Micaela Carvajal

List of Publications by Year
in descending order

139 papers	7,169 citations	66250 44 h-index	71088 80 g-index
142 all docs	142 docs citations	142 times ranked	7179 citing authors

#	Article	IF	Citations
1	Water relations after Ca, B and Si application determine fruit physical quality in relation to aquaporins in Prunus. Scientia Horticulturae, 2022, 293, 110718.	1.7	2
2	Relationships between aquaporins gene expression and nutrient concentrations in melon plants (Cucumis melo L.) during typical abiotic stresses. Environmental and Experimental Botany, 2022, 195, 104759.	2.0	17
3	Bioactive peptides from broccoli stems strongly enhance regenerative keratinocytes by stimulating controlled proliferation. Pharmaceutical Biology, 2022, 60, 235-246.	1.3	6
4	Nanoencapsulated Boron Foliar Supply Increased Expression of NIPs Aquaporins and BOR Transporters of In Vitro Ipomoea batatas Plants. Applied Sciences (Switzerland), 2022, 12, 1788.	1.3	2
5	Membrane Vesicles for Nanoencapsulated Sulforaphane Increased Their Anti-Inflammatory Role on an In Vitro Human Macrophage Model. International Journal of Molecular Sciences, 2022, 23, 1940.	1.8	11
6	Nanoencapsulation of BimiÂ® extracts increases its bioaccessibility after in vitro digestion and evaluation of its activity in hepatocyte metabolism. Food Chemistry, 2022, 385, 132680.	4.2	5
7	Salinity Tolerance of Halophytic Grass Puccinellia nuttalliana Is Associated with Enhancement of Aquaporin-Mediated Water Transport by Sodium. International Journal of Molecular Sciences, 2022, 23, 5732.	1.8	4
8	Aquaporins involvement in the regulation of melon (Cucumis melo L.) fruit cracking under different nutrient (Ca, B and Zn) treatments. Environmental and Experimental Botany, 2022, 201, 104981.	2.0	5
9	Interrelations of nutrient and water transporters in plants under abiotic stress. Physiologia Plantarum, 2021, 171, 595-619.	2.6	37
10	Nanoencapsulation of Pomegranate Extract to Increase Stability and Potential Dermatological Protection. Pharmaceutics, 2021, 13, 271.	2.0	10
11	The Influence of Red Cabbage Extract Nanoencapsulated with Brassica Plasma Membrane Vesicles on the Gut Microbiome of Obese Volunteers. Foods, 2021, 10, 1038.	1.9	14
12	Influence of foliar Methyl-jasmonate biostimulation on exudation of glucosinolates and their effect on root pathogens of broccoli plants under salinity condition. Scientia Horticulturae, 2021, 282, 110027.	1.7	6
13	Relationship between aquaporins expression and B concentration for conferring cold stress tolerance in broccoli cultivars. Environmental and Experimental Botany, 2021, 187, 104466.	2.0	0
14	Plasma membrane vesicles from cauliflower meristematic tissue and their role in water passage. BMC Plant Biology, 2021, 21, 30.	1.6	8
15	Halophytes of the Mediterranean Basinâ€"Underutilized Species with the Potential to Be Nutritious Crops in the Scenario of the Climate Change. Foods, 2021, 10, 119.	1.9	21
16	Nanoencapsulation of sulforaphane in broccoli membrane vesicles and their <i>inÂvitro</i> antiproliferative activity. Pharmaceutical Biology, 2021, 59, 1488-1502.	1.3	11
17	Foliar Application of Boron Nanoencapsulated in Almond Trees Allows B Movement Within Tree and Implements Water Uptake and Transport Involving Aquaporins. Frontiers in Plant Science, 2021, 12, 752648.	1.7	5
18	Physicochemical Characterization and Effect of Additives of Membrane Vesicles from Brassica oleracea L. to Be Used in Nanofertilization. , 2021, 11, .		0

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19	Identification and Characterization of PHT1 Transporters Family and Differential Expression Patterns in Control and Blindness Broccoli Plants. , 2021, 11, .		0
20	Nutrient Passage in Differentially Grafted Lemon Trees. , 2021, 11, .		0
