David B Lobell

List of Publications by Citations

200 papers	26,161 citations	71 h-index	161 g-index
205 ext. papers	31,235 ext. citations	9.4 avg, IF	7.74 L-index

#	Paper	IF	Citations
200	Climate trends and global crop production since 1980. *Science*, **2011**, 333, 616-20	33.3	2277
199	Prioritizing climate change adaptation needs for food security in 2030. *Science*, **2008**, 319, 607-10	33.3	1870
198	Global scale climate crop yield relationships and the impacts of recent warming. *Environmental Research Letters*, **2007**, 2, 014002	6.2	1173
197	Temperature increase reduces global yields of major crops in four independent estimates. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 9326-9331	11.5	886
196	Crop Yield Gaps: Their Importance, Magnitudes, and Causes. *Annual Review of Environment and Resources*, **2009**, 34, 179-204	17.2	792
195	Robust negative impacts of climate change on African agriculture. *Environmental Research Letters*, **2010**, 5, 014010	6.2	746
194	Nonlinear heat effects on African maize as evidenced by historical yield trials. *Nature Climate Change*, **2011**, 1, 42-45	21.4	682
193	Greenhouse gas mitigation by agricultural intensification. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 12052-7	11.5	668
192	Combining satellite imagery and machine learning to predict poverty. *Science*, **2016**, 353, 790-4	33.3	593
191	The influence of climate change on global crop productivity. *Plant Physiology*, **2012**, 160, 1686-97	6.6	589
190	Greater sensitivity to drought accompanies maize yield increase in the U.S. Midwest. *Science*, **2014**, 344, 516-9	33.3	567
189	Warming increases the risk of civil war in Africa. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 20670-4	11.5	529
188	Biomass energy: the scale of the potential resource. *Trends in Ecology and Evolution*, **2008**, 23, 65-72	10.9	520
187	The critical role of extreme heat for maize production in the United States. *Nature Climate Change*, **2013**, 3, 497-501	21.4	517
186	Extreme heat effects on wheat senescence in India. *Nature Climate Change*, **2012**, 2, 186-189	21.4	473
185	On the use of statistical models to predict crop yield responses to climate change. *Agricultural and Forest Meteorology*, **2010**, 150, 1443-1452	5.8	469
184	The global potential of bioenergy on abandoned agriculture lands. *Environmental Science & Technology*, **2008**, 42, 5791-4	10.3	456

183	Quantifying Vegetation Change in Semiarid Environments. *Remote Sensing of Environment*, **2000**, 73, 87-102	13.2	365
182	A method for quantifying vulnerability, applied to the agricultural system of the Yaqui Valley, Mexico. *Global Environmental Change*, **2003**, 13, 255-267	10.1	355
181	Moisture Effects on Soil Reflectance. *Soil Science Society of America Journal*, **2002**, 66, 722-727	2.5	352
180	The poverty implications of climate-induced crop yield changes by 2030. *Global Environmental Change*, **2010**, 20, 577-585	10.1	273
179	A Biogeophysical Approach for Automated SWIR Unmixing of Soils and Vegetation. *Remote Sensing of Environment*, **2000**, 74, 99-112	13.2	273
178	Global crop exposure to critical high temperatures in the reproductive period: historical trends and future projections. *Environmental Research Letters*, **2013**, 8, 024041	6.2	264
177	Climate variability and crop production in Tanzania. *Agricultural and Forest Meteorology*, **2011**, 151, 449-460	5.8	262
176	A scalable satellite-based crop yield mapper. *Remote Sensing of Environment*, **2015**, 164, 324-333	13.2	257
175	Remote sensing of regional crop production in the Yaqui Valley, Mexico: estimates and uncertainties. *Agriculture, Ecosystems and Environment*, **2003**, 94, 205-220	5.7	238
174	Similar estimates of temperature impacts on global wheat yield by three independent methods. *Nature Climate Change*, **2016**, 6, 1130-1136	21.4	233
173	Why are agricultural impacts of climate change so uncertain? The importance of temperature relative to precipitation. *Environmental Research Letters*, **2008**, 3, 034007	6.2	233
172	Cropland distributions from temporal unmixing of MODIS data. *Remote Sensing of Environment*, **2004**, 93, 412-422	13.2	227
171	Feedbacks of Terrestrial Ecosystems to Climate Change. *Annual Review of Environment and Resources*, **2007**, 32, 1-29	17.2	221
170	Impacts of future climate change on California perennial crop yields: Model projections with climate and crop uncertainties. *Agricultural and Forest Meteorology*, **2006**, 141, 208-218	5.8	204
169	The use of satellite data for crop yield gap analysis. *Field Crops Research*, **2013**, 143, 56-64	5.5	202
168	Changes in diurnal temperature range and national cereal yields. *Agricultural and Forest Meteorology*, **2007**, 145, 229-238	5.8	196
167	Historical effects of temperature and precipitation on California crop yields. *Climatic Change*, **2007**, 81, 187-203	4.5	192
166	Analysis of wheat yield and climatic trends in Mexico. *Field Crops Research*, **2005**, 94, 250-256	5.5	189

