

## Supplementary material

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### Metaprofiling of the bacterial community in colonized compost extracts by *Agaricus subrufescens*

Matheus R. Iossi<sup>1</sup>, Isabela de Arruda Palú<sup>2</sup>, Douglas M. M. Soares<sup>3</sup>, Wagner Gonçalves Vieira Júnior<sup>1</sup>, Lucas da Silva Alves<sup>1</sup>, Cassius V. Stevani<sup>3</sup>, Cinthia E. C. Caitano<sup>1</sup>, Samir V. F. Atum<sup>3,4</sup>, Renato S. Freire<sup>3</sup>, Eustáquio S. Dias<sup>5</sup>, Diego C. Zied<sup>2\*</sup>

<sup>1</sup> Programa de Pós-Graduação em Microbiologia Agropecuária, Faculdade de Ciências Agrárias e Veterinárias (FCAV), Universidade Estadual Paulista (UNESP), Jaboticabal, São Paulo, Brazil

<sup>2</sup> Faculdade de Ciências Agrárias e Tecnológicas (FCAT), Universidade Estadual Paulista (UNESP), Dracena, São Paulo, Brazil

<sup>3</sup> Departamento de Química Fundamental, Instituto de Química, Universidade de São Paulo (USP), São Paulo, Brazil

<sup>4</sup> Departamento de Bioquímica, Instituto de Química, Universidade de São Paulo, São Paulo, Brazil

<sup>5</sup> Universidade Federal de Lavras (UFLA), Departamento de Biologia, Lavras, Minas Gerais, Brazil

\*Correspondence: [dczied@gmail.com](mailto:dczied@gmail.com) or [diego.zied@unesp.br](mailto:diego.zied@unesp.br) (D.C.Z.)

**Table S1.** Mineral analysis of the compost used in the experiment.

Minerals	Concentration (g/kg)*	Organic matter (%)	pH	Moisture (%)	Carbon/Nitrogen ratio
N	22.2	71	7.2	68	18:1
P <sub>2</sub> O <sub>5</sub>	12.4				
K <sub>2</sub> O	34.7				
Ca	32.9				
Mg	6.9				
S	13.0				
Na	3.7				
B	0.07				
Cu	0.22				
Fe	2.8				
Mn	0.20				
Zn	0.23				

\* Mass of mineral per mass of soil.

**Table S2.** Abundance of bacteria present in the mushroom colonized compost extract (MCCE) obtained by immersion of the compost for 1h.

Rank	Bacteria	Reads	Rank	Bacteria	Reads
1	<i>Serratia marcescens</i>	123477	48	<i>Enterobacter cowanii</i>	382
2	<i>Bacillus flexus</i>	7461	49	<i>Paenibacillus alvei</i>	375
3	<i>Salmonella enterica</i>	5697	50	<i>Bacillus longiquaesitum</i>	370
4	<i>Morganella morganii</i>	3865	51	<i>Pseudomonas nitroreducens</i>	343
5	<i>Plesiomonas shigelloides</i>	3763	52	<i>Paenibacillus chondroitinus</i>	334
6	<i>Klebsiella oxytoca</i>	2976	53	<i>Micrococcus luteus</i>	320
7	<i>Paenibacillus amylolyticus</i>	2740	54	<i>Bacillus coagulans</i>	299
8	<i>Pseudomonas stutzeri</i>	2412	55	<i>Geobacillus vulcani</i>	287
9	<i>Bacillus firmus</i>	2294	56	<i>Paenibacillus stellifer</i>	272
10	<i>Trabulsiella farmeri</i>	2024	57	<i>Photorhabdus temperata</i>	271
11	<i>Paenibacillus lentimorbus</i>	1820	58	<i>Pseudomonas alcaligenes</i>	268
12	<i>Erwinia soli</i>	1787	59	<i>Serratia symbiotica</i>	262
13	<i>Anoxybacillus kestanbolensis</i>	1711	60	<i>Bacillus cohnii</i>	243
14	<i>Actinomadura vinacea</i>	1671	61	<i>Aneurinibacillus migulanus</i>	241
15	<i>Lysinibacillus boronitolerans</i>	1618	62	<i>Paenibacillus barengoltzii</i>	227
16	<i>Bacillus halodurans</i>	1569	63	<i>Staphylococcus sciuri</i>	222
17	<i>Bacillus muralis</i>	1480	64	<i>Bacillus marisflavi</i>	220
18	<i>Pseudomonas veronii</i>	1424	65	<i>Bacillus asahii</i>	212
19	<i>Bacillus thermoamylovorans</i>	1415	66	<i>Arsenophonus endosymbiont of Dermacentor variabilis</i>	209
20	<i>Bacillus humi</i>	1366	67	<i>Staphylococcus epidermidis</i>	198
21	<i>Paenibacillus mucilaginosus</i>	1343	68	<i>Thermobispora bispora</i>	197
22	<i>Nocardiopsis composita</i>	1317	69	<i>Desulfosporosinus meridiei</i>	180
23	<i>Kocuria rhizophila</i>	1261	70	<i>Pseudomonas citronellolis</i>	174
24	<i>Erwinia dispersa</i>	1133	71	<i>Staphylococcus aureus</i>	166
25	<i>Bacillus endophyticus</i>	1010	72	<i>Acinetobacter johnsonii</i>	158
26	<i>Candidatus Regiella insecticola</i>	974	73	<i>Microbacterium chokolatum</i>	144
27	<i>Pedomicrobium australicum</i>	965	74	<i>Erwinia toletana</i>	140
28	<i>Pseudomonas viridiflava</i>	902	75	<i>Corynebacterium simulans</i>	135
29	<i>Paenibacillus larvae</i>	898	76	<i>Hyphomicrobium zavarzinii</i>	132
30	<i>Bacillus oleronius</i>	880	77	<i>Faecalibacterium prausnitzii</i>	125
31	<i>Bacillus foraminis</i>	851	78	<i>Rothia dentocariosa</i>	121
32	<i>Bacillus selenatarsenatis</i>	785	79	<i>Pseudomonas balearica</i>	117

