

# Cell Membrane Thermostability and Whole-Plant Heat

Crop Science

38, 1214-1218

DOI: [10.2135/cropsci1998.0011183x003800050017x](https://doi.org/10.2135/cropsci1998.0011183x003800050017x)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Reproductiveâ€Stage Heat Tolerance, Leaf Membrane Thermostability and Plant Morphology in Cowpea. Crop Science, 1999, 39, 1762-1768.	1.8	161
2	Heat Stress Injury in Relation to Membrane Lipid Peroxidation in Creeping Bentgrass. Crop Science, 2000, 40, 503-510.	1.8	376
3	Trinexapac-ethyl influence on cell membrane thermostability of Kentucky bluegrass leaf tissue. Scientia Horticulturae, 2002, 92, 183-186.	3.6	19
4	Protein Alterations in Tall Fescue in Response to Drought Stress and Abscisic Acid. Crop Science, 2002, 42, 202-207.	1.8	109
5	Cytokinin Effects on Creeping Bentgrass Response to Heat Stress: II. Leaf Senescence and Antioxidant Metabolism. Crop Science, 2002, 42, 466-472.	1.8	71
6	Effects of UVB preconditioning on heat tolerance of cucumber ( <i>Cucumis sativus</i> L.). Environmental and Experimental Botany, 2003, 50, 169-182.	4.2	39
7	The Changes of Membrane Permeability of Mosses under High Temperature Stress. Bryologist, 2003, 106, 53-60.	0.6	22
8	THERMAL PROPERTIES OF SAND-BASED ROOTZONE MEDIA MODIFIED WITH INORGANIC SOIL AMENDMENTS. Acta Horticulturae, 2004, , 77-85.	0.2	1
9	Evaluation of Drought Resistance for Texas Bluegrass, Kentucky Bluegrass, and Their Hybrids. Crop Science, 2004, 44, 1746-1753.	1.8	66
10	Relationships between Water Use Efficiency, Carbon Isotope Discrimination, and Turf Performance in Genotypes of Kentucky Bluegrass during Drought. Crop Science, 2004, 44, 1754-1762.	1.8	45
11	Changes of lipid composition and saturation level in leaves and roots for heat-stressed and heat-acclimated creeping bentgrass ( <i>Agrostis stolonifera</i> ). Environmental and Experimental Botany, 2004, 51, 57-67.	4.2	157
12	Heat tolerance of upland cotton during the fruiting stage evaluated using cellular membrane thermostability. Field Crops Research, 2004, 85, 149-158.	5.1	101
13	Induction of Heat Stress Tolerance in Barley Seedlings by Pre-Sowing Seed Treatment with Glycinebetaine. Plant Growth Regulation, 2005, 46, 133-141.	3.4	144
14	Environmental interaction, additive and non-additive genetic variability is involved in the expression of tissue and whole-plant heat tolerance in upland cotton ( <i>Gossypium hirsutum</i> . L). Genetics and Molecular Biology, 2006, 29, 525-532.	1.3	7
15	Physiological and Biochemical Indicators for Stress Tolerance. , 2006, , 321-355.		9
16	Perennial grasses for turf, sport and amenity uses: evolution of form, function and fitness for human benefit. Journal of Agricultural Science, 2006, 144, 189-203.	1.3	25
17	Characterization of the Arabidopsis thermosensitive mutant atts02 reveals an important role for galactolipids in thermotolerance. Plant, Cell and Environment, 2006, 29, 1437-1448.	5.7	115
18	Effects of heat acclimation pretreatment on changes of membrane lipid peroxidation, antioxidant metabolites, and ultrastructure of chloroplasts in two cool-season turfgrass species under heat stress. Environmental and Experimental Botany, 2006, 56, 274-285.	4.2	414

