettuce and Pepper Grown Aeroponically with Elevated Root-Zone Carbon Dioxide Concentrations. Agronomy, 2020, 10, 665.	3.0	1
26	Soil moisture heterogeneity regulates water use in Populus nigra L. by altering root and xylem sap phytohormone concentrations. Tree Physiology, 2020, 40, 762-773.	3.1	6
27	Alternate wetting and drying irrigation increases water and phosphorus use efficiency independent of substrate phosphorus status of vegetative rice plants. Plant Physiology and Biochemistry, 2020, 155, 914-926.	5.8	17
28	Elevated Root-Zone Dissolved Inorganic Carbon Alters Plant Nutrition of Lettuce and Pepper Grown Hydroponically and Aeroponically. Agronomy, 2020, 10, 403.	3.0	8
29	Distinctive phytohormonal and metabolic profiles of Arabidopsis thaliana and Eutrema salsugineum under similar soil drying. Planta, 2019, 249, 1417-1433.	3.2	5
30	Phytohormone Mediation of Interactions Between Plants and Non-Symbiotic Growth Promoting Bacteria Under Edaphic Stresses. Frontiers in Plant Science, 2019, 10, 1368.	3.6	167
31	Stem girdling uncouples soybean stomatal conductance from leaf water potential by enhancing leaf xylem ABA concentration. Environmental and Experimental Botany, 2019, 159, 149-156.	4.2	29
32	Attenuated accumulation of jasmonates modifies stomatal responses to water deficit. Journal of Experimental Botany, 2018, 69, 2103-2116.	4.8	55
33	Rapid changes in root HvPIP2;2 aquaporins abundance and ABA concentration are required to enhance root hydraulic conductivity and maintain leaf water potential in response to increased evaporative demand. Functional Plant Biology, 2018, 45, 143.	2.1	30
34	Long-distance ABA transport can mediate distal tissue responses by affecting local ABA concentrations. Journal of Integrative Plant Biology, 2018, 60, 16-33.	8.5	81
35	Auxin production by rhizobacteria was associated with improved yield of wheat (<i>Triticum) Tj ETQq1 1 0.784314 rgBT /Overlock 10	2.6	133
36	The Xerobranching Response Represses Lateral Root Formation When Roots Are Not in Contact with Water. Current Biology, 2018, 28, 3165-3173.e5.	3.9	94

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37	Whole plant chamber to examine sensitivity of cereal gas exchange to changes in evaporative demand. Plant Methods, 2018, 14, 97.	4.3	21
38	Leaf phytohormone levels and stomatal control in an evergreen woody species under semiarid environment in a Brazilian seasonally dry tropical forest. Plant Growth Regulation, 2018, 85, 437-445.	3.4	21
39	Impact of alternate wetting and drying on rice physiology, grain production, and grain quality. Field Crops Research, 2017, 205, 1-13.	5.1	123
40	Applying â€˜droughtâ€™ to potted plants by maintaining suboptimal soil moisture improves plant water relations. Journal of Experimental Botany, 2017, 68, 2413-2424.	4.8	44
41	Climate Change and Consequences for Potato Production: a Review of Tolerance to Emerging Abiotic Stress. Potato Research, 2017, 60, 239-268.	2.7	50
42	Hormonal and Nutritional Features in Contrasting Rootstock-mediated Tomato Growth under Low-phosphorus Nutrition. Frontiers in Plant Science, 2017, 08, 533.	3.6	24
43	Growing Different Lactuca Genotypes Aeroponically within a Tropical Greenhouseâ€”Cool Rootzone Temperatures Decreased Rootzone Ethylene Concentrations and Increased Shoot Growth. Frontiers in Physiology, 2016, 7, 405.	2.8	4
44	Foliar Abscisic Acid-To-Ethylene Accumulation and Response Regulate Shoot Growth Sensitivity to Mild Drought in Wheat. Frontiers in Plant Science, 2016, 7, 461.	3.6	60
45	Physiological impacts of ABAâ€“JA interactions under water-limitation. Plant Molecular Biology, 2016, 91, 641-650.	3.9	152
