

Supporting information

Table S1. Linear regression relationships between soil fungi and seedling abundance among four treatments. Here the top 20 soil fungi in the genera rank are analyzed for their key roles in seedling survival.

Types	Generic name	Correlation coefficient	R^2	p -value
Positive fungal group	<i>Alternaria</i>	0.46	0.21	>0.05
	<i>Hyaloseta</i>	0.24	0.06	>0.05
	<i>Penicillium</i>	0.08	0.01	>0.05
	<i>Mortierella</i>	0.45	0.20	>0.05
	<i>Amauroascus</i>	0.16	0.03	>0.05
	<i>Monosporascus</i>	0.60	0.36	<0.05
	<i>Kotlabaea</i>	0.41	0.17	>0.05
	<i>Engyodontium</i>	0.81	0.66	<0.05
	<i>Aporospora</i>	0.74	0.55	<0.05
	<i>Fusarium</i>	0.22	0.05	>0.05
	<i>Talaromyces</i>	0.15	0.02	>0.05
Negative fungal group	<i>unidentified_Sordariomycetes</i>	-0.67	0.45	<0.05
	<i>Russula</i>	-0.60	0.36	<0.05
	<i>Emericellopsis</i>	-0.10	0.01	>0.05
	<i>Helvella</i>	-0.40	0.16	>0.05
	<i>Thielavia</i>	-0.37	0.14	>0.05
	<i>Acremonium</i>	-0.60	0.36	<0.05
	<i>Microsphaeropsis</i>	-0.83	0.69	<0.05
	<i>Thelebolus</i>	-0.01	1.41E-04	>0.05
	<i>Scedosporium</i>	-0.59	0.35	<0.05

Table S2. Linear regression relationships between soil environmental factors and seedling abundance.

Soil environmental factors	Correlation coefficient	<i>R</i> ²	<i>P</i> -values
Soil water content (%)	-0.65	0.42	<0.05
Soil salinity (g/kg)	-0.85	0.72	<0.01
Soil total phosphorus (g/kg)	-0.47	0.22	>0.05
Soil organic matter (g/kg)	-0.51	0.26	>0.05
Soil total nitrogen (g/kg)	-0.55	0.30	>0.05
Bulk density (g/dm ³)	0.31	0.10	>0.05
pH	-0.76	0.58	<0.05

Fig S1

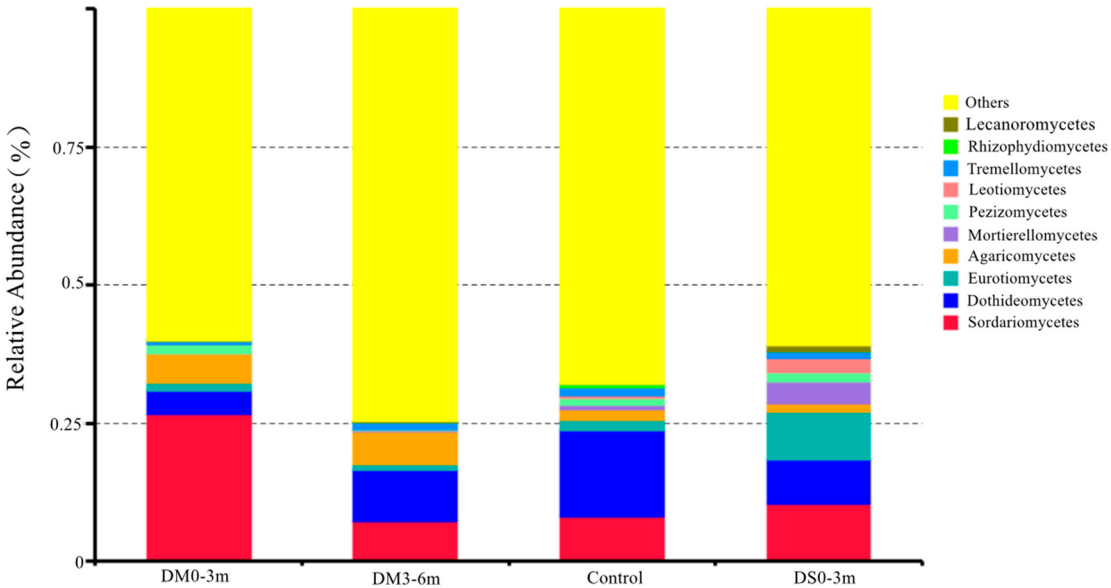


Fig S1 Differences in distribution pattern of the relative abundance of soil fungi among four treatments at class levels.

