

Istvan Rajcan

List of Publications by Year in descending order

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81
papers

3,356
citations

172457

29
h-index

155660

55
g-index

86
all docs

86
docs citations

86
times ranked

2669
citing authors

#	ARTICLE	IF	CITATIONS
1	Genetic analysis of sucrose concentration in soybean seeds using a historical soybean genomic panel. Theoretical and Applied Genetics, 2022, 135, 1375-1383.	3.6	9
2	Genome-Wide Association Study of Soybean Germplasm Derived From Canadian × Chinese Crosses to Mine for Novel Alleles to Improve Seed Yield and Seed Quality Traits. Frontiers in Plant Science, 2022, 13, 866300.	3.6	9
3	Comprehensive Analysis of Cytochrome P450 Monooxygenases Reveals Insight Into Their Role in Partial Resistance Against Phytophthora sojae in Soybean. Frontiers in Plant Science, 2022, 13, 862314.	3.6	11
4	The SoyaGen Project: Putting Genomics to Work for Soybean Breeders. Frontiers in Plant Science, 2022, 13, 887553.	3.6	1
5	Machine-Learning-Based Genome-Wide Association Studies for Uncovering QTL Underlying Soybean Yield and Its Components. International Journal of Molecular Sciences, 2022, 23, 5538.	4.1	20
6	Identification of quantitative trait loci associated with seed quality traits between Canadian and Ukrainian mega-environments using genome-wide association study. Theoretical and Applied Genetics, 2022, 135, 2515-2530.	3.6	4
7	Phenotypic evaluation of Canadian × Chinese elite germplasm in a diversity panel for seed yield and seed quality traits. Canadian Journal of Plant Science, 2022, 102, 1032-1039.	0.9	2
8	Correlations between soybean seed quality traits using a genome-wide association study panel grown in Canadian and Ukrainian mega-environments. Canadian Journal of Plant Science, 2022, 102, 1040-1052.	0.9	6
9	Soybean (<i>Glycine max</i>) Haplotype Map (GmHapMap): a universal resource for soybean translational and functional genomics. Plant Biotechnology Journal, 2021, 19, 324-334.	8.3	48
10	Agronomic and seed traits of high-oleic soybean lines containing the DP305423 transgene in four backcross populations. Crop Science, 2021, 61, 500-518.	1.8	1
11	Effects of type I Diacylglycerol O-acyltransferase (DGAT1) genes on soybean (<i>Glycine max</i> L.) seed composition. Scientific Reports, 2021, 11, 2556.	3.3	16
12	Genome-wide association study to identify soybean stem pushing resistance and lodging resistance loci. Canadian Journal of Plant Science, 2021, 101, 663-670.	0.9	4
13	Improvement of key agronomical traits in soybean through genomic prediction of superior crosses. Crop Science, 2021, 61, 3908-3918.	1.8	7
14	Omics advances and integrative approaches for the simultaneous improvement of seed oil and protein content in soybean (<i>Glycine max</i> L.). Critical Reviews in Plant Sciences, 2021, 40, 398-421.	5.7	17
15	Classification of Soybean Pubescence from Multispectral Aerial Imagery. Plant Phenomics, 2021, 2021, 9806201.	5.9	6
16	Testing Whether Pre-Pod-Fill Symbiotic Nitrogen Fixation in Soybean Is Subject to Drift or Selection Over 100 Years of Soybean Breeding. Frontiers in Agronomy, 2021, 3, .	3.3	7
17	Accuracy of genomic prediction for seed oil concentration in high-oleic soybean populations using a low-density marker panel. Crop Science, 2021, 61, 4012-4021.	1.8	3
18	Genome-Wide Association Studies of Soybean Yield-Related Hyperspectral Reflectance Bands Using Machine Learning-Mediated Data Integration Methods. Frontiers in Plant Science, 2021, 12, 777028.	3.6	26

