Lewis H Ziska

List of Publications by Year
in descending order

104 papers	8,160 citations	50244 46 h-index	49868 87 g-index
112 all docs	112 docs citations	112 times ranked	7766 citing authors

#	Article	IF	Citations
1	Climate Impacts on Agriculture: Implications for Crop Production. Agronomy Journal, 2011, 103, 351-370.	0.9	1,056
2	Predicting plant invasions in an era of global change. Trends in Ecology and Evolution, 2010, 25, 310-318.	4.2	531
3	Cities as harbingers of climate change: Common ragweed, urbanization, and public health. Journal of Allergy and Clinical Immunology, 2003, 111, 290-295.	1.5	368
4	Recent warming by latitude associated with increased length of ragweed pollen season in central North America. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 4248-4251.	3.3	324
5	Carbon dioxide (CO ₂) levels this century will alter the protein, micronutrients, and vitamin content of rice grains with potential health consequences for the poorest rice-dependent countries. Science Advances, 2018, 4, eaaq1012.	4.7	267
6	Effects of high temperature and CO2 concentration on spikelet sterility in indica rice. Field Crops Research, 1997, 51, 213-219.	2.3	230
7	Growth and Yield Response of Fieldâ€Grown Tropical Rice to Increasing Carbon Dioxide and Air Temperature. Agronomy Journal, 1997, 89, 45-53.	0.9	206
8	Temperature-related changes in airborne allergenic pollen abundance and seasonality across the northern hemisphere: a retrospective data analysis. Lancet Planetary Health, The, 2019, 3, e124-e131.	5.1	204
9	Invasive species and climate change: an agronomic perspective. Climatic Change, 2011, 105, 13-42.	1.7	185
10	Research note: Increasing Amb a 1 content in common ragweed (Ambrosia artemisiifolia) pollen as a function of rising atmospheric CO2 concentration. Functional Plant Biology, 2005, 32, 667.	1.1	175
11	Food security and climate change: on the potential to adapt global crop production by active selection to rising atmospheric carbon dioxide. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 4097-4105.	1.2	167
12	An evaluation of cassava, sweet potato and field corn as potential carbohydrate sources for bioethanol production in Alabama and Maryland. Biomass and Bioenergy, 2009, 33, 1503-1508.	2.9	158
13	Evaluation of the growth response of six invasive species to past, present and future atmospheric carbon dioxide. Journal of Experimental Botany, 2003, 54, 395-404.	2.4	155
14	Predicting the impact of changing CO₂ on crop yields: some thoughts on food. New Phytologist, 2007, 175, 607-618.	3.5	151
15	Intraspecific variation in the response of rice (Oryza sativaL.) to increased CO2and temperature: growth and yield response of 17 cultivars. Journal of Experimental Botany, 1996, 47, 1353-1359.	2.4	142
16	Title is missing!. Photosynthesis Research, 1997, 54, 199-208.	1.6	138
17	Biomass and toxicity responses of poison ivy (Toxicodendron radicans) to elevated atmospheric CO2. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 9086-9089.	3.3	136
18	Growth dynamics and genotypic variation in tropical, fieldâ€grown paddy rice (Oryza sativa L.) in response to increasing carbon dioxide and temperature. Global Change Biology, 1998, 4, 645-656.	4.2	129

