

Supplementary Table 1. Measurement of width, length, and thickness for control seeds and *Diaporthe eres*-treated seeds at 2 hours post treatment (cm)

Control seeds				<i>D. eres</i> -treated seeds			
Order	Width	Length	Thickness	Order	Width	Length	Thickness ^{***}
rep1	1.0	1.7	1.0	rep1	1.0	1.7	0.5
rep2	1.0	1.8	1.0	rep2	1.0	1.75	0.56
rep3	1.0	1.8	1.1	rep3	1.0	1.8	0.47
rep4	1.0	1.8	1.0	rep4	1.0	1.7	0.5
rep5	1.0	1.8	1.0	rep5	1.0	1.7	0.5
rep6	1.0	1.8	1.0	rep6	1.0	1.7	0.5
rep7	1.0	1.8	1.0	rep7	1.0	1.8	0.49
rep8	1.0	1.75	1.0	rep8	1.0	1.8	0.45
rep9	1.0	1.77	0.98	rep9	1.0	1.8	0.5
rep10	1.0	1.8	1.0	rep10	1.0	1.8	0.56
rep11	1.0	1.8	1.0	rep11	1.0	1.8	0.45
rep12	1.1	1.8	1.0	rep12	1.0	1.8	0.53
rep13	1.0	1.8	1.0	rep13	1.0	1.8	0.48
rep14	1.0	1.8	1.0	rep14	1.0	1.8	0.5
rep15	1.0	1.8	1.0	rep15	1.0	1.79	0.42

P-values were calculated using t-test (***P* < 0.0001).

Supplementary Table 2. Measurement of growth and development of soybean plants

	SL	RL	NOL	FLW	FSW	FRW	DLW	DSW	DRW
Healthy control									
rep1	29	12.5	11	0.888	1.225	0.686	0.611	0.845	0.402
rep2	30	14.5	11	0.895	1.556	0.592	0.616	0.901	0.401
rep3	30	14	11	0.863	1.52	0.703	0.603	0.872	0.422
rep4	29	13.5	11	0.814	1.551	0.64	0.556	0.901	0.408
rep5	29.5	14	11	0.84	1.445	0.641	0.565	0.896	0.399
rep6	29.5	15.5	11	0.904	1.524	0.63	0.628	0.899	0.396
<i>Pst</i>									
rep1	26	9.5	5	0.6	1.008	0.28	0.382	0.667	0.167
rep2	24	10	5	0.25	1.009	0.12	0.154	0.653	0.079
rep3	19	9.5	5	0.1	0.9	0.3	0.056	0.556	0.23
rep4	0	0	0	0	0	0	0	0	0
rep5	0	0	0	0	0	0	0	0	0
rep6	0	0	0	0	0	0	0	0	0
DWF21130 + <i>Pst</i>									
rep1	28	9.5	8	0.29	1.425	0.375	0.183	0.956	0.242
rep2	27	13	5	0.276	1.352	0.298	0.182	0.932	0.206
rep3	28	10	8	0.422	1.384	0.382	0.263	0.914	0.213
rep4	27	12	5	0.378	1.014	0.294	0.247	0.698	0.196
rep5	27.5	10	5	0.35	1.025	0.35	0.205	0.682	0.198
rep6	27.5	10	5	0.35	1.002	0.354	0.204	0.651	0.203
DWF21127 + <i>Pst</i>									