Fig S2.

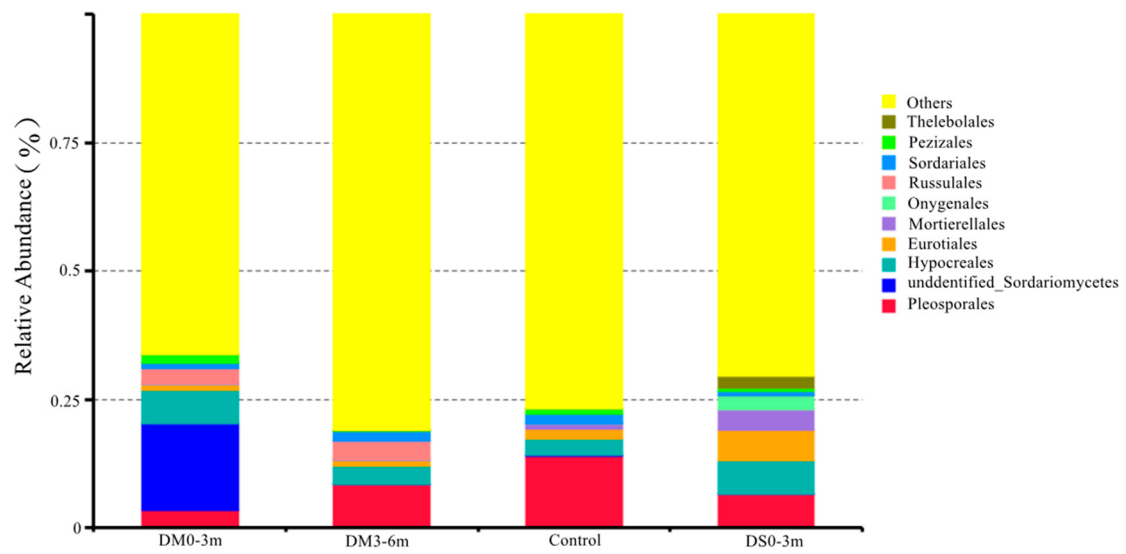


Fig S2 Differences in distribution pattern of the relative abundance of soil fungi among four treatments at order levels.

Fig S3.

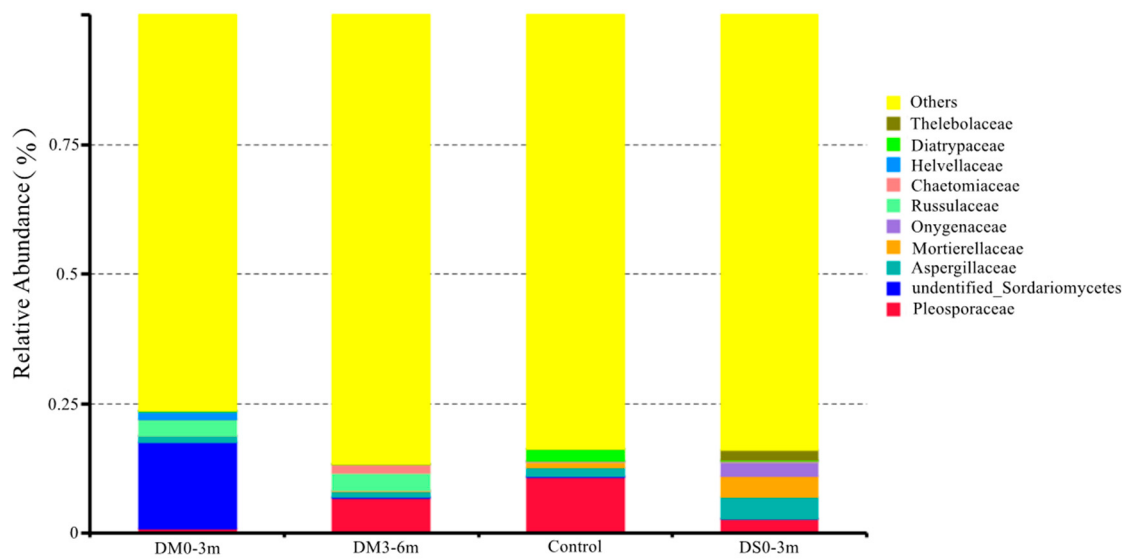


Fig S3 Differences in distribution pattern of the relative abundance of soil fungi among four treatments at family levels.