21	Different Strategies to Tolerate Salinity Involving Water Relations. , 2021, 11, .		0
22	Determining the Response of Citrus Plants to Reduced Nitrogen Fertilization. , 2021, 11, .		0
23	Discerning the mechanism of the multiwalled carbon nanotubes effect on root cell water and nutrient transport. Plant Physiology and Biochemistry, 2020, 146, 23-30.	2.8	29
24	Use of elicitation in the cultivation of BimiÂ® for food and ingredients. Journal of the Science of Food and Agriculture, 2020, 100, 2099-2109.	1.7	5
25	Genetic regulation of water and nutrient transport in water stress tolerance in roots. Journal of Biotechnology, 2020, 324, 134-142.	1.9	28
26	Controversial Regulation of Gene Expression and Protein Transduction of Aquaporins under Drought and Salinity Stress. Plants, 2020, 9, 1662.	1.6	25
27	Foliar Mineral Treatments for The Reduction of Melon (Cucumis melo L.) Fruit Cracking. Agronomy, 2020, 10, 1815.	1.3	11
28	Nanobiofertilization as a novel technology for highly efficient foliar application of Fe and B in almond trees. Royal Society Open Science, 2020, 7, 200905.	1.1	17
29	Brassica Bioactives Could Ameliorate the Chronic Inflammatory Condition of Endometriosis. International Journal of Molecular Sciences, 2020, 21, 9397.	1.8	13
30	Genome-wide analysis of the aquaporin genes in melon (Cucumis melo L.). Scientific Reports, 2020, 10, 22240.	1.6	16
31	Foliar Application of Zn Alleviates Salt Stress Symptoms of Pak Choi Plants by Activating Water Relations and Glucosinolate Synthesis. Agronomy, 2020, 10, 1528.	1.3	10
32	Detergent Resistant Membrane Domains in Broccoli Plasma Membrane Associated to the Response to Salinity Stress. International Journal of Molecular Sciences, 2020, 21, 7694.	1.8	10
33	Differential Aquaporin Response to Distinct Effects of Two Zn Concentrations after Foliar Application in Pak Choi (Brassica rapa L.) Plants. Agronomy, 2020, 10, 450.	1.3	23
34	Plant plasma membrane vesicles interaction with keratinocytes reveals their potential as carriers. Journal of Advanced Research, 2020, 23, 101-111.	4.4	33
35	Growing broccoli under salinity: the influence of cultivar and season on glucosinolates content. Scientia Agricola, 2020, 77, .	0.6	13
36	Comparative effect of elicitors on the physiology and secondary metabolites in broccoli plants. Journal of Plant Physiology, 2019, 239, 1-9.	1.6	34

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37	The use of biovesicles to improve the efficiency of Zn foliar fertilization. Colloids and Surfaces B: Biointerfaces, 2019, 173, 899-905.	2.5	20
38	Efficient leaf solute partioning in Salicornia fruticosa allows growth under salinity. Environmental and Experimental Botany, 2019, 157, 177-186.	2.0	8
39	The Expanding Role of Vesicles Containing Aquaporins. Cells, 2018, 7, 179.	1.8	11
40	Analysis of physiological traits in the response of Chenopodiaceae, Amaranthaceae, and Brassicaceae plants to salinity stress. Plant Physiology and Biochemistry, 2018, 132, 145-155.	2.8	16
41	Plasma membrane aquaporins mediates vesicle stability in broccoli. PLoS ONE, 2018, 13, e0192422.	1.1	30
42	Interaction of Salinity and CaCO3 Affects the Physiology and Fatty Acid Metabolism in Portulaca oleracea. Journal of Agricultural and Food Chemistry, 2018, 66, 6683-6691.	2.4	4
43	Improvement of broccoli sprouts (Brassica oleracea L. var. italica) growth and quality by KCl seed priming and methyl jasmonate under salinity stress. Scientia Horticulturae, 2017, 226, 141-151.	1.7	53
44	Effects of seed priming, salinity and methyl jasmonate treatment on bioactive composition of <i>Brassica oleracea</i> var. <i>capitata</i> (white and red varieties) sprouts. Journal of the Science of Food and Agriculture, 2017, 97, 2291-2299.	1.7	41
45	Silicon-mediated Improvement in Plant Salinity Tolerance: The Role of Aquaporins. Frontiers in Plant Science, 2017, 8, 948.	1.7	132
