John B Passioura

List of Publications by Year
in descending order

41 papers	6,507 citations	136740 32 h-index	276539 41 g-index
42 all docs	42 docs citations	42 times ranked	5922 citing authors

#	Article	IF	Citations
1	Water Transport in and to Roots. Annual Review of Plant Biology, 1988, 39, 245-265.	14.2	404
2	Increasing crop productivity when water is scarceâ€"from breeding to field management. Agricultural Water Management, 2006, 80, 176-196.	2.4	373
3	The drought environment: physical, biological and agricultural perspectives. Journal of Experimental Botany, 2006, 58, 113-117.	2.4	332
4	Soil Water Status Affects the Stomata1. Functional Plant Biology, 1986, 13, 459.	1.1	311
5	A breeding program to reduce the diameter of the major xylem vessel in the seminal roots of wheat and its effect on grain yield in rain-fed environments. Australian Journal of Agricultural Research, 1989, 40, 943.	1.5	288
6	â€˜Soil conditions and plant growthâ€™. Plant, Cell and Environment, 2002, 25, 311-318.	2.8	287
7	The effect of root geometry on the yield of wheat growing on stored water. Australian Journal of Agricultural Research, 1972, 23, 745.	1.5	258
8	Improving Productivity of Crops in Water-Limited Environments. Advances in Agronomy, 2010, 106, 37-75.	2.4	257
9	Soil structure and plant growth. Soil Research, 1991, 29, 717.	0.6	252
10	Viewpoint: The perils of pot experiments. Functional Plant Biology, 2006, 33, 1075.	1.1	246
11	Osmotic adjustment and energy limitations to plant growth in saline soil. New Phytologist, 2020, 225, 1091-1096.	3.5	245
12	Nutrient availability limits carbon sequestration in arable soils. Soil Biology and Biochemistry, 2014, 68, 402-409.	4.2	240
13	Soil structure and plant growth: Impact of bulk density and biopores. Plant and Soil, 1996, 185, 151-162.	1.8	239
14	Drought and drought tolerance. Plant Growth Regulation, 1996, 20, 79-83.	1.8	235
15	Simulation Models: Science, Snake Oil, Education, or Engineering?. Agronomy Journal, 1996, 88, 690-694.	0.9	228
16	Phenotyping for drought tolerance in grain crops: when is it useful to breeders?. Functional Plant Biology, 2012, 39, 851.	1.1	228
17	Rates of Root and Organism Growth, Soil Conditions, and Temporal and Spatial Development of the Rhizosphere. Annals of Botany, 2006, 97, 839-855.	1.4	224
18	The Effect of Soil Strength on the Growth of Young Wheat Plants. Functional Plant Biology, 1987, 14, 643.	1.1	218

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19	Review: Environmental biology and crop improvement. Functional Plant Biology, 2002, 29, 537.	1.1	214
20	Shoot Turgor Does Not Limit Shoot Growth of NaCl-Affected Wheat and Barley. Plant Physiology, 1985, 77, 869-872.	2.3	188
21	Water relations and leaf expansion: importance of time scale. Journal of Experimental Botany, 2000, 51, 1495-1504.	2.4	171
22	Root Signals Control Leaf Expansion in Wheat Seedlings Growing in Drying Soil. Functional Plant Biology, 1988, 15, 687.	1.1	165
23	Root hairs enable high transpiration rates in drying soils. New Phytologist, 2017, 216, 771-781.	3.5	123
24	Scaling up: the essence of effective agricultural research. Functional Plant Biology, 2010, 37, 585.	1.1	109
25	Rhizosphere biology and crop productivityâ€"a review. Soil Research, 2006, 44, 299.	0.6	107
26	Yield improvement and adaptation of wheat to water-limited environments in Australiaâ€"a case study. Crop and Pasture Science, 2014, 65, 676.	0.7	101
27	Osmotic adjustment leads to anomalously low estimates of relative water content in wheat and barley. Functional Plant Biology, 2008, 35, 1172.	1.1	100
28	Opportunities to reduce heat damage in rain-fed wheat crops based on plant breeding and agronomic management. Field Crops Research, 2018, 224, 126-138.	2.3	54
29	Hydraulic processes in roots and the rhizosphere pertinent to increasing yield of water-limited grain crops: a critical review. Journal of Experimental Botany, 2018, 69, 3255-3265.	2.4	44
30	Rapid environmental changes that affect leaf water status induce transient surges or pauses in leaf expansion rate.. Functional Plant Biology, 2000, 27, 941.	1.1	42
31	Translational research in agriculture. Can we do it better?. Crop and Pasture Science, 2020, 71, 517.	0.7	39
32	Making science more effective for agriculture. Advances in Agronomy, 2020, , 153-177.	2.4	34
33	Leaf water status controls day-time but not daily rates of leaf expansion in salt-treated barley.. Functional Plant Biology, 2000, 27, 949.	1.1	32
34	Tissue stresses and resistance to water flow conspire to uncouple the water potential of the epidermis from that of the xylem in elongating plant stems. Functional Plant Biology, 2003, 30, 325.	1.1	31
35	Does shoot water status limit leaf expansion of nitrogen-deprived barley?. Journal of Experimental Botany, 2002, 53, 1765-1770.	2.4	22
36	Climate change and Australian wheat yield. Nature, 1998, 391, 448-449.	13.7	18

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37	Prologue: Amending agricultural water use to maintain production while affording environmental protection through control of outflow. Australian Journal of Agricultural Research, 2006, 57, 251.	1.5	16
38	Uptake of water from a Kandosol subsoil. II. Control of water uptake by roots. Plant and Soil, 2013, 368, 649-667.	1.8	12
39	Uptake of water from a Kandosol subsoil: I. Determination of soil water diffusivity. Plant and Soil, 2013, 368, 483-492.	1.8	5
40	Epilogue: from propaganda to practicalities â€" the progressive evolution of the salinity debate. Australian Journal of Experimental Agriculture, 2005, 45, 1503.	1.0	4
41	Preface: Enduring prosperity for Farmland?. Australian Journal of Agricultural Research, 2001, 52, I.	1.5	1