

# Jianchang Yang

## List of Publications by Citations

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104  
papers

7,784  
citations

45  
h-index

88  
g-index

108  
ext. papers

9,649  
ext. citations

5.7  
avg, IF

5.95  
L-index

#	Paper	IF	Citations
104	Producing more grain with lower environmental costs. <i>Nature</i> , <b>2014</b> , 514, 486-9	50.4	860
103	Hormonal changes in the grains of rice subjected to water stress during grain filling. <i>Plant Physiology</i> , <b>2001</b> , 127, 315-23	6.6	518
102	Grain filling of cereals under soil drying. <i>New Phytologist</i> , <b>2006</b> , 169, 223-36	9.8	456
101	Pursuing sustainable productivity with millions of smallholder farmers. <i>Nature</i> , <b>2018</b> , 555, 363-366	50.4	408
100	Strategies for overcoming low agronomic nitrogen use efficiency in irrigated rice systems in China. <i>Field Crops Research</i> , <b>2006</b> , 96, 37-47	5.5	383
99	Improving nitrogen fertilization in rice by sitespecific N management. A review. <i>Agronomy for Sustainable Development</i> , <b>2010</b> , 30, 649-656	6.8	320
98	Grain-filling problem in TsuperTrice. <i>Journal of Experimental Botany</i> , <b>2010</b> , 61, 1-5	7	259
97	Crop management techniques to enhance harvest index in rice. <i>Journal of Experimental Botany</i> , <b>2010</b> , 61, 3177-89	7	235
96	Activities of key enzymes in sucrose-to-starch conversion in wheat grains subjected to water deficit during grain filling. <i>Plant Physiology</i> , <b>2004</b> , 135, 1621-9	6.6	210
95	Involvement of polyamines in the drought resistance of rice. <i>Journal of Experimental Botany</i> , <b>2007</b> , 58, 1545-55	7	187
94	Abscisic acid and cytokinins in the root exudates and leaves and their relationship to senescence and remobilization of carbon reserves in rice subjected to water stress during grain filling. <i>Planta</i> , <b>2002</b> , 215, 645-52	4.7	178
93	Post-anthesis development of inferior and superior spikelets in rice in relation to abscisic acid and ethylene. <i>Journal of Experimental Botany</i> , <b>2006</b> , 57, 149-60	7	167
92	Water DeficitInduced Senescence and Its Relationship to the Remobilization of Pre-Stored Carbon in Wheat during Grain Filling. <i>Agronomy Journal</i> , <b>2001</b> , 93, 196-206	2.2	164
91	Correlation of cytokinin levels in the endosperms and roots with cell number and cell division activity during endosperm development in rice. <i>Annals of Botany</i> , <b>2002</b> , 90, 369-77	4.1	157
90	Root and shoot traits for rice varieties with higher grain yield and higher nitrogen use efficiency at lower nitrogen rates application. <i>Field Crops Research</i> , <b>2015</b> , 175, 47-55	5.5	153
89	Abscisic acid and ethylene interact in wheat grains in response to soil drying during grain filling. <i>New Phytologist</i> , <b>2006</b> , 171, 293-303	9.8	137
88	Grain yield, water and nitrogen use efficiencies of rice as influenced by irrigation regimes and their interaction with nitrogen rates. <i>Field Crops Research</i> , <b>2016</b> , 193, 54-69	5.5	133

