Supplementary Materials

Figure S1. Soil raw materials and mixed actual substrate of pot experiments in different groups.



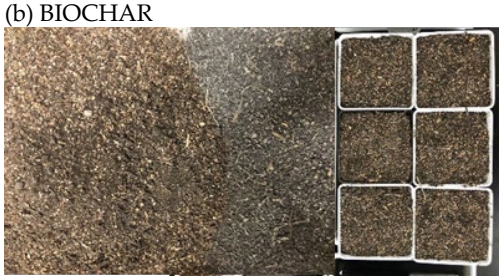
(a) BLANK



(b) BIOCHAR



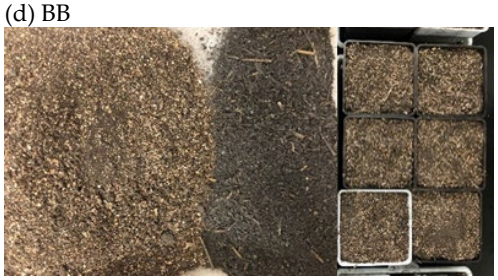
(c) AA



(d) BB



(e) CC



(f) DD

Figure S2. Progress in cucumber potting trials.

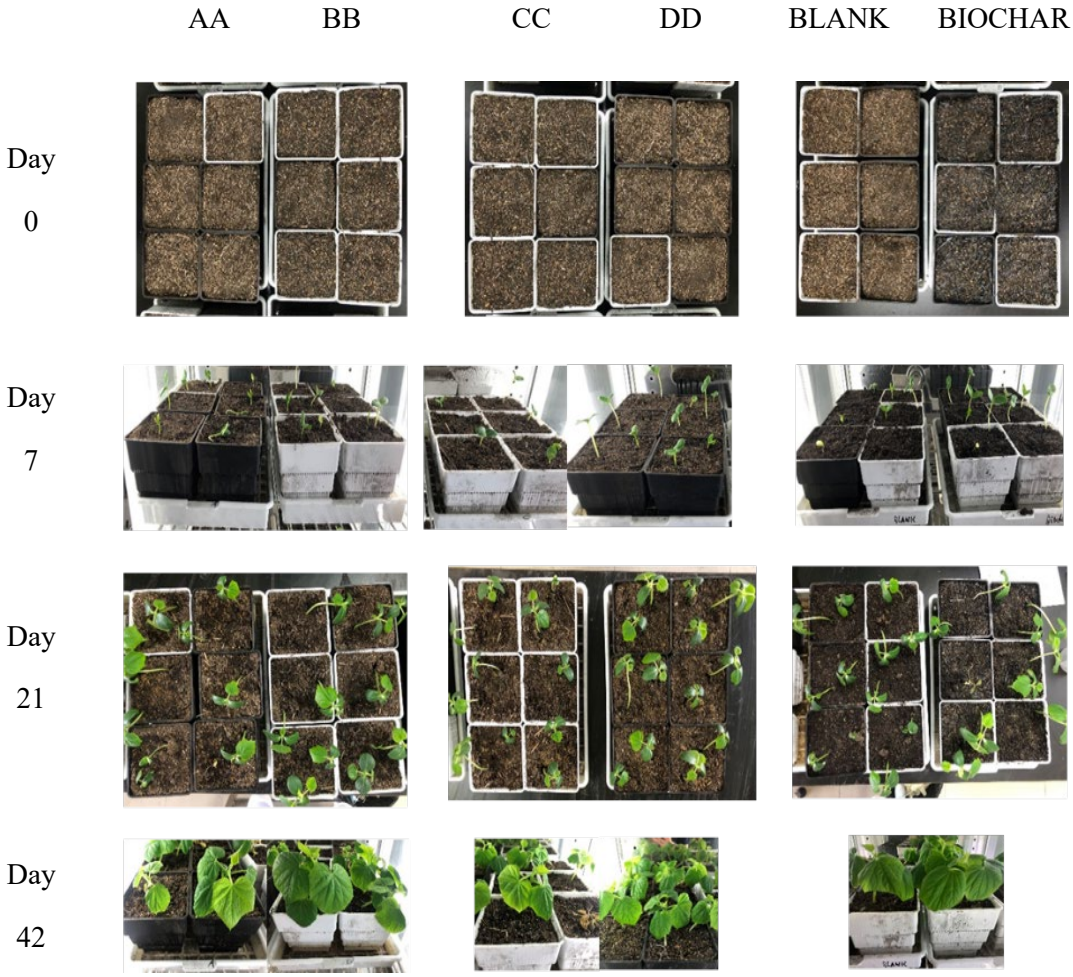
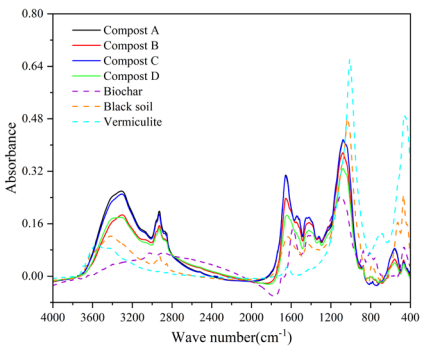
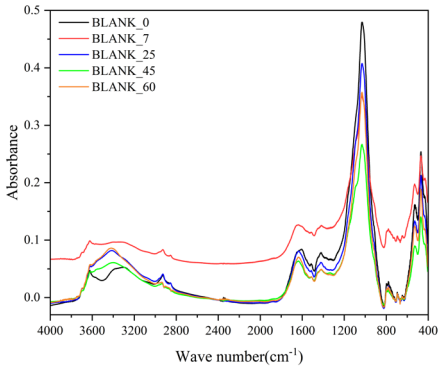


