

Supplementary materials:

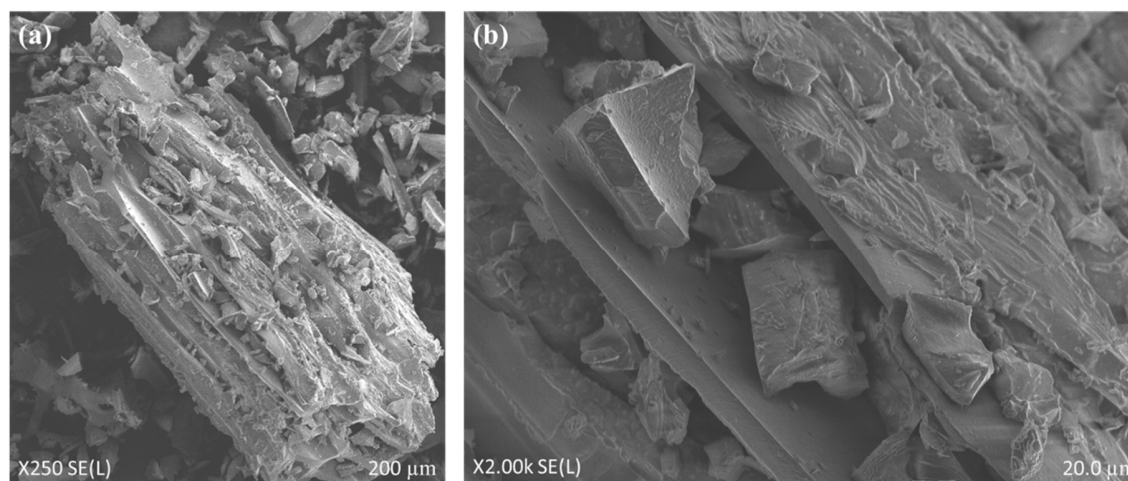


Figure S1. Scanning electron microscopic (SEM) study showing the porous structure of sawdust biochar; (a) magnification at 200 μm and (b) magnification at 20 μm

Table S1. Leaf chlorophyll content at different soil arsenic level in microwave and biochar treatments

As (mg kg ⁻¹ soil)	MW (minutes)	SPAD value		
		Biochar (t ha ⁻¹)		
		0	10	20
0	0	36.45	33.52	36.32
	3	38.35	36.83	38.75
	6	39.50	38.85	39.43
20	0	34.92	36.05	35.30
	3	36.20	36.52	37.35
	6	39.35	38.20	39.90
40	0	34.45	33.68	34.25
	3	36.83	35.73	35.30
	6	39.00	37.60	39.52
60	0	32.30	34.60	31.95
	3	35.35	36.17	36.97
	6	38.38	37.10	38.90
80	0	32.20	36.23	36.27
	3	35.87	37.02	36.05
	6	39.23	38.08	39.48

LSD_{0.05}	2.783
	<i>p</i> value
As	0.002
MW	< 0.001
BC	0.188
As.MW	0.687
As.BC	0.258
MW.BC	0.284
As.MW.BC	0.473

DAS (Days after sowing) indicates the sampling time. As.MW.BC indicates the interaction of arsenic (As), microwave (MW) and biochar (BC)

