

# Vignesh Muthusamy

## List of Publications by Year in descending order

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Version: 2024-02-01

87  
papers

1,652  
citations

361413  
20  
h-index

377865  
34  
g-index

88  
all docs

88  
docs citations

88  
times ranked

637  
citing authors

#	ARTICLE	IF	CITATIONS
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1	Genetic and molecular characterisation of subtropically adapted low-phytate genotypes for		
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#	ARTICLE	IF	CITATIONS
19	Development of sub-tropically adapted diverse provitamin-A rich maize inbreds through marker-assisted pedigree selection, their characterization and utilization in hybrid breeding. PLoS ONE, 2021, 16, e0245497.	2.5	24
20	Cyanobacterial inoculation as resource conserving options for improving the soil nutrient availability and growth of maize genotypes. Archives of Microbiology, 2021, 203, 2393-2409.	2.2	3
21	Development of multinutrient-rich biofortified sweet corn hybrids through genomics-assisted selection of shrunken2, opaque2, lcyE and crtRB1 genes. Journal of Applied Genetics, 2021, 62, 419-429.	1.9	27
22	A novel quantitative trait loci governs prolificacy in "Sikkim Primitive" A unique maize ( <i>Zea mays</i> L.) genotype. Frontiers in Plant Science, 2021, 12, 659381.	1.9	8
23	Marker-assisted pyramiding of lycopene-β-cyclase, β-carotene hydroxylase1 and opaque2 genes for development of biofortified maize hybrids. Scientific Reports, 2021, 11, 12642.	3.3	13
24	Allelic variation in sugary1 gene affecting kernel sweetness among diverse-mutant and -wild-type maize inbreds. Molecular Genetics and Genomics, 2021, 296, 1085-1102.	2.1	5
25	Expression analysis of β-carotene hydroxylase1 and opaque2 genes governing accumulation of provitamin-A, lysine and tryptophan during kernel development in biofortified sweet corn. 3 Biotech, 2021, 11, 325.	2.2	5
26	Development of Maize Hybrids With Enhanced Vitamin-E, Vitamin-A, Lysine, and Tryptophan Through Molecular Breeding. Frontiers in Plant Science, 2021, 12, 659381.	3.6	19
27	Interactions of microbial inoculants with soil and plant attributes for enhancing Fe and Zn biofortification in maize genotypes. Rhizosphere, 2021, 19, 100421.	3.0	7
28	Analyses of genetic variability and genotype x cyanobacteria interactions in biofortified maize ( <i>Zea mays</i> L.) genotype. Agronomy, 2021, 130, 126343.	4.1	6
29	Molecular breeding for increasing nutrition quality in maize: recent progress.., 2021, , 360-379.		2
30	Composition analysis of lysine, tryptophan and provitamin-A during different stages of kernel development in biofortified sweet corn. Journal of Food Composition and Analysis, 2020, 94, 103625.	3.9	17
31	Biofortification of sweet corn hybrids for provitamin-A, lysine and tryptophan using molecular breeding. Journal of Cereal Science, 2020, 96, 103093.	3.7	28
32	Development and validation of gene-based markers for shrunken2 reference allele and their utilization in marker-assisted sweet corn ( <i>Zea mays</i> L.) breeding programme. Plant Breeding, 2020, 139, 1135-1144.	1.9	14
33	Marker aided introgression of opaque 2 (o2) allele improving lysine and tryptophan in maize ( <i>Zea mays</i> L.) genotype. Frontiers in Plant Science, 2021, 12, 659381.	1.0	14
34	Influence of T-, C- and S- cytoplasm on male sterility and their utilisation in baby corn hybrid breeding. Euphytica, 2020, 216, 1.	1.2	4
35	Two-step method for isolation of high-quality RNA from stored seeds of maize rich in starch. 3 Biotech, 2020, 10, 433.	2.2	5
36	Development and validation of breeder-friendly gene-based markers for lpa1-1 and lpa2-1 genes conferring low phytic acid in maize kernel. 3 Biotech, 2020, 10, 121.	2.2	10