33	<i>Geobacillus thermodenitrificans</i>	685	80	<i>Rhodococcus fascians</i>	117
34	<i>Brenneria quercina</i>	587	81	<i>Virgibacillus marismortui</i>	114
35	<i>Virgisporangium ochraceum</i>	519	82	<i>Hyphomicrobium sulfonivorans</i>	102
36	<i>Ammoniphilus oxalaticus</i>	516	83	<i>Clostridium perfringens</i>	100
37	<i>Bacillus clausii</i>	515	84	<i>Sporosarcina ginsengi</i>	96
38	<i>Paenibacillus macerans</i>	485	85	<i>Brachybacterium conglomeratum</i>	95
39	<i>Propionibacterium acnes</i>	483	86	<i>Bacillus ginsengihumi</i>	87
40	<i>Sorangium cellulosum</i>	457	87	<i>Brevibacillus laterosporus</i>	85
41	<i>Paenibacillus lautus</i>	450	88	<i>Microbispora rosea</i>	80
42	<i>Corynebacterium durum</i>	449	89	<i>Bacillus safensis</i>	80
43	<i>Pseudomonas fragi</i>	432	90	<i>Nocardiopsis exhalans</i>	79
44	<i>Paenibacillus chitinolyticus</i>	430	91	<i>Pseudomonas umsongensis</i>	78
45	<i>Symbiobacterium thermophilum</i>	400	92	<i>Planococcus maitriensis</i>	76
46	<i>Brevibacillus reuszeri</i>	394	93	<i>Rothia mucilaginosa</i>	74
47	<i>Bacillus horikoshii</i>	392	94	<i>Rhodobium orientis</i>	72