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19	The impact of recent increases in atmospheric CO_2 on biomass production and vegetative retention of Cheatgrass (Bromus tectorum): implications for fire disturbance. Global Change Biology, 2005, 11, 1325-1332.	4.2	118
20	Anthropogenic climate change is worsening North American pollen seasons. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	118
21	Anthropogenic climate change and allergen exposure: TheÂrole of plant biology. Journal of Allergy and Clinical Immunology, 2012, 129, 27-32.	1.5	116
22	Quantitative and qualitative evaluation of selected wheat varieties released since 1903 to increasing atmospheric carbon dioxide: can yield sensitivity to carbon dioxide be a factor in wheat performance?. Global Change Biology, 2004, 10, 1810-1819.	4.2	113
23	Combining the effects of increased atmospheric carbon dioxide on protein, iron, and zinc availability and projected climate change on global diets: a modelling study. Lancet Planetary Health, The, 2019, 3, e307-e317.	5.1	107
24	Characterization of an urban-rural CO 2 /temperature gradient and associated changes in initial plant productivity during secondary succession. Oecologia, 2004, 139, 454-458.	0.9	102
25	Elevated Atmospheric Carbon Dioxide Concentrations Amplify <i>Alternaria alternata</i> Sporulation and Total Antigen Production. Environmental Health Perspectives, 2010, 118, 1223-1228.	2.8	102
26	Changes in biomass and root:shoot ratio of field-grown Canada thistle (Cirsium arvense), a noxious, invasive weed, with elevated CO_2: implications for control with glyphosate. Weed Science, 2004, 52, 584-588.	0.8	101
27	Future atmospheric carbon dioxide may increase tolerance to glyphosate. Weed Science, 1999, 47, 608-615.	0.8	97
28	Weedy (Red) Rice. Advances in Agronomy, 2015, , 181-228.	2.4	96
29	Higher airborne pollen concentrations correlated with increased SARS-CoV-2 infection rates, as evidenced from 31 countries across the globe. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	92
30	Unique challenges and opportunities for northeastern US crop production in a changing climate. Climatic Change, 2018, 146, 231-245.	1.7	90
31	Rising CO_2 and pollen production of common ragweed (Ambrosia artemisiifolia L.), a known allergy-inducing species: implications for public health.. Functional Plant Biology, 2000, 27, 893.	1.1	75
32	The impact of elevated CO_2 on yield loss from a C3 and C4 weed in field-grown soybean. Global Change Biology, 2000, 6, 899-905.	4.2	69
33	Rising atmospheric CO ₂ is reducing the protein concentration of a floral pollen source essential for North American bees. Proceedings of the Royal Society B: Biological Sciences, 2016, 283, 20160414.	1.2	69
34	Rising CO ₂ , Climate Change, and Public Health: Exploring the Links to Plant Biology. Environmental Health Perspectives, 2009, 117, 155-158.	2.8	66
35	Competitive Interactions between Cultivated and Red Rice as a Function of Recent and Projected Increases in Atmospheric Carbon Dioxide. Agronomy Journal, 2010, 102, 118-123.	0.9	66
36	Cheatgrass is favored by warming but not CO₂ enrichment in a semiâ€arid grassland. Global Change Biology, 2016, 22, 3026-3038.	4.2	64

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37	The temporal and species dynamics of photosynthetic acclimation in flag leaves of rice (<i>Oryza) Tj ETQq1 1 0.784314 rgBT /Overlock Plantarum, 2012, 145, 395-405.	2.6	62
38	The role of climate change and increasing atmospheric carbon dioxide on weed management: Herbicide efficacy. Agriculture, Ecosystems and Environment, 2016, 231, 304-309.	2.5	61
39	Three-year field evaluation of early and late 20th century spring wheat cultivars to projected increases in atmospheric carbon dioxide. Field Crops Research, 2008, 108, 54-59.	2.3	60
40	Rising Atmospheric Carbon Dioxide and Seed Yield of Soybean Genotypes. Crop Science, 2001, 41, 385-391.	0.8	58
41	Biochemical and molecular characteristics of leaf photosynthesis and relative seed yield of two contrasting rice cultivars in response to elevated [CO 2]. Journal of Experimental Botany, 2014, 65, 6049-6056.	2.4	56
42	Changes in competitive ability between a C4crop and a C3weed with elevated carbon dioxide. Weed Science, 2001, 49, 622-627.	0.8	55
43	Evaluation of yield loss in field sorghum from a C3and C4weed with increasing CO2. Weed Science, 2003, 51, 914-918.	0.8	51
44	Climate Change, Carbon Dioxide, and Pest Biology: Monitor, Mitigate, Manage. Journal of Agricultural and Food Chemistry, 2016, 64, 6-12.	2.4	50
45	Climate change, aerobiology, and public health in the Northeast United States. Mitigation and Adaptation Strategies for Global Change, 2008, 13, 607-613.	1.0	48
46	Elevated Atmospheric Carbon Dioxide and Weed Populations in Glyphosate Treated Soybean. Crop Science, 2006, 46, 1354-1359.	0.8	46
47	Rising Atmospheric Carbon Dioxide and Plant Biology: The Overlooked Paradigm. DNA and Cell Biology, 2008, 27, 165-172.	0.9	46
48	Differential Response of Cultivated and Weedy (Red) Rice to Recent and Projected Increases in Atmospheric Carbon Dioxide. Agronomy Journal, 2008, 100, 1259-1263.	0.9	41
49	The interaction of high temperature and elevated CO2 on photosynthetic acclimation of single leaves of rice in situ. Physiologia Plantarum, 1997, 99, 178-184.	2.6	39
50	Evidence for divergence of response in <i>Indica</i>,<i> Japonica</i>, and wild rice to high <scp>CO</scp>₂ Ã— temperature interaction. Global Change Biology, 2016, 22, 2620-2632.	4.2	38
51	Crop ecosystem responses to climatic change: crop/weed interactions.. , 2000, , 333-352.		37
52	Recent and projected increases in atmospheric carbon dioxide and the potential impacts on growth and alkaloid production in wild poppy (Papaver setigerum DC.). Climatic Change, 2008, 91, 395-403.	1.7	36
53	Climate Change, Carbon Dioxide, and Pest Biology, Managing the Future: Coffee as a Case Study. Agronomy, 2018, 8, 152.	1.3	35
54	Understanding the nexus of rising CO2, climate change, and evolution in weed biology. Invasive Plant Science and Management, 2019, 12, 79-88.	0.5	35

