

Biochar application to low fertility soils: A review of current prospects

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Suppression of Phytophthora blight of pepper by biochar amendment is associated with improved soil bacterial properties. <i>Biology and Fertility of Soils</i> , 2019, 55, 813-824.	2.3	26
2	Evaluation of the adsorption potential of biochars prepared from forest and agri-food wastes for the removal of fluoxetine. <i>Bioresource Technology</i> , 2019, 292, 121973.	4.8	44
3	Antibacterial effect of activated carbons prepared from some biomasses available in North East India. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2019, , 1-11.	1.2	7
4	Impact of sole and combined application of biochar, organic and chemical fertilizers on wheat crop yield and water productivity in a dry tropical agro-ecosystem. <i>Biochar</i> , 2019, 1, 229-235.	6.2	50
5	Addition of Biochar to a Sandy Desert Soil: Effect on Crop Growth, Water Retention and Selected Properties. <i>Agronomy</i> , 2019, 9, 327.	1.3	52
6	Soil and water conservation using biochar and various soil moisture in laboratory conditions. <i>Catena</i> , 2019, 182, 104151.	2.2	27
7	Biochar farming: defining economically perspective applications. <i>Clean Technologies and Environmental Policy</i> , 2019, 21, 1389-1395.	2.1	199
8	Removal of lead by rice husk biochars produced at different temperatures and implications for their environmental utilizations. <i>Chemosphere</i> , 2019, 235, 825-831.	4.2	107
9	Biochar Effects on Two Tropical Tree Species and Its Potential as a Tool for Reforestation. <i>Forests</i> , 2019, 10, 678.	0.9	27
10	Biochar Surface Oxygenation by Ozonization for Super High Cation Exchange Capacity. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 16410-16418.	3.2	60
11	Simultaneous in-situ remediation and fertilization of Cd-contaminated weak-alkaline farmland for wheat production. <i>Journal of Environmental Management</i> , 2019, 250, 109528.	3.8	24
12	Biochar induced Pb and Cu immobilization, phytoavailability attenuation in Chinese cabbage, and improved biochemical properties in naturally co-contaminated soil. <i>Journal of Soils and Sediments</i> , 2019, 19, 2381-2392.	1.5	39
13	CO ₂ -mediated chicken manure biochar manipulation for biodiesel production. <i>Environmental Research</i> , 2019, 171, 348-355.	3.7	19
14	Biochar and earthworms working in tandem: Research opportunities for soil bioremediation. <i>Science of the Total Environment</i> , 2019, 688, 574-583.	3.9	47
15	A quantitative understanding of the role of co-composted biochar in plant growth using meta-analysis. <i>Science of the Total Environment</i> , 2019, 685, 741-752.	3.9	93
16	Risk evaluation of biochars produced from Cd-contaminated rice straw and optimization of its production for Cd removal. <i>Chemosphere</i> , 2019, 233, 149-156.	4.2	54
17	Substitution of mineral fertilizers with biogas digestate plus biochar increases physically stabilized soil carbon but not crop biomass in a field trial. <i>Science of the Total Environment</i> , 2019, 680, 181-189.	3.9	46
18	Preparation, modification and environmental application of biochar: A review. <i>Journal of Cleaner Production</i> , 2019, 227, 1002-1022.	4.6	1,216