rep1	27.5	12	8	0.578	1.228	0.402	0.403	0.821	0.274
rep2	26	12.5	8	0.459	1.303	0.506	0.341	0.854	0.334
rep3	26.7	13	8	0.503	1.118	0.398	0.335	0.772	0.292
rep4	26.5	13.5	8	0.591	1.256	0.392	0.387	0.798	0.294
rep5	27	12	8	0.598	1.202	0.475	0.416	0.799	0.311
rep6	27	12	8	0.432	1.145	0.455	0.366	0.694	0.285
<i>DWF21107 + Pst</i>									
rep1	26	13.5	5	0.444	1.276	0.329	0.303	0.856	0.21
rep2	25	12.6	5	0.434	1.249	0.333	0.302	0.843	0.221
rep3	25.8	12.8	5	0.445	1.304	0.335	0.301	0.892	0.245
rep4	25.7	14	5	0.478	1.198	0.381	0.294	0.828	0.246
rep5	25.3	13.5	5	0.501	1.178	0.397	0.314	0.811	0.232
rep6	26	13.5	5	0.409	1.332	0.364	0.255	0.853	0.226
<i>DWB21155 + Pst</i>									
rep1	27	12	5	0.313	0.876	0.264	0.201	0.612	0.179
rep2	27	12.4	5	0.38	0.877	0.277	0.224	0.609	0.192
rep3	25.8	11.9	5	0.365	0.852	0.255	0.232	0.536	0.175
rep4	26	12.5	5	0.299	0.798	0.258	0.186	0.531	0.178
rep5	26	12	5	0.301	0.82	0.268	0.195	0.524	0.183
rep6	27	12.8	5	0.321	0.79	0.271	0.215	0.522	0.184
<i>DWB21122 + Pst</i>									
	SL	RL	NOL	FLW	FSW	FRW	DLW	DSW	DRW
rep1	20	10	5	0.149	0.685	0.249	0.102	0.455	0.168
rep2	18	8	5	0.16	0.778	0.306	0.1	0.534	0.197
rep3	17	5.5	2	0.0955	0.643	0.204	0.058	0.441	0.135
rep4	11	6	2	0.017	0.753	0.094	0.012	0.512	0.059
rep5	14	6	2	0.039	0.558	0.022	0.02	0.389	0.014
rep6	0	0	0	0	0	0	0	0	0
<i>DWB21134+ Pst</i>									
rep1	24	12	11	0.592	1.427	0.874	0.404	0.8	0.408
rep2	24	12	11	0.594	1.265	0.878	0.415	0.842	0.406
rep3	23.5	11.5	8	0.602	1.312	0.89	0.402	0.816	0.395
rep4	23.5	12	8	0.583	1.306	0.785	0.465	0.784	0.32
rep5	24	13	11	0.61	1.462	0.826	0.472	0.843	0.45
rep6	24	11.5	8	0.547	1.421	0.823	0.356	0.763	0.4
<i>Xag</i>									
rep1	7	6.5	2	0.055	0.645	0.055	0.04	0.405	0.035
rep2	5	7	2	0.025	0.6	0.15	0.02	0.298	0.099
rep3	9	5.5	3	0.065	0.37	0.13	0.041	0.195	0.089
rep4	0	0	0	0	0	0	0	0	0
rep5	0	0	0	0	0	0	0	0	0
rep6	0	0	0	0	0	0	0	0	0
<i>DWF21130 + Xag</i>									
rep1	15	7.5	7	0.144	0.831	0.248	0.101	0.541	0.136
rep2	17	8.5	5	0.165	0.697	0.231	0.105	0.475	0.141