#	ARTICLE	IF	CITATIONS
19	Identification and characterization of an expansin gene AsEXP1 associated with heat tolerance in C3 Agrostis grass species. <i>Journal of Experimental Botany</i> , 2007, 58, 3789-3796.	4.8	66
20	Effects of a Biostimulant on the Heat Tolerance Associated with Photosynthetic Capacity, Membrane Thermostability, and Polyphenol Production of Perennial Ryegrass. <i>Crop Science</i> , 2007, 47, 261-267.	1.8	208
21	Effects of High Temperature and Drought on a Hybrid Bluegrass Compared with Kentucky Bluegrass and Tall Fescue. <i>Crop Science</i> , 2007, 47, 2152-2161.	1.8	45
22	Effects of carbon dioxide, temperature and ultraviolet-B radiation and their interactions on soybean ( <i>Glycine max</i> L.) growth and development. <i>Environmental and Experimental Botany</i> , 2007, 60, 1-10.	4.2	85
23	Heat tolerance in plants: An overview. <i>Environmental and Experimental Botany</i> , 2007, 61, 199-223.	4.2	2,804
24	Expression of dehydrins under heat stress and their relationship with water relations of sugarcane leaves. <i>Biologia Plantarum</i> , 2007, 51, 104-109.	1.9	345
25	Effects of foliar application of nitrogen on the photosynthetic performance and growth of two fescue cultivars under heat stress. <i>Biologia Plantarum</i> , 2008, 52, 113-116.	1.9	25
26	Physiological and Biochemical Responses of Rice ( <i>Oryza Sativa</i> L.) to Phenanthrene and Pyrene. <i>International Journal of Phytoremediation</i> , 2008, 10, 106-118.	3.1	46
27	Induction of Thermotolerance and Activation of Antioxidant Enzymes in H <sub>2</sub> O <sub>2</sub> Pre-applied Leaves of Cucumber and Tomato Seedlings. <i>Japanese Society for Horticultural Science</i> , 2009, 78, 320-329.	0.8	11
28	The response of broccoli plants to high temperature and possible role of root aquaporins. <i>Environmental and Experimental Botany</i> , 2010, 68, 83-90.	4.2	23
29	Differential Response of Southern US Rice ( <i>Oryza sativa</i> L.) Cultivars to Ultraviolet-B Radiation. <i>Journal of Agronomy and Crop Science</i> , 2010, 196, 286-295.	3.5	15
30	Role of Phosphatidic Acid in High Temperature Tolerance in Maize. <i>Crop Science</i> , 2010, 50, 2506-2515.	1.8	47
31	Multi-Level Determination of Heat Tolerance in Cotton ( <i>Gossypium hirsutum</i> L.) under Field Conditions. <i>Crop Science</i> , 2010, 50, 2553-2564.	1.8	67
32	Phenological Variation and its Relation with Yield in several Wheat ( <i>Triticum aestivum</i> L.) Cultivars under Normal and Late Sowing Mediated Heat Stress Condition. <i>Notulae Scientia Biologicae</i> , 2010, 2, 51-56.	0.4	52
33	Responses of Bioaugmented Ryegrass to Pah Soil Contamination. <i>International Journal of Phytoremediation</i> , 2011, 13, 441-455.	3.1	10
34	High-Temperature Effects on Rice Growth, Yield, and Grain Quality. <i>Advances in Agronomy</i> , 2011, 111, 87-206.	5.2	292
35	Effect of polyamines on thermotolerance and membrane stability of soybean seedling. <i>African Journal of Biotechnology</i> , 2011, 10, 9673-9676.	0.6	24
36	Heat Shock Proteins in Association with Heat Tolerance in Grasses. <i>International Journal of Proteomics</i> , 2011, 2011, 1-11.	2.0	76