87	Activities of starch hydrolytic enzymes and sucrose-phosphate synthase in the stems of rice subjected to water stress during grain filling. <i>Journal of Experimental Botany</i> , <b>2001</b> , 52, 2169-79	7	132
86	Hormones in the grains and roots in relation to post-anthesis development of inferior and superior spikelets in japonica/indica hybrid rice. <i>Plant Physiology and Biochemistry</i> , <b>2009</b> , 47, 195-204	5.4	127
85	Involvement of cytokinins in the grain filling of rice under alternate wetting and drying irrigation. <i>Journal of Experimental Botany</i> , <b>2010</b> , 61, 3719-33	7	113
84	Combination of site-specific nitrogen management and alternate wetting and drying irrigation increases grain yield and nitrogen and water use efficiency in super rice. <i>Field Crops Research</i> , <b>2013</b> , 154, 226-235	5.5	112
83	Water-Saving and High-Yielding Irrigation for Lowland Rice by Controlling Limiting Values of Soil Water Potential. <i>Journal of Integrative Plant Biology</i> , <b>2007</b> , 49, 1445-1454	8.3	109
82	Post-anthesis alternate wetting and moderate soil drying enhances activities of key enzymes in sucrose-to-starch conversion in inferior spikelets of rice. <i>Journal of Experimental Botany</i> , <b>2012</b> , 63, 215-27	7	103
81	Activities of fructan- and sucrose-metabolizing enzymes in wheat stems subjected to water stress during grain filling. <i>Planta</i> , <b>2004</b> , 220, 331-43	4.7	99
80	Stomatal conductance, mesophyll conductance, and transpiration efficiency in relation to leaf anatomy in rice and wheat genotypes under drought. <i>Journal of Experimental Botany</i> , <b>2017</b> , 68, 5191-5205	7	97
79	Grain and Dry Matter Yields and Partitioning of Assimilates in Japonica/Indica Hybrid Rice. <i>Crop Science</i> , <b>2002</b> , 42, 766-772	2.4	94
78	Hormones in the grains in relation to sink strength and postanthesis development of spikelets in rice. <i>Plant Growth Regulation</i> , <b>2003</b> , 41, 185-195	3.2	94
77	Activities of enzymes involved in sucrose-to-starch metabolism in rice grains subjected to water stress during filling. <i>Field Crops Research</i> , <b>2003</b> , 81, 69-81	5.5	92
76	Moderate wetting and drying increases rice yield and reduces water use, grain arsenic level, and methane emission. <i>Crop Journal</i> , <b>2017</b> , 5, 151-158	4.6	87
75	Polyamines and ethylene interact in rice grains in response to soil drying during grain filling. <i>Journal of Experimental Botany</i> , <b>2013</b> , 64, 2523-38	7	78
74	Postanthesis Moderate Wetting Drying Improves Both Quality and Quantity of Rice Yield. <i>Agronomy Journal</i> , <b>2008</b> , 100, 726-734	2.2	78
73	Mid-season nitrogen application strategies for rice varieties differing in panicle size. <i>Field Crops Research</i> , <b>2013</b> , 150, 9-18	5.5	67
72	Alternate wetting and moderate soil drying increases grain yield and reduces cadmium accumulation in rice grains. <i>Journal of the Science of Food and Agriculture</i> , <b>2009</b> , 89, 1728-1736	4.3	63
71	Grain and Dry Matter Yields and Partitioning of Assimilates in Japonica/Indica Hybrid Rice. <i>Crop Science</i> , <b>2002</b> , 42, 766	2.4	62
70	Map-Based Cloning of Seed Dormancy1-2 Identified a Gibberellin Synthesis Gene Regulating the Development of Endosperm-Imposed Dormancy in Rice. <i>Plant Physiology</i> , <b>2015</b> , 169, 2152-65	6.6	59