46	Mutual Interactions between Aquaporins and Membrane Components. Frontiers in Plant Science, 2016, 7, 1322.	1.7	26
47	Multiwalled carbon nanotubes enter broccoli cells enhancing growth and water uptake of plants exposed to salinity. Journal of Nanobiotechnology, 2016, 14, 42.	4.2	167
48	Plant plasma membrane aquaporins in natural vesicles as potential stabilizers and carriers of glucosinolates. Colloids and Surfaces B: Biointerfaces, 2016, 143, 318-326.	2.5	26
49	Water balance and N-metabolism in broccoli (Brassica oleracea L. var. Italica) plants depending on nitrogen source under salt stress and elevated CO2. Science of the Total Environment, 2016, 571, 763-771.	3.9	29
50	Healthâ€promoting compounds of broccoli (<i>Brassica oleracea</i> L. var. <i>italica</i>) plants as affected by nitrogen fertilisation in projected future climatic change environments. Journal of the Science of Food and Agriculture, 2016, 96, 392-403.	1.7	27
51	The impact of the absence of aliphatic glucosinolates on water transport under salt stress in Arabidopsis thaliana. Frontiers in Plant Science, 2015, 6, 524.	1.7	48
52	Myrosinase in Brassicaceae: the most important issue for glucosinolate turnover and food quality. Phytochemistry Reviews, 2015, 14, 1045-1051.	3.1	45
53	Intrinsic stability of Brassicaceae plasma membrane in relation to changes in proteins and lipids as a response to salinity. Journal of Plant Physiology, 2015, 175, 148-156.	1.6	48
54	Seed Coating Increase Broccoli Nutrient Content and Availability after Cooking. Journal of Agricultural Science, 2014, 7, .	0.1	2

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55	Involvement of a glucosinolate (sinigrin) in the regulation of water transport in <scp><i>Brassica oleracea</i></scp> grown under salt stress. Physiologia Plantarum, 2014, 150, 145-160.	2.6	35
56	Aquaporins as targets of pharmacological plant-derived compounds. Phytochemistry Reviews, 2014, 13, 573-586.	3.1	1
57	New challenges in plant aquaporin biotechnology. Plant Science, 2014, 217-218, 71-77.	1.7	57
58	Genotype Influences Sulfur Metabolism in Broccoli (Brassica oleracea L.) Under Elevated CO2 and NaCl Stress. Plant and Cell Physiology, 2014, 55, 2047-2059.	1.5	23
59	The Acinetobacter baumannii Omp33-36 Porin Is a Virulence Factor That Induces Apoptosis and Modulates Autophagy in Human Cells. Infection and Immunity, 2014, 82, 4666-4680.	1.0	105
60	Enhancement of root hydraulic conductivity by methyl jasmonate and the role of calcium and abscisic acid in this process. Plant, Cell and Environment, 2014, 37, 995-1008.	2.8	88
61	Response of three broccoli cultivars to salt stress, in relation to water status and expression of two leaf aquaporins. Planta, 2013, 237, 1297-1310.	1.6	26
62	Elevated CO2 alleviates negative effects of salinity on broccoli (Brassica oleracea L. var Italica) plants by modulating water balance through aquaporins abundance. Environmental and Experimental Botany, 2013, 95, 15-24.	2.0	32
63	Interactive effects of boron and NaCl stress on water and nutrient transport in two broccoli cultivars. Functional Plant Biology, 2013, 40, 739.	1.1	23
64	The Physiological Importance of Glucosinolates on Plant Response to Abiotic Stress in Brassica. International Journal of Molecular Sciences, 2013, 14, 11607-11625.	1.8	284
65	Natural Antioxidants in Purple Sprouting Broccoli under Mediterranean Climate. Journal of Food Science, 2012, 77, C1058-63.	1.5	19
66	Arbuscular mycorrhizal symbiosis increases relative apoplastic water flow in roots of the host plant under both well-watered and drought stress conditions. Annals of Botany, 2012, 109, 1009-1017.	1.4	220
