Hiroyuki Shimono

List of Publications by Year
in descending order

67	1,501	331538 21	330025 37
papers	citations	h-index	g-index

67	67	67	1340
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Food security and climate change: on the potential to adapt global crop production by active selection to rising atmospheric carbon dioxide. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 4097-4105.	1.2	167
2	Response of growth and grain yield in paddy rice to cool water at different growth stages. Field Crops Research, 2002, 73, 67-79.	2.3	120
3	Genotypic variation in rice yield enhancement by elevated CO2 relates to growth before heading, and not to maturity group. Journal of Experimental Botany, 2009, 60, 523-532.	2.4	108
4	Low temperature-induced sterility in rice: Evidence for the effects of temperature before panicle initiation. Field Crops Research, 2007, 101, 221-231.	2.3	104
5	Earlier rice phenology as a result of climate change can increase the risk of cold damage during reproductive growth in northern Japan. Agriculture, Ecosystems and Environment, 2011, 144, 201-207.	2.5	68
6	Acclimation of nitrogen uptake capacity of rice to elevated atmospheric CO2 concentration. Annals of Botany, 2008, 103, 87-94.	1.4	66
7	Modeling Spikelet Sterility Induced by Low Temperature in Rice. Agronomy Journal, 2005, 97, 1524-1536.	0.9	57
8	Responses of leaf photosynthesis and plant water status in rice to low water temperature at different growth stages. Field Crops Research, 2004, 89, 71-83.	2.3	56
9	Rice yield enhancement by elevated CO₂ is reduced in cool weather. Global Change Biology, 2008, 14, 276-284.	4.2	52
10	Genomeâ€wide association mapping for phenotypic plasticity in rice. Plant, Cell and Environment, 2017, 40, 1565-1575.	2.8	45
11	Diurnal and seasonal variations in stomatal conductance of rice at elevated atmospheric CO₂under fully open-air conditions. Plant, Cell and Environment, 2010, 33, 322-331.	2.8	40
12	Phenotypic plasticity conditions the response of soybean seed yield to elevated atmospheric CO2 concentration. Plant Physiology, 2015, 169, pp.00980.2015.	2.3	32
13	Lodging in rice can be alleviated by atmospheric CO2 enrichment. Agriculture, Ecosystems and Environment, 2007, 118, 223-230.	2.5	31
14	Lower responsiveness of canopy evapotranspiration rate than of leaf stomatal conductance to openâ€air <scp><scp>CO₂</scp></scp> elevation in rice. Global Change Biology, 2013, 19, 2444-2453.	4.2	31
15	Genotypic Variation in Rice Cold Tolerance Responses during Reproductive Growth as a Function of Water Temperature during Vegetative Growth. Crop Science, 2011, 51, 290-297.	0.8	29
16	Rice genotypes that respond strongly to elevated CO2 also respond strongly to low planting density. Agriculture, Ecosystems and Environment, 2011, 141, 240-243.	2.5	28
17	Modeling the Effects of Water Temperature on Rice Growth and Yield under a Cool Climate: I. Model Development. Agronomy Journal, 2007, 99, 1327-1337.	0.9	26
18	Modeling the Effects of Water Temperature on Rice Growth and Yield under a Cool Climate: II. Model Application. Agronomy Journal, 2007, 99, 1338-1344.	0.9	23

