

Supplementary Material File S2

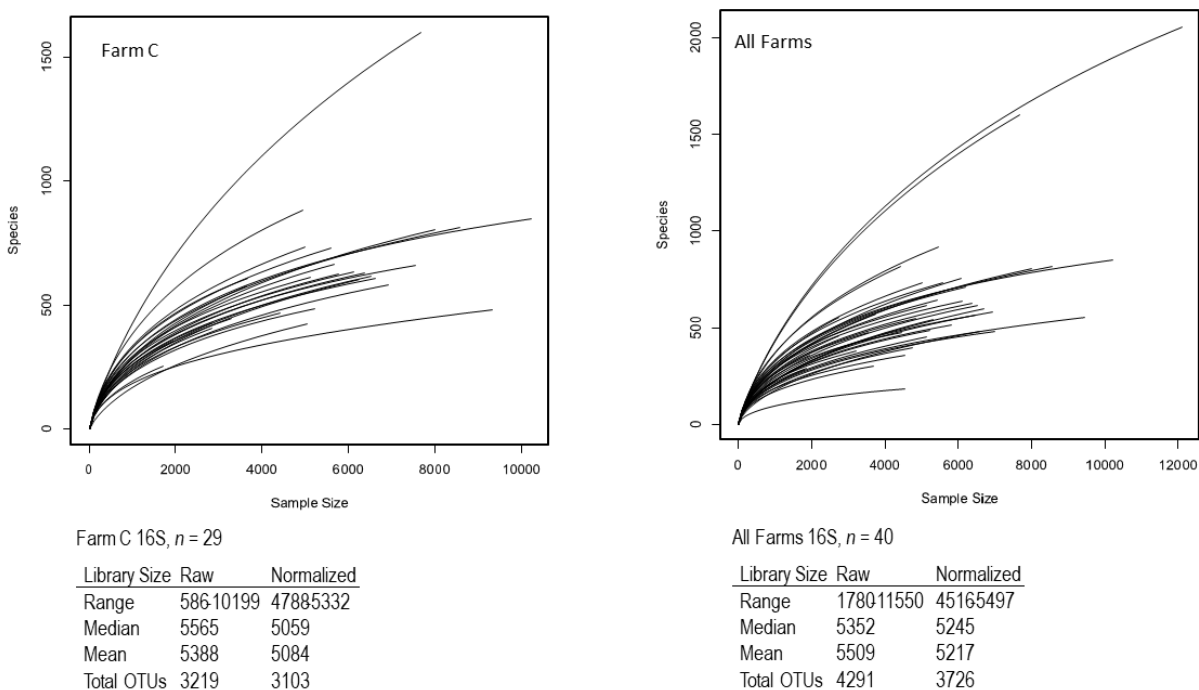


Figure S1 Normalization curves for bacterial amplicons produced by 515F and 806 primers targeted for the V4 region of 16S rRNA genes. Independent normalization curves were established for reference Farm C (left) and for all farms combined (right). Each sample was randomly subset stepwise without replacement to represent the relationship between sequencing depth and OTU richness.