67	Differential Responses of Two Broccoli (<i>Brassica oleracea</i>L. var Italica) Cultivars to Salinity and Nutritional Quality Improvement. Scientific World Journal, The, 2012, 2012, 1-12.	0.8	30
68	Composition and antioxidant capacity of a novel beverage produced with green tea and minimally-processed byproducts of broccoli. Innovative Food Science and Emerging Technologies, 2011, 12, 361-368.	2.7	63
69	Identification and differential induction of the expression of aquaporins by salinity in broccoli plants. Molecular BioSystems, 2011, 7, 1322.	2.9	67
70	Plant Hydraulic Conductivity: The Aquaporins Contribution. , 2011, , .		5
71	Novel varieties of broccoli for optimal bioactive components under saline stress. Journal of the Science of Food and Agriculture, 2011, 91, 1638-1647.	1.7	35
72	Molecular aspects of the interaction between plants sterols and DPPC bilayers. Journal of Colloid and Interface Science, 2011, 358, 192-201.	5.0	41

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73	The response of broccoli plants to high temperature and possible role of root aquaporins. Environmental and Experimental Botany, 2010, 68, 83-90.	2.0	23
74	Broccoliâ€•Derived Byâ€•Productsâ€"A Promising Source of Bioactive Ingredients. Journal of Food Science, 2010, 75, C383-92.	1.5	130
75	Minerals in plant food: effect of agricultural practices and role in human health. A review. Agronomy for Sustainable Development, 2010, 30, 295-309.	2.2	158
76	Improvement in the Adaptation of<i>Lygeum Spartum</i>L. to Salinity In the Presence of Calcium. Communications in Soil Science and Plant Analysis, 2010, 41, 2301-2317.	0.6	12
77	Interactions between salinity and boron toxicity in tomato plants involve apoplastic calcium. Journal of Plant Physiology, 2010, 167, 54-60.	1.6	41
78	Physiological aspects of rootstockâ€"scion interactions. Scientia Horticulturae, 2010, 127, 112-118.	1.7	255
79	Analysis of Root Plasma Membrane Aquaporins from <i>Brassica oleracea</i>: Post-Translational Modifications, <i>de novo</i> Sequencing and Detection of Isoforms by High Resolution Mass Spectrometry. Journal of Proteome Research, 2010, 9, 3479-3494.	1.8	25
80	How Salinity Affects Co2 Fixation by Horticultural Crops. Hortscience: A Publication of the American Society for Hortcultural Science, 2010, 45, 1798-1803.	0.5	9
81	Climate Change and Plant Water Balance: The Role of Aquaporins â€" A Review. , 2009, , 71-89.		11
82	Water relations of the tos1 tomato mutant at contrasting evaporative demand. Physiologia Plantarum, 2009, 137, 36-43.	2.6	5
83	Changes in plasma membrane lipids, aquaporins and proton pump of broccoli roots, as an adaptation mechanism to salinity. Phytochemistry, 2009, 70, 492-500.	1.4	182
84	Growing Hardier Crops for Better Health: Salinity Tolerance and the Nutritional Value of Broccoli. Journal of Agricultural and Food Chemistry, 2009, 57, 572-578.	2.4	120
85	Osmotic versus toxic effects of NaCl on pepper plants. Biologia Plantarum, 2008, 52, 72-79.	1.9	51
86	Agricultural practices for enhanced human health. Phytochemistry Reviews, 2008, 7, 251-260.	3.1	56
87	Two different effects of calcium on aquaporins in salinity-stressed pepper plants. Planta, 2008, 228, 15-25.	1.6	38
88	Basis for the new challenges of growing broccoli for health in hydroponics. Journal of the Science of Food and Agriculture, 2008, 88, 1472-1481.	1.7	34
89	Boric acid and salinity effects on maize roots. Response of aquaporins ZmPIP1 and ZmPIP2, and plasma membrane H⁺â€•ATPase, in relation to water and nutrient uptake. Physiologia Plantarum, 2008, 132, 479-490.	2.6	46
90	Leaf water balance mediated by aquaporins under salt stress and associated glucosinolate synthesis in broccoli. Plant Science, 2008, 174, 321-328.	1.7	111

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91	Combined effect of boron and salinity on water transport. Plant Signaling and Behavior, 2008, 3, 844-845.	1.2	23