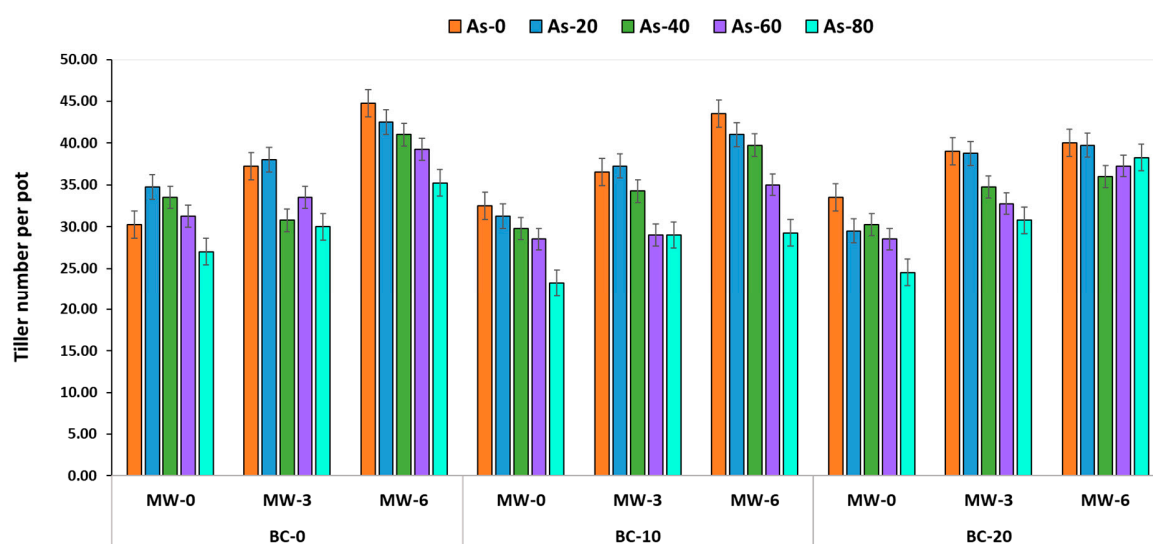


Figure S2. Mean tiller number per pot at different arsenic, microwave (MW) and biochar (BC) treatments. Replicated mean value are shown in bars with standard error.

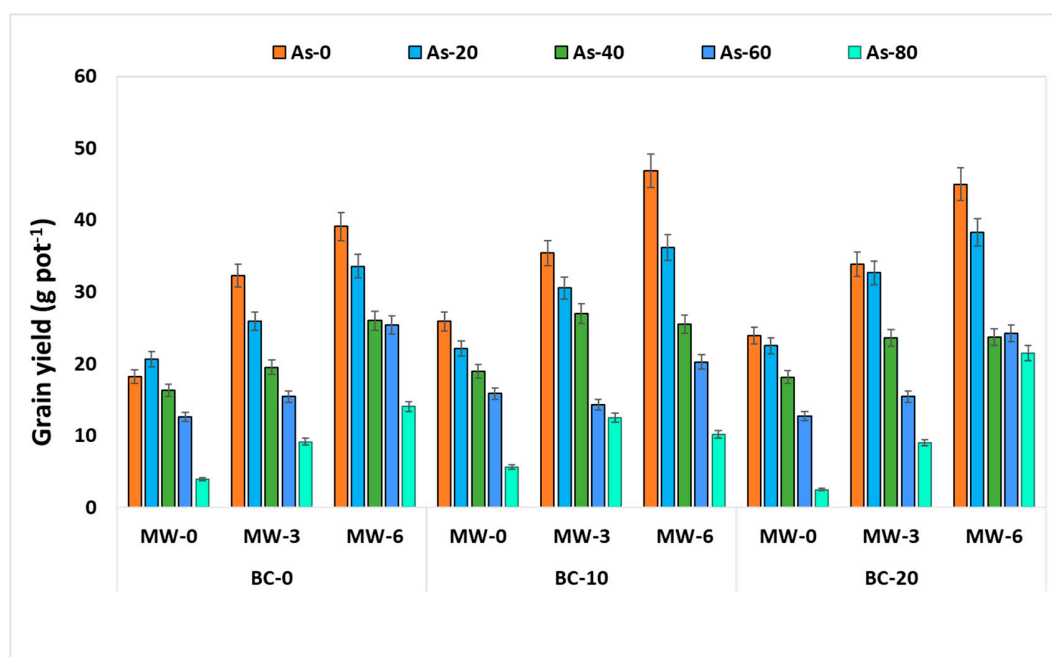


Figure S3. Effect of microwave (MW) soil treatment and biochar (BC) application on grain yield at different soil arsenic concentration level. The mean grain yield values are shown in bar along with standard error.