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19	The effects of biochars produced from the residues of locally grown crops on soil quality variables and indexes. <i>Geoderma</i> , 2019, 345, 123-133.	2.3	24
20	Mono-and co-applications of Ca-bentonite with zeolite, Ca-hydroxide, and tobacco biochar affect phytoavailability and uptake of copper and lead in a gold mine-polluted soil. <i>Journal of Hazardous Materials</i> , 2019, 374, 401-411.	6.5	27
21	Biochar composition-dependent impacts on soil nutrient release, carbon mineralization, and potential environmental risk: A review. <i>Journal of Environmental Management</i> , 2019, 241, 458-467.	3.8	249
22	Soil Microbial Community Structure Shifts Induced by Biochar and Biochar-Based Fertilizer Amendment to Karst Calcareous Soil. <i>Soil Science Society of America Journal</i> , 2019, 83, 398-408.	1.2	36
23	Soil lead immobilization by biochars in short-term laboratory incubation studies. <i>Environment International</i> , 2019, 127, 190-198.	4.8	70
24	Effects of Yak Dung Biomass Black Carbon on the Soil Physicochemical Properties of the Northeastern Qinghai-Tibet Plateau. <i>Sustainability</i> , 2019, 11, 1536.	1.6	0
25	Past, present, and future of biochar. <i>Biochar</i> , 2019, 1, 75-87.	6.2	278
26	Variation in N ₂ O emission and N ₂ O related microbial functional genes in straw- and biochar-amended and non-amended soils. <i>Applied Soil Ecology</i> , 2019, 137, 57-68.	2.1	65
27	Rice straw- and rapeseed residue-derived biochars affect the geochemical fractions and phytoavailability of Cu and Pb to maize in a contaminated soil under different moisture content. <i>Journal of Environmental Management</i> , 2019, 237, 5-14.	3.8	56
28	Maintaining the sustainability of fertile agricultural soil using bamboo biochar in tropical volcano area. <i>IOP Conference Series: Earth and Environmental Science</i> , 2019, 399, 012129.	0.2	0
29	Coconut shell derived biochar to enhance water spinach (<i>Ipomoea aquatica</i> Forsk) growth and decrease nitrogen loss under tropical conditions. <i>Scientific Reports</i> , 2019, 9, 20291.	1.6	22
30	Environmental behavior of engineered biochars and their aging processes in soil. <i>Biochar</i> , 2019, 1, 339-351.	6.2	45
31	Release dynamics of As, Co, and Mo in a biochar treated soil under pre-definite redox conditions. <i>Science of the Total Environment</i> , 2019, 657, 686-695.	3.9	69
32	Distribution of Black Carbon in Topsoils of the Northeastern Qinghai-Tibet Plateau Under Natural and Anthropogenic Influences. <i>Archives of Environmental Contamination and Toxicology</i> , 2019, 76, 528-539.	2.1	7
33	In situ chemical stabilization of trace element-contaminated soil – Field demonstrations and barriers to transition from laboratory to the field – A review. <i>Applied Geochemistry</i> , 2019, 100, 335-351.	1.4	85
34	Biochar application to low fertility soils: A review of current status, and future prospects. <i>Geoderma</i> , 2019, 337, 536-554.	2.3	571
35	Sustainable agriculture options for production, greenhouse gasses and pollution alleviation, and nutrient recycling in emerging and transitional nations - An overview. <i>Journal of Cleaner Production</i> , 2020, 242, 118319.	4.6	145
36	Biochar-induced metal immobilization and soil biogeochemical process: An integrated mechanistic approach. <i>Science of the Total Environment</i> , 2020, 698, 134112.	3.9	139

