Table S1. Two-way ANOVA of the impacts of DSE inoculation, Cd stress, and their interactions on the growth of *D. morifolium* sterile seedlings.

	DSE species			**Cd stress**			**DSE species×Cd stress**		
	F	***p***	η_p^2	***F***	***p***	η_p^2	***F***	***p***	η_p^2
Root:shoot ratio	2.409	*	0.307	7.968	**	0.308	2.534	*	0.267
Shoot biomass	2.182	*	0.384	2.498	*	0.204	2.738	*	0.298
Root biomass	8.432	***	0.688	5.635	**	0.603	4.018	**	0.473
Total biomass	4.175	**	0.501	2.867	*	0.197	2.982	*	0.302
Plant height	5.942	**	0.343	3.012	*	0.334	7.275	**	0.693
Leaf number	3.842	*	0.420	0.019	0.895	0.001	5.024	*	0.205
Branches number	1.365	0.108	0.209	1.387	0.271	0.075	0.435	0.732	0.075
Root length	0.369	0.776	0.073	3.382	0.091	0.168	1.549	0.244	0.233
Root surface area	1.326	0.325	0.201	6.672	*	0.297	3.578	*	0.402
Average root diameter	0.988	0.312	0.485	0.056	0.821	0.003	2.774	0.076	0.354
Root volume	7.021	**	0.576	7.833	*	0.329	0.910	0.448	0.146
Chlorophyll	1.399	0.185	0.304	2.957	*	0.351	1.152	0.197	0.115
IAA	3.934	**	0.443	2.234	*	0.321	4.153	**	0.497
SOD	4.438	**	0.488	9.256	***	0.658	2.346	*	0.383
Root Cd content	2.332	*	0.375	3.334	***	0.517	16.314	***	0.632

Note: "*" indicates significant difference *: $p < 0.05$, **: $p < 0.01$, ***: $p < 0.001$. Partial ETA squared (η_p^2) presented the effect size of different factors.

Table S2. Two-way ANOVA of the impacts of DSE inoculation, Cd stress, and their interactions on the growth and soil factors of *D. morifolium* non-sterile seedlings.

	DSE species			**Cd stress**			**DSE species×Cd stress**		
	F	***p***	η_P^2	***F***	***p***	η_P^2	***F***	***p***	η_P^2
Shoot biomass	4.409	**	0.408	7.977	***	0.508	2.526	*	0.276
Root biomass	2.443	*	0.254	4.498	**	0.359	2.745	*	0.287
Total biomass	8.762	***	0.656	13.242	***	0.732	5.012	**	0.399
Flower biomass	4.175	**	0.348	10.867	***	0.701	3.142	*	0.303
Root:shoot ratio	2.268	*	0.224	6.663	**	0.458	5.886	**	0.411
Plant height	6.028	**	0.403	3.173	*	0.328	6.303	**	0.437
Leaf number	0.983	0.098	0.117	0.905	0.785	0.091	1.326	0.325	0.201
Branch number	1.334	0.282	0.184	1.839	0.271	0.093	0.693	0.732	0.073
Petal number	5.023	**	0.397	8.208	**	0.603	7.330	**	0.492
Flower diameter	4.839	*	0.393	9.384	***	0.682	3.201	*	0.329
Root length	3.784	*	0.343	1.167	0.099	0.176	1.843	*	0.325
Root surface area	1.448	0.294	0.189	1.672	0.277	0.197	3.332	*	0.339
Average root diameter	1.032	0.333	0.122	0.067	0.854	0.021	2.886	0.223	0.433
Root volume	7.118	**	0.458	7.844	*	0.522	3.870	*	0.382
Chlorophyll	3.345	**	0.234	3.525	**	0.266	1.154	0.191	0.128
IAA content of roots	7.841	***	0.451	3.487	*	0.251	5.167	**	0.331
Chlorogenic acid	3.598	*	0.224	1.495	0.078	0.136	1.957	0.190	0.151
1, 5-dicaffeoylquinic acid	1.419	0.082	0.137	5.145	**	0.309	1.131	0.369	0.164
Cd content of root	4.613	**	0.239	15.613	***	0.619	0.141	0.735	0.009
Cd content of stems and leaves	2.311	*	0.210	16.311	***	0.630	1.115	0.369	0.259
Cd content of flower	3.718	*	0.251	11.718	***	0.551	2.980	*	0.209
Soil organic carbon	5.382	**	0.339	8.585	***	0.436	1.568	0.193	0.284
Soil available nitrogen	3.145	*	0.263	3.526	*	0.255	1.042	0.311	0.168
Soil available phosphorus	3.451	*	0.239	19.516	***	0.647	1.074	0.097	0.216
pH	2.148	0.114	0.168	4.256	*	0.289	1.082	0.420	2.430

Note: "*" indicates significant difference *: $p < 0.05$, **: $p < 0.01$, ***: $p < 0.001$. Partial ETA squared (η_P^2) presented the effect size of different factors.