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19	Genome-wide association analyses reveal the genetic basis of biomass accumulation under symbiotic nitrogen fixation in African soybean. <i>Theoretical and Applied Genetics</i> , 2020, 133, 665-676.	3.6	21
20	Haplotype diversity underlying quantitative traits in Canadian soybean breeding germplasm. <i>Theoretical and Applied Genetics</i> , 2020, 133, 1967-1976.	3.6	10
21	Plot extraction from aerial imagery: A precision agriculture approach. <i>The Plant Phenome Journal</i> , 2020, 3, e20000.	2.0	7
22	Agronomic Performance and Nitrogen Fixation of Heirloom and Conventional Dry Bean Varieties Under Low-Nitrogen Field Conditions. <i>Frontiers in Plant Science</i> , 2019, 10, 952.	3.6	39
23	Trends in Soybean Trait Improvement over Generations of Selective Breeding. <i>Crop Science</i> , 2019, 59, 1870-1879.	1.8	15
24	Genome-wide genetic diversity is maintained through decades of soybean breeding in Canada. <i>Theoretical and Applied Genetics</i> , 2019, 132, 3089-3100.	3.6	19
25	SRG extractor: a skinny reference genome approach for reduced-representation sequencing. <i>Bioinformatics</i> , 2019, 35, 3160-3162.	4.1	1
26	The Interaction of the Soybean Seed High Oleic Acid Oil Trait With Other Fatty Acid Modifications. <i>JAOCs, Journal of the American Oil Chemists' Society</i> , 2018, 95, 39-49.	1.9	22
27	Target and Non-target site Mechanisms Confer Resistance to Glyphosate in Canadian Accessions of <i>Conyza canadensis</i> . <i>Weed Science</i> , 2018, 66, 234-245.	1.5	21
28	Comprehensive description of genomewide nucleotide and structural variation in short-season soya bean. <i>Plant Biotechnology Journal</i> , 2018, 16, 749-759.	8.3	46
29	Genotype, environment, and genotype by environment interaction for seed isoflavone concentration in soybean grown in soybean cyst nematode infested and non-infested environments. <i>Field Crops Research</i> , 2018, 216, 189-196.	5.1	12
30	Identification of candidate domestication-related genes with a systematic survey of loss-of-function mutations. <i>Plant Journal</i> , 2018, 96, 1218-1227.	5.7	11
31	Using soybean pedigrees to identify genomic selection signatures associated with long-term breeding for cultivar improvement. <i>Canadian Journal of Plant Science</i> , 2018, 98, 1176-1187.	0.9	7
32	Identification of quantitative trait loci associated with soyasaponin I concentration in soybean seed. <i>Theoretical and Applied Genetics</i> , 2018, 131, 2157-2165.	3.6	3
33	Identification of quantitative trait loci for seed isoflavone concentration in soybean (<i>Glycine</i>) Tj ETQq1 1 0.784314 rgBT /Qyerlock 1.0	1.9	13
34	Identity recognition in response to different levels of genetic relatedness in commercial soya bean. <i>Royal Society Open Science</i> , 2017, 4, 160879.	2.4	27
35	Molecular mapping of soybean seed tocopherols in the cross \sim <i>OAC</i> Bayfield TM \times <i>OAC</i> Shire TM . <i>Plant Breeding</i> , 2017, 136, 83-93.	1.9	25
36	Mapping the sensory perception of apple using descriptive sensory evaluation in a genome wide association study. <i>PLoS ONE</i> , 2017, 12, e0171710.	2.5	47