#	ARTICLE	IF	CITATIONS
37	Differential metabolic responses of perennial grass <i>Cynodon transvaalensis</i> — <i>Cynodon dactylon</i> ( $C_{4}$ ) and <i>Poa Pratensis</i> ( $C_{3}$ ) to heat stress. <i>Physiologia Plantarum</i> , 2011, 141, 251-264.	5.2	98
39	Freezing Tolerance and Carbohydrate Changes of Two <i>Agrostis</i> Species during Cold Acclimation. <i>Crop Science</i> , 2011, 51, 1188-1197.	1.8	27
40	Physiological Changes in Roughstalk Bluegrass Exposed to High Temperature. <i>Crop Science</i> , 2012, 52, 869-878.	1.8	3
41	Phenological Development-Yield Relationships in Durum Wheat Cultivars under Late-Season High-Temperature Stress in a Semiarid Environment. , 2012, 2012, 1-7.		31
42	Homobrassinolide-Induced Thermotolerance in Brassica Species. <i>Journal of Crop Improvement</i> , 2012, 26, 455-467.	1.7	0
43	The Physiology of Abiotic Stresses. , 2012, , 21-51.		7
44	Research Progress on Water Use Efficiency and Drought Resistance of Turfgrass. <i>The Journal of Northeast Agricultural University</i> , 2013, 20, 85-90.	0.1	5
45	Induced Response of Sugarcane Variety Co 86032 for Thermotolerance. <i>Sugar Tech</i> , 2013, 15, 17-26.	1.8	9
46	Contrasting physiological responses to excess heat and irradiance in two tropical savanna sedges. <i>AoB PLANTS</i> , 2013, 5, plt051.	2.3	10
47	Mapping QTL for the traits associated with heat tolerance in wheat ( <i>Triticum aestivum</i> L.). <i>BMC Genetics</i> , 2014, 15, 97.	2.7	133
48	Transcriptomics of Heat Stress in Plants. , 2014, , 49-89.		4
49	Experimental Strategies Presenting a Holistic View Regarding Heat Stress in Plants. <i>International Journal of Bio-resource and Stress Management</i> , 2014, 5, 444.	0.2	1
50	Differential growth and physiological responses to heat stress between two annual and two perennial cool-season turfgrasses. <i>Scientia Horticulturae</i> , 2014, 170, 75-81.	3.6	20
51	Research Advances in Mechanisms of Turfgrass Tolerance to Abiotic Stresses: From Physiology to Molecular Biology. <i>Critical Reviews in Plant Sciences</i> , 2014, 33, 141-189.	5.7	162
52	Improvement of Crops in the Era of Climatic Changes. , 2014, , .		7
53	Evaluation of genotypic variation in heat tolerance of tall fescue by functional traits. <i>Euphytica</i> , 2014, 199, 247-260.	1.2	13
54	Assessment of drought tolerance of 49 switchgrass ( <i>Panicum virgatum</i> ) genotypes using physiological and morphological parameters. <i>Biotechnology for Biofuels</i> , 2015, 8, 152.	6.2	85
55	Heat tolerance of Dwarf Cavendish banana ( <i>Musa AAA</i> cv. Malindi) plants. <i>African Journal of Agricultural Research</i> Vol Pp, 2015, 10, 1780-1784.	0.5	2

#	ARTICLE	IF	CITATIONS
56	Membrane Proteins Associated with Heat-Induced Leaf Senescence in a Cool-Season Grass Species. <i>Crop Science</i> , 2015, 55, 837-850.	1.8	9
57	PpCBF3 from Cold-Tolerant Kentucky Bluegrass Involved in Freezing Tolerance Associated with Up-Regulation of Cold-Related Genes in Transgenic <i>Arabidopsis thaliana</i> . <i>PLoS ONE</i> , 2015, 10, e0132928.	2.5	19
58	Bioremediation of Toxic Metals Using Algae. , 2015, , 439-462.		4
59	Algal Biorefinery: An Integrated Approach. , 2015, , .		32
61	Identification and Characterization of a Glyoxalase I Gene in a Rapeseed Cultivar with Seed Thermotolerance. <i>Frontiers in Plant Science</i> , 2016, 7, 150.	3.6	33
62	Exogenous Application of Citric Acid Ameliorates the Adverse Effect of Heat Stress in Tall Fescue ( <i>Lolium arundinaceum</i> ). <i>Frontiers in Plant Science</i> , 2016, 7, 179.	3.6	66
63	Quantitative Trait Loci Associated with Physiological Traits for Heat Tolerance in Creeping Bentgrass. <i>Crop Science</i> , 2016, 56, 1314-1329.	1.8	7
64	Pedigreed Mutant Library—A Unique Resource for Sorghum Improvement and Genomics. <i>Agronomy</i> , 2016, , .	0.2	1
66	Differential accumulation of proteins in leaves and roots associated with heat tolerance in two Kentucky bluegrass genotypes differing in heat tolerance. <i>Acta Physiologiae Plantarum</i> , 2016, 38, 1.	2.1	5
67	Differential Effects of Glycine Betaine and Spermidine on Osmotic Adjustment and Antioxidant Defense Contributing to Improved Drought Tolerance in Creeping Bentgrass. <i>Journal of the American Society for Horticultural Science</i> , 2017, 142, 20-26.	1.0	18
68	Stearoyl-Acyl Carrier Protein Desaturase Mutations Uncover an Impact of Stearic Acid in Leaf and Nodule Structure. <i>Plant Physiology</i> , 2017, 174, 1531-1543.	4.8	35
69	Differential profiles of membrane proteins, fatty acids, and sterols associated with genetic variations in heat tolerance for a perennial grass species, hard fescue ( <i>Festuca Trachyphylla</i> ). <i>Environmental and Experimental Botany</i> , 2017, 140, 65-75.	4.2	36
70	Differential Physiological Responses and Genetic Variations in Fine Fescue Species for Heat and Drought Stress. <i>Journal of the American Society for Horticultural Science</i> , 2017, 142, 367-375.	1.0	12
71	The Alleviation of Heat Damage to Photosystem II and Enzymatic Antioxidants by Exogenous Spermidine in Tall Fescue. <i>Frontiers in Plant Science</i> , 2017, 8, 1747.	3.6	32
72	Molecular breeding approaches involving physiological and reproductive traits for heat tolerance in food crops. <i>Indian Journal of Plant Physiology</i> , 2018, 23, 697-720.	0.8	16
73	Candidate Genes and Molecular Markers Correlated to Physiological Traits for Heat Tolerance in Fine Fescue Cultivars. <i>International Journal of Molecular Sciences</i> , 2018, 19, 116.	4.1	30
74	Effect of High Temperature on Protein Metabolism in Plants. , 2019, , 217-309.		2
75	Lipid Metabolism in Plants Under High Temperature. , 2019, , 311-389.		0