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19	Effect of panicle removal on photosynthetic acclimation under elevated CO₂ in rice. Photosynthetica, 2010, 48, 530-536.	0.9	23
20	Plasticity of rice tiller production is related to genotypic variation in the biomass response to elevated atmospheric CO2 concentration and low temperatures during vegetative growth. Environmental and Experimental Botany, 2013, 87, 227-234.	2.0	23
21	Combining mapping of physiological quantitative trait loci and transcriptome for cold tolerance for counteracting male sterility induced by low temperatures during reproductive stage in rice. Physiologia Plantarum, 2016, 157, 175-192.	2.6	23
22	Nitrogen Uptake by Rice (<i>Oryza sativa</i> L.) Exposed to Low Water Temperatures at Different Growth Stages. Journal of Agronomy and Crop Science, 2012, 198, 145-151.	1.7	22
23	Cooling water before panicle initiation increases chillingâ€induced male sterility and disables chillingâ€induced expression of genes encoding <scp>OsFKBP</scp>65 and heat shock proteins in rice spikelets. Plant, Cell and Environment, 2015, 38, 1255-1274.	2.8	22
24	Rice Free-Air Carbon Dioxide Enrichment Studies to Improve Assessment of Climate Change Effects on Rice Agriculture. Advances in Agricultural Systems Modeling, 2016, , 45-68.	0.3	22
25	Can the cropping schedule of rice be adapted to changing climate? A case study in cool areas of northern Japan. Field Crops Research, 2010, 118, 126-134.	2.3	21
26	Impact of Global Warming on Yield Fluctuation in Rice in the Northern Part of Japan. Japanese Journal of Crop Science, 2008, 77, 489-497.	0.1	20
27	Prescreening in large populations as a tool for identifying elevated CO2-responsive genotypes in plants. Functional Plant Biology, 2019, 46, 1.	1.1	17
28	Effect of high water temperature during vegetative growth on rice growth and yield under a cool climate. Field Crops Research, 2011, 121, 88-95.	2.3	16
29	Interactive Effects of Elevated Atmospheric CO₂ and Waterlogging on Vegetative Growth of Soybean (<i>Glycine max</i> (L.) Merr.). Plant Production Science, 2012, 15, 238-245.	0.9	16
30	Planting geometry as a preâ€screening technique for identifying <scp>CO₂</scp> responsive rice genotypes: a case study of panicle number. Physiologia Plantarum, 2014, 152, 520-528.	2.6	16
31	Finlayâ€“Wilkinson's regression coefficient as a preâ€screening criterion for yield responsiveness to elevated atmospheric <scp>CO₂</scp> concentration in crops. Physiologia Plantarum, 2016, 158, 312-317.	2.6	13
32	Effects of elevated CO2 concentration on growth and photosynthesis of Chinese yam under different temperature regimes. Plant Production Science, 2017, 20, 227-236.	0.9	13
33	Effects of elevated CO₂ concentration on bulbil germination and early seedling growth in Chinese yam under different air temperatures. Plant Production Science, 2017, 20, 313-322.	0.9	13
34	Effects of early planting on growth and yield of rice cultivars under a cool climate. Field Crops Research, 2013, 144, 11-18.	2.3	11
35	Effects of Elevated CO₂ on Floral Sterility of Rice Plants Caused by Low Temperature. J Agricultural Meteorology, 2005, 60, 589-592.	0.8	10
36	Does Regional Temperature Difference before the Panicle Initiation Affect the Tolerance for Low Temperature-Induced Sterility in Rice?. Plant Production Science, 2008, 11, 430-433.	0.9	10