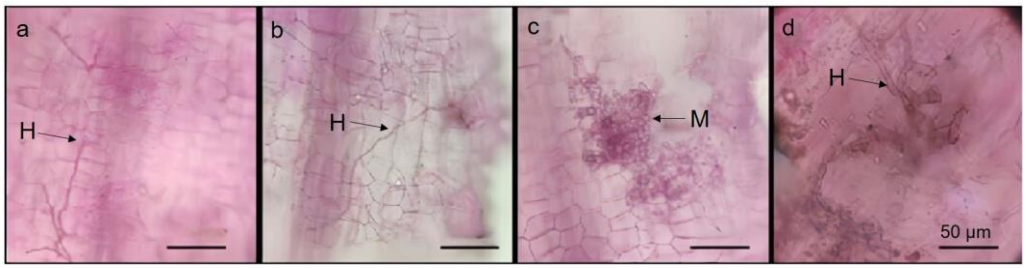

Figure S1. Characteristics of DSE microsclerotia and mycelium structure of *D. morifolium*. H = DSE hy-phae, M = DSE microsclerotia, bars = 50 μm. **a-d** was the DSE colonization structure in *D. morifolium*.

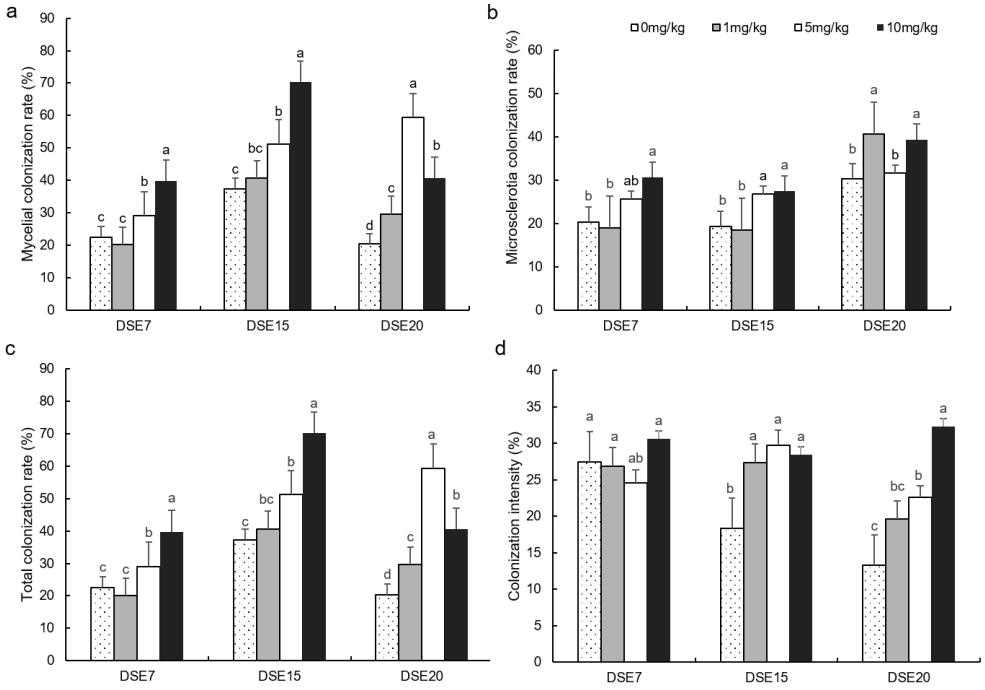

Figure S2. Effect of DSE sterile colonization on mycelial colonization rate (**a**), microsclerotia colonization rate (**b**), total colonization rate (**c**), and colonization intensity (**d**) of three DSEs inoculation and Cd stress (0, 1, 5, and 10 mg Cd/kg soil). The error bars represent the standard error of the mean. Different letters above the error bars indicate a significant difference at $p < 0.05$ by Duncan's test. Different lowercase letters indicate the significant difference among different Cd stress and the same DSE species.