Rank	Bacteria	Reads	Rank	Bacteria	Reads
95	<i>Rothia aeria</i>	71	145	<i>Arthrobacter psychrolactophilus</i>	13
96	<i>Paenibacillus illinoisensis</i>	66	146	<i>Propionibacterium granulosum</i>	12
97	<i>Bacillus farraginis</i>	65	147	<i>Providencia stuartii</i>	11
98	<i>Brevibacillus invocatus</i>	63	148	<i>Gluconacetobacter liquefaciens</i>	11
99	<i>Microbacterium maritypicum</i>	62	149	<i>Virgibacillus halodenitrificans</i>	11
100	<i>Paenibacillus curdlandolyticus</i>	60	150	<i>Corynebacterium mastitidis</i>	11
101	<i>Bacillus badius</i>	52	151	<i>Virgibacillus pantothenticus</i>	10
102	<i>Corynebacterium kroppenstedtii</i>	45	152	<i>Pseudonocardia halophobica</i>	10
103	<i>[Ruminococcus] gnavus</i>	43	153	<i>Brevundimonas diminuta</i>	10
104	<i>Nonomuraea roseoviolacea</i>	38	154	<i>Agrococcus jenensis</i>	10
105	<i>Kocuria palustris</i>	38	155	<i>Sporosarcina aquimarina</i>	9
106	<i>Oceanobacillus oncorhynchi</i>	37	156	<i>Mycobacterium llatzerense</i>	9
107	<i>Corallocccus exiguus</i>	37	157	<i>Mycobacterium arupense</i>	9
108	<i>Bacillus trypoxylicola</i>	37	158	<i>Clostridium hiranonis</i>	9
109	<i>Virgibacillus picturae</i>	36	159	<i>Staphylococcus haemolyticus</i>	8
110	<i>Desulfotomaculum aeronauticum</i>	36	160	<i>Sphingobacterium multivorum</i>	8
111	<i>Rhodoplanes elegans</i>	33	161	<i>Roseomonas mucosa</i>	8

112	<i>Veillonella dispar</i>	32	162	<i>Dorea formicigenerans</i>	8
113	<i>Microbacterium lacticum</i>	32	163	<i>Clostridium butyricum</i>	8
114	<i>Bradyrhizobium elkanii</i>	32	164	<i>Verrucospora giffhornensis</i>	7
115	<i>Mycobacterium celatum</i>	31	165	<i>Streptomyces reticuliscabiei</i>	7
116	<i>Kurthia gibsonii</i>	31	166	<i>Ruminococcus bromii</i>	7
117	<i>Bacillus fumarioli</i>	31	167	<i>Blautia obeum</i>	7
118	<i>Paenibacillus edaphicus</i>	30	168	<i>Alkaliphilus transvaalensis</i>	7
119	<i>Brevibacterium paucivorans</i>	30	169	<i>Actinokineospora diospyrosa</i>	7
120	<i>Ruminococcus flavefaciens</i>	29	170	<i>Staphylococcus equorum</i>	6
121	<i>Rhodococcus ruber</i>	29	171	<i>Shinella granuli</i>	6
122	<i>Corynebacterium stationis</i>	27	172	<i>Salinispora tropica</i>	6
123	<i>Corynebacterium variabile</i>	26	173	<i>Saccharopolyspora hirsuta</i>	6
124	<i>Acinetobacter rhizosphaerae</i>	25	174	[ <i>Ruminococcus</i> ] <i>torques</i>	6
125	<i>Streptomyces lanatus</i>	25	175	<i>Clostridium neonatale</i>	6
126	<i>Stenotrophomonas geniculata</i>	22	176	<i>Clavibacter michiganensis</i>	6
127	<i>Acinetobacter lwoffii</i>	22	177	<i>Candidatus Aquiluna rubra</i>	6
128	<i>Brevibacillus thermoruber</i>	21	178	<i>Brevibacterium aureum</i>	6
129	<i>Acinetobacter schindleri</i>	20	179	<i>Bosea</i> genosp.	6
130	<i>Mycobacterium vaccae</i>	20	180	<i>Streptomyces radiopugnans</i>	5
131	<i>Clostridium stercorearium</i>	20	181	<i>Selenomonas noxia</i>	5
132	<i>Blautia producta</i>	20	182	<i>Nocardia concava</i>	5
133	<i>Candidatus Blochmannia floridanus</i>	19	183	<i>Citricoccus alkalitolerans</i>	5
134	<i>Veillonella parvula</i>	18	184	<i>Amycolatopsis thermoflava</i>	5
135	<i>Streptomyces mirabilis</i>	18	185	<i>Streptosporangium pseudovulgare</i>	4
136	<i>Streptomyces ahygroscopicus</i>	18	186	<i>Streptomyces scabrisporus</i>	4
137	<i>Clostridium thermopalmarium</i>	18	187	<i>Sphingobacterium mizutaii</i>	4
138	<i>Streptomyces rubrolavendulae</i>	17	188	<i>Methylosinus sporium</i>	4
139	<i>Clostridium bowmanii</i>	17	189	<i>Methylobacterium adhaesivum</i>	4
140	<i>Blastococcus aggregatus</i>	17	190	<i>Methylibium petroleiphilum</i>	4
141	<i>Nocardioides plantarum</i>	15	191	<i>Clostridium acetobutylicum</i>	4
142	<i>Janthinobacterium lividum</i>	15	192	<i>Caulobacter henricii</i>	4
143	<i>Thermoanaerobacter uzonensis</i>	14	193	<i>Bdellovibrio bacteriovorus</i>	4
144	<i>Acinetobacter guillouiae</i>	13	194	<i>Agromyces mediolanus</i>	4

