

Supplementary files

Table S1. Analysis of variance of allelopathic activity by sandwich method. Differences at probability for F-distribution ($p < 0.05$) are considered as significant different ($\alpha = 0.05$).

		Sum of Squares	df.	Mean Square	F	Sig.
hypocotyl						
July 2014	Among groups	0.002	1	0.002	0.173	0.682
	Within groups	0.251	18	0.014		
	Total	0.254	19			
October 2014	Among groups	0.007	1	0.007	0.189	0.669
	Within groups	0.687	18	0.038		
	Total	0.694	19			
November 2014	Among groups	0.000	1	0.000	0.035	0.853
	Within groups	0.164	18	0.009		
	Total	0.164	19			
May 2015	Among groups	0.013	1	0.013	0.269	0.610
	Within groups	0.836	18	0.046		
	Total		0.848	19		
Radicle						
July 2014	Among groups	0.007	1	0.007	1.708	0.208
	Within groups	0.076	18	0.004		
	Total	0.083	19			
October 2014	Among groups	0.003	1	0.003	0.144	0.709
	Within groups	0.422	18	0.023		
	Total	0.426	19			
November 2014	Among groups	0.032	1	0.032	1.277	0.273
	Within groups	0.451	18	0.025		
	Total	0.483	19			
May 2015	Among groups	0.002	1	0.002	0.154	0.699
	Within groups	0.234	18	0.013		
	Total	0.236	19			

Table S2. Analysis of variance of allelopathic activity by soil-mixed method. Differences at probability for F-distribution ($p < 0.05$) are considered as significant different ($\alpha = 0.05$).

		Sum of Squares	df	Mean Square	F	Sig
hypocotyl						
July 2014	Among groups	0.002	1	0.002	0.157	0.696
	Within groups	0.277	18	0.015		
	Total	0.279	19			
October 2014	Among groups	0.009	1	0.009	0.305	0.588
	Within groups	0.521	18	0.029		
	Total	0.529	19			
November 2014	Among groups	0.010	1	0.010	0.456	0.508
	Within groups	0.382	18	0.021		
	Total	0.392	19			
May 2015	Among groups	0.104	1	0.104	2.134	0.161
	Within groups	0.875	18	0.049		
	Total	0.978	19			
Radicle						
July 2014	Among groups	0.003	1	0.003	0.201	0.660
	Within groups	0.303	18	0.017		
	Total	0.307	19			
October 2014	Among groups	0.032	1	0.032	1.268	0.275
	Within groups	0.454	18	0.025		
	Total	0.486	19			
November 2014	Among groups	0.032	1	0.032	1.984	0.176
	Within groups	0.295	18	0.016		
	Total	0.327	19			
May 2015	Among groups	0.001	1	0.001	0.123	0.730
	Within groups	0.187	18	0.010		
	Total	0.188	19			

Table S3. Analysis of variance of cultureable soil microorganism numbers. Differences at probability for F-distribution ($p < 0.05$) are considered as significant different ($\alpha = 0.05$).

		Sum of Squares	df	Mean Square	F	Sig
Bacteria						
July 2014	Among groups	0.386	1	0.386	3.766	0.068
	Within groups	1.847	18	0.103		
	Total	2.233	19			
October 2014	Among groups	0.17	1	0.170	0.342	0.566
	Within groups	0.914	18	0.051		
	Total	0.931	19			
January 2015	Among groups	0.081	1	0.081	2.070	0.167
	Within groups	0.708	18	0.039		
	Total	0.789	19			
May 2015	Among groups	0.004	1	0.004	0.134	0.718
	Within groups	0.547	18	0.030		
	Total	0.551	19			
Fungus						
July 2014	Among groups	0.023	1	0.023	0.392	0.059
	Within groups	0.542	18	0.030		
	Total	0.565	19			
October 2014	Among groups	0.063	1	0.063	0.056	0.142
	Within groups	0.272	18	0.015		
	Total	0.334	19			
January 2015	Among groups	0.157	1	0.157	0.058	0.188
	Within groups	0.687	18	0.038		
	Total	0.844	19			
May 2015	Among groups	0.221	1	0.221	0.081	0.964
	Within groups	1.162	18	0.065		
	Total	1.383	19			
Actinomycetes						
July 2014	Among groups	0.111	1	0.111	3.400	0.082
	Within groups	0.587	18	0.033		
	Total	0.698	19			
October 2014	Among groups	0.012	1	0.012	0.515	0.482
	Within groups	0.412	18	0.023		
	Total	0.424	19			
January 2015	Among groups	0.107	1	0.107	3.748	0.069
	Within groups	0.512	18	0.028		
	Total	0.619	19			
May 2015	Among groups	0.000	1	0.000	0.005	0.945
	Within groups	0.576	18	0.032		
	Total	0.576	19			