46	Exogenous application of abscisic acid (ABA) increases root and cell hydraulic conductivity and abundance of some aquaporin isoforms in the ABA-deficient barley mutant Az34. Annals of Botany, 2016, 118, 777-785.	2.9	58
47	Exploring the use of recombinant inbred lines in combination with beneficial microbial inoculants (AM fungus and PGPR) to improve drought stress tolerance in tomato. Environmental and Experimental Botany, 2016, 131, 47-57.	4.2	104
48	Daily irrigation attenuates xylem abscisic acid concentration and increases leaf water potential of Pelargonium Ã— hortorum compared with infrequent irrigation. Physiologia Plantarum, 2016, 158, 23-33.	5.2	21
49	Inhibition of tomato shoot growth by overâ€irrigation is linked to nitrogen deficiency and ethylene. Physiologia Plantarum, 2016, 156, 70-83.	5.2	22
50	Stomatal closure of Pelargonium Ã— hortorum in response to soil water deficit is associated with decreased leaf water potential only under rapid soil drying. Physiologia Plantarum, 2016, 156, 84-96.	5.2	33
51	Vertical farming increases lettuce yield per unit area compared to conventional horizontal hydroponics. Food and Energy Security, 2016, 5, 184-191.	4.3	167
52	Gravimetric phenotyping of whole plant transpiration responses to atmospheric vapour pressure deficit identifies genotypic variation in water use efficiency. Plant Science, 2016, 251, 101-109.	3.6	63
53	Rhizosphere bacteria containing 1-aminocyclopropane-1- carboxylate deaminase increase growth and photosynthesis of pea plants under salt stress by limiting Na+ accumulation. Functional Plant Biology, 2016, 43, 161.	2.1	155
54	Enhanced root growth of the brb (bald root barley) mutant in drying soil allows similar shoot physiological responses to soil water deficit as wild-type plants. Functional Plant Biology, 2016, 43, 199.	2.1	34

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55	Alternate wetting and drying irrigation maintained rice yields despite half the irrigation volume, but is currently unlikely to be adopted by smallholder lowland rice farmers in Nepal. Food and Energy Security, 2015, 4, 144-157.	4.3	52
56	Longâ€term impact of deficit irrigation on the physical quality of berries in â€˜Crimson Seedlessâ€™ table grapes. Journal of the Science of Food and Agriculture, 2015, 95, 2510-2520.	3.5	28
57	The importance of soil drying and re-wetting in crop phytohormonal and nutritional responses to deficit irrigation. Journal of Experimental Botany, 2015, 66, 2239-2252.	4.8	103
58	Local root abscisic acid (ABA) accumulation depends on the spatial distribution of soil moisture in potato: implications for ABA signalling under heterogeneous soil drying. Journal of Experimental Botany, 2015, 66, 2325-2334.	4.8	71
59	Wheat root growth responses to horizontal stratification of fertiliser in a water-limited environment. Plant and Soil, 2015, 386, 77-88.	3.7	41
60	Common and specific responses to availability of mineral nutrients and water. Journal of Experimental Botany, 2015, 66, 2133-2144.	4.8	93
61	The cadmium-tolerant pea (Pisum sativum L.) mutant SGECdt is more sensitive to mercury: assessing plant water relations. Journal of Experimental Botany, 2015, 66, 2359-2369.	4.8	39
62	Preface. Journal of Experimental Botany, 2015, 66, 2123-2125.	4.8	0
63	Sap fluxes from different parts of the rootzone modulate xylem ABA concentration during partial rootzone drying and re-wetting. Journal of Experimental Botany, 2015, 66, 2315-2324.	4.8	18
64	The effect of impedance to root growth on plant architecture in wheat. Plant and Soil, 2015, 392, 323-332.	3.7	33
65	Unravelling rootstockxscion interactions to improve food security. Journal of Experimental Botany, 2015, 66, 2211-2226.	4.8	238
66	Liming can decrease legume crop yield and leaf gas exchange by enhancing root to shoot ABA signalling. Journal of Experimental Botany, 2015, 66, 2335-2345.	4.8	15