#	ARTICLE	IF	CITATIONS
76	Photosynthetic and metabolic responses of eelgrass <i>Zostera marina</i> L. to short-term high-temperature exposure. <i>Journal of Oceanology and Limnology</i> , 2019, 37, 199-209.	1.3	11
77	Identification and Characterization of Contrasting Genotypes/Cultivars for Developing Heat Tolerance in Agricultural Crops: Current Status and Prospects. <i>Frontiers in Plant Science</i> , 2020, 11, 587264.	3.6	54
78	Development and Characterization of Near-Isogenic Lines Revealing Candidate Genes for a Major 7AL QTL Responsible for Heat Tolerance in Wheat. <i>Frontiers in Plant Science</i> , 2020, 11, 1316.	3.6	7
79	Heat stress as an innovative approach to enhance the antioxidant production in <i>Pseudoceanicola</i> and <i>Bacillus</i> isolates. <i>Scientific Reports</i> , 2020, 10, 15076.	3.3	12
80	Response of Mycorrhizal "Touriga Nacional" Variety Grapevines to High Temperatures Measured by Calorespirometry and Near-Infrared Spectroscopy. <i>Plants</i> , 2020, 9, 1499.	3.5	8
81	Chlorophyll fluorescence, dark respiration and metabolomic analysis of <i>Halodule pinifolia</i> reveal potential heat responsive metabolites and biochemical pathways under ocean warming. <i>Marine Environmental Research</i> , 2021, 164, 105248.	2.5	6
82	Linking Plants Functioning to Adaptive Responses Under Heat Stress Conditions: A Mechanistic Review. <i>Journal of Plant Growth Regulation</i> , 2022, 41, 2596-2613.	5.1	34
84	Cellular Membranes in Stress Sensing and Regulation of Plant Adaptation to Abiotic Stresses. , 2006, , 1-25.		6
85	Candidate genes and molecular markers associated with heat tolerance in colonial Bentgrass. <i>PLoS ONE</i> , 2017, 12, e0171183.	2.5	18
86	<i>Epichloe</i> endophyte infection improved drought and heat tolerance of tall fescue through altered antioxidant enzyme activity. <i>European Journal of Horticultural Science</i> , 2017, 82, 90-97.	0.7	20
87	Heat Tolerance of Kentucky Bluegrass as Affected by Trinexapac-ethyl. <i>Hortscience: A Publication of the American Society for Horticultural Science</i> , 2001, 36, 365-367.	1.0	11
88	Physiological Responses to Heat Stress Alone or in Combination with Drought: A Comparison between Tall Fescue and Perennial Ryegrass. <i>Hortscience: A Publication of the American Society for Horticultural Science</i> , 2001, 36, 682-686.	1.0	103
89	Rib Discoloration: A Physiological Disorder Induced by Heat Stress in Crisphead Lettuce. <i>Hortscience: A Publication of the American Society for Horticultural Science</i> , 2005, 40, 2031-2035.	1.0	25
90	Waterlogging Tolerance of Kentucky Bluegrass Cultivars. <i>Hortscience: A Publication of the American Society for Horticultural Science</i> , 2007, 42, 386-390.	1.0	36
91	Evaluation of Salinity Tolerance of Prairie Junegrass, a Potential Low-maintenance Turfgrass Species. <i>Hortscience: A Publication of the American Society for Horticultural Science</i> , 2011, 46, 1038-1045.	1.0	14
92	Changes in Fatty Acid Composition and Saturation in Leaves and Roots of Creeping Bentgrass Exposed to High Soil Temperature. <i>Journal of the American Society for Horticultural Science</i> , 2004, 129, 795-801.	1.0	19
93	Protein Changes in Response to Heat Stress in Acclimated and Nonacclimated Creeping Bentgrass. <i>Journal of the American Society for Horticultural Science</i> , 2005, 130, 521-526.	1.0	28
94	Differential Responses of Warm-season and Cool-season Turfgrass Species to Heat Stress Associated with Antioxidant Enzyme Activity. <i>Journal of the American Society for Horticultural Science</i> , 2009, 134, 417-422.	1.0	29