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Rank	Bacteria	Reads	Rank	Bacteria	Reads
195	<i>Acidovorax caeni</i>	4	245	<i>Xanthobacter autotrophicus</i>	1
196	<i>Variovorax paradoxus</i>	3	246	<i>Williamsia serinedens</i>	1
197	<i>Thermoanaerobacterium saccharolyticum</i>	3	247	<i>Streptococcus alactolyticus</i>	1
198	<i>Streptomyces aculeolatus</i>	3	248	<i>Staphylococcus succinus</i>	1
199	<i>Streptococcus anginosus</i>	3	249	<i>Staphylococcus pettenkoferi</i>	1
200	<i>Ruminococcus callidus</i>	3	250	<i>Sphingopyxis alaskensis</i>	1
201	<i>Roseateles depolymerans</i>	3	251	<i>Rhizobium leguminosarum</i>	1
202	<i>Pseudoclavibacter bifida</i>	3	252	<i>Pilimelia terevasa</i>	1
203	<i>Mycobacterium gordonae</i>	3	253	<i>Photobacterium angustum</i>	1
204	<i>Microbacterium barkeri</i>	3	254	<i>Paracoccus marcusii</i>	1
205	<i>Legionella pneumophila</i>	3	255	<i>Ochrobactrum intermedium</i>	1
206	<i>Geodermatophilus obscurus</i>	3	256	<i>Neisseria cinerea</i>	1
207	<i>Coprococcus eutactus</i>	3	257	<i>Microbacterium aurum</i>	1
208	<i>Burkholderia glathei</i>	3	258	<i>Macrococcus caseolyticus</i>	1
209	<i>Brevibacterium casei</i>	3	259	<i>Lactococcus garvieae</i>	1
210	<i>Acidovorax delafieldii</i>	3	260	<i>Lactobacillus ruminis</i>	1
211	<i>Rickettsia endosymbiont of Deronectes platynotus</i>	3	261	<i>Lactobacillus delbrueckii</i>	1
212	<i>Stenotrophomonas acidaminiphila</i>	2	262	<i>Haererehalobacter salaria</i>	1
213	<i>Sulfobacillus thermosulfidooxidans</i>	2	263	<i>Couchioplanes caeruleus</i>	1
214	<i>Streptococcus luteciae</i>	2	264	<i>Corynebacterium pilosum</i>	1
215	<i>Sporomusa polytropa</i>	2	265	<i>Clostridium tetani</i>	1
216	<i>Sphingomonas wittichii</i>	2	266	<i>Burkholderia tuberum</i>	1
217	<i>Sphingomonas azotifigens</i>	2	267	<i>Burkholderia gladioli</i>	1
218	<i>Sphingobacterium faecium</i>	2	268	<i>Bacillus acidicola</i>	1
219	<i>Rubrivivax gelatinosus</i>	2	269	<i>Asticcacaulis biprosthecium</i>	1
220	<i>Psychrobacter celer</i>	2	270	<i>Anaerospora hongkongensis</i>	1
221	<i>Paracoccus aminovorans</i>	2	271	<i>Agrobacterium sullae</i>	1
222	<i>Methylobacterium mobilis</i>	2	272	<i>Aggregatibacter segnis</i>	1
223	<i>Methylobacterium organophilum</i>	2	273	<i>Actinoallomurus iriomotensis</i>	1
224	<i>Methylobacterium mesophilicum</i>	2	274	<i>Wolbachia endosymbiont of Dirofilaria immitis</i>	1
225	<i>Methylobacterium komagatae</i>	2	275	<i>Wolbachia endosymbiont of Chorthippus parallelus</i>	1
226	<i>Methylobacterium hispanicum</i>	2			
227	<i>Lactobacillus zeae</i>	2			
228	<i>Jeotgalicoccus psychrophilus</i>	2			

