Asheesh K Singh

List of Publications by Year
in descending order

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55 papers	2,330 citations	236925 25 h-index	243625 44 g-index
58 all docs	58 docs citations	58 times ranked	2214 citing authors

#	Article	IF	Citations
1	An explainable deep machine vision framework for plant stress phenotyping. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 4613-4618.	7.1	353
2	Plant disease identification using explainable 3D deep learning on hyperspectral images. Plant Methods, 2019, 15, 98.	4.3	202
3	A real-time phenotyping framework using machine learning for plant stress severity rating in soybean. Plant Methods, 2017, 13, 23.	4.3	124
4	A Weakly Supervised Deep Learning Framework for Sorghum Head Detection and Counting. Plant Phenomics, 2019, 2019, 1525874.	5.9	114
5	Hyperspectral band selection using genetic algorithm and support vector machines for early identification of charcoal rot disease in soybean stems. Plant Methods, 2018, 14, 86.	4.3	105
6	Genomeâ€wide association and epistasis studies unravel the genetic architecture of sudden death syndrome resistance in soybean. Plant Journal, 2015, 84, 1124-1136.	5.7	95
7	Multi-objective optimized genomic breeding strategies for sustainable food improvement. Heredity, 2019, 122, 672-683.	2.6	77
8	Crop yield prediction integrating genotype and weather variables using deep learning. PLoS ONE, 2021, 16, e0252402.	2.5	74
9	Computer vision and machine learning enabled soybean root phenotyping pipeline. Plant Methods, 2020, 16, 5.	4.3	71
10	Computer vision and machine learning for robust phenotyping in genome-wide studies. Scientific Reports, 2017, 7, 44048.	3.3	68
11	Genetic Architecture of Charcoal Rot (Macrophomina phaseolina) Resistance in Soybean Revealed Using a Diverse Panel. Frontiers in Plant Science, 2017, 8, 1626.	3.6	67
12	Raffinose Family Oligosaccharides: Friend or Foe for Human and Plant Health?. Frontiers in Plant Science, 2022, 13, 829118.	3.6	62
13	A deep learning framework to discern and count microscopic nematode eggs. Scientific Reports, 2018, 8, 9145.	3.3	59
14	Main and epistatic loci studies in soybean for Sclerotinia sclerotiorum resistance reveal multiple modes of resistance in multi-environments. Scientific Reports, 2017, 7, 3554.	3.3	57
15	Machine Learning Approach for Prescriptive Plant Breeding. Scientific Reports, 2019, 9, 17132.	3.3	55
16	Development of Optimized Phenomic Predictors for Efficient Plant Breeding Decisions Using Phenomic-Assisted Selection in Soybean. Plant Phenomics, 2019, 2019, 5809404.	5.9	50
17	UAS-Based Plant Phenotyping for Research and Breeding Applications. Plant Phenomics, 2021, 2021, 9840192.	5.9	44
18	High density genetic mapping of Fusarium head blight resistance QTL in tetraploid wheat. PLoS ONE, 2018, 13, e0204362.	2.5	43

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19	Soybean Root System Architecture Trait Study through Genotypic, Phenotypic, and Shape-Based Clusters. Plant Phenomics, 2020, 2020, 1925495.	5.9	40
20	Leveraging genomic prediction to scan germplasm collection for crop improvement. PLoS ONE, 2017, 12, e0179191.	2.5	35
21	Deconstructing the genetic architecture of iron deficiency chlorosis in soybean using genome-wide approaches. BMC Plant Biology, 2020, 20, 42.	3.6	32
22	Glycerol-3-phosphate mediates rhizobia-induced systemic signaling in soybean. Nature Communications, 2019, 10, 5303.	12.8	31
23	Genetic Control and Geo-Climate Adaptation of Pod Dehiscence Provide Novel Insights into Soybean Domestication. G3: Genes, Genomes, Genetics, 2020, 10, 545-554.	1.8	31
24	Potential to breed for mycorrhizal association in durum wheat. Canadian Journal of Microbiology, 2016, 62, 263-271.	1.7	30
25	Haplotype Loci Under Selection in Canadian Durum Wheat Germplasm Over 60 Years of Breeding: Association With Grain Yield, Quality Traits, Protein Loss, and Plant Height. Frontiers in Plant Science, 2018, 9, 1589.	3.6	29
26	Deep Multiview Image Fusion for Soybean Yield Estimation in Breeding Applications. Plant Phenomics, 2021, 2021, 9846470.	5.9	28
27	Quantitative trait loci for resistance to stripe rust of wheat revealed using global field nurseries and opportunities for stacking resistance genes. Theoretical and Applied Genetics, 2017, 130, 2617-2635.	3.6	27
28	Mapping quantitative trait loci associated with leaf rust resistance in five spring wheat populations using single nucleotide polymorphism markers. PLoS ONE, 2020, 15, e0230855.	2.5	25
29	A Novel Multirobot System for Plant Phenotyping. Robotics, 2018, 7, 61.	3.5	24
30	Meta-GWAS for quantitative trait loci identification in soybean. G3: Genes, Genomes, Genetics, 2021, 11, .	1.8	23
31	Abundance of the arbuscular mycorrhizal fungal taxa associated with the roots and rhizosphere soil of different durum wheat cultivars in the Canadian prairies. Canadian Journal of Microbiology, 2018, 64, 527-536.	1.7	22
32	How useful is active learning for imageâ€based plant phenotyping?. The Plant Phenome Journal, 2021, 4, e20020.	2.0	21
33	Comparative prediction accuracy of hyperspectral bands for different soybean crop variables: From leaf area to seed composition. Field Crops Research, 2021, 271, 108260.	5.1	20
34	Using Machine Learning to Develop a Fully Automated Soybean Nodule Acquisition Pipeline (SNAP). Plant Phenomics, 2021, 2021, 9834746.	5.9	18
35	High-density genetic mapping of a major QTL for resistance to multiple races of loose smut in a tetraploid wheat cross. PLoS ONE, 2018, 13, e0192261.	2.5	18
36	Deploying Fourier Coefficients to Unravel Soybean Canopy Diversity. Frontiers in Plant Science, 2016, 7, 2066.	3.6	15