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37	QTL analysis of soft scald in two apple populations. Horticulture Research, 2016, 3, 16043.	6.3	21
38	Effect of Genotype, Environment, and Genotype × Environment Interaction on Tocopherol Accumulation in Soybean Seed. Crop Science, 2016, 56, 40-50.	1.8	32
39	Genetic and Environmental Effects on Fatty Acid Composition in Soybeans with Potential Use in the Automotive Industry. Crop Science, 2015, 55, 658-668.	1.8	29
40	Impact of temperature on the expression of Kennedy Pathway genes in developing soybean seeds. Canadian Journal of Plant Science, 2015, 95, 87-101.	0.9	3
41	Identification of loci governing eight agronomic traits using a GBS-GWAS approach and validation by QTL mapping in soya bean. Plant Biotechnology Journal, 2015, 13, 211-221.	8.3	340
42	Characterization of the genetic changes in a multi-generational pedigree of an elite Canadian soybean cultivar. Theoretical and Applied Genetics, 2014, 127, 211-229.	3.6	15
43	Identification of the molecular genetic basis of the low palmitic acid seed oil trait in soybean mutant line RG3 and association analysis of molecular markers with elevated seed stearic acid and reduced seed palmitic acid. Molecular Breeding, 2014, 34, 447-455.	2.1	11
44	Genetic control of soybean seed oil: II. QTL and genes that increase oil concentration without decreasing protein or with increased seed yield. Theoretical and Applied Genetics, 2013, 126, 1677-1687.	3.6	93
45	Genetic basis of soybean adaptation to North American vs. Asian mega-environments in two independent populations from Canadian-Chinese crosses. Theoretical and Applied Genetics, 2013, 126, 1809-1823.	3.6	55
46	Genetic control of soybean seed oil: I. QTL and genes associated with seed oil concentration in RIL populations derived from crossing moderately high-oil parents. Theoretical and Applied Genetics, 2013, 126, 483-495.	3.6	63
47	Using the candidate gene approach for detecting genes underlying seed oil concentration and yield in soybean. Theoretical and Applied Genetics, 2013, 126, 1839-1850.	3.6	25
48	Dark-adapted leaf conductance, but not minimum leaf conductance, predicts water use efficiency of soybean (<i>Glycine max</i> L. Merr.). Canadian Journal of Plant Science, 2013, 93, 13-22.	0.9	8
49	New Mutations in a Δ^9 -Stearoyl- Δ^6 -Acyl Carrier Protein Desaturase Gene Associated with Enhanced Stearic Acid Levels in Soybean Seed. Crop Science, 2012, 52, 1736-1742.	1.8	27
50	Single Soybean Seed NMR Calibration for Oil Measurement Using Commercial Cooking Oils. JAOCS, Journal of the American Oil Chemists' Society, 2011, 88, 1795-1798.	1.9	5
51	Validation of mega-environment universal and specific QTL associated with seed yield and agronomic traits in soybeans. Theoretical and Applied Genetics, 2010, 120, 997-1003.	3.6	41
52	Genotype × Environment Interaction and Stability for Isoflavone Content in Soybean. Crop Science, 2009, 49, 1313-1321.	1.8	48
53	Soybean. , 2009, , 57-90.		14
54	QTL in mega-environments: II. Agronomic trait QTL co-localized with seed yield QTL detected in a population derived from a cross of high-yielding adapted-high-yielding exotic soybean lines. Theoretical and Applied Genetics, 2009, 119, 429-436.	3.6	60

