

Table S1. Preliminary germination results (% of germinated seeds after 1 week) of control seeds and vacuum treated seeds of both common and Tartary buckwheat (expressed as mean \pm standard error). Results were not statistically significant in either buckwheat species.

	Common Buckwheat	Tartary Buckwheat
Control Seeds	59.0 \pm 3.0	91.0 \pm 3.4
Vacuum Treated Seeds	52.0 \pm 4.3	90.0 \pm 2.6
Significant	No	No

Table S2. GenBank accession numbers of the fungal sequences isolated from the common buckwheat (CB) and Tartary buckwheat (TB) seeds, their taxonomic identification together with the nearest GenBank match and % of identity. E-value was 0 in all matches respectively.

Morphotype		Isolate	Taxon	Our GenBank Acc. No.	Nearest GenBank Match	
Group	Subgroup				Acc. No.	% Ident.
A	A1_CB	NA002	<i>Alternaria</i> sp.	MW332093	MN944587.1	99
		NA003	<i>Alternaria</i> sp.	MW332092	KY951909.1	99
		NA029	<i>Alternaria</i> sp.	MW332069	MK432746.1	99
	A1_TB	TA002	<i>Alternaria</i> sp.	MW337015	MT446185.1	99
		TA005	<i>Alternaria</i> sp.	MW337013	MN836593.1	100
		TA033	<i>Alternaria</i> sp.	MW336995	MF475920.1	100
	A2_CB	NA007	<i>Alternaria</i> sp.	MW332088	MN836593.1	100
		NA008	<i>Alternaria</i> sp.	MW332087	KY951909.1	99
	A2_TB	TA004	<i>Alternaria</i> sp.	MW337014	MT446076.1	100
		TA007	<i>Alternaria</i> sp.	MW337012	MT446184.1	100
		TA017	<i>Alternaria</i> sp.	MW337004	MF475920.1	99
	A3_TB	TA016	<i>Alternaria</i> sp.	MW337005	MK732102.1	99
		TA025	<i>Alternaria</i> sp.	MW336999	MG250470.1	100
	A4_TB	TA001	<i>Alternaria infectoria</i>	MW337017	MH205934.1	100
		TA001a	<i>Alternaria infectoria</i>	MW337016	MK461063.1	99
B	B1_CB	NA004	<i>Epicoccum nigrum</i>	MW332091	KT223320.1	99
		NA005	<i>Epicoccum nigrum</i>	MW332089	KX869952.1	98
		NA028	<i>Epicoccum nigrum</i>	MW332070	MG602540.1	99
	B2_CB	NA020	<i>Epicoccum nigrum</i>	MW332077	KX869952.1	99
		NA022	<i>Epicoccum nigrum</i>	MW332076	KT898754.1	99
		NA023	<i>Epicoccum nigrum</i>	MW332075	KT898567.1	100
C	C1_CB	NA006	<i>Cladosporium</i> sp.	MW332089	MN275867.1	97
		NA036	<i>Cladosporium</i> sp.	MW332066	MF476044.1	99
	C1_TB	TA029	<i>Cladosporium</i> sp.	MW336997	FR799495.1	99
	C2_CB	NA011	<i>Penicillium</i> sp.	MW332085	KJ527027.1	98
D	D1_CB	NA030	<i>Fusarium</i> sp.	MW332068	MT530119.1	99
	D2_CB	NA001	<i>Fusarium sporotrichioides</i>	MW332094	MK562070.1	97
E	E1_CB	NA014	<i>Didymella</i> sp.	MW332082	KX017275.1	99
		NA015	<i>Didymella</i> sp.	MW332081	MH257396.1	99
		NA018	<i>Didymella</i> sp.	MW332079	KX017275.1	99
	E1_TB	TA012	<i>Didymella</i> sp.	MW337009	MH257382.1	99
		TA020	<i>Didymella</i> sp.	MW337002	MH257382.1	98
		TA023	<i>Didymella</i> sp.	MW337000	KF493958.1	100
	E2_CB	NA012	<i>Didymella</i> sp.	MW332084	KX017275.1	99
		NA016	<i>Didymella</i> sp.	MW332080	KX017275.1	99
	E2_TB	TA013	<i>Didymella</i> sp.	MW337008	MH257396.1	99
		TA021	<i>Didymella</i> sp.	MW337001	MH257396.1	99
		TA027	<i>Didymella</i> sp.	MW336998	AY183371.1	99
	E3_CB	NA013	<i>Didymella pinodes</i>	MW332083	FJ194523.1	98
		NA035	<i>Didymella</i> sp.	MW332067	KT223339.1	99
	E3_TB	TA018	<i>Didymella</i> sp.	MW337003	KX017275.1	99
		TA030	<i>Didymella pinodes</i>	MW336996	FJ194522.1	99
F	F_TB	TA015	<i>Phoma herbarum</i>	MW337006	KP739881.1	99
		TA014	<i>Phoma</i> sp.	MW337007	KX017275.1	100
G	G_CB	NA019	<i>Pseudopithomyces chartarum</i>	MW332078	MF476065.1	100
	G_TB	TA034	<i>Pseudopithomyces chartarum</i>	MW336994	KM979510.1	99
H	H_CB	NA010	<i>Dichotomopilus funicola</i>	MW332086	MH857547.1	99
I	I_TB	TA009	<i>Rhizopus oryzae</i>	MW337011	MN006420.1	99
		TA010	<i>Rhizopus oryzae</i>	MW337010	MN006420.1	99
J	J_CB	NA024	<i>Hamaella</i> sp.	MW332074	KY103515.1	99
		NA026	<i>Hamaella</i> sp.	MW332072	HG937070.1	99

K		NA027	<i>Hannaella sp.</i>	MW332071	KY103515.1	98
	K_CB	NA025	<i>Rhodotorula babjevae</i>	MW332073	KY104719.1	95
	K_TB	TA037	<i>Rhodotorula babjevae</i>	MW336993	KY104719.1	95