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37	Priming maize seeds with cyanobacteria enhances seed vigour and plant growth in elite maize inbreds. <i>3 Biotech</i> , 2020, 10, 154.	2.2	20
38	Molecular characterization of teosinte branched1 gene governing branching architecture in cultivated maize and wild relatives. <i>3 Biotech</i> , 2020, 10, 77.	2.2	6
39	Genetic variability for kernel tocopherols and haplotype analysis of $\beta$ -tocopherol methyl transferase ( <i>vte4</i> ) gene among exotic- and indigenous- maize inbreds. <i>Journal of Food Composition and Analysis</i> , 2020, 88, 103446.	3.9	7
40	Analysis of genetic variability for retention of kernel carotenoids in sub-tropically adapted biofortified maize under different storage conditions. <i>Journal of Cereal Science</i> , 2020, 93, 102987.	3.7	11
41	Genetic variability of popping quality traits and microsatellite-based characterization of popcorn inbreds for utilization in breeding programme. <i>Indian Journal of Genetics and Plant Breeding</i> , 2020, 80, .	0.5	0
42	Molecular diversity and genetic variability of kernel tocopherols among maize inbreds possessing favourable haplotypes of $\beta$ -tocopherol methyl transferase ( <i>ZmVTE4</i> ). <i>Journal of Plant Biochemistry and Biotechnology</i> , 2019, 28, 253-262.	1.7	16
43	Genetic analysis of prolificacy in "Sikkim Primitive" A prolific maize ( <i>Zea mays</i> ) landrace of North-Eastern Himalaya. <i>Plant Breeding</i> , 2019, 138, 781-789.	1.9	13
44	Biofortification of Maize for Protein Quality and Provitamin-A Content. <i>Concepts and Strategies in Plant Sciences</i> , 2019, , 115-136.	0.5	10
45	Marker-Assisted Selection to Pyramid the Opaque-2 (O2) and $\beta$ -Carotene ( <i>crtRB1</i> ) Genes in Maize. <i>Frontiers in Genetics</i> , 2019, 10, 859.	2.3	35
46	Marker-Assisted introgression of rare allele of $\beta$ -carotene hydroxylase ( <i>crtRB1</i> ) gene into elite quality protein maize inbred for combining high lysine, tryptophan and provitamin A in maize. <i>Plant Breeding</i> , 2019, 138, 174-183.	1.9	27
47	Identification of SNP and InDel variations in the promoter and 5' untranslated regions of $\beta$ -tocopherol methyl transferase ( <i>ZmVTE4</i> ) affecting higher accumulation of $\beta$ -tocopherol in maize kernel. <i>Crop Journal</i> , 2019, 7, 469-479.	5.2	6
48	Mapping and validation of Anthocyanin1 pigmentation gene for its effectiveness in early selection of shrunken2 gene governing kernel sweetness in maize. <i>Journal of Cereal Science</i> , 2019, 87, 258-265.	3.7	17
49	Quality Protein Maize for Nutritional Security. , 2019, , 217-237.		20
50	Marker-Assisted Breeding for Enrichment of Provitamin A in Maize. , 2019, , 139-157.		11
51	Genetic variability-, genotype $\times$ environment interactions- and combining ability-analyses of kernel tocopherols among maize genotypes possessing novel allele of $\beta$ -tocopherol methyl transferase ( <i>ZmVTE4</i> ). <i>Journal of Cereal Science</i> , 2019, 86, 1-8.	3.7	16
52	Incorporation of <i>opaque-2</i> into "UMI 1200"™, an elite maize inbred line, through marker-assisted backcross breeding. <i>Biotechnology and Biotechnological Equipment</i> , 2019, 33, 144-153.	1.3	15
53	Genetic variability of kernel provitamin-A in sub-tropically adapted maize hybrids possessing rare allele of $\beta$ -carotene hydroxylase. <i>Cereal Research Communications</i> , 2019, 47, 205-215.	1.6	5
54	Molecular analysis of mutant granule-bound starch synthase-I ( <i>waxy1</i> ) gene in diverse waxy maize inbreds. <i>3 Biotech</i> , 2019, 9, 3.	2.2	21