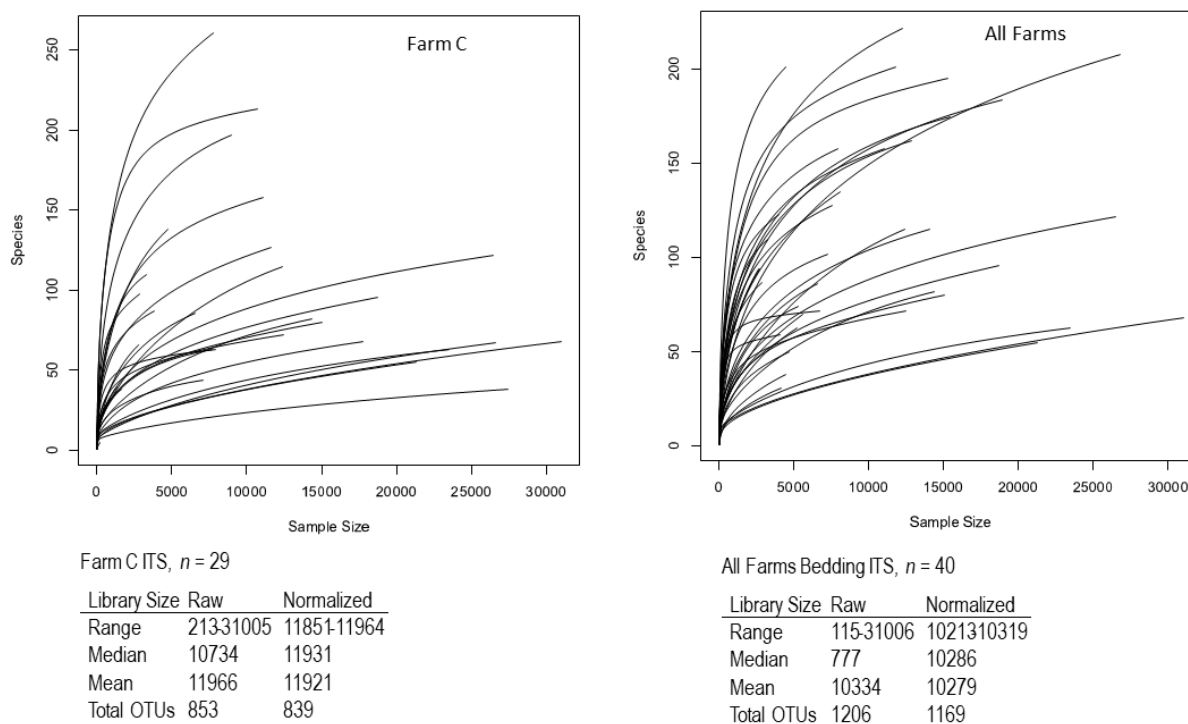


Figure S2 Normalization curves for fungal amplicons produced with ITS1F and ITS2 primers targeted for the fungal ITS1 region. Independent normalization curves were established for reference Farm C (left) and for all farms combined (right). Each sample was randomly subset stepwise without replacement to represent the relationship between sequencing depth and OTU richness.

Table S1 Farm Management Practice Five certified organic dairies in northern Vermont USA that use bedded pack. All data is farmer reported except barn area dimension for the period October 2015 to May 2016.

	Farm Name				
	C	B	D	L	S
Barn Type	Fabric hoop	Fabric hoop	Fabric hoop	Fabric hoop	Fabric hoop
Barn area (1000 ft²)	13.2	4	4.7	6	7.76
Barn area (m²)	1226.3	371.6	436.6	557.4	720.9
Lactating cows	75	50	33	60	0
Non-lactating cows	75	0	20	0	60
Ration components	all grass (mix of dry and fermented hay baleage)	9 lb grain/day, "dryish wet bales"	dry hay	10-12 lb grain/day, fermented hay baleage	8-9 lb grain /day, fermented hay baleage
Milk production (lbs/day/cow)	45	38	25	45	34
Bedding temperature: measurement & management	temperature probe, used occasionally	no	no	aeration with chisel plow to increase temperature	no
Bedding moisture: measurement & management	add wood chips if too squishy	no	yes	add more bedding when it appears 'dirty wet'	add more bedding when it appears wet
Bedding quantity used: unit per time	25 square bales & 17 yd ³ wood chips every other week	straw/hay 2x/day & wood chips added 1x/week	2 round bales/day starting Nov 10, 1 bale/day starting Dec 1, 1 bale/3 days starting Dec 21	As needed	As needed
Bedding quantity used per season	400 round bales, 340 yd ³ wood chips	200 bales (500 lbs each) of straw, 72 yd ³ wood chips	Not reported	20 round bales, 1075 yd ³ sawdust	162 bales straw (500 lbs each), 500 bales sawdust (40 lb each)

Total lbs (kg) bedding used (x 1000) per winter housing period	291.8 (132.4)	125.2 (56.8)	52.2 (23.7)	300.3 (136.2)	101 (45.8)
Months spent on pack per year	6-7	7	6	6	5
Time spent on pack	all day except 4 hrs milking	all day except 3 hrs milking	all day except 4 hrs milking	all day except to milk and eat	all day except to milk and eat
Fed on pack?	yes	yes	yes	no, outside on concrete	no, outside on concrete
Mean bulk tank somatic cell count/ml	180-200	20	125	190	150

Table S2 Most abundant bacterial genera Median relative abundance (of total reads per sample) across six concurrent sample times between November 2016 and May 2017. Colors represent relative abundance within farm (most abundant: red; intermediate abundance: white, low abundance: blue). Blank cells represent unknown or uncertain taxonomy.

