

Table S1

Results of the express assays of oxidative and cellulolytic enzymes in the studied pure cultures

Strains / Species	GenBank accession number	Rot type	LGR ¹	Enzymatic activity, d (mm)		Origin of strains		References
				ABTS ²	CMC ³	Region	Host tree	
AGARICALES								
Pleurotaceae								
LE-BIN 4126 <i>Pleurotus ostreatus</i>	—	WR ⁴	M	17.9±1.0	21.2±1.0	Bryansk Oblast	<i>Acer platanoides</i>	1
LE-BIN 4132 <i>P. ostreatus</i>	—	WR	M	15.7±0.7	21.4±0.9	Bryansk Oblast	<i>Acer platanoides</i>	1
LE-BIN 4111 <i>Pleurotus pulmonarius</i>	—	WR	M	18.6±1.2	28.8±1.1	Bryansk Oblast	<i>Populus tremula</i>	
Pterulaceae								
LE-BIN 3587 <i>Radulomyces confluens</i>	—	WR	F	10.4±0.6	20.7±0.6	Bryansk Oblast	<i>Populus tremula</i>	1
CANTHARELLALES								
Hydnaceae								
LE-BIN 3583 <i>Sistotrema raduloides</i>	—	WR	S	n/d	25.5±0.6	Bryansk Oblast	<i>Populus tremula</i>	1
CORTICIALES								
Punctulariaceae								
LE-BIN 3603 <i>Punctularia strigosozonata</i>	—	WR	M			Bryansk Oblast	<i>Populus tremula</i>	1
GLOEOPHYLLALES								
Gloeophyllaceae								
LE-BIN 4338 <i>Gloeophyllum sepiarium</i>	—	BR ⁵	S	n/d ⁶	20.4±1.1	Belgorod Oblast	<i>Pinus sylvestris</i>	2
LE-BIN 4339 <i>G. trabeum</i>	—	BR	S	25.6±1.3	29.9±0.9	Belgorod Oblast	<i>Pyrus communis</i>	2
LE-BIN 4332 <i>Neolentinus lepideus</i>	—	BR	M	n/d	21.9±1.0	Belgorod Oblast	<i>Pinus sylvestris</i>	2
HYMENOGHATALES								
Hymenochaetaceae								
LE-BIN 4785 <i>Fomitiporia hippophaeicola</i>	OQ555678	WR	M	12.2±0.7	16.5±0.2	Republic of Dagestan	<i>Hippophaë rhamnoides</i>	11
LE-BIN 4345 <i>Inonotus hispidus</i>	—	WR	M	n/d	30.8±1.5	Belgorod Oblast	<i>Malus domestica</i>	2
LE-BIN 4112 <i>Inonotus rheades</i>	—	WR	M	n/d	21.6±1.0	Bryansk Oblast	<i>Populus tremula</i>	1
LE-BIN 4344 <i>Phellinus alni</i>	—	WR	S	17.5±1.2	20.7±0.8	Kursk Oblast	<i>Malus domestica</i>	2
LE-BIN 4412 <i>Ph. alni</i>	—	WR	S	n/d	15.3±1.1	Kursk Oblast	<i>Malus domestica</i>	2
LE-BIN 4108 <i>Phellinus laevigatus</i>	—	WR	F	19.8±3.0	18.2±1.1	Bryansk Oblast	<i>Betula pendula</i>	1
LE-BIN 4340 <i>Phellinus pomaceus</i>	—	WR	M	n/d	24.4±0.7	Belgorod Oblast	<i>Prunus cerasus</i>	2
LE-BIN 4409 <i>Ph. pomaceus</i>	—	WR	M	n/d	21.1±0.8	Belgorod Oblast	<i>Prunus domestica</i>	2