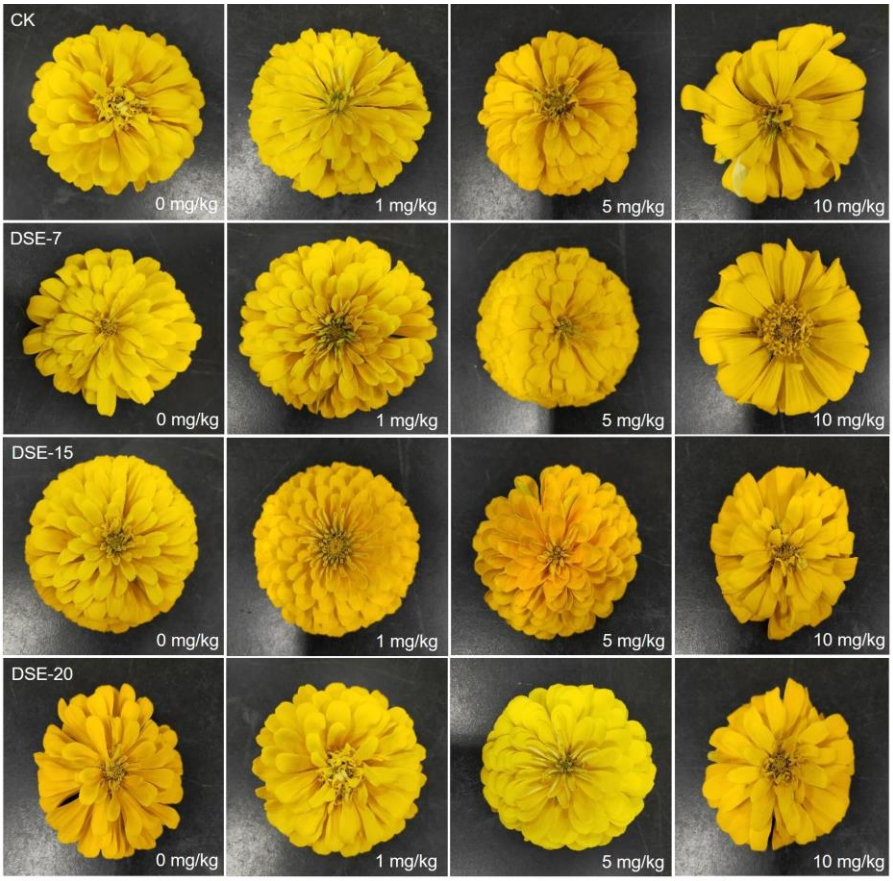

Figure S3. The morphology of the flowers of *D. morifolium* non-sterile plants under Cd stress (0, 1, 5, and 10 mg Cd/kg soil).

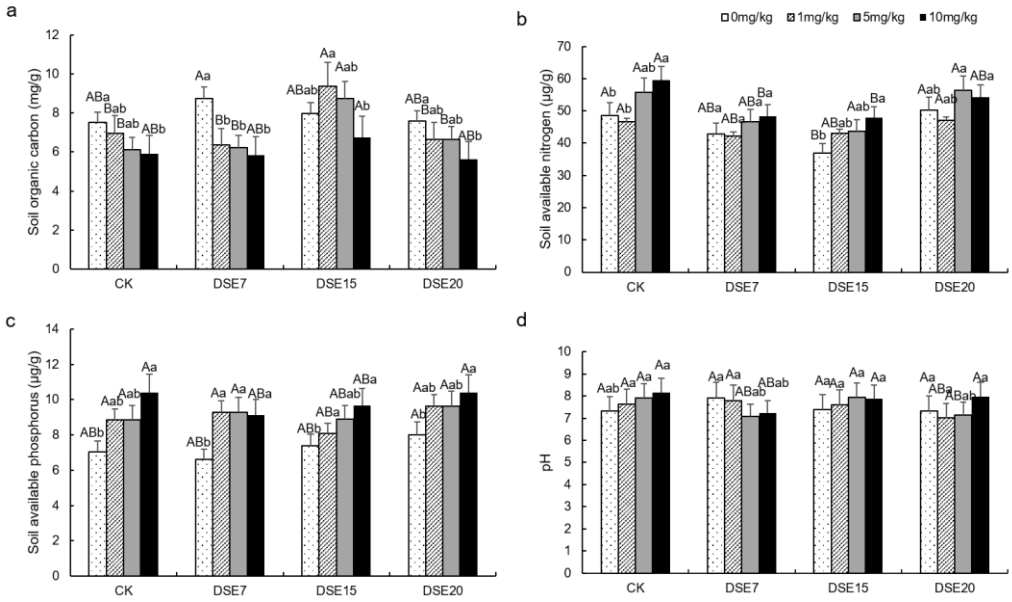

Figure S4. Effect of DSE colonization on soil organic carbon (**a**), soil available nitrogen (**b**), soil available phosphorus(**c**), and pH (**d**) of *D. morifolium* non-sterile plants under Cd stress (0, 1, 5, and 10 mg Cd/kg soil).