69	Progressive integrative crop managements increase grain yield, nitrogen use efficiency and irrigation water productivity in rice. <i>Field Crops Research</i> , <b>2018</b> , 215, 1-11	5.5	59
68	An Improved Crop Management Increases Grain Yield and Nitrogen and Water Use Efficiency in Rice. <i>Crop Science</i> , <b>2013</b> , 53, 271-284	2.4	57
67	Abscisic Acid and Ethylene Interact in Rice Spikelets in Response to Water Stress During Meiosis. <i>Journal of Plant Growth Regulation</i> , <b>2007</b> , 26, 318-328	4.7	56
66	Involvement of polyamines in the post-anthesis development of inferior and superior spikelets in rice. <i>Planta</i> , <b>2008</b> , 228, 137-49	4.7	56
65	Canopy light and nitrogen distributions are related to grain yield and nitrogen use efficiency in rice. <i>Field Crops Research</i> , <b>2017</b> , 206, 74-85	5.5	54
64	Morphological and physiological traits of roots and their relationships with water productivity in water-saving and drought-resistant rice. <i>Field Crops Research</i> , <b>2014</b> , 162, 108-119	5.5	54
63	Postanthesis Water Deficits Enhance Grain Filling in Two-Line Hybrid Rice. <i>Crop Science</i> , <b>2003</b> , 43, 2099-2108	4.8	53
62	Polyamine and ethylene interactions in grain filling of superior and inferior spikelets of rice. <i>Plant Growth Regulation</i> , <b>2012</b> , 66, 215-228	3.2	52
61	Hormonal changes are related to the poor grain filling in the inferior spikelets of rice cultivated under non-flooded and mulched condition. <i>Field Crops Research</i> , <b>2007</b> , 101, 53-61	5.5	52
60	Alternate wetting and moderate drying increases rice yield and reduces methane emission in paddy field with wheat straw residue incorporation. <i>Food and Energy Security</i> , <b>2015</b> , 4, 238-254	4.1	47
59	Roles of nitrogen and cytokinin signals in root and shoot communications in maximizing of plant productivity and their agronomic applications. <i>Plant Science</i> , <b>2018</b> , 274, 320-331	5.3	43
58	Approaches to achieve high grain yield and high resource use efficiency in rice. <i>Frontiers of Agricultural Science and Engineering</i> , <b>2015</b> , 2, 115	1.7	31
57	Rice root morphological and physiological traits interaction with rhizosphere soil and its effect on methane emissions in paddy fields. <i>Soil Biology and Biochemistry</i> , <b>2019</b> , 129, 191-200	7.5	26
56	Effects of nitrogen fertilizer on structure and physicochemical properties of SuperTrice starch. <i>Carbohydrate Polymers</i> , <b>2020</b> , 239, 116237	10.3	25
55	Grain Filling Characteristics and Their Relations with Endogenous Hormones in Large- and Small-Grain Mutants of Rice. <i>PLoS ONE</i> , <b>2016</b> , 11, e0165321	3.7	23
54	Natural variation in the promoter of rice calcineurin B-like protein10 (OsCBL10) affects flooding tolerance during seed germination among rice subspecies. <i>Plant Journal</i> , <b>2018</b> , 94, 612-625	6.9	22
53	Expression of proteins in superior and inferior spikelets of rice during grain filling under different irrigation regimes. <i>Proteomics</i> , <b>2016</b> , 16, 102-21	4.8	22
52	Effect of irrigation regime on grain yield, water productivity, and methane emissions in dry direct-seeded rice grown in raised beds with wheat straw incorporation. <i>Crop Journal</i> , <b>2018</b> , 6, 495-508	4.6	22