LE-BIN 4410 <i>Ph. pomaceus</i>	—	WR	F	15.0±1.6	19.7±0.5	Kursk Oblast	<i>Prunus domestica</i>	2
<i>Hymenochaetales genera incertae sedis</i>								

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LE-BIN 4002 <i>Aurantiporus fissilis</i>	—	WR	F	n/d	33.4±1.0	Bryansk Oblast	<i>Populus tremula</i>	1
LE-BIN 4119 <i>A. fissilis</i>	—	WR	M	26.0±1.2	21.8±0.9	Bryansk Oblast	<i>Acer platanoides</i>	1
LE-BIN 4127 <i>Phlebia rufa</i>	—	WR	M	20.9±1.9	n/d	Bryansk Oblast	<i>Populus tremula</i>	1
LE-BIN 4128 <i>P. rufa</i>	—	WR	M	20.2±2.1	26.1±0.9	Bryansk Oblast	<i>Acer platanoides</i>	1
LE-BIN 3591 <i>Phlebia tremellosa</i>	—	WR	F	18.4±0.6	20.9±0.7	Bryansk Oblast	<i>Tilia cordata</i>	1
LE-BIN 2138 <i>Sarcodontia crocea</i>	—	WR	S	15.0±0	22.5±0,6	Rostov Oblast	<i>Malus domestica</i>	8
LE-BIN 4342 <i>S. crocea</i>	MW042103	WR	S	29.9±2.2	n/d	Belgorod Oblast	<i>Malus domestica</i>	7, 8
LE-BIN 4343 <i>S. crocea</i>	MW042104	WR	M	31.2±0.9	21.5±0,6	Belgorod Oblast	<i>Malus domestica</i>	7, 8
LE-BIN 4346 <i>S. crocea</i>	—	WR	S	31.8±1.1	19.8±0.7	Belgorod Oblast	<i>Malus domestica</i>	7, 8
LE-BIN 4350 <i>S. crocea</i>	MW042105	WR	M	34.8±0.8	18.9±0.5	Belgorod Oblast	<i>Malus domestica</i>	7
LE-BIN 4355 <i>S. crocea</i>	MW042106	WR	M	28.9±1.4	20.9±1.1	Oryol Oblast	<i>Malus domestica</i>	7, 8, 9
LE-BIN 4365 <i>S. crocea</i>	MW042107	WR	S	36.3±1.1	22.1±1.1	Oryol Oblast	<i>Malus domestica</i>	7, 8
LE-BIN 4367 <i>S. crocea</i>	MW042108	WR	S	27.9±1.2	12.9±1.0	Oryol Oblast	<i>Malus domestica</i>	7, 8
LE-BIN 4378 <i>S. crocea</i>	MW042109	WR	S	23.0±0.9	n/d	Oryol Oblast	<i>Malus domestica</i>	7
LE-BIN 4382 <i>S. crocea</i>	—	WR	M	28.6±1,5	21.6±0,6	Oryol Oblast	<i>Malus domestica</i>	7, 8
LE-BIN 4398 <i>S. crocea</i>	—	WR	S	19.0±1.6	12.0±0.9	Lipetsk Oblast	<i>Malus domestica</i>	2
LE-BIN 4399 <i>S. crocea</i>	—	WR	M	16.7±1.4	11.3±1.0	Lipetsk Oblast	<i>Malus domestica</i>	2
LE-BIN 4400 <i>S. crocea</i>	—	WR	S	26.3±1.4	13.3±1.0	Lipetsk Oblast	<i>Malus domestica</i>	2
LE-BIN 4402 <i>S. crocea</i>	—	WR	S	22.7±1.2	14.3±1.0	Lipetsk Oblast	<i>Malus domestica</i>	2
LE-BIN 4406 <i>S. crocea</i>	—	WR	S	24.5±1.2	16.2±1.5	Lipetsk Oblast	<i>Malus domestica</i>	2
LE-BIN 4408 <i>S. crocea</i>	—	WR	S	29.2±3.3	15.3±1.2	Lipetsk Oblast	<i>Malus domestica</i>	2