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37	Almond and walnut shell-derived biochars affect sorption-desorption, fractionation, and release of phosphorus in two different soils. <i>Chemosphere</i> , 2020, 241, 124888.	4.2	33
38	Biogenic stabilization and heavy metal immobilization during vermicomposting of vegetable waste with biochar amendment. <i>Journal of Hazardous Materials</i> , 2020, 390, 121366.	6.5	53
39	Chemical and biological immobilization mechanisms of potentially toxic elements in biochar-amended soils. <i>Critical Reviews in Environmental Science and Technology</i> , 2020, 50, 903-978.	6.6	157
40	Biochar for Water and Soil Remediation: Production, Characterization, and Application. , 2020, , 153-196.		13
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43	A critical review on remediation of bisphenol S (BPS) contaminated water: Efficacy and mechanisms. <i>Critical Reviews in Environmental Science and Technology</i> , 2020, 50, 476-522.	6.6	56
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47	A review of biochar-based sorbents for separation of heavy metals from water. <i>International Journal of Phytoremediation</i> , 2020, 22, 111-126.	1.7	110
48	Identification of fungal populations assimilating rice root residue-derived carbon by DNA stable-isotope probing. <i>Applied Soil Ecology</i> , 2020, 147, 103374.	2.1	14
49	Single and combined effect of chelating, reductive agents, and agro-industrial by-product treatments on As, Pb, and Zn mobility in a mine-affected soil over time. <i>Environmental Science and Pollution Research</i> , 2020, 27, 5536-5546.	2.7	7
50	(Im)mobilization and speciation of lead under dynamic redox conditions in a contaminated soil amended with pine sawdust biochar. <i>Environment International</i> , 2020, 135, 105376.	4.8	63
51	Effects of wheat straw derived biochar on cadmium availability in a paddy soil and its accumulation in rice. <i>Environmental Pollution</i> , 2020, 257, 113592.	3.7	66
52	Biochar addition to forest plantation soil enhances phosphorus availability and soil bacterial community diversity. <i>Forest Ecology and Management</i> , 2020, 455, 117635.	1.4	66
53	Preparation, environmental application and prospect of biochar-supported metal nanoparticles: A review. <i>Journal of Hazardous Materials</i> , 2020, 388, 122026.	6.5	172
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58	Soil carbon increased by twice the amount of biochar carbon applied after 6 years: Field evidence of negative priming. <i>GCB Bioenergy</i> , 2020, 12, 240-251.	2.5	60
59	Biochar Impacts on Acidic Soil from <i>Camellia Oleifera</i> Plantation: A Short-Term Soil Incubation Study. <i>Agronomy</i> , 2020, 10, 1446.	1.3	3
60	Impact of the Combined Application of Biochar and Compost on Mine Soil Quality and Growth of <i>Abelmoschus esculentus</i> . <i>Bulletin of Environmental Contamination and Toxicology</i> , 2022, 108, 396-402.	1.3	7
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65	Enhanced adsorption of Pb(II) by nitrogen and phosphorus co-doped biochar derived from <i>Camellia oleifera</i> shells. <i>Environmental Research</i> , 2020, 191, 110030.	3.7	56
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67	Biochar and its importance on nutrient dynamics in soil and plant. <i>Biochar</i> , 2020, 2, 379-420.	6.2	266
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75	Effect of biochar application at different adding rates on garlic (<i>Allium sativum</i>) growth and production. <i>IOP Conference Series: Earth and Environmental Science</i> , 2020, 474, 032041.	0.2	0
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78	Biochar Aging: Mechanisms, Physicochemical Changes, Assessment, And Implications for Field Applications. <i>Environmental Science & Technology</i> , 2020, 54, 14797-14814.	4.6	273
79	Integration of Seed Priming and Biochar Application Improves Drought Tolerance in Cowpea. <i>Journal of Plant Growth Regulation</i> , 2021, 40, 1972-1980.	2.8	16
80	Application of bio-organic fertilizer, not biochar, in degraded red soil improves soil nutrients and plant growth. <i>Rhizosphere</i> , 2020, 16, 100264.	1.4	41
81	Impact of agricultural management practices on soil carbon sequestration and its monitoring through simulation models and remote sensing techniques: A review. <i>Critical Reviews in Environmental Science and Technology</i> , 2022, 52, 1-49.	6.6	46
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83	Evaluating the effect of biochar on salt leaching and nutrient retention of Yellow River Delta soil. <i>Soil Use and Management</i> , 2020, 36, 740-750.	2.6	34
84	Sustainable use of biochar for resource recovery and pharmaceutical removal from human urine: A critical review. <i>Critical Reviews in Environmental Science and Technology</i> , 2021, 51, 3016-3048.	6.6	18
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91	Preparation of activated carbon from biomass and its applications in water and gas purification, a review. <i>Arab Journal of Basic and Applied Sciences</i> , 2020, 27, 208-238.	1.0	184