67	High solid anaerobic digestion: Operational challenges and possibilities. Environmental Technology and Innovation, 2015, 4, 268-284.	6.1	94
68	Harmonising conflicts between science, regulation, perception and environmental impact: The case of soil conditioners from bioenergy. Environment International, 2015, 75, 52-67.	10.0	53
69	Using X-ray Computed Tomography to explore the role of abscisic acid in moderating the impact of soil compaction on root system architecture. Environmental and Experimental Botany, 2015, 110, 11-18.	4.2	50
70	Structuralâ€“functional dissection and characterization of yield-contributing traits originating from a group 7 chromosome of the wheatgrass speciesThinopyrum ponticumafter transfer into durum wheat. Journal of Experimental Botany, 2014, 65, 509-525.	4.8	26
71	Abscisic acid metabolizing rhizobacteria decrease ABA concentrations in planta and alter plant growth. Plant Physiology and Biochemistry, 2014, 74, 84-91.	5.8	124
72	Isoprene emission protects photosynthesis but reduces plant productivity during drought in transgenic tobacco (Nicotiana tabacum) plants. New Phytologist, 2014, 201, 205-216.	7.3	58

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73	Two potato (Solanum tuberosum) varieties differ in drought tolerance due to differences in root growth at depth. Functional Plant Biology, 2014, 41, 1107.	2.1	31
74	Cytokinin producing bacteria stimulate amino acid deposition by wheat roots. Plant Physiology and Biochemistry, 2014, 83, 285-291.	5.8	120
75	Physiological and gene expression responses of sunflower (Helianthus annuus L.) plants differ according to irrigation placement. Plant Science, 2014, 227, 37-44.	3.6	12
76	Xylem sap calcium concentrations do not explain liming-induced inhibition of legume gas exchange. Plant and Soil, 2014, 382, 17-30.	3.7	9
77	Modelling the impact of heterogeneous rootzone water distribution on the regulation of transpiration by hormone transport and/or hydraulic pressures. Plant and Soil, 2014, 384, 93-112.	3.7	34
78	Partial root zone drying exerts different physiological responses on field-grown grapevine (Vitis) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 54 41, 1087.	2.1	30
79	How do roots elongate in a structured soil?. Journal of Experimental Botany, 2013, 64, 4761-4777.	4.8	126
80	Abscisic acid and stomatal closure: a hydraulic conductance conundrum?. New Phytologist, 2013, 197, 6-8.	7.3	80
81	Longâ€distance abscisic acid signalling under different vertical soil moisture gradients depends on bulk root water potential and average soil water content in the root zone. Plant, Cell and Environment, 2013, 36, 1465-1475.	5.7	50
82	Ethylene limits abscisic acidâ€•or soil dryingâ€‹induced stomatal closure in aged wheat leaves. Plant, Cell and Environment, 2013, 36, 1850-1859.	5.7	79
83	Alternate wetting and drying irrigation for rice in Bangladesh: Is it sustainable and has plant breeding something to offer?. Food and Energy Security, 2013, 2, 120-129.	4.3	74
84	The rhizobacterium Variovorax paradoxus 5C-2, containing ACC deaminase, promotes growth and development of Arabidopsis thaliana via an ethylene-dependent pathway. Journal of Experimental Botany, 2013, 64, 1565-1573.	4.8	102
85	Multiple impacts of the plant growth-promoting rhizobacterium Variovorax paradoxus 5C-2 on nutrient and ABA relations of Pisum sativum. Journal of Experimental Botany, 2012, 63, 6421-6430.	4.8	78
86	Contrasting physiological effects of partial root zone drying in field-grown grapevine (Vitis vinifera) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 4071-4083.	4.8	76
87	Xylem sap collection and extraction methodologies to determine in vivo concentrations of ABA and its bound forms by gas chromatography-mass spectrometry (GC-MS). Plant Methods, 2012, 8, 11.	4.3	31