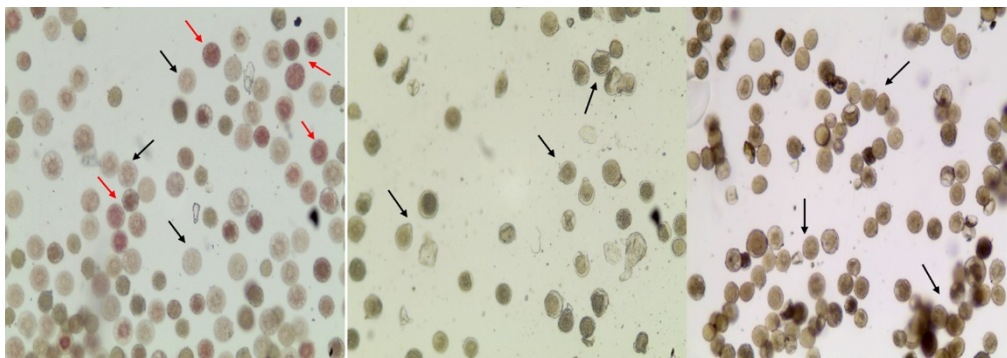


Figure S1. Pollen viability tested by triphenyl tetrazolium chloride (TTC) at the day of anther opening. Stained pollen were observed only in TB16 (left); no pollen were stained in transgenic poplar T-46 (middle) or non-transgenic poplar 401 (right); the red arrows are stained pollen grains; the black arrows are unstained pollen grains.

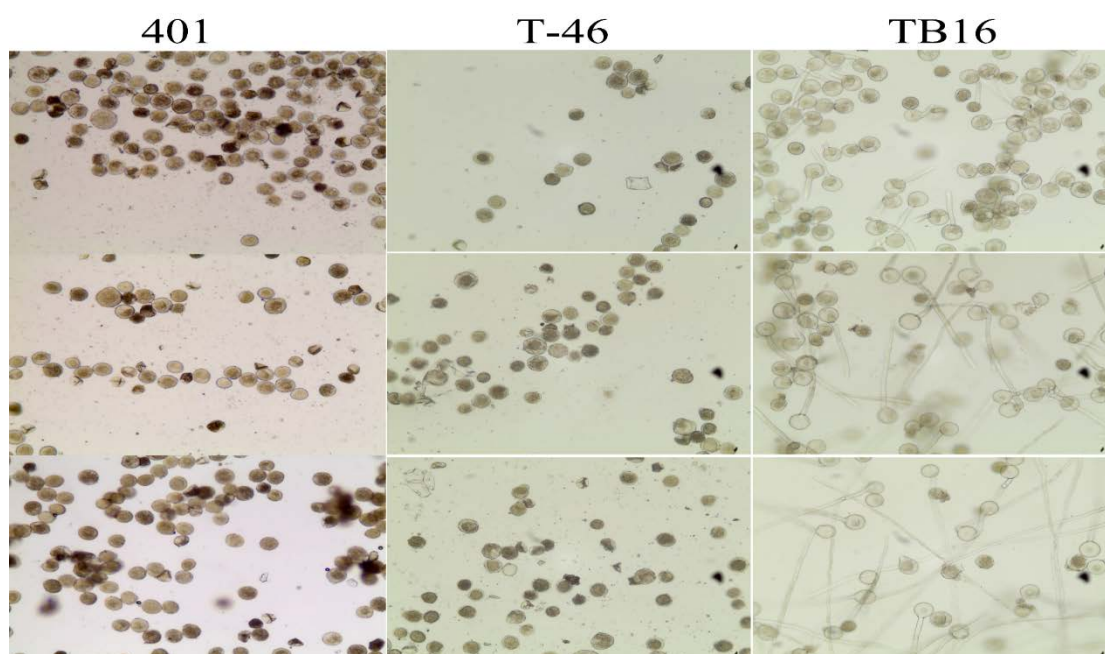


Figure S2. Pollen viability tested by the *in vitro* pollen germination test at the day of anther opening. First line: *in vitro* pollen germination test after 0.5 h; second line: *in vitro* pollen germination test after 1 h; third line: *in vitro* pollen germination test after 6 h. Germinated pollen were observed only in TB16 after 0.5 h (first line); no pollen were germinated even after 6 h in transgenic poplar T-46 or non-transgenic poplar 401 (third line).