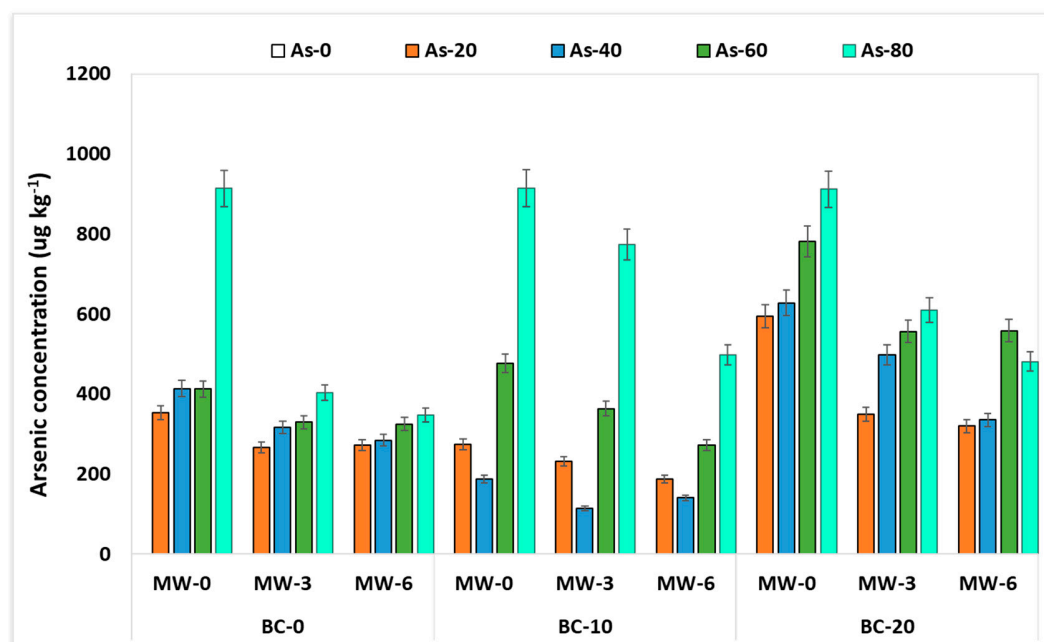


Figure S4. Total arsenic concentration ($\mu\text{g kg}^{-1}$) in rice grain in response to microwave (MW) and biochar (BC) treatments at different level of soil arsenic (As) treatments. Replicated mean value are shown in bars with standard error.

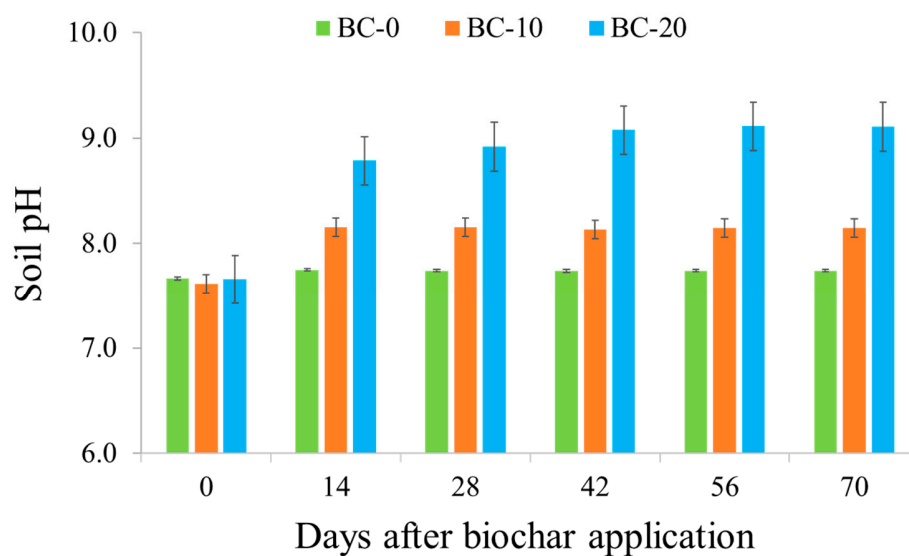


Figure S5. Influence of sawdust biochar application on soil pH during incubation time (days after biochar application). The mean values are shown in bars along with standard error. BC-0, BC-10, and BC-20 indicates the biochar application rate of 0, 10, and 20 t ha⁻¹ soil.