Phylum	Class	Order (-ales)	Family (-aceae)	Genus	Farm C	Farm B	Farm D	Farm L	Farm S
Proteobacteria	γ -Proteobacteria	Pseudomod-	Moraxell-	<i>Acinetobacter</i>	8.14	8.49	13.19	5.19	3.06
Proteobacteria	γ -Proteobacteria	Pseudomod-	Pseudomod-	<i>Pseudomonas</i>	5.70	6.81	7.71	2.77	8.48
Firmicutes	Clostridia	MBA08			3.26	6.45	0.65	3.26	0.01
Bacteroidetes	Bacteroidia	Bacteroid-	Marinilabi-	<i>Ruminofilibacter</i>	3.23	2.37	3.39	4.41	0.00
Bacteroidetes	Sphingobacteriia	Sphingobacteri-	Sphingobacteri-	<i>Sphingobacterium</i>	3.15	6.18	3.34	0.42	1.68
Bacteroidetes	Bacteroidia	Bacteroid-	Porphyromod-		2.97	1.85	3.22	0.87	4.26
Proteobacteria	γ -Proteobacteria	Alteromod-	Alteromod-	<i>Cellvibrio</i>	2.62	0.99	3.19	0.59	3.03
Bacteroidetes	Flavobacteriia	Flavobacteri-	[Weeksell-]		2.60	7.87	3.20	0.39	0.84
Proteobacteria	β -Proteobacteria	Burkholderi-	Comamod-	<i>Comamonas</i>	2.30	2.74	5.33	0.44	0.35
Bacteroidetes	Flavobacteriia	Flavobacteri-	Flavobacteri-	<i>Flavobacterium</i>	2.14	1.95	2.33	1.34	1.25
Firmicutes	Clostridia	OPB54			2.14	1.52	0.68	3.01	0.00
Proteobacteria	γ -Proteobacteria	Alteromod-	Alteromod-		1.85	0.54	1.37	1.85	2.47
Bacteroidetes	Bacteroidia	Bacteroid-	Marinilabi-		1.53	0.60	1.07	0.71	6.17
Tenericutes	Mollicutes	Acholeplasmata-	Acholeplasmata-	<i>Acholeplasma</i>	1.45	0.84	1.73	0.62	2.76
Bacteroidetes	Flavobacteriia	Flavobacteri-	[Weeksell-]	<i>Wautersiella</i>	1.44	2.02	1.48	0.30	0.05
Bacteroidetes	Sphingobacteriia	Sphingobacteri-	Sphingobacteri-		1.35	2.01	1.68	0.21	4.13
Proteobacteria	β -Proteobacteria	Burkholderi-	Alcaligen-		1.32	3.12	1.23	0.75	0.65
Firmicutes	Bacilli	Bacill-	Planococc-		1.31	0.77	1.62	0.09	0.01
Proteobacteria	γ -Proteobacteria	Xanthomod-	Xanthomod-	<i>Stenotrophomonas</i>	1.24	1.61	1.56	0.14	0.31
Firmicutes	Clostridia	Clostridi-	Caldicoprobacter-	<i>Caldicoprobacter</i>	1.23	2.15	0.26	0.64	0.03
Firmicutes	Clostridia	Clostridi-	Clostridi-	<i>Clostridium</i>	1.12	0.82	0.40	1.57	0.23
Proteobacteria	γ -Proteobacteria	Pseudomod-	Pseudomod-		1.11	2.72	0.34	0.48	10.11
Proteobacteria	γ -Proteobacteria	Xanthomod-	Xanthomod-	<i>Luteimonas</i>	1.09	2.02	0.95	0.53	1.17
Firmicutes	Bacilli	Bacill-	Planococc-		1.07	0.32	0.13	0.15	0.00
Bacteroidetes	[Saprospirae]	[Saprospir-]	Chitinophag-		1.02	0.88	0.71	1.78	0.22
Bacteroidetes	Bacteroidia	Bacteroid-			1.00	0.60	0.45	0.51	0.16