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55	Rising Atmospheric CO₂ Lowers Concentrations of Plant Carotenoids Essential to Human Health: A Metaâ€Analysis. Molecular Nutrition and Food Research, 2019, 63, e1801047.	1.5	35
56	Alterations in the production and concentration of selected alkaloids as a function of rising atmospheric carbon dioxide and air temperature: implications for ethno-pharmacology. Global Change Biology, 2005, 11, 1798-1807.	4.2	34
57	Growth and photosynthetic response of three soybean cultivars to simultaneous increases in growth temperature and CO2. Physiologia Plantarum, 1995, 94, 575-584.	2.6	33
58	Plant Responses to Rising Atmospheric Carbon Dioxide. , 0, , 17-47.		33
59	Recent and Projected Increases in Atmospheric CO2 Concentration Can Enhance Gene Flow between Wild and Genetically Altered Rice (Oryza sativa). PLoS ONE, 2012, 7, e37522.	1.1	33
60	Quantifying the effect of drought on carbon dioxideâ€induced changes in competition between a C₃ crop (tomato) and a C₄ weed (<i>Amaranthus retroflexus</i>). Weed Research, 2011, 51, 591-600.	0.8	32
61	Intraspecific variation in seed yield of soybean (Glycine max) in response to increased atmospheric carbon dioxide. Functional Plant Biology, 1998, 25, 801.	1.1	31
62	Growth and photosynthetic response of three soybean cultivars to simultaneous increases in growth temperature and CO2. Physiologia Plantarum, 1995, 94, 575-584.	2.6	29
63	Macroclimate associated with urbanization increases the rate of secondary succession from fallow soil. Oecologia, 2009, 159, 637-647.	0.9	29
64	Global Climate Change and Pollen Aeroallergens. Immunology and Allergy Clinics of North America, 2021, 41, 1-16.	0.7	28
65	Exposure to Extreme Heat Events Is Associated with Increased Hay Fever Prevalence among Nationally Representative Sample of US Adults: 1997-2013. Journal of Allergy and Clinical Immunology: in Practice, 2017, 5, 435-441.e2.	2.0	27
66	Nutritional quality of crops in a high CO₂ world: an agenda for research and technology development. Environmental Research Letters, 2021, 16, 064045.	2.2	27
67	Assessment of cultivated and wild, weedy rice lines to concurrent changes in CO2 concentration and air temperature: determining traits for enhanced seed yield with increasing atmospheric CO2. Functional Plant Biology, 2014, 41, 236.	1.1	26
68	Influence of rising atmospheric CO2 since 1900 on early growth and photosynthetic response of a noxious invasive weed, Canada thistle (Cirsium arvense). Functional Plant Biology, 2002, 29, 1387.	1.1	25
69	Ratooning as an adaptive management tool for climatic change in rice systems along a north-south transect in the southern Mississippi valley. Agricultural and Forest Meteorology, 2018, 263, 409-416.	1.9	25
70	High [CO2] and Temperature Increase Resistance to Cyhalofop-Butyl in Multiple-Resistant Echinochloa colona. Frontiers in Plant Science, 2019, 10, 529.	1.7	24
71	Increasing Minimum Daily Temperatures Are Associated with Enhanced Pesticide Use in Cultivated Soybean along a Latitudinal Gradient in the Mid-Western United States. PLoS ONE, 2014, 9, e98516.	1.1	24
72	Elevated carbon dioxide alters chemical management of Canada thistle in no-till soybean. Field Crops Research, 2010, 119, 299-303.	2.3	23