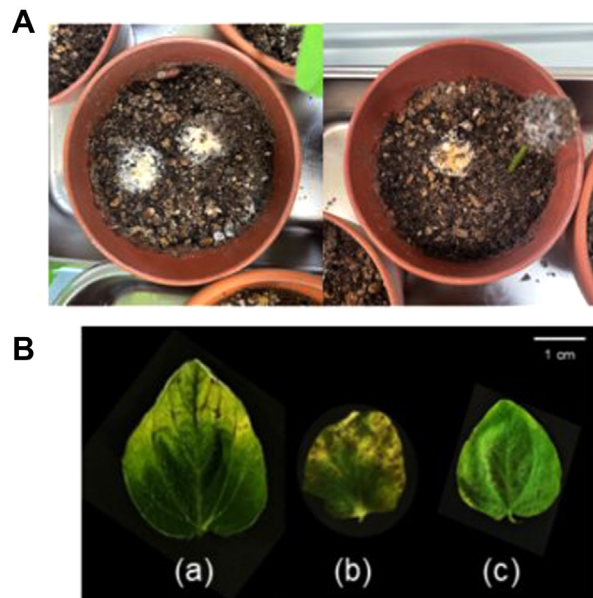
rep6	0	0	0	0	0	0	0	0	0
DWF21130 + <i>De</i>									
rep1	31	11	8	0.454	0.55	0.235	0.308	0.355	0.154
rep2	32	11	8	0.579	0.601	0.401	0.403	0.397	0.277
rep3	32	11.4	8	0.552	0.592	0.394	0.304	0.398	0.265
rep4	32.5	12	8	0.602	0.62	0.305	0.414	0.399	0.201
rep5	30	12.5	8	0.463	0.611	0.269	0.321	0.407	0.178
rep6	31.5	12.8	8	0.478	0.529	0.314	0.313	0.317	0.198
DWF21127 + <i>De</i>									
rep1	31.5	11	8	0.84	0.772	0.349	0.548	0.506	0.213
rep2	30	10.5	8	0.768	1.104	0.209	0.526	0.727	0.164
rep3	30.5	12	8	0.885	0.956	0.33	0.595	0.682	0.21
rep4	30	10	8	0.754	0.804	0.275	0.507	0.483	0.172
rep5	30	10	8	0.653	0.702	0.288	0.423	0.451	0.2
rep6	27	10	8	0.649	0.711	0.21	0.434	0.472	0.138
DWF21107 + <i>De</i>									
rep1	31.5	12	8	0.703	1.584	0.486	0.429	1.008	0.332
rep2	31.7	12.4	8	0.744	1.234	0.51	0.528	0.893	0.202
rep3	31.9	12.3	8	0.706	1.236	0.493	0.442	0.858	0.314
rep4	32	12	8	0.812	1.79	0.565	0.548	1.115	0.355
rep5	32	12	8	0.903	1.765	0.443	0.601	1.125	0.287
rep6	32	13	8	0.848	1.81	0.603	0.536	1.175	0.395
DWB21155 + <i>De</i>									
rep1	30.5	13	8	0.993	1.259	0.777	0.651	0.813	0.534
rep2	32.5	13.2	8	0.998	1.343	0.768	0.668	0.92	0.536
rep3	32.7	13.3	8	1.014	1.366	0.903	0.705	0.925	0.612
rep4	33.5	13.8	8	1.125	1.215	0.974	0.757	0.845	0.618
rep5	33.4	13.8	8	1.138	1.178	0.868	0.769	0.82	0.606
rep6	31.1	12.7	8	0.984	1.174	0.913	0.645	0.819	0.613
DWB21122 + <i>De</i>									
rep1	27.5	10.5	8	0.458	0.652	0.345	0.316	0.424	0.215
rep2	28	10.5	8	0.534	0.701	0.408	0.357	0.427	0.256
rep3	28.2	10.9	8	0.545	0.703	0.422	0.318	0.429	0.254
rep4	26.5	10	8	0.422	0.599	0.333	0.284	0.413	0.213
rep5	27.2	10.5	8	0.298	0.583	0.291	0.196	0.388	0.207
rep6	19.5	10.8	5	0.296	0.462	0.339	0.198	0.316	0.211
DWB21134 + <i>De</i>									
rep1	14.5	8	5	0.086	0.335	0.197	0.06	0.23	0.127
rep2	14.6	7.4	5	0.072	0.318	0.129	0.05	0.22	0.09
rep3	0	0	0	0	0	0	0	0	0
rep4	0	0	0	0	0	0	0	0	0
rep5	0	0	0	0	0	0	0	0	0
rep6	0	0	0	0	0	0	0	0	0
<i>Sg</i>									
rep1	14	5	5	0.102	0.658	0.16	0.071	0.406	0.102