51	Ethylene and ACC levels in developing grains are related to the poor appearance and milling quality of rice. <i>Plant Growth Regulation</i> , <b>2009</b> , 58, 85-96	3.2	22
50	Agronomic and Physiological Performance of Rice under Integrative Crop Management. <i>Agronomy Journal</i> , <b>2016</b> , 108, 117-128	2.2	22
49	Role of brassinosteroids in rice spikelet differentiation and degeneration under soil-drying during panicle development. <i>BMC Plant Biology</i> , <b>2019</b> , 19, 409	5.3	21
48	Polyamines and ethylene in rice young panicles in response to soil drought during panicle differentiation. <i>Plant Growth Regulation</i> , <b>2017</b> , 82, 491-503	3.2	20
47	Comparison of Structural and Functional Properties of Wheat Starch Under Different Soil Drought Conditions. <i>Scientific Reports</i> , <b>2017</b> , 7, 12312	4.9	18
46	Brassinosteroids function in spikelet differentiation and degeneration in rice. <i>Journal of Integrative Plant Biology</i> , <b>2019</b> , 61, 943-963	8.3	17
45	Regulation of gene expression involved in the remobilization of rice straw carbon reserves results from moderate soil drying during grain filling. <i>Plant Journal</i> , <b>2020</b> , 101, 604-618	6.9	16
44	Abscisic acid, ethylene and antioxidative systems in rice grains in relation with grain filling subjected to postanthesis soil-drying. <i>Plant Growth Regulation</i> , <b>2015</b> , 76, 135-146	3.2	15
43	Response of Grain Quality to Alternate Wetting and Moderate Soil Drying Irrigation in Rice. <i>Crop Science</i> , <b>2019</b> , 59, 1261-1272	2.4	13
42	Analysis of Global Methylome and Gene Expression during Carbon Reserve Mobilization in Stems under Soil Drying. <i>Plant Physiology</i> , <b>2020</b> , 183, 1809-1824	6.6	13
41	Comparisons with wheat reveal root anatomical and histochemical constraints of rice under water-deficit stress. <i>Plant and Soil</i> , <b>2020</b> , 452, 547-568	4.2	13
40	Effect of genetic improvement of grain yield and nitrogen efficiency of mid-season indica rice cultivars. <i>Journal of Plant Nutrition and Soil Science</i> , <b>2015</b> , 178, 297-305	2.3	13
39	The effect of integrative crop management on root growth and methane emission of paddy rice. <i>Crop Journal</i> , <b>2019</b> , 7, 444-457	4.6	12
38	Alternate wetting and drying irrigation combined with the proportion of polymer-coated urea and conventional urea rates increases grain yield, water and nitrogen use efficiencies in rice. <i>Field Crops Research</i> , <b>2021</b> , 268, 108165	5.5	12
37	Spermidine Enhanced Free Polyamine Levels and Expression of Polyamine Biosynthesis Enzyme Gene in Rice Spikelets under Heat Tolerance before Heading. <i>Scientific Reports</i> , <b>2020</b> , 10, 8976	4.9	11
36	Physiological mechanism underlying the effect of high temperature during anthesis on spikelet-opening of photo-thermo-sensitive genic male sterile rice lines. <i>Scientific Reports</i> , <b>2020</b> , 10, 22149	4.9	11
35	Changes in mineral elements and starch quality of grains during the improvement of japonica rice cultivars. <i>Journal of the Science of Food and Agriculture</i> , <b>2018</b> , 98, 122-133	4.3	11
34	Exploiting Co-Benefits of Increased Rice Production and Reduced Greenhouse Gas Emission through Optimized Crop and Soil Management. <i>PLoS ONE</i> , <b>2015</b> , 10, e0140023	3.7	11

33	Effects of root morphology and physiology on the formation and regulation of large panicles in rice. <i>Field Crops Research</i> , <b>2020</b> , 258, 107946	5.5	11
32	Involvement of abscisic acid in fructan hydrolysis and starch biosynthesis in wheat under soil drying. <i>Plant Growth Regulation</i> , <b>2016</b> , 80, 265-279	3.2	10
31	Responses of ethylene and ACC in rice grains to soil moisture and their relations to grain filling. <i>Frontiers of Agriculture in China</i> , <b>2008</b> , 2, 172-180		10
30	Agronomic and physiological performance of an indica-japonica rice variety with a high yield and high nitrogen use efficiency. <i>Crop Science</i> , <b>2020</b> , 60, 1556-1568	2.4	9
29	Tolerance to low phosphorus in rice varieties is conferred by regulation of root growth. <i>Crop Journal</i> , <b>2020</b> , 8, 534-547	4.6	9
28	Polyamines mediate the effect of post-anthesis soil drying on starch granule size distribution in wheat kernels. <i>Crop Journal</i> , <b>2016</b> , 4, 444-458	4.6	9
27	Field experiments and model simulation based evaluation of rice yield response to projected climate change in Southeastern China. <i>Science of the Total Environment</i> , <b>2021</b> , 761, 143206	10.2	9
26	Jasmonates alleviate spikelet-opening impairment caused by high temperature stress during anthesis of photo-thermo-sensitive genic male sterile rice lines. <i>Food and Energy Security</i> , <b>2020</b> , 9, e233	4.1	7
25	Roles of jasmonates and brassinosteroids in rice responses to high temperature stress [A review]. <i>Crop Journal</i> , <b>2021</b> ,	4.6	6
24	Brassinosteroids mediate the effect of soil-drying during meiosis on spikelet degeneration in rice. <i>Environmental and Experimental Botany</i> , <b>2020</b> , 169, 103887	5.9	6
23	Brassinosteroids mediate the effect of high temperature during anthesis on the pistil activity of photo-thermosensitive genetic male-sterile rice lines. <i>Crop Journal</i> , <b>2021</b> , 9, 109-119	4.6	6
22	Observation and comparison of structure changes in wheat caryopsis maternal tissues and endosperm. <i>Revista Brasileira De Botanica</i> , <b>2015</b> , 38, 417-427	1.2	4
21	Expression profile of the carbon reserve remobilization from the source to sink in rice in response to soil drying during grain filling. <i>Food and Energy Security</i> , <b>2020</b> , 9, e204	4.1	4
20	Alternative fertilizer and irrigation practices improve rice yield and resource use efficiency by regulating source-sink relationships. <i>Field Crops Research</i> , <b>2021</b> , 265, 108124	5.5	4
19	Science and technology backyard improves farmers' productivity. <i>Science China Life Sciences</i> , <b>2016</b> , 59, 1348-1349	8.5	4
18	Growth and development characteristics of super-high-yielding mid-season japonica rice. <i>Frontiers of Agriculture in China</i> , <b>2007</b> , 1, 166-174		3
17	Response of brassinosteroids to nitrogen rates and their regulation on rice spikelet degeneration during meiosis. <i>Food and Energy Security</i> , <b>2020</b> , 9, e201	4.1	3
16	OsRGA1 optimizes photosynthate allocation for roots to reduce methane emissions and improve yield in paddy ecosystems. <i>Soil Biology and Biochemistry</i> , <b>2021</b> , 160, 108344	7.5	3