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73	Increases in atmospheric carbon dioxide: Anticipated negative effects on food quality. PLoS Medicine, 2018, 15, e1002600.	3.9	23
74	Empirical Selection of Cultivated Oat in Response to Rising Atmospheric Carbon Dioxide. Crop Science, 2007, 47, 1547-1552.	0.8	20
75	An Overview of Rising CO₂ and Climatic Change on Aeroallergens and Allergic Diseases. Allergy, Asthma and Immunology Research, 2020, 12, 771.	1.1	19
76	Tolerance of subzero winter cold in kudzu (Pueraria montana var. lobata). Oecologia, 2018, 187, 839-849.	0.9	18
77	The potential role of sucrose transport gene expression in the photosynthetic and yield response of rice cultivars to future CO 2 concentration. Physiologia Plantarum, 2020, 168, 218-226.	2.6	18
78	Associations between alteration in plant phenology and hay fever prevalence among US adults: Implication for changing climate. PLoS ONE, 2019, 14, e0212010.	1.1	17
79	Recent CO2 levels promote increased production of the toxin parthenin in an invasive Parthenium hysterophorus biotype. Nature Plants, 2021, 7, 725-729.	4.7	17
80	The impact of nitrogen supply on the potential response of a noxious, invasive weed, Canada thistle (Cirsium arvense) to recent increases in atmospheric carbon dioxide. Physiologia Plantarum, 2003, 119, 105-112.	2.6	15
81	Climate Change and the Herbicide Paradigm: Visiting the Future. Agronomy, 2020, 10, 1953.	1.3	14
82	The role of water availability on weedâ€“crop interactions in processing tomato for southern Italy. Acta Agriculturae Scandinavica - Section B Soil and Plant Science, 2013, 63, 62-68.	0.3	13
83	Evidence for recent evolution in an invasive species, <i><scp>M</scp>icrostegium vimineum</i>,<scp>J</scp>apanese stiltgrass. Weed Research, 2015, 55, 260-267.	0.8	13
84	Accelerated sea-level rise is suppressing CO ₂ stimulation of tidal marsh productivity: A 33-year study. Science Advances, 2022, 8, eabn0054.	4.7	13
85	A quantitative and qualitative assessment of mung bean (Vigna mungo (L.) Wilczek) seed in response to elevated atmospheric carbon dioxide: potential changes in fatty acid composition. Journal of the Science of Food and Agriculture, 2007, 87, 920-923.	1.7	12
86	Observed changes in soyabean growth and seed yield from <i><scp>A</scp>butilon theophrasti</i> competition as a function of carbon dioxide concentration. Weed Research, 2013, 53, 140-145.	0.8	12
87	Assessing the impact of increasing carbon dioxide and temperature on crop-weed interactions for tomato and a C3 and C4 weed species. European Journal of Agronomy, 2013, 50, 60-65.	1.9	12
88	Historical and experimental evidence for enhanced concentration of artemesinin, a global anti-malarial treatment, with recent and projected increases in atmospheric carbon dioxide. Climatic Change, 2015, 132, 295-306.	1.7	12
89	The shape of impacts to come: lessons and opportunities for adaptation from uneven increases in global and regional temperatures. Climatic Change, 2016, 139, 341-349.	1.7	12
90	Responses of rice qualitative characteristics to elevated carbon dioxide and higher temperature: implications for global nutrition. Journal of the Science of Food and Agriculture, 2021, 101, 3854-3861.	1.7	12

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91	Rising Carbon Dioxide and Global Nutrition: Evidence and Action Needed. Plants, 2022, 11, 1000.	1.6	12
92	Early growth phase and caffeine content response to recent and projected increases in atmospheric carbon dioxide in coffee (Coffea arabica and C. canephora). Scientific Reports, 2020, 10, 5875.	1.6	11
93	Rising Carbon Dioxide and Weed Ecology. , 2004, , 159-176.		10
94	Impacts of Climate Change on Allergen Seasonality. , 2016, , 92-112.		10
95	Could recent increases in atmospheric <scp>CO</scp>₂ have acted as a selection factor in <i>Avena fatua</i> populations? A case study of cultivated and wild oat competition. Weed Research, 2017, 57, 399-405.	0.8	10
96	Cultivarâ€Specific Changes in Peanut Yield, Biomass, and Allergenicity in Response to Elevated Atmospheric Carbon Dioxide Concentration. Crop Science, 2016, 56, 2766-2774.	0.8	9
97	Elevated CO₂ may reduce arsenic accumulation in diverse ecotypes of <i>Arabidopsis thaliana</i>. Journal of Plant Nutrition, 2018, 41, 645-653.	0.9	9
98	Comment on â€œUnexpected reversal of C ₃ versus C ₄ grass response to elevated CO ₂ during a 20-year field experimentâ€ Science, 2018, 361, .	6.0	8
99	Climate, Carbon Dioxide, and Plant-Based Aero-Allergens: A Deeper Botanical Perspective. Frontiers in Allergy, 2021, 2, 714724.	1.2	8
100	Global Climate Change and Carbon Dioxide: Assessing Weed Biology and Management. ICP Series on Climate Change Impacts, Adaptation, and Mitigation, 2010, , 191-208.	0.4	7
101	Leaf characteristics of rice cultivars with a stronger yield response to projected increases in <scp>CO₂</scp> concentration. Physiologia Plantarum, 2021, 171, 416-423.	2.6	6
102	Crop Adaptation: Weedy and Crop Wild Relatives as an Untapped Resource to Utilize Recent Increases in Atmospheric CO2. Plants, 2021, 10, 88.	1.6	6
103	Rising atmospheric <scp> CO ₂ </scp> concentration affect weedy rice growth, seed shattering and seedbank longevity. Weed Research, 0, , .	0.8	3
104	Coming Together for Climate and Health. Journal of Occupational and Environmental Medicine, 2021, 63, e308-e313.	0.9	0