rep2	11.5	4	4	0.098	0.64	0.2	0.066	0.408	0.104
rep3	10	2	2	0.03	0.68	0.205	0.019	0.356	0.113
rep4	0	0	0	0	0	0	0	0	0
rep5	0	0	0	0	0	0	0	0	0
rep6	0	0	0	0	0	0	0	0	0
DWF21130 + Sg									
rep1	25	10	9	0.575	1.188	0.473	0.392	0.813	0.299
rep2	25.3	10	8	0.588	1.204	0.509	0.406	0.855	0.305
rep3	25.5	10	8	0.607	1.353	0.554	0.413	0.907	0.317
rep4	25	11	8	0.612	1.175	0.552	0.414	0.811	0.316
rep5	25.6	11	8	0.656	1.222	0.593	0.446	0.843	0.415
rep6	26	11.5	8	0.727	1.301	0.707	0.489	0.901	0.449
DWF21127 + Sg									
rep1	22	9	5	0.25	0.733	0.194	0.165	0.413	0.128
rep2	22.5	6	8	0.285	0.317	0.173	0.195	0.219	0.112
rep3	0	0	0	0	0	0	0	0	0
rep4	0	0	0	0	0	0	0	0	0
rep5	0	0	0	0	0	0	0	0	0
rep6	0	0	0	0	0	0	0	0	0
DWF21107 + Sg									
rep1	11	4.5	2	0.034	0.286	0.112	0.013	0.198	0.067
rep2	9.5	5.8	3	0.011	0.497	0.085	0.008	0.322	0.059
rep3	8	3.3	5	0.052	0.459	0.069	0.026	0.304	0.032
rep4	0	0	0	0	0	0	0	0	0
rep5	0	0	0	0	0	0	0	0	0
rep6	0	0	0	0	0	0	0	0	0
DWB21155 + Sg									
rep1	27	10	8	0.719	0.883	0.495	0.504	0.608	0.298
rep2	27.5	10.5	8	0.743	0.903	0.553	0.51	0.622	0.337
rep3	25	11	8	0.502	0.812	0.398	0.384	0.558	0.268
rep4	24.5	11	8	0.501	0.705	0.343	0.347	0.474	0.23
rep5	26	11.5	8	0.698	0.774	0.475	0.4	0.548	0.325
rep6	0	0	0	0	0	0	0	0	0
DWB21122 + Sg									
rep1	29	11	11	0.953	0.764	0.566	0.641	0.524	0.386
rep2	29	11	11	0.968	0.764	0.641	0.656	0.534	0.427
rep3	30	11	11	0.954	0.468	0.571	0.667	0.367	0.377
rep4	32	10	11	0.854	0.561	0.321	0.508	0.368	0.244
rep5	32	10	11	0.764	0.541	0.561	0.528	0.377	0.329
rep6	31	10	11	0.641	0.432	0.541	0.427	0.332	0.318
DWB21134 + Sg									
rep1	26.2	8.9	8	0.705	0.611	0.203	0.473	0.417	0.139
rep2	25	9	8	0.712	0.594	0.219	0.468	0.406	0.143
rep3	26.3	10	8	0.654	0.603	0.348	0.457	0.411	0.232
rep4	23	11	8	0.641	0.458	0.409	0.428	0.315	0.263