92	The Phi Thickening in Roots of Broccoli Plants: An Acclimation Mechanism to Salinity?. International Journal of Plant Sciences, 2007, 168, 1141-1149.	0.6	45
93	Different cation stresses affect specifically osmotic root hydraulic conductance, involving aquaporins, ATPase and xylem loading of ions in Capsicum annuum, L. plants. Journal of Plant Physiology, 2007, 164, 1300-1310.	1.6	26
94	Nitrogen, Phosphorus, and Sulfur Nutrition in Broccoli Plants Grown Under Salinity. Journal of Plant Nutrition, 2007, 30, 1855-1870.	0.9	16
95	Effects of Microwave Cooking Conditions on Bioactive Compounds Present in Broccoli Inflorescences. Journal of Agricultural and Food Chemistry, 2007, 55, 10001-10007.	2.4	74
96	Root Plasma Membrane Lipid Changes in Relation to Water Transport in Pepper: a Response to NaCl and CaCl2 Treatment. Journal of Plant Biology, 2007, 50, 650-657.	0.9	14
97	New Evidence About the Relationship Between Water Channel Activity and Calcium in Salinity-stressed Pepper Plants. Plant and Cell Physiology, 2006, 47, 224-233.	1.5	37
98	Chemical and biological characterisation of nutraceutical compounds of broccoli. Journal of Pharmaceutical and Biomedical Analysis, 2006, 41, 1508-1522.	1.4	335
99	Plant Aquaporins: New Perspectives on Water and Nutrient Uptake in Saline Environment. Plant Biology, 2006, 8, 535-546.	1.8	77
100	Are Root Hydraulic Conductivity Responses to Salinity Controlled by Aquaporins in Broccoli Plants?. Plant and Soil, 2006, 279, 13-23.	1.8	61
101	Study of the involvement of osmotic adjustment and H+-ATPase activity in the resistance of Catharanthus roseus suspension cells to salt stress. Plant Cell, Tissue and Organ Culture, 2005, 80, 287-294.	1.2	7
102	Graft Union Formation in Tomato Plants: Peroxidase and Catalase Involvement. Annals of Botany, 2004, 93, 53-60.	1.4	116
103	Osmotic adjustment, water relations and gas exchange in pepper plants grown under NaCl or KCl. Environmental and Experimental Botany, 2004, 52, 161-174.	2.0	104
104	Aquaporin Functionality in Roots of Zea mays in Relation to the Interactive Effects of Boron and Salinity. Plant Biology, 2004, 6, 415-421.	1.8	35
105	Effect of salinity on growth, mineral composition, and water relations of grafted tomato plants. Journal of Plant Nutrition and Soil Science, 2004, 167, 616-622.	1.1	91
106	Does calcium determine water uptake under saline conditions in pepper plants, or is it water flux which determines calcium uptake?. Plant Science, 2004, 166, 443-450.	1.7	57
107	Fruit quality of grafted tomato plants grown under saline conditions. Journal of Horticultural Science and Biotechnology, 2004, 79, 995-1001.	0.9	91
108	Water relations and xylem transport of nutrients in pepper plants grown under two different salts stress regimes. Plant Growth Regulation, 2003, 41, 237-245.	1.8	60

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109	Effects of salinity and rate of irrigation on yield, fruit quality and mineral composition of â€˜Fino 49â€™ lemon. European Journal of Agronomy, 2003, 19, 427-437.	1.9	38
110	Aquaporin functionality in relation to H+ -ATPase activity in root cells of Capsicum annuum grown under salinity. Physiologia Plantarum, 2003, 117, 413-420.	2.6	36
111	Influence of saline stress on root hydraulic conductance and PIP expression inArabidopsis. Journal of Plant Physiology, 2003, 160, 689-697.	1.6	106
112	Different blocking effects of HgCl2 and NaCl on aquaporins of pepper plants. Journal of Plant Physiology, 2003, 160, 1487-1492.	1.6	22
113	Response of â€˜Star Rubyâ€™ grapefruit on two rootstocks to NaCl salinity. Journal of Horticultural Science and Biotechnology, 2003, 78, 859-865.	0.9	13
114	Tomato yield and quality as affected by nitrogen source and salinity. Agronomy for Sustainable Development, 2003, 23, 249-256.	0.8	37