LE-BIN 4411 <i>S. crocea</i>	—	WR	S	30.7±0.8	13.0±1.1	Kursk Oblast	<i>Malus domestica</i>	2
<i>Phanerochaetaceae</i>								
LE-BIN 3996 <i>Bjerkandera adusta</i>	—	WR	F	n/d	25.7±1.0	Bryansk Oblast	<i>Populus tremula</i>	1
LE-BIN 4107 <i>Bjerkandera fumosa</i>	—	WR	F	n/d	24.8±0.8	Bryansk Oblast	<i>Alnus glutinosa</i>	1
LE-BIN 3811 <i>Porostereum spadiceum</i>	—	WR	F	n/d	20.5±1.0	Lipetsk Oblast	<i>Quercus robur</i>	2
<i>Podoscyphaceae</i>								
LE-BIN 3616 <i>Abortiporus biennis</i>	—	WR	M	20.0±1.1	n/d	Kursk Oblast	<i>Salix</i> sp.	2
<i>Polyporaceae</i>								
LE-BIN 3615 <i>Daedaleopsis confragosa</i>	—	WR	F	24.7±1.6	20.1±0.3	Kursk Oblast	<i>Populus nigra</i>	2
LE-BIN 3616 <i>D. confragosa</i>	—	WR	M	22.5±2.1	18.8±1.4	Lipetsk Oblast	<i>Betula pendula</i>	2
LE-BIN 3624 <i>D. confragosa</i>	—	WR	F	17.8±0.3	11.0±0.4	Kursk Oblast	<i>Prunus padus</i>	2
LE-BIN 3625 <i>D. confragosa</i>	—	WR	M	22.8±0.8	19.2±0.2	Kursk Oblast	<i>Salix</i> sp.	2
LE-BIN 3989 <i>D. confragosa</i>	—	WR	M	18.3±0.8	24.9±0.8	Bryansk Oblast	<i>Populus tremula</i>	1
LE-BIN 3828 <i>Funalia trogii</i>	MZ018630	WR	F	28.7±2.9	22.9±1.3	Lipetsk Oblast	<i>Populus tremula</i>	2
LE-BIN 3582 <i>Ganoderma applanatum</i>	—	WR	F	17.4±2.0	22.8±0.8	Bryansk Oblast	<i>Populus tremula</i>	1
LE-BIN 4003 <i>G. applanatum</i>	—	WR	F	n/d	22.2±0.8	Bryansk Oblast	<i>Quercus robur</i>	1

LE-BIN 3620 <i>Ganoderma lucidum</i>	—	WR	S	23.8±0.9	20.9±1.6	Kursk Oblast	<i>Quercus robur</i>	2
LE-BIN 4333 <i>Lentinus arcularius</i>	MZ018633	WR	M	27.8±0.9	17.2±0.9	Belgorod Oblast	<i>Quercus robur</i>	2
LE-BIN 4334 <i>Neofavolus alveolaris</i>	—	WR	M	n/d	21.3±0.9	Belgorod Oblast	<i>Acer negundo</i>	2
LE-BIN 4122 <i>Trametes hirsuta</i>	—	WR	F	26.9±0.9	31.6±1.0	Bryansk Oblast	<i>Acer platanoides</i>	1
LE-BIN 4124 <i>T. hirsuta</i>	—	WR	M	25.7±1.5	30.0±0.8	Bryansk Oblast	<i>Corylus avellana</i>	1
LE-BIN 3578 <i>Trametes gibbosa</i>	—	WR	F	14.9±0.7	23.7±0.9	Bryansk Oblast	<i>Quercus robur</i>	1
LE-BIN 4123 <i>Trametes ochracea</i>	—	WR	F	24.1±1.0	31.1±0.9	Bryansk Oblast	<i>Acer platanoides</i>	1
LE-BIN 3995 <i>Trametes pubescens</i>	—	WR	F	13.6±1.0	n/d	Bryansk Oblast	<i>Betula pendula</i>	1
LE-BIN 4335 <i>Trametes versicolor</i>	MZ018634	WR	F	26.2±0.9	28.8±0.8	Belgorod Oblast	<i>Salix caprea</i>	2