229	<i>Inquilinus limosus</i>	2
230	<i>Enterococcus casseliflavus</i>	2
231	<i>Cryobacterium psychrophilum</i>	2
232	<i>Corynebacterium lubricantis</i>	2
233	<i>Coprococcus catus</i>	2
234	<i>Clostridium subterminale</i>	2
235	<i>Clostridium intestinale</i>	2
236	<i>Cellulomonas xylanilytica</i>	2
237	<i>Carnobacterium viridans</i>	2
238	<i>Caldicellulosiruptor saccharolyticus</i>	2
239	<i>Burkholderia bryophila</i>	2
240	<i>Azorhizobium doebereineriae</i>	2
241	<i>Akkermansia muciniphila</i>	2
242	<i>Agrobacterium vitis</i>	2
243	<i>Acinetobacter venetianus</i>	1
244	<i>Xylanimicrobium pachnodae</i>	1

**Table S3.** Abundance of bacteria present in the mushroom colonized compost extract (MCCE) obtained by immersion of the compost for 24h.

Rank	Bacteria	Reads	Rank	Bacteria	Reads
1	<i>Serratia marcescens</i>	226018	48	<i>Geobacillus thermodenitrificans</i>	33
2	<i>Pseudomonas stutzeri</i>	22026	49	<i>Bacillus selenatarsenatis</i>	32
3	<i>Pseudomonas veronii</i>	15575	50	<i>Sorangium cellulosum</i>	31
4	<i>Pseudomonas viridiflava</i>	10383	51	<i>Virgisporangium ochraceum</i>	30
5	<i>Salmonella enterica</i>	7089	52	<i>Paenibacillus larvae</i>	29
6	<i>Plesiomonas shigelloides</i>	6252	53	<i>Pedomicrobium australicum</i>	28
7	<i>Pseudomonas fragi</i>	4769	54	<i>Ammoniphilus oxalaticus</i>	28
8	<i>Pseudomonas nitroreducens</i>	4145	55	<i>Symbiobacterium thermophilum</i>	25
9	<i>Morganella morganii</i>	3500	56	<i>Candidatus Blochmannia floridanus</i>	25
10	<i>Klebsiella oxytoca</i>	3418	57	<i>Bacillus clausii</i>	24
11	<i>Erwinia soli</i>	2967	58	<i>Stenotrophomonas retroflexus</i>	23
12	<i>Trabulsiella farmeri</i>	2853	59	<i>Nocardiopsis composta</i>	22
13	<i>Pseudomonas alcaligenes</i>	2818	60	<i>Paenibacillus macerans</i>	20