115	Water and nutrient uptake of grafted tomato plants grown under saline conditions. Journal of Plant Physiology, 2002, 159, 899-905.	1.6	67
116	Gas exchange, chlorophyll and nutrient contents in relation to Na+ and Clâˆ' accumulation in â€˜Sunburstâ€™ mandarin grafted on different rootstocks. Plant Science, 2002, 162, 705-712.	1.7	137
117	SALINITY AND AMMONIUM/NITRATE INTERACTIONS ON TOMATO PLANT DEVELOPMENT, NUTRITION, AND METABOLITES. Journal of Plant Nutrition, 2001, 24, 1561-1573.	0.9	67
118	Does calcium ameliorate the negative effect of NaCl on melon root water transport by regulating aquaporin activity?. New Phytologist, 2000, 145, 439-447.	3.5	127
119	Modification of the response of saline stressed tomato plants by the correction of cation disorders. Plant Growth Regulation, 2000, 30, 37-47.	1.8	27
120	Root hydraulic conductance: diurnal aquaporin expression and the effects of nutrient stress. Journal of Experimental Botany, 2000, 51, 61-70.	2.4	265
121	Ammonium, bicarbonate and calcium effects on tomato plants grown under saline conditions. Plant Science, 2000, 157, 89-96.	1.7	85
122	Salinity Resistance of Citrus Seedlings in Relation to Hydraulic Conductance, Plasma Membrane ATPase and Anatomy of the Roots. Journal of Plant Physiology, 2000, 156, 724-730.	1.6	33
123	Root hydraulic conductance: diurnal aquaporin expression and the effects of nutrient stress. Journal of Experimental Botany, 2000, 51, 61-70.	2.4	261
124	The Response of Plants to Salinity Involves Root Water Channels. , 2000, , 261-267.		3
125	Regulation of water channel activity in whole roots and in protoplasts from roots of melon plants grown under saline conditions. Functional Plant Biology, 2000, 27, 685.	1.1	16
126	Influence of magnesium and salinity on tomato plants grown in hydroponic culture. Journal of Plant Nutrition, 1999, 22, 177-190.	0.9	47

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127	Physiological function of water channels as affected by salinity in roots of paprika pepper. Physiologia Plantarum, 1999, 105, 95-101.	2.6	140
128	Diurnal variations in hydraulic conductivity and root pressure can be correlated with the expression of putative aquaporins in the roots of Lotus japonicus. Planta, 1999, 210, 50-60.	1.6	251
129	The lipid bilayer and aquaporins: parallel pathways for water movement into plant cells. Plant Growth Regulation, 1998, 25, 89-95.	1.8	15
130	Time course of solute accumulation and water relations in muskmelon plants exposed to salt during different growth stages. Plant Science, 1998, 138, 103-112.	1.7	40
131	Why titanium is a beneficial element for plants. Journal of Plant Nutrition, 1998, 21, 655-664.	0.9	66
132	Response of eight Cucumis melo cultivars to salinity during germination and early vegetative growth. Agronomy for Sustainable Development, 1998, 18, 503-513.	0.8	48
133	Effect of ascorbic acid addition to peppers on paprika quality. Journal of the Science of Food and Agriculture, 1997, 75, 442-446.	1.7	28
134	Effect of ascorbic acid addition to peppers on paprika quality. , 1997, 75, 442.		1
135	Responses of wheat plants to nutrient deprivation may involve the regulation of water-channel function. Planta, 1996, 199, 372.	1.6	238
136	Plasma membrane fluidity and hydraulic conductance in wheat roots: interactions between root temperature and nitrate or phosphate deprivation. Plant, Cell and Environment, 1996, 19, 1110-1114.	2.8	30
137	Effect of Ti (IV) on Fe activity in Capsicum annuum. Phytochemistry, 1995, 39, 977-980.	1.4	14
138	Effect of titanium (IV) application on some enzymatic activities in several developing stages of red pepper plants. Journal of Plant Nutrition, 1994, 17, 243-253.	0.9	15
139	Salinity Stress in Red Radish Crops. , 0, , .		1