Table S1. Basic Information of Biochar.

No	Title of the paper involved into the analysis	link of the source	temperatures of pyrolysis	Feedstock	rate of biochar	surface area of biochar	scientific names of plants
1	Biochar application increased the growth and yield and reduced cadmium in drought stressed wheat grown in an aged contaminated soil.	https://doi.org/10.1016/j.ecoenv.2017.11.063.	/	wheat straw	3.0% w/w 5.0% w/w	/	wheat
2	Combined use of zinc nanoparticles and co-composted biochar enhanced wheat growth and decreased cd concentration in grains under cd and drought stress: a field study.	https://doi.org/10.1016/j.eti.2021.101518.	/	/	0.5% w/w	/	wheat
3	Acc-deaminase producing plant growth promoting rhizobacteria and biochar mitigate adverse effects of drought stress on maize growth.	https://doi.org/10.1371/journal.pone.0250286.	389 ℃	wood	5.0% w/w	/	maize
4	Biochar and vermicompost improve growth and physiological traits of eggplant (solanum melongena l.) Under deficit irrigation.	https://doi.org/10.1186/s40538-021-00216-9.	560 ℃	pistachio date palm	500 g m^{-2}	/	eggplant
5	Plant growth response of broad bean (vicia faba l.) To biochar amendment of loamy sand soil under irrigated and drought conditions.	https://doi.org/10.1007/s42398-020-00116-y.	600 ℃	maize	2% wt 4% wt	/	broad bean
6	Maize growth and yield modelling using aquacrop under deficit irrigation with sole and combined application of biochar and inorganic fertiliser.	https://doi.org/10.1007/s42729-020-00310-1.	500 ℃	maize cob residue	20 Mg ha^{-1}	/	Maize
7	Effects of biochar and inorganic fertiliser applications on growth, yield and water use efficiency of maize under deficit irrigation.	https://doi.org/10.1016/j.agwat.2019.02.044.	500 ℃	maize-cob residues	20 t/ha		maize
8	Integration of seed priming and biochar application improves drought tolerance in cowpea.	https://doi.org/10.1007/s00344-020-10245-7.	500 ℃	mango wood	25 g/kg	23.5	cowpea
9	Integrated effects of cattle manure-derived biochar and soil moisture conditions on soil chemical characteristics and soybean yield. Arch.	https://doi.org/10.1080/03650340.2019.1576864.	400 ℃	cattle manure-derived	1.25% wt 2.5% wt 5 % wt	/	soybean
10	Does biochar mitigate the adverse effects of drought on the	https://doi.org/10.1016/j.i	600 ℃	cattle manure	1.25 % wt	/	soybean

	agronomic traits and yield components of soybean?	ndcrop.2018.11.047.			2.5 % wt 5 % wt		
11	Differences in physiological and biochemical attributes of wheat in response to single and combined salicylic acid and biochar subjected to limited water irrigation in saline sodic soil.	https://doi.org/10.3390/plants9101346.	/	/	/	/	wheat
12	Potential effects of biochar application on mitigating the drought stress implications on wheat (triticum aestivum l.) Under various growth stages.	https://doi.org/10.1016/j.jscs.2020.10.005.	500 °C	wheat straw	27.88 g kg^{-1} 37.18 g kg^{-1}	73.8	wheat
13	Biochar and arbuscular mycorrhizal fungi mediated enhanced drought tolerance in okra (abelmoschus esculentus) plant growth, root morphological traits and physiological properties.	https://doi.org/10.1016/j.sjbs.2021.08.016.	400-500 °C	Wood	/	/	okra
14	Influence of biochar on drought tolerance of chenopodium quinoa willd and on soil − plant relations.	https://doi.org/10.1007/s11104-011-0771-5.	400 °C	peanut hull	100 t ha^{-1} 200 t ha^{-1}	/	chenopodium quinoa willd
15	Effect of alternate furrow irrigation on maize productivity in interaction with different irrigation regimes and biochar amendment.	https://doi.org/10.1080/00103624.2020.1733001.	400 °C	walnut	10 t ha−1	/	maize
16	The application of biochar alleviated the adverse effects of drought on the growth, physiology, yield and quality of rapeseed through regulation of soil status and nutrients availability.	https://doi.org/10.1016/j.indcrop.2021.113878.	600 °C	rice straw	15 t ha^{-1} 30 t ha^{-1} 60 t ha^{-1}	/	rapeseed
17	Can biochar improve pumpkin productivity and its physiological characteristics under reduced irrigation regimes?	https://doi.org/10.1016/j.scienta.2018.11.059.	350 °C	Maize straw	5 t ha^{-1} 10 t ha^{-1} 20 t ha^{-1}	53.03	pumpkin
18	Biochar application rate does not improve plant water availability in soybean under drought stress.	https://doi.org/10.1016/j.agwat.2021.106940.	400 °C	poultry litter	25 t ha^{-1} 50 t ha^{-1} 100 t ha^{-1}	/	soybean
19	Wheat straw biochar increases potassium concentration, root density, and yield of faba bean in a sandy loam soil.	https://doi.org/10.1080/00103624.2019.1635145.	550 °C	wheat straw	1.25% w/w 2.50% w/w	/	faba bean

					3.75% w/w 5.00% w/w		
20	Effects of soil amendment with wood ash on transpiration, growth, and metal uptake in two contrasting maize (Zea mays l.) Hybrids to drought tolerance.	https://doi.org/10.3389/fpls.2021.661909.	800 ℃	willow wood ash	0.10% w/w	/	maize
21	Interactive effect of biochar and silicon on improving morpho-physiological and biochemical attributes of maize by reducing drought hazards.	https://doi.org/10.1007/s42729-020-00253-7.	/	/	4 t ha^{-1}	/	maize
22	Integrative effects of rice-straw biochar and silicon on oil and seed quality, yield and physiological traits of helianthus annuus l. Grown under water deficit stress.	https://doi.org/10.3390/agronomy9100637.	500-550 ℃	rice-straw	10.0 t ha^{-1}	22.4	helianthus annuus l.
23	Impact of biochar in mitigating the negative effect of drought stress on cabbage seedlings.	https://doi.org/10.1007/s42729-021-00522-z.	550 ℃	60% sewage sludge and 40% domestic wastes	5 % wt 10 % wt	/	cabbage seedlings
24	Biochar addition alleviate the negative effects of drought and salinity stress on soybean productivity and water use efficiency.	https://doi.org/10.1186/s12870-020-02493-2.	550 ℃	rice-straw	5 g kg^{-1} 10 g kg^{-1}	/	soybean
25	The effect of biochar amendment on the growth, morphology and physiology of quercus castaneifolia seedlings under water-deficit stress.	https://doi.org/10.1007/s10342-019-01217-y.	/	/	10 g kg^{-1} 20 g kg^{-1} 30 g kg^{-1}	/	quercus castaneifolia seedlings