165	Improving the monitoring of crop productivity using spaceborne solar-induced fluorescence. *Global Change Biology*, **2016**, 22, 716-26	11.4	180
164	Satellite-based assessment of yield variation and its determinants in smallholder African systems. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 2189-2194	11.5	177
163	Direct impacts on local climate of sugar-cane expansion in Brazil. *Nature Climate Change*, **2011**, 1, 105-109	21.4	176
162	Shifts in African crop climates by 2050, and the implications for crop improvement and genetic resources conservation. *Global Environmental Change*, **2009**, 19, 317-325	10.1	174
161	The shifting influence of drought and heat stress for crops in northeast Australia. *Global Change Biology*, **2015**, 21, 4115-27	11.4	173
160	Direct climate effects of perennial bioenergy crops in the United States. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 4307-12	11.5	165
159	Empirical evidence for a recent slowdown in irrigation-induced cooling. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 13582-7	11.5	165
158	Integrating satellite and climate data to predict wheat yield in Australia using machine learning approaches. *Agricultural and Forest Meteorology*, **2019**, 274, 144-159	5.8	161
157	Reduction of transpiration and altered nutrient allocation contribute to nutrient decline of crops grown in elevated CO(2) concentrations. *Plant, Cell and Environment*, **2013**, 36, 697-705	8.4	156
156	Regional Differences in the Influence of Irrigation on Climate. *Journal of Climate*, **2009**, 22, 2248-2255	4.4	146
155	Comparing estimates of climate change impacts from process-based and statistical crop models. *Environmental Research Letters*, **2017**, 12, 015001	6.2	133
154	Smallholder maize area and yield mapping at national scales with Google Earth Engine. *Remote Sensing of Environment*, **2019**, 228, 115-128	13.2	133
153	Climate and management contributions to recent trends in U.S. agricultural yields. *Science*, **2003**, 299, 1032	33.3	127
152	Landsat-based classification in the cloud: An opportunity for a paradigm shift in land cover monitoring. *Remote Sensing of Environment*, **2017**, 202, 64-74	13.2	123
151	The Effect of Irrigation on Regional Temperatures: A Spatial and Temporal Analysis of Trends in California, 1934–2002. *Journal of Climate*, **2008**, 21, 2063-2071	4.4	123
150	Impacts of Day Versus Night Temperatures on Spring Wheat Yields:A Comparison of Empirical and CERES Model Predictions in Three Locations. *Agronomy Journal*, **2007**, 99, 469-477	2.2	121
149	The fingerprint of climate trends on European crop yields. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 2670-5	11.5	118
148	Adaptation potential of European agriculture in response to climate change. *Nature Climate Change* , **2014**, 4, 610-614	21.4	115