<i>Sparassidaceae</i>								
LE-BIN 4114 <i>Pycnoporellus fulgens</i>	—	WR	M	n/d	19.4±0.7	Bryansk Oblast	<i>Picea abies</i>	1
<i>Steccherinaceae</i>								
LE-BIN 3832 <i>Etheiroduon fimbriatum</i>	—	WR	S	n/d	28.0±0.6	Lipetsk Oblast	<i>Acer platanoides</i>	2
LE-BIN 3623 <i>Junghuhnia nitida</i>	MZ018626	WR	S	27.8±0.4	n/d	Kursk Oblast	<i>Prunus padus</i>	2
LE-BIN 3819 <i>J. nitida</i>	MZ018629	WR	M	24.6±2.2	17.7±0.9	Lipetsk Oblast	<i>Salix</i> sp.	2
LE-BIN 3576 <i>Metuloidea fragrans</i>	—	WR	S	25.6±1.4	15.9±0.7	Bryansk Oblast	<i>Corylus avellana</i>	1
LE-BIN 3608 <i>M. fragrans</i>	MZ018625	WR	S	27.6±1.4	11.5±0.8	Kursk Oblast	<i>Alnus glutinosa</i>	2
LE-BIN 3609 <i>M. fragrans</i>	—	WR	S	29.3±1.8	15.8±0.5	Kursk Oblast	<i>Corylus avellana</i>	2
LE-BIN 3612 <i>M. fragrans</i>	—	WR	S	26.2±0.5	20.5±0.3	Kursk Oblast	<i>Prunus padus</i>	2
LE-BIN 3825 <i>M. fragrans</i>	—	WR	S	29.7±2.9	25.0±2.0	Lipetsk Oblast	<i>Corylus avellana</i>	2
LE-BIN 3830 <i>M. fragrans</i>	—	WR	S	31.3±3.0	26.2±2.2	Lipetsk Oblast	<i>Betula pendula</i>	2
LE-BIN 3834 <i>M. fragrans</i>	—	WR	S	27.0±1.1	22.8±1.8	Lipetsk Oblast	<i>Prunus padus</i>	2
LE-BIN 3972 <i>M. fragrans</i>	—	WR	M	25.3±2.6	24.6±1.9	Bryansk Oblast	<i>Corylus avellana</i>	1
LE-BIN 3976 <i>M. fragrans</i>	—	WR	M	23.1±0.9	23.0±0.5	Bryansk Oblast	<i>Betula pendula</i>	1
LE-BIN 3980 <i>M. fragrans</i>	—	WR	M	27.0±1.1	25.5±0.8	Bryansk Oblast	<i>Populus tremula</i>	1
LE-BIN 3982 <i>M. fragrans</i>	—	WR	M	19.7±1.6	27.6±1.2	Bryansk Oblast	<i>Corylus avellana</i>	1
LE-BIN 3983 <i>M. fragrans</i>	—	WR	M	15.7±0.9	24.6±1.0	Bryansk Oblast	<i>Corylus avellana</i>	1
LE-BIN 3991 <i>M. fragrans</i>	—	WR	S	26.4±1.3	22.9±1.0	Bryansk Oblast	<i>Corylus avellana</i>	1
LE-BIN 4000 <i>M. fragrans</i>	—	WR	S	25.3±1.1	22.8±1.2	Bryansk Oblast	<i>Betula pendula</i>	1
LE-BIN 4001 <i>M. fragrans</i>	—	WR	M	30.3±1.8	25.4±1.3	Bryansk Oblast	<i>Corylus avellana</i>	1
LE-BIN 3826 <i>Steccherinum bourdotii</i>	MG711809	WR	M	33.8±3.3	17.2±0.4	Lipetsk Oblast	<i>Quercus robur</i>	2
LE-BIN 3577 <i>Steccherinum ochraceum</i>	—	WR	S	26.6±1.2	13.5±0.5	Bryansk Oblast	<i>Corylus avellana</i>	1
LE-BIN 3611 <i>S. ochraceum</i>	KY321182 / MG711808	WR	M	31.8±0.3	14.4±0.8	Kursk Oblast	<i>Corylus avellana</i>	2