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37	Identification and Genetic Characterization of Soybean Accessions Exhibiting Antibiosis and Antixenosis Resistance to Aphis glycines (Hemiptera: Aphididae). Journal of Economic Entomology, 2019, 112, 1428-1438.	1.8	14
38	High Density Mapping of Quantitative Trait Loci Conferring Gluten Strength in Canadian Durum Wheat. Frontiers in Plant Science, 2020, 11, 170.	3.6	14
39	Effects of Seeding Rate on Durum Crop Production and Physiological Responses. Agronomy Journal, 2017, 109, 1981-1990.	1.8	13
40	Comparing Biochar-Swine Manure Mixture to Conventional Manure Impact on Soil Nutrient Availability and Plant Uptakeâ€"A Greenhouse Study. Land, 2021, 10, 372.	2.9	13
41	Historic recombination in a durum wheat breeding panel enables high-resolution mapping of Fusarium head blight resistance quantitative trait loci. Scientific Reports, 2020, 10, 7567.	3.3	12
42	High-Throughput Phenotyping in Soybean. Concepts and Strategies in Plant Sciences, 2021, , 129-163.	0.5	11
43	Characterization of species ofFusariumcausing root rot of Soybean (Glycine maxL.) in South Dakota, USA. Canadian Journal of Plant Pathology, 2020, 42, 560-571.	1.4	10
44	Agronomic Advancement in Tillage, Crop Rotation, Soil Health, and Genetic Gain in Durum Wheat Cultivation: A 17-Year Canadian Story. Agronomy, 2018, 8, 193.	3.0	8
45	Identifying New Sources of Resistance to Brown Stem Rot in Soybean. Crop Science, 2016, 56, 2287-2296.	1.8	7
46	Conditional Mapping Identified Quantitative Trait Loci for Grain Protein Concentration Expressing Independently of Grain Yield in Canadian Durum Wheat. Frontiers in Plant Science, 2021, 12, 642955.	3.6	6
47	Effect of Pod Removal, Foliar Fungicides, and Cultivar on Green Stem Disorder of Soybean. Agronomy Journal, 2017, 109, 2680-2688.	1.8	5
48	Mapping of Ug99 stem rust resistance in Canadian durum wheat. Canadian Journal of Plant Pathology, 2021, 43, 599-611.	1.4	5
49	AAC Penhold Canada Prairie Spring Red Wheat. Canadian Journal of Plant Science, 0, , .	0.9	4
50	PATRIOT: A Pipeline for Tracing Identity-by-Descent for Chromosome Segments to Improve Genomic Prediction in Self-Pollinating Crop Species. Frontiers in Plant Science, 2021, 12, 676269.	3.6	4
51	Comparing Early Transcriptomic Responses of 18 Soybean (Glycine max) Genotypes to Iron Stress. International Journal of Molecular Sciences, 2021, 22, 11643.	4.1	4
52	AAC Congress Durum Wheat. Canadian Journal of Plant Science, 2017, , .	0.9	1
53	Interaction between Rag genes results in a unique synergistic transcriptional response that enhances soybean resistance to soybean aphids. BMC Genomics, 2021, 22, 887.	2.8	1
54	Dataset Documenting the Interactions of Biochar with Manure, Soil, and Plants: Towards Improved Sustainability of Animal and Crop Agriculture. Data, 2022, 7, 32.	2.3	1

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55	AAC Redberry Hard Red Spring Wheat. Canadian Journal of Plant Science, 0, , .	0.9	0