147	Climate change adaptation in crop production: Beware of illusions. *Global Food Security*, **2014**, 3, 72-76	8.3	115
146	Crop type mapping without field-level labels: Random forest transfer and unsupervised clustering techniques. *Remote Sensing of Environment*, **2019**, 222, 303-317	13.2	112
145	Towards fine resolution global maps of crop yields: Testing multiple methods and satellites in three countries. *Remote Sensing of Environment*, **2017**, 202, 129-141	13.2	109
144	Regional-scale assessment of soil salinity in the Red River Valley using multi-year MODIS EVI and NDVI. *Journal of Environmental Quality*, **2010**, 39, 35-41	3.4	107
143	The shared and unique values of optical, fluorescence, thermal and microwave satellite data for estimating large-scale crop yields. *Remote Sensing of Environment*, **2017**, 199, 333-349	13.2	106
142	Moisture Effects on Soil Reflectance **2002**, 66, 722		106
141	Incorporating Climate Uncertainty into Estimates of Climate Change Impacts. *Review of Economics and Statistics*, **2015**, 97, 461-471	3.7	100
140	Projected temperature changes indicate significant increase in interannual variability of U.S. maize yields. *Climatic Change*, **2012**, 112, 525-533	4.5	100
139	Climate change uncertainty for daily minimum and maximum temperatures: A model inter-comparison. *Geophysical Research Letters*, **2007**, 34,	4.9	99
138	Regional disparities in the CO 2 fertilization effect and implications for crop yields. *Environmental Research Letters*, **2013**, 8, 014054	6.2	96
137	Irrigation cooling effect on temperature and heat index extremes. *Geophysical Research Letters*, **2008**, 35,	4.9	90
136	The COVID-19 lockdowns: a window into the Earth System. *Nature Reviews Earth & Environment*, **2020**, 1, 470-481	30.2	90
135	Anthropogenic climate change has slowed global agricultural productivity growth. *Nature Climate Change*, **2021**, 11, 306-312	21.4	89
134	Water Use Efficiency as a Constraint and Target for Improving the Resilience and Productivity of C and C Crops. *Annual Review of Plant Biology*, **2019**, 70, 781-808	30.7	84
133	Climate volatility and poverty vulnerability in Tanzania. *Global Environmental Change*, **2011**, 21, 46-55	10.1	84
132	An assessment of wheat yield sensitivity and breeding gains in hot environments. *Proceedings of the Royal Society B: Biological Sciences*, **2013**, 280, 20122190	4.4	80
131	Agricultural adaptation to climate change in rich and poor countries: Current modeling practice and potential for empirical contributions. *Energy Economics*, **2014**, 46, 562-575	8.3	75
130	Comparing and combining process-based crop models and statistical models with some implications for climate change. *Environmental Research Letters*, **2017**, 12, 095010	6.2	71

129	The challenge to detect and attribute effects of climate change on human and natural systems. *Climatic Change*, **2013**, 121, 381-395	4.5	69
128	Getting caught with our plants down: the risks of a global crop yield slowdown from climate trends in the next two decades. *Environmental Research Letters*, **2014**, 9, 074003	6.2	69
127	Colocation opportunities for large solar infrastructures and agriculture in drylands. *Applied Energy*, **2016**, 165, 383-392	10.7	68
126	Weakly Supervised Deep Learning for Segmentation of Remote Sensing Imagery. *Remote Sensing*, **2020**, 12, 207	5	66
125	Identification of Saline Soils with Multiyear Remote Sensing of Crop Yields. *Soil Science Society of America Journal*, **2007**, 71, 777-783	2.5	65
124	Climate adaptation as mitigation: the case of agricultural investments. *Environmental Research Letters*, **2013**, 8, 015012	6.2	61
123	Growing sensitivity of maize to water scarcity under climate change. *Scientific Reports*, **2016**, 6, 19605	4.9	61
122	The role of irrigation in changing wheat yields and heat sensitivity in India. *Nature Communications*, **2019**, 10, 4144	17.4	59
121	Testing Remote Sensing Approaches for Assessing Yield Variability among Maize Fields. *Agronomy Journal*, **2014**, 106, 24-32	2.2	58
120	Improving the accuracy of satellite-based high-resolution yield estimation: A test of multiple scalable approaches. *Agricultural and Forest Meteorology*, **2017**, 247, 207-220	5.8	57
119	Historical climate trends, deforestation, and maize and bean yields in Nicaragua. *Agricultural and Forest Meteorology*, **2015**, 200, 270-281	5.8	55
118	Hot spots of wheat yield decline with rising temperatures. *Global Change Biology*, **2017**, 23, 2464-2472	11.4	54
117	Increasing drought and diminishing benefits of elevated carbon dioxide for soybean yields across the US Midwest. *Global Change Biology*, **2018**, 24, e522-e533	11.4	54
116	Satellite detection of earlier wheat sowing in India and implications for yield trends. *Agricultural Systems*, **2013**, 115, 137-143	6.1	53
115	The impacts of future climate and carbon dioxide changes on the average and variability of US maize yields under two emission scenarios. *Environmental Research Letters*, **2015**, 10, 045003	6.2	52
114	Identification of external influences on temperatures in California. *Climatic Change*, **2008**, 87, 43-55	4.5	52
113	The cost of uncertainty for nitrogen fertilizer management: A sensitivity analysis. *Field Crops Research*, **2007**, 100, 210-217	5.5	52
112	Impacts of precipitation and temperature on crop yields in the Pampas. *Climatic Change*, **2015**, 130, 235-245	4.5	50