LE-BIN 3617 <i>S. ochraceum</i>	KY321180 / MG609023	WR	M	29.4±0.5	20.2±1.4	Kursk Oblast	<i>Corylus avellana</i>	2

LE-BIN 3622 <i>S. ochraceum</i>	KY321181 / MG609022	WR	M	25.0±0.3	n/d	Kursk Oblast	<i>Populus tremula</i>	2
LE-BIN 3824 <i>S. ochraceum</i>	MG609021	WR	S	30.0±1.4	14.9±1.1	Lipetsk Oblast	<i>Betula pendula</i>	2
LE-BIN 3827 <i>S. ochraceum</i>	MG609031	WR	S	36.3±3.2	19.3±1.7	Lipetsk Oblast	<i>Corylus avellana</i>	2
LE-BIN 3836 <i>S. ochraceum</i>	MG609020	WR	M	42.6±3.9	26.1±1.6	Lipetsk Oblast	<i>Acer platanoides</i>	2
LE-BIN 3977 <i>S. ochraceum</i>	—	WR	M	32.2±0.8	30.3±1.2	Bryansk Oblast	<i>Corylus avellana</i>	1
LE-BIN 3981 <i>S. ochraceum</i>	—	WR	S	32.5±0.7	20.3±0.8	Bryansk Oblast	<i>Corylus avellana</i>	1
LE-BIN 3984 <i>S. ochraceum</i>	—	WR	F	30.4±0.9	29.4±1.4	Bryansk Oblast	<i>Corylus avellana</i>	1
LE-BIN 3985 <i>S. ochraceum</i>	—	WR	S	16.7±0.9	20.9±1.2	Bryansk Oblast	<i>Quercus robur</i>	1
LE-BIN 4005 <i>S. ochraceum</i>	—	WR	S	33.1±1.2	28.2±1.7	Bryansk Oblast	<i>Corylus avellana</i>	1
RUSSULALES								
Hericiaceae								
LE-BIN 3594 <i>Heridium coralloides</i>	—	WR	S	18.5±1.2	12.1±0.6	Bryansk Oblast	<i>Populus tremula</i>	1
Peniophoraceae								
LE-BIN 3815 <i>Peniophora cinerea</i>	MZ018628	WR	M	16.2±0.8	22.1±1.9	Lipetsk Oblast	<i>Sorbus aucuparia</i>	2
LE-BIN 4336 <i>P. cinerea</i>	MZ018635	WR	M	27.2±0.9	22.8±0.6	Belgorod Oblast	<i>Pyrus communis</i>	2
LE-BIN 4337 <i>P. incarnata</i>	—	WR	M	22.9±2.1	29.5±1.0	Belgorod Oblast	<i>Prunus armeniaca</i>	2
LE-BIN 3814 <i>Peniophora quercina</i>	MZ018627	WR	M	21.6±2.1	28.9±2.4	Lipetsk Oblast	<i>Quercus robur</i>	2
LE-BIN 3833 <i>P. quercina</i>	MZ018631	WR	M	20.9±1.6	26.2±0.8	Lipetsk Oblast	<i>Quercus robur</i>	2
Stereaceae								
LE-BIN 3618 <i>Stereum</i> sp.	—	WR	M	13.8±0.8	17.3±0.6	Kursk Oblast	undefined wood	2
LE-BIN 3593 <i>Xylobolus frustulatus</i>	—	WR	S	n/d	22.2±0.6	Bryansk Oblast	<i>Quercus robur</i>	1
LE-BIN 4125 <i>X. frustulatus</i>	—	WR	M	n/d	21.6±0.6	Bryansk Oblast	<i>Quercus robur</i>	1

¹LGR – linear growth rate (S – slow, M – medium, F – fast); ²ABTS – 2,2'-azino-bis 3-ethylbenzothiazoline-6-sulfonic acid; ³CMC – carboxymethyl cellulose; ⁴WR – white rot; ⁵BR – brown rot; ⁶n/d – not detected.

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