15	The effects of dry cultivation on grain-filling and chalky grains of upland rice and paddy rice. <i>Food and Energy Security</i> , <b>2020</b> , 9, e198	4.1	3
14	Effects of application of rapeseed cake as organic fertilizer on rice quality at high yield level. <i>Journal of the Science of Food and Agriculture</i> , <b>2021</b> ,	4.3	2
13	Structure characteristics and function of maize endosperm transfer cells. <i>Revista Brasileira De Botanica</i> , <b>2015</b> , 38, 669-678	1.2	1
12	Structure characteristics and function of wheat endosperm transport tissues. <i>Revista Brasileira De Botanica</i> , <b>2015</b> , 38, 679-687	1.2	1
11	Jasmonates Alleviate the Harm of High-Temperature Stress During Anthesis to Stigma Vitality of Photothermosensitive Genetic Male Sterile Rice Lines. <i>Frontiers in Plant Science</i> , <b>2021</b> , 12, 634959	6.2	1
10	Tolerance to low phosphorus was enhanced by an alternate wetting and drying regime in rice. <i>Food and Energy Security</i> , <b>2021</b> , 10, e294	4.1	1
9	The role of polyamines in regulating amino acid biosynthesis in rice grains. <i>Food and Energy Security</i> , <b>2021</b> , 10, e306	4.1	1
8	Do shoot anatomical characteristics allow rice to grow well under water deficit?. <i>Journal of Agronomy and Crop Science</i> ,	3.9	1
7	Reducing methane emission by promoting its oxidation in rhizosphere through nitrogen-induced root growth in paddy fields. <i>Plant and Soil</i> ,1	4.2	1
6	High ethylene level impedes amino acid biosynthesis in rice grains. <i>Plant Growth Regulation</i> ,1	3.2	0
5	Spikelet differentiation and degeneration in rice varieties with different panicle sizes. <i>Food and Energy Security</i> ,e320	4.1	0
4	Roles of canopy architecture and nitrogen distribution in the better performance of an aerobic than a lowland rice cultivar under water deficit. <i>Field Crops Research</i> , <b>2021</b> , 271, 108257	5.5	0
3	Grain yield and nitrogen use efficiency are increased by exogenous cytokinin application through the improvement in root physiological traits of rice. <i>Plant Growth Regulation</i> ,1	3.2	0
2	Advantages linked to root development enhance rice biomass accumulation under elevated carbon dioxide conditions. <i>Agronomy Journal</i> , <b>2020</b> , 112, 4007-4017	2.2	
1	Improving the accuracy of meta-analysis for datasets with missing measures of variance: Elevated [CO] effect on plant growth as a case study. <i>Science of the Total Environment</i> , <b>2022</b> , 806, 150669	10.2	