111	The benefits of recent warming for maize production in high latitude China. *Climatic Change*, **2014**, 122, 341-349	4.5	50
110	California perennial crops in a changing climate. *Climatic Change*, **2011**, 109, 317-333	4.5	50
109	Mapping Smallholder Wheat Yields and Sowing Dates Using Micro-Satellite Data. *Remote Sensing*, **2016**, 8, 860	5	50
108	Assessing climate adaptation options and uncertainties for cereal systems in West Africa. *Agricultural and Forest Meteorology*, **2017**, 232, 291-305	5.8	49
107	Mapping Smallholder Yield Heterogeneity at Multiple Scales in Eastern Africa. *Remote Sensing*, **2017**, 9, 931	5	49
106	Soil, climate, and management impacts on regional wheat productivity in Mexico from remote sensing. *Agricultural and Forest Meteorology*, **2002**, 114, 31-43	5.8	48
105	Deep Transfer Learning for Crop Yield Prediction with Remote Sensing Data **2018**,		47
104	Climate robustly linked to African civil war. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, E185; author reply E186-7	11.5	46
103	Remote sensing of soil degradation: introduction. *Journal of Environmental Quality*, **2010**, 39, 1-4	3.4	46
102	Regional importance of crop yield constraints: Linking simulation models and geostatistics to interpret spatial patterns. *Ecological Modelling*, **2006**, 196, 173-182	3	46
101	Using publicly available satellite imagery and deep learning to understand economic well-being in Africa. *Nature Communications*, **2020**, 11, 2583	17.4	45
100	Response of double cropping suitability to climate change in the United States. *Environmental Research Letters*, **2015**, 10, 024002	6.2	44
99	Errors in climate datasets and their effects on statistical crop models. *Agricultural and Forest Meteorology*, **2013**, 170, 58-66	5.8	44
98	Continuous Corn and Soybean Yield Penalties across Hundreds of Thousands of Fields. *Agronomy Journal*, **2017**, 109, 541-548	2.2	42
97	What aspects of future rainfall changes matter for crop yields in West Africa?. *Geophysical Research Letters*, **2015**, 42, 8001-8010	4.9	40
96	Estimation of the CO2 fertilization effect using growth rate anomalies of CO2 and crop yields since 1961. *Global Change Biology*, **2008**, 14, 451-451	11.4	38
95	The effects of extremely wet planting conditions on maize and soybean yields. *Climatic Change*, **2015**, 130, 247-260	4.5	37
94	Contribution of persistent factors to yield gaps in high-yield irrigated maize. *Field Crops Research*, **2016**, 186, 124-132	5.5	37