#	ARTICLE	IF	CITATIONS
95	Membrane Lipid Composition and Heat Tolerance in Cool-season Turfgrasses, including a Hybrid Bluegrass. <i>Journal of the American Society for Horticultural Science</i> , 2009, 134, 511-520.	1.0	55
96	Cytokinin Effects on Creeping Bentgrass Responses to Heat Stress. <i>Crop Science</i> , 2002, 42, 457.	1.8	41
97	Expression of small heat shock proteins and heat tolerance in potato ( <i>Solanum tuberosum</i> L.). <i>Archives of Biological Sciences</i> , 2012, 64, 135-144.	0.5	16
98	Plant lipidomics: Discerning biological function by profiling plant complex lipids using mass spectrometry. <i>Frontiers in Bioscience - Landmark</i> , 2007, 12, 2494.	3.0	140
99	Evaluation of Some Drought Resistance Criteria at Seedling Stage in Wheat ( <i>Triticum aestivum</i> L.) Cultivars. <i>Pakistan Journal of Biological Sciences</i> , 2007, 10, 1113-1117.	0.5	14
101	Variability of malondialdehyde content and yield elements in <i>Triticum aestivum</i> L. under heat stress conditions. <i>Kragujevac Journal of Science</i> , 2020, , 45-54.	0.4	3
102	Mutant <i>Gossypium</i> universal stress protein-2 (GUSP-2) gene confers resistance to various abiotic stresses in <i>E. coli</i> BL-21 and CIM-496- <i>Gossypium hirsutum</i> . <i>Scientific Reports</i> , 2021, 11, 20466.	3.3	6
103	Enhancing Turfgrass Nitrogen Use under Stresses. <i>Books in Soils, Plants, and the Environment</i> , 2007, , 557-601.	0.1	2
104	Physiological and Biochemical Indicators for Stress Tolerance. , 2016, , 347-382.		6
105	Pedigreed Mutant Library-A Unique Resource for Sorghum Improvement and Genomics. <i>Agronomy</i> , 0, , 73-96.	0.2	1
106	Sorghum genetic, genomic, and breeding resources. <i>Planta</i> , 2021, 254, 114.	3.2	28
107	Phenotyping methods to assess heat stress resilience in grapevine. <i>Journal of Experimental Botany</i> , 2022, 73, 5128-5148.	4.8	8
109	High Temperature Alters Leaf Lipid Membrane Composition Associated with Photochemistry of PSII and Membrane Thermostability in Rice Seedlings. <i>Plants</i> , 2022, 11, 1454.	3.5	9
110	Physiological and Molecular Approaches for Developing Thermotolerance in Vegetable Crops: A Growth, Yield and Sustenance Perspective. <i>Frontiers in Plant Science</i> , 0, 13, .	3.6	16
111	Sustaining yield and nutritional quality of peanuts in harsh environments: Physiological and molecular basis of drought and heat stress tolerance. <i>Frontiers in Genetics</i> , 0, 14, .	2.3	13
112	Primary plant nutrients modulate the reactive oxygen species metabolism and mitigate the impact of cold stress in overseeded perennial ryegrass. <i>Frontiers in Plant Science</i> , 0, 14, .	3.6	5
113	Increased activity of core photorespiratory enzymes and CO <sub>2</sub> transfer conductances are associated with higher and more optimal photosynthetic rates under elevated temperatures in the extremophile <i>Rhazya stricta</i> . <i>Plant, Cell and Environment</i> , 2023, 46, 3704-3720.	5.7	3
114	Physiological and molecular responses of nanoparticle application to plants grown under abiotic and biotic stress. <i>Studies in Natural Products Chemistry</i> , 2024, , 113-145.	1.8	0