rep1	17	11	5	0.22	0.298	0.257	0.152	0.198	0.169
rep2	18	12	5	0.302	1.236	0.414	0.201	0.765	0.276
rep3	8	6	2	0.019	0.22	0.069	0.012	0.166	0.05
rep4	0	0	0	0	0	0	0	0	0
rep5	0	0	0	0	0	0	0	0	0
rep6	0	0	0	0	0	0	0	0	0
<i>Ck</i>									
rep1	10.5	10	3	0.055	0.8	0.2	0.037	0.465	0.114
rep2	2.5	4.5	0	0	0.35	0.06	0	0.235	0.039
rep3	2.5	5	0	0	0.5	0.08	0	0.348	0.048
rep4	0	0	0	0	0	0	0	0	0
rep5	0	0	0	0	0	0	0	0	0
rep6	0	0	0	0	0	0	0	0	0
<i>DWF21130 + Ck</i>									
rep1	25.5	10	11	0.515	0.576	0.215	0.355	0.393	0.145
rep2	27	10	11	0.545	0.588	0.337	0.371	0.406	0.219
rep3	26.4	10.5	11	0.602	0.661	0.347	0.414	0.457	0.232
rep4	26.9	10.8	11	0.609	0.671	0.375	0.423	0.467	0.252
rep5	26.8	11.2	11	0.712	0.698	0.417	0.46	0.479	0.281
rep6	27	11.5	11	0.704	0.654	0.42	0.472	0.439	0.284
<i>DWF21127 + Ck</i>									
rep1	30	12.5	9	0.719	0.67	0.332	0.299	0.45	0.224
rep2	32	12.7	8	0.803	0.772	0.5	0.552	0.534	0.345
rep3	32	12.6	8	0.737	0.732	0.489	0.504	0.519	0.372
rep4	32.5	12	8	0.844	0.8	0.522	0.578	0.555	0.385
rep5	32.9	12	8	0.875	0.819	0.562	0.605	0.564	0.393
rep6	28.5	12	8	0.706	0.795	0.324	0.474	0.5	0.201
<i>DWF21107 + Ck</i>									
rep1	2	7	0	0	0.601	0.075	0	0.12	0.049
rep2	2	7	0	0	0.583	0.074	0	0.405	0.055
rep3	13.5	6.5	5	0.054	0.191	0.025	0.036	0.127	0.016
rep4	7.5	3	2	0.036	0.119	0.062	0.024	0.073	0.034
rep5	5.5	2.5	2	0.005	0.406	0.02	0.002	0.274	0.015
rep6	0	0	0	0	0	0	0	0	0
<i>DWB21155 + Ck</i>									
rep1	13.5	6	2	0.093	0.202	0.027	0.061	0.131	0.022
rep2	13.7	6.2	5	0.118	0.229	0.046	0.072	0.15	0.032
rep3	14.2	6.3	5	0.173	0.247	0.05	0.111	0.162	0.033
rep4	0	0	0	0	0	0	0	0	0
rep5	0	0	0	0	0	0	0	0	0
rep6	0	0	0	0	0	0	0	0	0
<i>DWB21122 + Ck</i>									
rep1	25	10.5	8	0.721	0.914	0.245	0.504	0.629	0.161
rep2	25.2	10.5	8	0.745	0.898	0.31	0.491	0.618	0.207
rep3	25.4	10.3	8	0.716	0.84	0.261	0.499	0.488	0.172

rep4	24.9	10.2	8	0.698	0.83	0.27	0.458	0.491	0.179
rep5	25.8	10.5	8	0.8	0.922	0.332	0.532	0.574	0.242
rep6	25.7	10.6	8	0.8	0.876	0.245	0.527	0.523	0.165
DWB21134 + <i>Ck</i>									
rep1	24	8.5	10	0.672	0.668	0.262	0.432	0.457	0.183
rep2	24.3	8.6	10	0.701	0.669	0.313	0.454	0.458	0.199
rep3	23.6	9.2	11	0.598	0.612	0.316	0.406	0.418	0.2
rep4	24.2	9.3	11	0.683	0.758	0.408	0.481	0.499	0.205
rep5	24.7	9.4	11	0.718	0.781	0.397	0.496	0.507	0.206
rep6	24	9.5	11	0.656	0.72	0.28	0.472	0.493	0.177

Pst, *Pseudomonas syringae* pv. *tabaci*; *Xag*, *Xanthomonas axonopodis* pv. *glycines*; *De*, *Diaporthe eres*; *Sg*, *Septoria glycine*; *Cs*, *Cercospora sojina*; *Ck*, *Cercospora kikuchii*; SL, shoot length; RL, root length; NOL, number of leaves; FLW, fresh leaves weight; FSW, fresh stem weight; FRW, fresh root weight; DLW, dry leaves weight; DSW, dry stem weight; DRW, dry root weight.



Supplementary Fig. 1. (A) Seeds showing decay inside the soil after *Diaporthe eres* treatment in experimental pots. (B) Leaf morphological changes after seed treatment. a, leaf from the seed treated with *Pseudomonas syringae* pv. *tabaci*; b, leaf from the seed treated with *Xanthomonas axonopodis* pv. *glycines*; c, leaf from the seed treatment with *Cercospora kikuchii*.