Proteobacteria	γ-Proteobacteria	Alteromod-	Idiomarin-	<i>Pseudidiomarina</i>	0.93	1.71	0.43	0.48	0.04
Bacteroidetes	Cytophagia	Cytophag-	Cytophag-	<i>Leadbetterella</i>	0.89	0.06	0.23	0.02	0.00
Proteobacteria	γ-Proteobacteria	Pseudomod-	Pseudomod-		0.87	0.33	1.30	0.72	0.11
Bacteroidetes	Flavobacteriia	Flavobacteri-	Flavobacteri-		0.81	0.33	1.37	0.55	2.41
Spirochaetes	Spirochaetes	Spirochaet-	Spirochaet-	<i>Treponema</i>	0.80	0.63	0.44	1.62	0.23
Firmicutes	Clostridia	Clostridi-	Ruminococc-		0.79	0.64	0.86	0.75	0.51
Tenericutes	RF3	ML615J-28			0.67	0.40	0.13	1.72	0.06
Proteobacteria	α-Proteobacteria	Caulobacter-	Caulobacter-	<i>Brevundimonas</i>	0.63	0.22	0.94	0.11	0.09
Bacteroidetes	Flavobacteriia	Flavobacteri-	Cryomorph-	<i>Fluviicola</i>	0.62	0.62	0.90	0.59	0.20
Proteobacteria	γ-Proteobacteria	Alteromod-			0.61	0.10	0.09	0.32	0.20
Firmicutes	Bacilli	Bacill-	Planococc-	<i>Solibacillus</i>	0.58	0.12	0.38	0.14	0.12
Proteobacteria	α-Proteobacteria	Rhizobi-	Rhizobi-	<i>Agrobacterium</i>	0.57	0.18	0.30	0.06	0.04
Proteobacteria	β-Proteobacteria	Burkholderi-	Comamod-	<i>Hydrogenophaga</i>	0.57	0.30	0.82	1.48	0.02
Firmicutes	Bacilli	Lactobacill-	Leuconostoc-		0.54	0.11	1.40	0.00	0.00
Firmicutes	Clostridia	Clostridi-	Lachnospir-	<i>Coproccoccus</i>	0.54	0.41	0.70	0.68	1.08
Firmicutes	Clostridia	Clostridi-			0.54	0.41	0.41	0.94	0.40
Proteobacteria	γ-Proteobacteria	Rhizobi-	Hyphomicrobi-	<i>Devosia</i>	0.54	0.15	0.39	0.15	0.37
Proteobacteria	γ-Proteobacteria	Rhodobacter-	Rhodobacter-		0.54	0.19	0.56	0.23	0.18
Proteobacteria	γ-Proteobacteria	Oceanospirill-	Alcanivorac-	<i>Alcanivorax</i>	0.52	0.15	0.15	0.46	0.16
Bacteroidetes	VC2_1_Bac22				0.50	0.08	0.64	0.25	0.00
Firmicutes	Clostridia	Clostridi-	Clostridi-	<i>Proteiniclasticum</i>	0.50	0.22	0.17	0.08	0.07
[Thermi]	Deinococci	Deinococc-	Trueper-	B-42	0.49	0.48	0.11	0.66	0.91
Proteobacteria	γ-Proteobacteria	Alteromod-	Alteromod-	BD2-13	0.48	0.14	0.26	0.12	1.07
Proteobacteria	γ-Proteobacteria	Xanthomod-	Xanthomod-		0.48	0.43	0.49	0.20	0.19
Bacteroidetes	Cytophagia	Cytophag-	Cytophag-		0.46	0.27	0.58	2.78	0.01
Acidobacteria	Acidobacteria-6	iii1-15			0.44	0.71	0.00	0.46	0.00
Bacteroidetes	Bacteroidia	Bacteroid-	Bacteroid-	<i>Bacteroides</i>	0.44	0.23	1.36	0.23	0.44
Proteobacteria	α-Proteobacteria	Rhizobi-	Phyllobacteri-		0.44	0.27	0.37	0.14	0.15
Proteobacteria					0.43	0.17	0.19	0.46	0.64
Proteobacteria	δ-Proteobacteria	Myxococc-			0.41	0.40	0.45	0.95	0.06
Bacteroidetes	Bacteroidia	Bacteroid-	Bacteroid-		0.40	0.12	1.11	0.26	0.99