14	<i>Erwinia dispersa</i>	1249	61	<i>Paenibacillus chondroitinus</i>	20
15	<i>Pseudomonas balearica</i>	1088	62	<i>Bacillus horikoshii</i>	19
16	<i>Pseudomonas umsongensis</i>	825	63	<i>Bacillus coagulans</i>	19
17	<i>Brenneria quercina</i>	788	64	<i>Paenibacillus alvei</i>	18
18	<i>Candidatus Regiella insecticola</i>	787	65	<i>Staphylococcus sciuri</i>	18
19	<i>Pseudomonas citronellolis</i>	633	66	<i>Brevibacillus reuszeri</i>	17
20	<i>Acinetobacter johnsonii</i>	539	67	<i>Paenibacillus chitinolyticus</i>	16
21	<i>Enterobacter cowanii</i>	509	68	<i>Geobacillus vulcani</i>	16
22	<i>Bacillus flexus</i>	473	69	<i>Bacillus cohnii</i>	16
23	<i>Stenotrophomonas geniculata</i>	441	70	<i>Providencia stuartii</i>	16
24	<i>Photorhabdus temperata</i>	336	71	<i>Gluconacetobacter liquefaciens</i>	16
25	<i>Serratia symbiotica</i>	319	72	<i>Bacillus longiquaesitum</i>	14
26	<i>Arsenophonus endosymbiont of Dermacentor variabilis</i>	264	73	<i>Paenibacillus stellifer</i>	14
27	<i>Erwinia toletana</i>	172	74	<i>Corynebacterium durum</i>	13
28	<i>Acinetobacter rhizosphaerae</i>	140	75	<i>Bacillus marisflavi</i>	13
29	<i>Bacillus firmus</i>	137	76	<i>Micrococcus luteus</i>	12
30	<i>Paenibacillus amylolyticus</i>	126	77	<i>Aneurinibacillus migulanus</i>	12
31	<i>Bacillus muralis</i>	99	78	<i>Bacillus asahii</i>	12
32	<i>Anoxybacillus kestanbolensis</i>	91	79	<i>Thermobispora bispora</i>	12
33	<i>Lysinibacillus boronitolerans</i>	87	80	<i>Propionibacterium acnes</i>	11
34	<i>Bacillus halodurans</i>	85	81	<i>Paenibacillus lautus</i>	11
35	<i>Bacillus humi</i>	80	82	<i>Rothia dentocariosa</i>	10
36	<i>Bacillus thermoamylovorans</i>	79	83	<i>Desulfosporosinus meridiei</i>	8
37	<i>Actinomadura vinacea</i>	72	84	<i>Staphylococcus epidermidis</i>	7
38	<i>Acinetobacter lwoffii</i>	68	85	<i>Staphylococcus aureus</i>	7
39	<i>Bacillus oleronius</i>	67	86	<i>Microbacterium chokolatum</i>	7
40	<i>Paenibacillus lentimorbus</i>	65	87	<i>Corynebacterium simulans</i>	7
41	<i>Bacillus endophyticus</i>	63	88	<i>Clostridium perfringens</i>	7
42	<i>Paenibacillus mucilaginosus</i>	58	89	<i>Paenibacillus barengoltzii</i>	6
43	<i>Stenotrophomonas acidaminiphila</i>	52	90	<i>Faecalibacterium prausnitzii</i>	6
44	<i>Acinetobacter schindleri</i>	47	91	<i>Bacillus ginsengihumi</i>	6
45	<i>Bacillus foraminis</i>	46	92	<i>Rhodococcus fascians</i>	5
46	<i>Acinetobacter guillouiae</i>	40	93	<i>Virgibacillus marismortui</i>	5
47	<i>Kocuria rhizophila</i>	33	94	<i>Bacillus farraginis</i>	5



Rank	Bacteria	Reads	Rank	Bacteria	Reads
95	<i>Acinetobacter venetianus</i>	5	142	<i>Virgibacillus pantothenicus</i>	1
96	<i>Sporosarcina ginsengi</i>	4	143	<i>Mycobacterium arupense</i>	1
97	<i>Brevibacillus laterosporus</i>	4	144	<i>Clostridium hiranonis</i>	1
98	<i>Microbispora rosea</i>	4	145	<i>Staphylococcus haemolyticus</i>	145
99	<i>Bacillus safensis</i>	4	146	<i>Roseomonas mucosa</i>	146
100	<i>Rothia mucilaginosa</i>	4	147	<i>Clostridium butyricum</i>	147
101	<i>Paenibacillus curdolanolyticus</i>	4	148	<i>Ruminococcus bromii</i>	148
102	<i>Veillonella dispar</i>	4	149	<i>Alkaliphilus transvaalensis</i>	149
103	<i>Erwinia oleae</i>	4	150	<i>Streptomyces radiopugnans</i>	150
104	<i>Enterococcus sulfureus</i>	4	151	<i>Selenomonas noxia</i>	151
105	<i>Planococcus maitriensis</i>	3	152	<i>Nocardia concava</i>	152
106	<i>Rhodobium orientis</i>	3	153	<i>Streptosporangium pseudovulgare</i>	153
107	<i>Brevibacillus invocatus</i>	3	154	<i>Streptomyces scabrisporus</i>	154
108	<i>Microbacterium maritypicum</i>	3	155	<i>Clostridium acetobutylicum</i>	155
109	<i>Oceanobacillus oncorhynchi</i>	3	156	<i>Legionella pneumophila</i>	156
110	<i>Kurthia gibsonii</i>	3	157	<i>Acidovorax delafieldii</i>	157
111	<i>Bacillus fumarioli</i>	3	158	<i>Sporomusa polytropia</i>	158
112	<i>Ruminococcus flavefaciens</i>	3	159	<i>Shewanella pacifica</i>	159
113	<i>Hyphomicrobium zavarzinii</i>	2	160	<i>Selenomonas ruminantium</i>	160
114	<i>Hyphomicrobium sulfonivorans</i>	2	161	<i>Psychrobacter pulmonis</i>	161
115	<i>Rothia aeria</i>	2	162	<i>Nannocystis exedens</i>	162
116	<i>Kocuria palustris</i>	2	163	<i>Halomonas nitritophilus</i>	163
117	<i>Virgibacillus picturae</i>	2	164	<i>Haemophilus parainfluenzae</i>	164
118	<i>Desulfotomaculum aeronauticum</i>	2	165	<i>Enterococcus cecorum</i>	165
119	<i>Corynebacterium stationis</i>	2	166	<i>Allochromatium vinosum</i>	166
120	<i>Clostridium bowmanii</i>	2			
121	<i>Microbacterium barkeri</i>	2			
122	<i>Pseudoxanthomonas mexicana</i>	2			
123	<i>Clostridium subterminale</i>	2			
124	<i>Brachybacterium conglomeratum</i>	1			
125	<i>Nocardiosis exhalans</i>	1			
126	<i>Bacillus badius</i>	1			
127	<i>Corynebacterium kroppenstedtii</i>	1			
128	[ <i>Ruminococcus</i> ] <i>gnavus</i>	1			