93	Tradeoffs and Synergies between biofuel production and large solar infrastructure in deserts. *Environmental Science & Technology*, **2014**, 48, 3021-30	10.3	37
92	Effect of vineyard-scale climate variability on Pinot noir phenolic composition. *Agricultural and Forest Meteorology*, **2011**, 151, 1556-1567	5.8	37
91	Satellite detection of cover crops and their effects on crop yield in the Midwestern United States. *Environmental Research Letters*, **2018**, 13, 064033	6.2	36
90	An independent method of deriving the carbon dioxide fertilization effect in dry conditions using historical yield data from wet and dry years. *Global Change Biology*, **2011**, 17, 2689-2696	11.4	36
89	Satellite detection of rising maize yield heterogeneity in the U.S. Midwest. *Environmental Research Letters*, **2017**, 12, 014014	6.2	35
88	Remote sensing assessment of regional yield losses due to sub-optimal planting dates and fallow period weed management. *Field Crops Research*, **2007**, 101, 80-87	5.5	35
87	The Role of Irrigation Expansion in Past and Future Temperature Trends. *Earth Interactions*, **2008**, 12, 1-11	1.5	34
86	Eyes in the Sky, Boots on the Ground: Assessing Satellite- and Ground-Based Approaches to Crop Yield Measurement and Analysis. *American Journal of Agricultural Economics*, **2020**, 102, 202-219	3.1	34
85	Using satellite imagery to understand and promote sustainable development. *Science*, **2021**, 371,	33.3	33
84	Relative importance of soil and climate variability for nitrogen management in irrigated wheat. *Field Crops Research*, **2004**, 87, 155-165	5.5	32
83	Food Security and Adaptation to Climate Change: What Do We Know?. *Advances in Global Change Research*, **2010**, 133-153	1.2	32
82	Uniting remote sensing, crop modelling and economics for agricultural risk management. *Nature Reviews Earth & Environment*, **2021**, 2, 140-159	30.2	32
81	Tile2Vec: Unsupervised Representation Learning for Spatially Distributed Data. *Proceedings of the AAAI Conference on Artificial Intelligence*, **2019**, 33, 3967-3974	5	31
80	Estimated impacts of emission reductions on wheat and maize crops. *Climatic Change*, **2018**, 146, 533-545	4.5	31
79	Evaluating strategies for improved water use in spring wheat with CERES. *Agricultural Water Management*, **2006**, 84, 249-258	5.9	31
78	Land-Cover and Surface Water Change Drive Large Albedo Increases in South America*. *Earth Interactions*, **2011**, 15, 1-16	1.5	30
77	Yield uncertainty at the field scale evaluated with multi-year satellite data. *Agricultural Systems*, **2007**, 92, 76-90	6.1	30
76	Subpixel canopy cover estimation of coniferous forests in Oregon using SWIR imaging spectrometry. *Journal of Geophysical Research*, **2001**, 106, 5151-5160		30

75	Evaluating the Contribution of Weather to Maize and Wheat Yield Trends in 12 U.S. Counties. *Agronomy Journal*, **2012**, 104, 301-311	2.2	29
74	Yield trends under varying environmental conditions for sorghum and wheat across Australia. *Agricultural and Forest Meteorology*, **2016**, 228-229, 276-285	5.8	28
73	Spatiotemporal patterns of cropland area and net primary production in the central United States estimated from USDA agricultural information. *Geophysical Research Letters*, **2004**, 31,	4.9	28
72	Anticipated burden and mitigation of carbon-dioxide-induced nutritional deficiencies and related diseases: A simulation modeling study. *PLoS Medicine*, **2018**, 15, e1002586	11.6	28
71	Estimation of the carbon dioxide (CO2) fertilization effect using growth rate anomalies of CO2 and crop yields since 1961. *Global Change Biology*, **2008**, 14, 39-45	11.4	27
70	A new spin on an old debate: Errors in farmer-reported production and their implications for inverse scale - Productivity relationship in Uganda. *Journal of Development Economics*, **2019**, 141, 102376	3.6	26
69	The important but weakening maize yield benefit of grain filling prolongation in the US Midwest. *Global Change Biology*, **2018**, 24, 4718-4730	11.4	26
68	Mapping Crop Types in Southeast India with Smartphone Crowdsourcing and Deep Learning. *Remote Sensing*, **2020**, 12, 2957	5	26
67	Using satellite remote sensing to understand maize yield gaps in the North China Plain. *Field Crops Research*, **2015**, 183, 31-42	5.5	25
66	US maize adaptability. *Nature Climate Change*, **2013**, 3, 690-691	21.4	25
65	Climate extremes in California agriculture. *Climatic Change*, **2011**, 109, 355-363	4.5	25
64	Satellite mapping of tillage practices in the North Central US region from 2005 to 2016. *Remote Sensing of Environment*, **2019**, 221, 417-429	13.2	24
63	Satellite evidence for yield growth opportunities in Northwest India. *Field Crops Research*, **2010**, 118, 13-20	5.5	23
62	The impact of agricultural interventions can be doubled by using satellite data. *Nature Sustainability*, **2019**, 2, 931-934	22.1	23
61	Strengthened scientific support for the Endangerment Finding for atmospheric greenhouse gases. *Science*, **2019**, 363,	33.3	22
60	Sight for Sorghums: Comparisons of Satellite- and Ground-Based Sorghum Yield Estimates in Mali. *Remote Sensing*, **2020**, 12, 100	5	21
59	Synthesis and Review: an inter-method comparison of climate change impacts on agriculture. *Environmental Research Letters*, **2018**, 13, 070401	6.2	20
58	A million kernels of truth: Insights into scalable satellite maize yield mapping and yield gap analysis from an extensive ground dataset in the US Corn Belt. *Remote Sensing of Environment*, **2021**, 253, 112174	13.2	20