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37	Application of a process-based biogeochemistry model, DNDC-Rice, to a rice field under free-air CO2 enrichment (FACE). J Agricultural Meteorology, 2013, 69, 173-190.	0.8	10
38	Extraordinary hot summer in Hokkaido decrease rice yield and satisfy growing of cultivar in Tohoku region â€œHitomeboreâ€ J Agricultural Meteorology, 2011, 67, 269-274.	0.8	10
39	Water temperatures during vegetative growth affect cold tolerance at the booting stage of rice under controlled environmental conditions. J Agricultural Meteorology, 2012, 68, 159-164.	0.8	10
40	Effects of salt and low light intensity during the vegetative stage on susceptibility of rice to male sterility induced by chilling stress during the reproductive stage. Plant Production Science, 2016, 19, 497-507.	0.9	8
41	Effect of soil temperature on growth and yield of sweet potato (<I>Ipomoea batatas</I> L.) under cool climate. J Agricultural Meteorology, 2021, 77, 118-127.	0.8	8
42	Effects of Planting Density on Grain Yield and Quality of Rice Cultivars in Aomori Prefecture. Japanese Journal of Crop Science, 2017, 86, 329-338.	0.1	7
43	Effects of elevated atmospheric CO2 concentration on morphology of leaf blades in Chinese yam. Plant Production Science, 2018, 21, 311-321.	0.9	7
44	Internal transport of CO₂ from the rootâ€zone to plant shoot is pH dependent. Physiologia Plantarum, 2019, 165, 451-463.	2.6	7
45	Genotypic variation in the response to high water temperature during vegetative growth and the effects on rice productivity under a cool climate. Field Crops Research, 2014, 162, 12-19.	2.3	5
46	Mining a yield-trial database to identify high-yielding cultivars by simulation modeling: a case study for rice. J Agricultural Meteorology, 2017, 73, 51-58.	0.8	5
47	Effects of Autumn Direct-seeding on Rice Growth and Yield under Cool Climates. Japanese Journal of Crop Science, 2012, 81, 93-98.	0.1	4
48	Poor grain growth in rice under high temperatures affected by water temperature during vegetative stage. J Agricultural Meteorology, 2012, 68, 205-214.	0.8	4
49	Cold tolerance for sterility induced by low temperature at booting stage can be improved by warmer water temperature during vegetative growth. Climate in Biosphere, 2012, 12, 1-5.	0.1	4
50	Structure and Function of Rice Root System under FACE Condition. J Agricultural Meteorology, 2005, 60, 961-964.	0.8	3
51	Genotypic variation in cold tolerance of 18 Ethiopian rice cultivars in relation to their reproductive morphology. Field Crops Research, 2021, 262, 108042.	2.3	2
52	Dry matter partitioning to leaves differentiates African and Asian rice genotypes exposed to elevated CO₂. Journal of Agronomy and Crop Science, 2021, 207, 120-127.	1.7	2
53	Factors Responsible for Regional Variation of Cold Tolerance in Rice in Northern Japan. Japanese Journal of Crop Science, 2012, 81, 190-193.	0.1	2
54	Variation of Sterility Induced by Cool-Irrigation Tolerance Test Depending on Years and Period of Cool Irrigation in Rice Cultivars. Japanese Journal of Crop Science, 2013, 82, 176-182.	0.1	2

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55	Transgenerational effect of maternal growth environment on flowering date in rice (Oryza sativa L.). Environmental and Experimental Botany, 2018, 155, 307-312.	2.0	1
56	Male Sterility Induced by Low Temperature at the Booting Stage in Rice. Japanese Journal of Crop Science, 2018, 87, 113-124.	0.1	1
57	Genetic variation of phenotypic plasticity in Bangladesh rice germplasm. Field Crops Research, 2019, 243, 107618.	2.3	1
58	Lodging tolerance of rice is improved without decreasing productivity by mixing lines with different maturity dates. Crop and Pasture Science, 2021, 72, 38.	0.7	1
59	A Deep Learning Method to Impute Missing Values and Compress Genome-wide Polymorphism Data in Rice. , 2021, , .		1
60	Effects of root pruning and root zone restriction on spikelet fertility of paddy rice (Oryza sativa L.) under cool water condition. , 2003, , 455-460.		1
61	Risk map for cool injury inducing spikelet sterility by low temperature at booting stage in rice with taking into account for growth stage and temperature before the booting stage in Tohoku region, Japan. Climate in Biosphere, 2012, 12, 6-11.	0.1	1
62	Relative Response of Indigenous Rice Genotypes to Low Versus Normal Planting Density for Determination of Differential Phenotypic Plasticity in Traits Related to Grain Yield. Plant Tissue Culture and Biotechnology, 2018, 28, 109-124.	0.1	0
63	Improvement of Seedling Establishment by Seed Coating with Iron in Early-winter Direct-sowing Rice. Japanese Journal of Crop Science, 2019, 88, 259-267.	0.1	0
64	Root sampling and RNA extraction methods for field-based gene expression analysis of soybeans. Plant Production Science, 2021, 24, 339-345.	0.9	0
65	Interactive Effects of Soil Salinity and Temperature on Vegetative Growth of Rice after Flooded by TSUNAMI 11 March 2011. Japanese Journal of Crop Science, 2012, 81, 441-448.	0.1	0
66	Food Production Capacity of Japan. Japanese Journal of Crop Science, 2014, 83, 341-351.	0.1	0
67	Diurnal regulation of rice N uptake ability under interrupted N supply. Functional Plant Biology, 2022, , .	1.1	0