88	Microbial amelioration of crop salinity stress. Journal of Experimental Botany, 2012, 63, 3415-3428.	4.8	388
89	Microbial enhancement of crop resource use efficiency. Current Opinion in Biotechnology, 2012, 23, 236-242.	6.6	108
90	Partial rootzone drying improves almond tree leaf-level water use efficiency and afternoon water status compared with regulated deficit irrigation. Functional Plant Biology, 2011, 38, 372.	2.1	35

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91	Omics of Root-to-Shoot Signaling Under Salt Stress and Water Deficit. OMICS A Journal of Integrative Biology, 2011, 15, 893-901.	2.0	50
92	Rootâ€toâ€shoot signalling when soil moisture is heterogeneous: increasing the proportion of root biomass in drying soil inhibits leaf growth and increases leaf abscisic acid concentration. Plant, Cell and Environment, 2011, 34, 1164-1175.	5.7	81
93	Root-targeted biotechnology to mediate hormonal signalling and improve crop stress tolerance. Plant Cell Reports, 2011, 30, 807-823.	5.6	96
94	Nitrogen Form Alters Hormonal Balance in Salt-treated Tomato (Solanum lycopersicum L.). Journal of Plant Growth Regulation, 2011, 30, 144-157.	5.1	20
95	Genetic and management approaches to boost UK wheat yields by ameliorating water deficits. Journal of Experimental Botany, 2011, 62, 5241-5248.	4.8	49
96	Root-synthesized cytokinins improve shoot growth and fruit yield in salinized tomato (Solanum) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 5	4.8	198
97	Genetic analysis of physiological components of salt tolerance conferred by Solanum rootstocks. What is the rootstock doing for the scion?. Theoretical and Applied Genetics, 2010, 121, 105-115.	3.6	39
98	Rhizobacterial mediation of plant hormone status. Annals of Applied Biology, 2010, 157, 361-379.	2.5	369
99	Root water potential integrates discrete soil physical properties to influence ABA signalling during partial rootzone drying. Journal of Experimental Botany, 2010, 61, 3543-3551.	4.8	62
100	Principal component analysis of hormone profiling data suggests an important role for cytokinins in regulating leaf growth and senescence of salinized tomato. Plant Signaling and Behavior, 2010, 5, 45-48.	2.4	28
101	Hormonal regulation of source - sink relations to maintain crop productivity under salinity: a case study of root-to-shoot signalling in tomato. Functional Plant Biology, 2010, 37, 592.	2.1	115
102	Hormones and the Regulation of Water Balance. , 2010, , 519-548.		12
103	The rhizosphere bacteriumVariovorax paradoxus5C-2 containing ACC deaminase does not increase systemic ABA signaling in maize (Zea maysL.). Plant Signaling and Behavior, 2009, 4, 519-521.	2.4	17
104	Partial phenotypic reversion of ABA-deficient flacca tomato (Solanum lycopersicum) scions by a wild-type rootstock: normalizing shoot ethylene relations promotes leaf area but does not diminish whole plant transpiration rate. Journal of Experimental Botany, 2009, 60, 4029-4039.	4.8	84
105	Rootstockâ€mediated changes in xylem ionic and hormonal status are correlated with delayed leaf senescence, and increased leaf area and crop productivity in salinized tomato. Plant, Cell and Environment, 2009, 32, 928-938.	5.7	201
106	Water relations of the tos1 tomato mutant at contrasting evaporative demand. Physiologia Plantarum, 2009, 137, 36-43.	5.2	5
107	Rhizosphere bacteria containing 1â€aminocyclopropaneâ€1â€carboxylate deaminase increase yield of plants grown in drying soil via both local and systemic hormone signalling. New Phytologist, 2009, 181, 413-423.	7.3	385
108	ABA mediation of shoot cytokinin oxidase activity: assessing its impacts on cytokinin status and biomass allocation of nutrient-deprived durum wheat. Functional Plant Biology, 2009, 36, 66.	2.1	48