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55	Molecular Breeding for Nutritionally Enriched Maize: Status and Prospects. <i>Frontiers in Genetics</i> , 2019, 10, 1392.	2.3	131
56	Development and validation of breeder-friendly functional markers of sugary1 gene encoding starch-debranching enzyme affecting kernel sweetness in maize ( <i>Zea mays</i> ). <i>Crop and Pasture Science</i> , 2019, 70, 868.	1.5	14
57	Molecular characterization of 5' UTR of the lycopene epsilon cyclase ( <i>lcyE</i> ) gene among exotic and indigenous inbreds for its utilization in maize biofortification. <i>3 Biotech</i> , 2018, 8, 75.	2.2	19
58	Marker-assisted introgression of opaque2 allele for rapid conversion of elite hybrids into quality protein maize. <i>Journal of Genetics</i> , 2018, 97, 287-298.	0.7	88
59	Marker-assisted pyramiding of opaque2 and novel opaque16 genes for further enrichment of lysine and tryptophan in sub-tropical maize. <i>Plant Science</i> , 2018, 272, 142-152.	3.6	56
60	Development of Biofortified Maize Hybrids through Marker-Assisted Stacking of $\beta$ -Carotene Hydroxylase, Lycopene- $\epsilon$ -Cyclase and Opaque2 Genes. <i>Frontiers in Plant Science</i> , 2018, 9, 178.	3.6	105
61	Opaque16, a high lysine and tryptophan mutant, does not influence the key physico-biochemical characteristics in maize kernel. <i>PLoS ONE</i> , 2018, 13, e0190945.	2.5	21
62	Marker-assisted introgression of opaque2 allele for rapid conversion of elite hybrids into quality protein maize. <i>Journal of Genetics</i> , 2018, 97, 287-298.	0.7	24
63	Microsatellite-based genetic diversity analyses of sugary1-, shrunken2- and double mutant- sweet corn inbreds for their utilization in breeding programme. <i>Physiology and Molecular Biology of Plants</i> , 2017, 23, 411-420.	3.1	26
64	Microsatellite marker-based characterization of waxy maize inbreds for their utilization in hybrid breeding. <i>3 Biotech</i> , 2017, 7, 316.	2.2	23
65	Influence of rare alleles of $\beta$ -carotene hydroxylase and lycopene epsilon cyclase genes on accumulation of provitamin A carotenoids in maize kernels. <i>Plant Breeding</i> , 2017, 136, 872-880.	1.9	34
66	Development and validation of multiplex-PCR assay for simultaneous detection of rare alleles of crtRB1 and lcyE governing higher accumulation of provitamin A in maize. <i>Journal of Plant Biochemistry and Biotechnology</i> , 2017, 27, 208.	1.7	15
67	Exploration of novel opaque16 mutation as a source for high lysine and tryptophan in maize endosperm. <i>Indian Journal of Genetics and Plant Breeding</i> , 2017, 77, 59.	0.5	32
68	Analyzing the role of sowing and harvest time as factors for selecting super sweet ( $sh2sh2$ ) corn hybrids. <i>Indian Journal of Genetics and Plant Breeding</i> , 2017, 77, 348.	0.5	17
69	Harnessing Crop Wild Relatives for Crop Improvement. <i>LS International Journal of Life Sciences</i> , 2017, 6, 73.	0.2	17
70	Maize. , 2016, , 67-88.		12
71	Molecular characterization of endosperm and amino acids modifications among quality protein maize inbreds. <i>Plant Breeding</i> , 2016, 135, 47-54.	1.9	31
72	Genetic analyses of kernel carotenoids in novel maize genotypes possessing rare allele of $\beta$ -carotene hydroxylase gene. <i>Cereal Research Communications</i> , 2016, 44, 669-680.	1.6	19