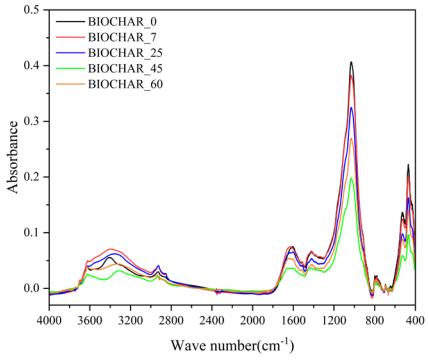
Figure S3. Infrared Spectrums of soil raw materials (a), and potting soil samples in different group: (b) BLANK, (c) BIOCHAR, (d) AA, (e) BB, (f) CC and (g) DD.



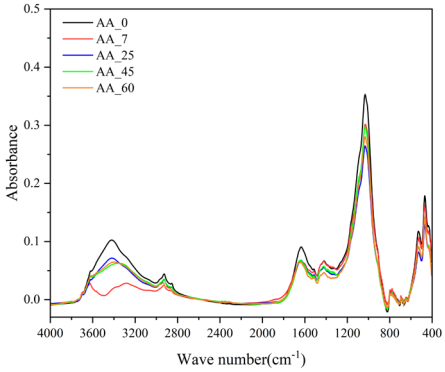
(a)



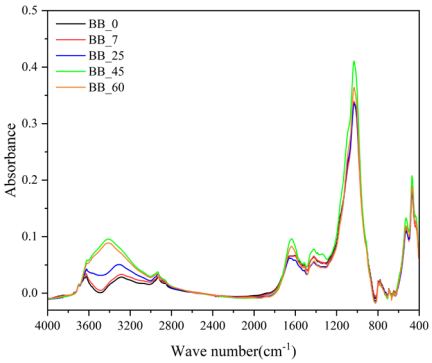
(b)


BIOCHAR_0
BIOCHAR_7
BIOCHAR_25
BIOCHAR_45
BIOCHAR_60
Absorbance
Wave number(cm-1)

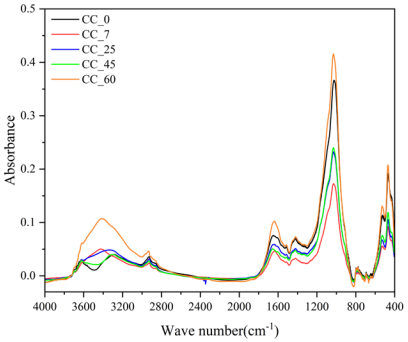
(c)


AA_0
AA_7
AA_25
AA_45
AA_60
Absorbance
Wave number(cm-1)

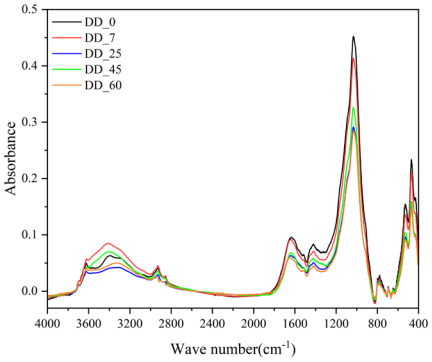
(d)


BB_0
BB_7
BB_25
BB_45
BB_60
Absorbance
Wave number(cm-1)

(e)


CC_0
CC_7
CC_25
CC_45
CC_60
Absorbance
Wave number(cm-1)

(f)


DD_0
DD_7
DD_25
DD_45
DD_60
Absorbance
Wave number(cm-1)

(g)