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109	Rhizosphere manipulations to maximize 'crop per drop' during deficit irrigation. Journal of Experimental Botany, 2009, 60, 2454-2459.	4.8	146
110	Abscisic acid signalling when soil moisture is heterogeneous: decreased photoperiod sap flow from drying roots limits abscisic acid export to the shoots. Plant, Cell and Environment, 2008, 31, 1263-1274.	5.7	109
111	Accounting for sap flow from different parts of the root system improves the prediction of xylem ABA concentration in plants grown with heterogeneous soil moisture. Journal of Experimental Botany, 2008, 59, 4083-4093.	4.8	73
112	Hormonal changes in relation to biomass partitioning and shoot growth impairment in salinized tomato (Solanum lycopersicum L.) plants. Journal of Experimental Botany, 2008, 59, 4119-4131.	4.8	376
113	Hormonal changes during salinity-induced leaf senescence in tomato (Solanum lycopersicum L.). Journal of Experimental Botany, 2008, 59, 3039-3050.	4.8	244
114	Apical Wilting and Petiole Xylem Vessel Diameter of the rms2 Branching Mutant of Pea are Shoot Controlled and Independent of a Long-Distance Signal Regulating Branching. Plant and Cell Physiology, 2008, 49, 791-800.	3.1	11
115	Soil moisture heterogeneity during deficit irrigation alters root-to-shoot signalling of abscisic acid. Functional Plant Biology, 2007, 34, 439.	2.1	80
116	Alternation of wet and dry sides during partial rootzone drying irrigation alters root-to-shoot signalling of abscisic acid. Functional Plant Biology, 2006, 33, 1081.	2.1	84
117	Effect of partial rootzone drying on the concentration of zeatin-type cytokinins in tomato (Solanum) Tj ETQq1 1 0.784314 rgBT /Over	4.8	122
118	Xylem-borne cytokinins: still in search of a role?. Journal of Experimental Botany, 2006, 57, 1-4.	4.8	21
119	Role of Plant Growth Regulators in Stomatal Limitation to Photosynthesis during Water Stress. Books in Soils, Plants, and the Environment, 2005, , .	0.1	0
120	AtMYB61, an R2R3-MYB Transcription Factor Controlling Stomatal Aperture in Arabidopsis thaliana. Current Biology, 2005, 15, 1201-1206.	3.9	259
121	Root-To-Shoot Signalling: Assessing The Roles of â€˜Upâ€™ In the Up and Down World of Long-Distance Signalling In Planta. Plant and Soil, 2005, 274, 251-270.	3.7	229
122	Root-to-shoot signalling: Assessing the roles of â€˜upâ€™ in the up and down world of long-distance signalling in planta. Plant Ecophysiology, 2005, , 251-270.	1.5	22
123	Long-distance signals regulating stomatal conductance and leaf growth in tomato (Lycopersicon) Tj ETQq1 1 0.784314 rgBT /Overloc 2353-2363.	4.8	222
124	Effects of nitrogen supply on xylem cytokinin delivery, transpiration and leaf expansion of pea genotypes differing in xylem-cytokinin concentration. Functional Plant Biology, 2004, 31, 903.	2.1	49
125	Biomass allocation in tomato (Lycopersicon esculentum) plants grown under partial rootzone drying: enhancement of root growth. Functional Plant Biology, 2004, 31, 971.	2.1	122
126	Hormonal Interactions and Stomatal Responses. Journal of Plant Growth Regulation, 2003, 22, 32-46.	5.1	188

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127	Do increases in xylem sap pH and/or ABA concentration mediate stomatal closure following nitrate deprivation?. Journal of Experimental Botany, 2003, 54, 1281-1288.	4.8	77
128	Leaf area development of ABA-deficient and wild-type peas at two levels of nitrogen supply. Functional Plant Biology, 2003, 30, 777.	2.1	11
129	Rapid increases in cytokinin concentration in lateral buds of chickpea (Cicer arietinum L.) during release of apical dominance. Planta, 1997, 202, 271-276.	3.2	101