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73	Microsatellite marker-based genetic diversity analyses of novel maize inbreds possessing rare allele of $\beta$ -carotene hydroxylase ( <i>crtRB1</i> ) for their utilization in $\beta$ -carotene enrichment. <i>Journal of Plant Biochemistry and Biotechnology</i> , 2016, 25, 12-20.	1.7	19
74	Genetic variability among exotic and indigenous maize inbreds for resistance to stored grain weevil ( <i>Sitophilus oryzae</i> L.) infestation. <i>Cogent Food and Agriculture</i> , 2016, 2, .	1.4	5
75	Validation of molecular markers linked to low glucosinolate QTLs for marker assisted selection in Indian mustard ( <i>Brassica juncea</i> L. Czern & Coss). <i>Indian Journal of Genetics and Plant Breeding</i> , 2016, 76, 64.	0.5	11
76	Genetic variability and inter-relationship of kernel carotenoids among indigenous and exotic maize ( <i>Zea mays</i> L.) inbreds. <i>Cereal Research Communications</i> , 2015, 43, 567-578.	1.6	24
77	Genetics of resistance to stored grain weevil ( <i>Sitophilus oryzae</i> L.) in maize. <i>Cogent Food and Agriculture</i> , 2015, 1, 1075934.	1.4	6
78	Molecular Characterization of Exotic and Indigenous Maize Inbreds for Biofortification with Kernel Carotenoids. <i>Food Biotechnology</i> , 2015, 29, 276-295.	1.5	19
79	Allelic variations for lycopene- $\beta$ -cyclase and $\beta$ -carotene hydroxylase genes in maize inbreds and their utilization in $\beta$ -carotene enrichment programme. <i>Cogent Food and Agriculture</i> , 2015, 1, 1033141.	1.4	26
80	Biofortification of maize: An Indian perspective. <i>Indian Journal of Genetics and Plant Breeding</i> , 2015, 75, 1.	0.5	58
81	Inheritance of low erucic acid in Indian mustard [ <i>Brassica juncea</i> (L.) Czern. and Coss.]. <i>Indian Journal of Genetics and Plant Breeding</i> , 2015, 75, 264.	0.5	4
82	Popping quality attributes of popcorn hybrids in relation to weevil ( <i>Sitophilus oryzae</i> ) infestation. <i>Indian Journal of Genetics and Plant Breeding</i> , 2015, 75, 510.	0.5	11
83	Development of $\beta$ -Carotene Rich Maize Hybrids through Marker-Assisted Introgression of $\beta$ -carotene hydroxylase Allele. <i>PLoS ONE</i> , 2014, 9, e113583.	2.5	154
84	Evaluation of specialty corn inbreds for responses to stored grain weevil ( <i>Sitophilus oryzae</i> L.) infestation. <i>Indian Journal of Genetics and Plant Breeding</i> , 2014, 74, 564.	0.5	7
85	Characterization of $\beta$ -carotene rich MAS-derived maize inbreds possessing rare genetic variation in $\beta$ -carotene hydroxylase gene. <i>Indian Journal of Genetics and Plant Breeding</i> , 2014, 74, 620.	0.5	18
86	Sequence variation in 3'UTR region of <i>crtRB1</i> gene and its effect on $\beta$ -carotene accumulation in maize kernel. <i>Journal of Plant Biochemistry and Biotechnology</i> , 2013, 22, 401-408.	1.7	24
87	Microsatellite marker-based genetic diversity among quality protein maize (QPM) inbreds differing for kernel iron and zinc. <i>Molecular Plant Breeding</i> , 0, , .	0.0	4