57	Mapping twenty years of corn and soybean across the US Midwest using the Landsat archive. *Scientific Data*, **2020**, 7, 307	8.2	19
56	Changes in the drought sensitivity of US maize yields. *Nature Food*, **2020**, 1, 729-735	14.4	19
55	Infrastructure Quality Assessment in Africa using Satellite Imagery and Deep Learning **2018**,		18
54	Climate Effects on Food Security: An Overview. *Advances in Global Change Research*, **2010**, 13-30	1.2	18
53	Satellites reveal a small positive yield effect from conservation tillage across the US Corn Belt. *Environmental Research Letters*, **2019**, 14, 124038	6.2	18
52	How much will precision nitrogen management pay off? An evaluation based on simulating thousands of corn fields over the US Corn-Belt. *Field Crops Research*, **2019**, 240, 12-22	5.5	17
51	Interpreting recent temperature trends in California. *Eos*, **2007**, 88, 409-410	1.5	17
50	Temperature and violence. *Nature Climate Change*, **2014**, 4, 234-235	21.4	16
49	Predicting Economic Development using Geolocated Wikipedia Articles **2019**,		15
48	Reply to 'Temperature and drought effects on maize yield'. *Nature Climate Change*, **2014**, 4, 234-234	21.4	15
47	Using remotely sensed temperature to estimate climate response functions. *Environmental Research Letters*, **2017**, 12, 014013	6.2	14
46	Seasonal energy storage using bioenergy production from abandoned croplands. *Environmental Research Letters*, **2013**, 8, 035012	6.2	14
45	Per-Pixel Analysis of Forest Structure **2003**, 209-254		14
44	Climate and Civil War: Is the Relationship Robust? **2010**,		13
43	Generating Interpretable Poverty Maps using Object Detection in Satellite Images **2020**,		13
42	Differences, or lack thereof, in wheat and maize yields under three low-warming scenarios. *Environmental Research Letters*, **2018**, 13, 065001	6.2	12
41	Weather-based yield forecasts developed for 12 California crops. *California Agriculture*, **2006**, 60, 211-215	1.1	12
40	Meta-Learning for Few-Shot Land Cover Classification **2020**,		12

39	An approach to understanding persistent yield variation: A case study in North China Plain. *European Journal of Agronomy*, **2016**, 77, 10-19	5	12
38	Historical effects of CO2 and climate trends on global crop water demand. *Nature Climate Change*, **2017**, 7, 901-905	21.4	11
37	Using Sentinel-1, Sentinel-2, and Planet Imagery to Map Crop Type of Smallholder Farms. *Remote Sensing*, **2021**, 13, 1870	5	11
36	Assessing the heterogeneity and persistence of farmers' maize yield performance across the North China Plain. *Field Crops Research*, **2017**, 205, 55-66	5.5	10
35	Learning to Interpret Satellite Images using Wikipedia **2019**,		10
34	From sunlight to seed: Assessing limits to solar radiation capture and conversion in agro-ecosystems. *Agricultural and Forest Meteorology*, **2020**, 280, 107775	5.8	9
33	Monitoring Ethiopian Wheat Fungus with Satellite Imagery and Deep Feature Learning **2017**,		8
32	Satellite Monitoring of Yield Responses to Irrigation Practices across Thousands of Fields. *Agronomy Journal*, **2008**, 100, 1005-1012	2.2	8
31	Two shifts for crop mapping: Leveraging aggregate crop statistics to improve satellite-based maps in new regions. *Remote Sensing of Environment*, **2021**, 262, 112488	13.2	8
30	Comments on "Methodology and Results of Calculating Central California Surface Temperature Trends: Evidence of Human-Induced Climate Change?" *Journal of Climate*, **2007**, 20, 4486-4489	4.4	7
29	Evaluation of soil-dependent crop yield outcomes in Nepal using ground and satellite-based approaches. *Field Crops Research*, **2021**, 260, 107987	5.5	7
28	Rotation Effects on Corn and Soybean Yield Inferred from Satellite and Field-level Data. *Agronomy Journal*, **2019**, 111, 2940-2948	2.2	6
27	High-Resolution Soybean Yield Mapping Across the US Midwest Using Subfield Harvester Data. *Remote Sensing*, **2020**, 12, 3471	5	6
26	The case of the missing wheat. *Environmental Research Letters*, **2012**, 7, 021002	6.2	6
25	Factors Constraining Timely Sowing of Wheat as an Adaptation to Climate Change in Eastern India. *Weather, Climate, and Society*, **2020**, 12, 515-528	2.3	6
24	Crop Responses to Climate: Time-Series Models. *Advances in Global Change Research*, **2010**, 85-98	1.2	6
23	Scalable deep learning to identify brick kilns and aid regulatory capacity. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	6
22	Hierarchical modeling of seed variety yields and decision making for future planting plans. *Environment Systems and Decisions*, **2018**, 38, 458-470	4.1	6

