



Figure S1. Rarefaction curves for the four cowpea plant tissues (roots, main stem, crown stem, leaves).

Table S1. Relative abundances of MOTUs (differentiated at 99% similarity) from the different plant parts of cowpea, excluding unassigned or unknown taxa that could not be placed in a family. Values in bold are higher than 2%, while values of 0% were omitted. Values at phylum, class, order and family level represented totals of the relative abundances of the generic names.

Taxonomical classifications ^a	Plant parts			
	Roots	Crown stems	Main stems	Leaves
ASCOMYCOTA	75.2	10.57	24.37	46.45
Dothideomycetes	29.14	7.79	23.92	45.14
Botryosphaeriales	22.86			
Botryosphaeriaceae	22.86			
<i>Macrophomina</i>	22.86			
Capnodiales			16.45	4.43
Mycosphaerellaceae			16.45	4.43
<i>Cladosporium</i>			16.45	4.43
Pleosporales	5.68	7.79	7.47	39.34
Didymellaceae	5.68	7.79	7.47	39.34
<i>Epicoccum</i>				2.32
<i>Phoma</i>	5.68	7.79	7.47	37.02
Pleosporaceae	0.6			1.37
<i>Cochliobolus</i>	0.6			1.37
Eurotiomycetes	4.32			0.21
Eurotiales	4.32			0.21
Trichocomaceae	4.32			0.21
<i>Aspergillus</i>	3.83			0.21
<i>Neosartorya</i>	0.14			
<i>Penicillium</i>	0.35			
Leotiomycetes	2.55	2.04	0.23	0.21
<i>Uncinula sedis</i>	2.55	2.04	0.23	0.21
<i>Geomyces</i>	2.55	2.04	0.23	0.21
Sordariomycetes	0.14			
Diaporthales	0.14			
Diaporthaceae	0.14			
<i>Phomopsis</i>	0.14			
Glomerellales	4.90	0.18		

Glomerellaceae	4.90	0.18		
<i>Colletotrichum</i>	4.90	0.18		
Plectosphaerellaceae	0.14			
<i>Plectosphaerella</i>	0.14			
Hypocreales	13.33	0.74	0.22	0.30
Stachybotryaceae	0.56			
<i>Myrothecium</i>	0.28			
<i>Stachybotrys</i>	0.28			
Bionectriaceae	1.42			0.10
<i>Bionectria</i> (currently conspecific to <i>Clonostachys</i>)	1.42			0.10
Nectriaceae	11.35	0.74	0.22	0.20
<i>Fusarium</i>	7.38	0.37	0.11	0.10
<i>Haematonectria</i> (currently conspecific to <i>Fusarium</i>)	3.62			
<i>Nectria</i>	0.35			
<i>Volutella</i>		0.37	0.11	0.10
Phyllachorales	3.2	2.7		4.3
Phyllachoraceae unassigned	3.2	2.7		4.3
Sordariales	0.42			
Chaetomiaceae	0.42			
<i>Humicola</i>	0.42			
Xylariales	0.6			0.8
Hyponectriaceae unassigned	0.6			0.8
Basidiomycota	1.34		15.65	1.0
Agaricomycetes	0.42			
Agaricales	0.42			
Marasmiaceae	0.42			
<i>Marasmius</i>	0.42			
Cantharellales	0.4	1.9		
Ceratobasidiaceae	7	0.74		
<i>Thanatephorus</i>	7	0.74		
Tremellomycetes	0.92		15.42	
Filobasidiales	0.92		15.42	
Filobasidiaceae	0.92		15.42	
<i>Cryptococcus</i>	0.92		15.42	
Ustilaginomycetes	0.21			
Urocystidales	0.21			
Glomosporiaceae	0.21			
<i>Thecaphora</i>	0.21			
Ustilaginales			0.23	
Ustilaginaceae			0.23	
<i>Ustilago</i>			0.23	
Mucoromycota	0.35	0.18		0.10
Mucoromycetes	0.35	0.18		0.10
Mucorales	0.35	0.18		0.10
Rhizopodaceae	0.35	0.18		0.10
<i>Rhizopus</i>	0.35	0.18		0.10
Total relative abundance:	67.64	14.37	40.02	51.06
Number of MOTUs:	22	8	7	12

^a Names are indicated as assigned by the UNITE database used in the pipeline.