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93	Integrated use of seed priming and biochar improves salt tolerance in cowpea. <i>Scientia Horticulturae</i> , 2020, 272, 109507.	1.7	34
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103	Response of Bacterial Community Structure to Different Biochar Addition Dosages in Karst Yellow Soil Planted with Ryegrass and Daylily. <i>Sustainability</i> , 2020, 12, 2124.	1.6	8
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111	Customised fabrication of nitrogen-doped biochar for environmental and energy applications. <i>Chemical Engineering Journal</i> , 2020, 401, 126136.	6.6	158
112	Role of biochars in soil fertility management of fruit crops. , 2020, , 431-444.		1
113	Conversion of biological solid waste to graphene-containing biochar for water remediation: A critical review. <i>Chemical Engineering Journal</i> , 2020, 390, 124611.	6.6	108
114	A Critical Review on Bioethanol and Biochar Production from Lignocellulosic Biomass and Their Combined Application in Generation of High-Value Byproducts. <i>Energy Technology</i> , 2020, 8, 2000025.	1.8	13
115	Biochars and their magnetic derivatives as enzyme-like catalysts mimicking peroxidases. <i>Biochar</i> , 2020, 2, 121-134.	6.2	9
116	A review on control factors of pyrolysis technology for plants containing heavy metals. <i>Ecotoxicology and Environmental Safety</i> , 2020, 191, 110181.	2.9	24
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124	Rice husk biochar influences runoff features, soil loss, and hydrological behavior of a loamy soil in a series of successive simulated rainfall events. <i>Catena</i> , 2020, 192, 104587.	2.2	20
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127	A Biocascade Approach Towards the Recovery of High-Value Natural Products from Biowaste: State-of-Art and Future Trends. <i>Waste and Biomass Valorization</i> , 2021, 12, 1143-1166.	1.8	14

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132	Allelopathy of uncomposted and composted invasive aster (<i>Ageratina adenophora</i>) on ryegrass. <i>Journal of Hazardous Materials</i> , 2021, 402, 123727.	6.5	17
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136	Biochar amendment improves shoot biomass of tomato seedlings and sustains water relations and leaf gas exchange rates under different irrigation and nitrogen regimes. <i>Agricultural Water Management</i> , 2021, 245, 106580.	2.4	30
137	The roles of co-composted biochar (COMBI) in improving soil quality, crop productivity, and toxic metal amelioration. <i>Journal of Environmental Management</i> , 2021, 277, 111443.	3.8	89
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141	Effects of biochar addition on the abundance, speciation, availability, and leaching loss of soil phosphorus. <i>Science of the Total Environment</i> , 2021, 758, 143657.	3.9	56
142	Effects of field scale in situ biochar incorporation on soil environment in a tropical highly weathered soil. <i>Environmental Pollution</i> , 2021, 272, 116009.	3.7	23
143	Impact of biochar water extract addition on soil organic carbon mineralization and C fractions in different tillage systems. <i>Environmental Technology and Innovation</i> , 2021, 21, 101193.	3.0	10
144	Evaluating negative emissions technologies using neutrosophic data envelopment analysis. <i>Journal of Cleaner Production</i> , 2021, 286, 125494.	4.6	15
145	In situ aerobic composting eliminates the toxicity of <i>Ageratina adenophora</i> to maize and converts it into a plant- and soil-friendly organic fertilizer. <i>Journal of Hazardous Materials</i> , 2021, 410, 124554.	6.5	16

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147	Microbial mechanism of biochar addition on nitrogen leaching and retention in tea soils from different plantation ages. <i>Science of the Total Environment</i> , 2021, 757, 143817.	3.9	30
148	Biofuel production. , 2021, , 145-171.		1
149	Applying both biochar and phosphobacteria enhances <i>Vigna mungo</i> L. growth and yield in acid soils by increasing soil pH, moisture content, microbial growth and P availability. <i>Agriculture, Ecosystems and Environment</i> , 2021, 308, 107258.	2.5	29
150	Nutrient retention, availability and greenhouse gas emissions from biochar-fertilized Chernozems. <i>Catena</i> , 2021, 198, 105046.	2.2	18
151	The potential for biochar application in rubber plantations in Xishuangbanna, Southwest China: a pot trial. <i>Biochar</i> , 2021, 3, 65-76.	6.2	4
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