21	On the role of anthropogenic climate change in the emerging food crisis in southern Africa in the 2019-2020 growing season. *Global Change Biology*, **2020**, 26, 2729-2730	11.4	5
20	Satellite-Based Detection of Salinity and Sodicity Impacts on Wheat Production in the Mexicali Valley. *Soil Science Society of America Journal*, **2011**, 75, 699-707	2.5	5
19	Cleaner air has contributed one-fifth of US maize and soybean yield gains since 1999. *Environmental Research Letters*, **2021**, 16, 074049	6.2	5
18	Mapping Missing Population in Rural India **2019**,		4
17	The impact of groundwater depletion on agricultural production in India. *Environmental Research Letters*, **2021**, 16, 085003	6.2	4
16	Twice Is Nice: The Benefits of Two Ground Measures for Evaluating the Accuracy of Satellite-Based Sustainability Estimates. *Remote Sensing*, **2021**, 13, 3160	5	4
15	Using Satellite Imagery to Understand and Promote Sustainable Development **2020**,		3
14	Pharaoh's Dream Revisited: An Integrated US Midwest Field Research Network for Climate Adaptation. *BioScience*, **2016**, 66, 80-85	5.7	3
13	Viewpoint: Principles and priorities for one CGIAR. *Food Policy*, **2020**, 91, 101825	5	2
12	Global and Regional Assessments. *Advances in Global Change Research*, **2010**, 177-192	1.2	2
11	Combining GEDI and Sentinel-2 for wall-to-wall mapping of tall and short crops. *Environmental Research Letters*,	6.2	2
10	Reply to Gonsamo and Chen: Yield findings independent of cause of climate trends. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, E2267	11.5	1
9	Mapping Sugarcane in Central India with Smartphone Crowdsourcing. *Remote Sensing*, **2022**, 14, 703	5	1
8	Farm Parcel Delineation Using Spatio-temporal Convolutional Networks **2020**,		1
7	Early- and in-season crop type mapping without current-year ground truth: Generating labels from historical information via a topology-based approach. *Remote Sensing of Environment*, **2022**, 274, 112994	13.2	1
6	Prior crop season management constrains farmer adaptation to warming temperatures: Evidence from the Indo-Gangetic Plains. *Science of the Total Environment*, **2021**, 807, 151671	10.2	0
5	Combining randomized field experiments with observational satellite data to assess the benefits of crop rotations on yields. *Environmental Research Letters*, **2022**, 17, 044066	6.2	0
4	African Agriculture in 2050: Climate Change Impacts and Adaptation Options. *ICP Series on Climate Change Impacts, Adaptation, and Mitigation*, **2010**, 255-266		

3	Response--Energy Strategies and Efficiency. *Science*, **2009**, 325, 812-813	33.3
2	Evaluating maize yield response to fertilizer and soil in Mexico using ground and satellite approaches. *Field Crops Research*, **2022**, 276, 108393	5.5
1	Agricultural Research and Management at the Field Scale **2012**, 139-169	