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55	QTL in mega-environments: I. Universal and specific seed yield QTL detected in a population derived from a cross of high-yielding adapted—high-yielding exotic soybean lines. Theoretical and Applied Genetics, 2009, 119, 417-427.	3.6	45
56	Multiple allelic forms of acetohydroxyacid synthase are responsible for herbicide resistance in <i>Setaria viridis</i> . Theoretical and Applied Genetics, 2009, 119, 577-585.	3.6	50
57	Tracking isoflavones: From soybean to soy flour, soy protein isolates to functional soy bread. Journal of Functional Foods, 2009, 1, 119-127.	3.4	57
58	Oil Crop Breeding and Genetics. , 2009, , 1-30.		12
59	Genetics of Resistance to Acetohydroxyacid Synthase Inhibitors in Populations of Eastern Black Nightshade (<i>Solanum Ptychanthum</i>) from Ontario. Weed Science, 2008, 56, 210-215.	1.5	5
60	Sustainability the food chain over genetic improvement of the quantity and quality of soybean grain. Cereal Research Communications, 2007, 35, 1105-1108.	1.6	2
61	QTL associated with horizontal resistance to soybean cyst nematode in <i>Glycine soja</i> PI464925B. Theoretical and Applied Genetics, 2007, 114, 461-472.	3.6	67
62	Seed and agronomic QTL in low linolenic acid, lipoxygenase-free soybean (<i>Glycine max</i> (L.) Merrill) germplasm. Genome, 2006, 49, 1510-1527.	2.0	194
63	Soybean cyst nematode: Challenges and opportunities. Canadian Journal of Plant Science, 2006, 86, 25-32.	0.9	19
64	Environmental effects on fatty acid levels in soybean seed oil. JAOCS, Journal of the American Oil Chemists' Society, 2006, 83, 759-763.	1.9	63
65	Specific flavonoids as interconnecting signals in the tripartite symbiosis formed by arbuscular mycorrhizal fungi, <i>Bradyrhizobium japonicum</i> (Kirchner) Jordan and soybean (<i>Glycine max</i> (L.) Merr.). Soil Biology and Biochemistry, 2006, 38, 533-543.	8.8	57
66	Accumulation of specific flavonoids in soybean (<i>Glycine max</i> (L.) Merr.) as a function of the early tripartite symbiosis with arbuscular mycorrhizal fungi and <i>Bradyrhizobium japonicum</i> (Kirchner) Jordan. Soil Biology and Biochemistry, 2006, 38, 1234-1242.	8.8	57
67	Mapping QTL for Individual and Total Isoflavone Content in Soybean Seeds. Crop Science, 2005, 45, 2454-2464.	1.8	105
68	Agronomic Performance of Recombinant Inbred Line Populations Segregating for Isoflavone Content in Soybean Seeds. Crop Science, 2005, 45, 2203-2211.	1.8	34
69	Advances in Breeding of Seed-Quality Traits in Soybean. Journal of Crop Improvement, 2005, 14, 145-174.	1.7	32
70	DNA Marker-Assisted Selection for Improvement of Soybean Oil Concentration and Quality. , 2004, , .		5
71	Partial Resistance to White Mold in a Transgenic Soybean Line. Crop Science, 2003, 43, 92.	1.8	39
72	Partial Resistance to White Mold in a Transgenic Soybean Line. Crop Science, 2003, 43, 92.	1.8	23

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73	Prediction of Cultivar Performance Based on Single- versus Multiple-Year Tests in Soybean. Crop Science, 2003, 43, 549.	1.8	36
74	Biplot Analysis of Test Sites and Trait Relations of Soybean in Ontario. Crop Science, 2002, 42, 11-20.	1.8	553
75	Genotype × Environment Interactions, Stability, and Agronomic Performance of Soybean with Altered Fatty Acid Profiles. Crop Science, 2002, 42, 37-44.	1.8	87
76	Potassium Fertilization Effects on Isoflavone Concentrations in Soybean [Glycine max(L.) Merr.]. Journal of Agricultural and Food Chemistry, 2002, 50, 3501-3506.	5.2	104
77	Inheritance and Interaction of Low Palmitic and Low Linolenic Soybean. Crop Science, 2002, 42, 31-36.	1.8	31
78	Biplot Analysis of Test Sites and Trait Relations of Soybean in Ontario. Crop Science, 2002, 42, 11.	1.8	169
79	Inheritance and Interaction of Low Palmitic and Low Linolenic Soybean. Crop Science, 2002, 42, 31.	1.8	18
80	Genotype × Environment Interactions, Stability, and Agronomic Performance of Soybean with Altered Fatty Acid Profiles. Crop Science, 2002, 42, 37.	1.8	37
81	SoyMAGIC: An Unprecedented Platform for Genetic Studies and Breeding Activities in Soybean. Frontiers in Plant Science, 0, 13, .	3.6	2