129	<i>Corallococcus exiguus</i>	1
130	<i>Rhodoplanes elegans</i>	1
131	<i>Brevibacterium paucivorans</i>	1
132	<i>Corynebacterium variabile</i>	1
133	<i>Brevibacillus thermoruber</i>	1
134	<i>Mycobacterium vaccae</i>	1
135	<i>Clostridium stercorarium</i>	1
136	<i>Blautia producta</i>	1
137	<i>Veillonella parvula</i>	1
138	<i>Clostridium thermopalmarium</i>	1
139	<i>Blastococcus aggregatus</i>	1
140	<i>Janthinobacterium lividum</i>	1
141	<i>Virgibacillus halodenitrificans</i>	1

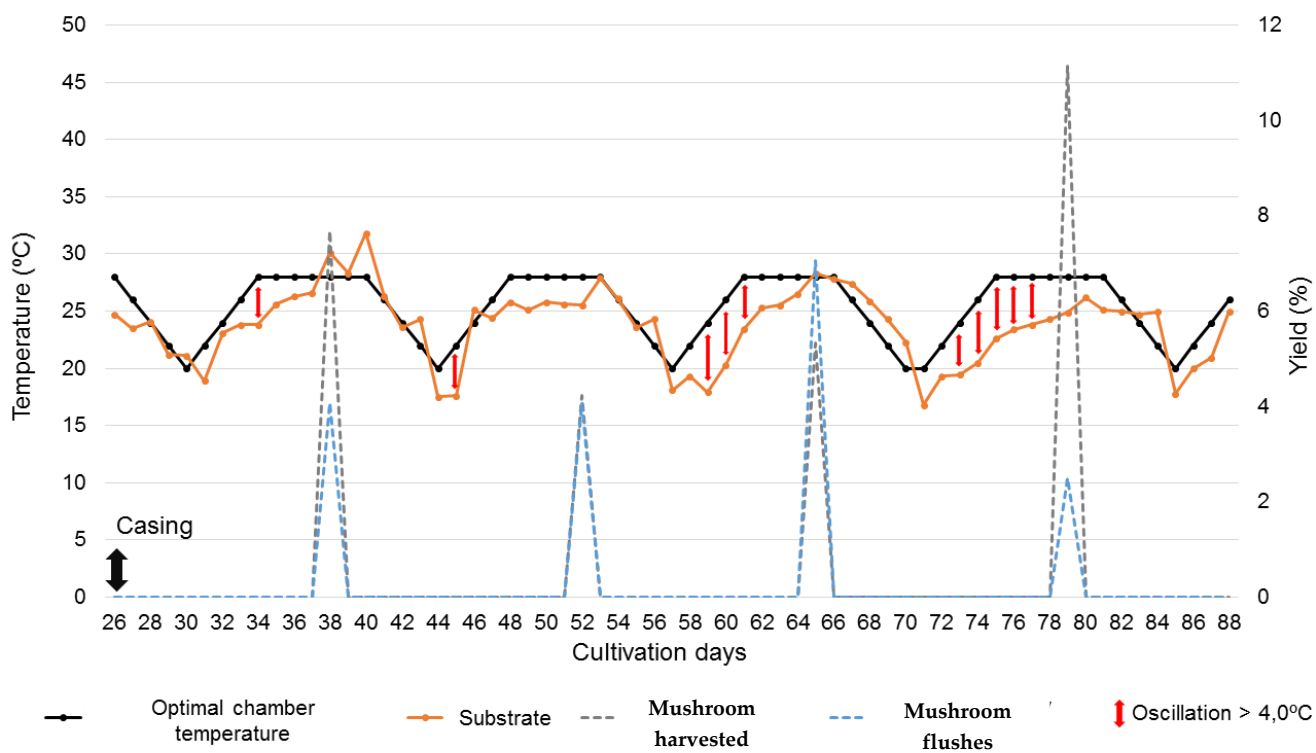
**Table S4.** Agronomic traits of *A. subrufescens* mushrooms.

Application date	Semi-controlled Conditions														
	Yield (%)			Biological Efficiency (%)			Precocity (%)			Number of Mushrooms			Weight of Mushrooms (g)		
	Control	1h	24h	Control	1h	24h	Control	1h	24h	Control	1h	24h	Control	1h	24h
3 <sup>rd</sup>	12.6	6.4	18.5	18.6	9.4	27.2	42.4	15.2	36.9	15	9	18	23.6	19.8	28.7
	12.9	17.3	14.4	19.0	25.4	21.2	82.3	73.1	75.4	12	21	13	30.2	23.0	31.0
	10.1	12.4	16.3	14.8	18.2	23.9	12.1	36.9	61.3	13	15	21	21.7	23.1	21.7
	18.7	12.4	19.9	27.5	18.2	29.2	56.6	51.9	38.0	19	19	22	27.5	18.3	25.3
6 <sup>th</sup>	12.6	12.8	13.8	18.6	18.8	20.3	42.4	40.2	29.5	15	13	18	23.6	27.5	21.5
	12.9	19.1	19.3	19.0	28.2	28.3	82.3	56.3	64.2	12	29	23	30.2	18.5	23.4
	10.1	12.4	15.9	14.8	18.2	23.3	12.1	39.9	68.0	13	17	17	21.7	20.4	26.1
	18.7	13.1	20.4	27.5	19.3	30.0	56.6	14.1	63.8	19	15	35	27.5	24.5	16.3
9 <sup>th</sup>	12.6	10.6	13.3	18.6	15.6	19.6	42.4	45.5	66.2	15	15	18	23.6	19.8	20.7
	12.9	17.7	17.3	19.0	26.0	25.5	82.3	38.0	52.6	12	21	30	30.2	23.6	16.2

	10.1	16.5	11.6	14.8	24.2	17.0	12.1	49.5	34.3	13	20	20	21.7	23.1	16.2
	18.7	16.7	17.9	18.7	24.6	26.4	56.6	63.0	34.9	19	17	27	27.5	27.5	18.6
12 <sup>th</sup>	12.6	21.4	21.9	18.6	31.5	32.3	42.4	65.7	69.2	15	30	34	23.6	20.0	18.1
	12.9	13.5	21.7	19.0	19.9	31.9	82.3	61.1	57.1	12	16	31	30.2	23.6	19.6
	10.1	14.2	16.4	14.8	20.9	24.2	12.1	29.2	63.5	13	14	22	21.7	28.4	20.9
	18.7	18.8	20.1	27.5	27.7	29.6	56.6	37.2	66.5	19	27	34	27.5	19.5	16.6
	12.6	14.2	11.8	18.6	20.9	17.3	42.4	19.4	23.7	15	21	13	23.6	18.9	25.3
15 <sup>th</sup>	12.9	4.4	19.7	19.0	6.5	29.0	82.3	0.0	55.1	12	8	33	30.2	15.5	16.7
	10.1	19.0	7.0	14.8	27.9	10.3	12.1	59.8	100.0	13	24	8	21.7	22.2	24.5
	18.7	16.5	18.0	27.5	24.2	26.5	56.6	68.6	52.5	19	16	23	27.5	28.8	22.0

**Table S5.** Mean values and standard deviation of agronomic traits of *A. subrufescens* mushrooms from the 3<sup>rd</sup> application until the 15<sup>th</sup> (see Table S2).

	Yield (%)		Precocity (%)		Number of Mushrooms		Weight of Mushrooms (g)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Control	14	4	48	29	15	3	15	3
1h	14	4	43	20	18	6	22	4
24h	17	4	56	18	23	8	21	4



**Figure S1.** Chamber and compost temperature, mushroom harvested and mushroom flushes, and oscillation temperature during crop period.