Bacteroidetes	Flavobacteriia	Flavobacteri-	Flavobacteri-		0.40	0.03	0.14	0.23	0.26
Bacteroidetes	[Saprospirae]	[Saprospir-]	Saprospir-		0.39	0.05	0.02	1.22	0.14
Bacteroidetes	Bacteroidia	Bacteroid-	Bacteroid-	BF311	0.38	0.04	0.82	0.04	0.00
Proteobacteria	γ--Proteobacteria	Alteromod-	211ds20		0.38	0.04	0.28	0.32	0.52
Proteobacteria	α-Proteobacteria	Sphingomod-	Sphingomod-	<i>Sphingopyxis</i>	0.36	0.05	0.28	0.08	0.46
Proteobacteria	β-Proteobacteria	Rhodocycl-	Rhodocycl-		0.36	0.46	0.44	0.46	0.01
Proteobacteria	γ--Proteobacteria	Xanthomod-	Xanthomod-		0.36	0.59	0.77	0.20	0.01
Proteobacteria	γ--Proteobacteria				0.35	0.07	0.29	0.50	0.69
Proteobacteria	ε-proteobacteria	Campylobacter-	Campylobacter-	<i>Arcobacter</i>	0.33	0.11	0.62	0.43	0.55
Actinobacteria	Actinobacteria	Actinomycet-	Corynebacteri-	<i>Corynebacterium</i>	0.32	0.56	0.51	0.03	0.20
Bacteroidetes	Bacteroidia	Bacteroid-	Porphyromod-	<i>Paludibacter</i>	0.32	0.06	0.37	0.17	0.23
Proteobacteria	δ-Proteobacteria	GMD14H09			0.32	0.20	0.03	0.23	0.42
Fibrobacteres	Fibrobacteria	Fibrobacter-	Fibrobacter-	<i>Fibrobacter</i>	0.29	0.03	0.73	0.28	2.36
Proteobacteria	γ--Proteobacteria	Xanthomod-	Sinobacter-		0.27	0.17	0.16	0.67	0.03
Firmicutes	Bacilli	Lactobacill-	Aerococc-	<i>Aerococcus</i>	0.26	0.28	0.44	0.00	0.01
Firmicutes	Clostridia	Halaerobi-	Halaerobi-		0.26	0.92	0.21	0.00	0.00
Proteobacteria	γ--Proteobacteria	Alteromod-	Alteromod-		0.24	0.14	0.07	0.17	1.80
Firmicutes	Bacilli	Bacill-	Bacill-	<i>Bacillus</i>	0.23	1.17	0.17	0.02	0.06
Planctomycetes	Planctomycetia	Pirellul-	Pirellul-		0.23	0.04	0.26	0.62	0.23
Proteobacteria	γ--Proteobacteria	Xanthomod-	Xanthomod-	<i>Pseudofulvimos</i>	0.23	0.06	0.14	0.30	0.47
Proteobacteria	γ--Proteobacteria	Alteromod-	[Chromati-]		0.22	0.00	0.39	0.58	0.38
Proteobacteria	β-Proteobacteria	Methylophil-	Methylophil-		0.20	0.14	0.29	0.46	0.03
Firmicutes	Clostridia	Clostridi-	[Tissierell-]	<i>Sedimentibacter</i>	0.18	0.09	0.14	0.51	0.17
Proteobacteria	β-Proteobacteria	Burkholderi-	Alcaligen-	<i>Oligella</i>	0.15	1.59	0.03	0.00	0.21
Proteobacteria	γ--Proteobacteria	Xanthomod-	Sinobacter-	<i>Steroidobacter</i>	0.14	0.07	0.09	1.89	0.03
Firmicutes	Bacilli	Bacill-	Bacill-		0.13	0.75	0.03	0.03	0.20
Proteobacteria	β-Proteobacteria	Burkholderi-	Alcaligen-	<i>Alcaligenes</i>	0.12	0.57	0.02	0.00	0.55
Proteobacteria	γ--Proteobacteria	Pseudomod-	Moraxell-	<i>Psychrobacter</i>	0.12	0.00	0.15	0.11	1.37
Acidobacteria	[Chloracidobacteria]	RB41	Ellin6075		0.10	0.23	0.03	1.99	0.00
Bacteroidetes	Flavobacteriia	Flavobacteri-	Cryomorph-	<i>Brumimicrobium</i>	0.08	0.15	0.17	0.03	2.32
Firmicutes	Bacilli	Bacill-			0.08	0.94	0.08	0.24	0.00

Fibrobacteres	TG3	TG3-1	TSCOR003-O20		0.06	0.00	0.00	1.71	0.01
Actinobacteria	Acidimicrobiia	Acidimicrobi-			0.04	0.01	0.03	0.87	0.02
Bacteroidetes	Flavobacteriia	Flavobacteri-	Flavobacteri-	<i>Gelidibacter</i>	0.03	0.00	0.02	0.08	0.94
				<i>Candidatus</i>					
Proteobacteria	γ-Proteobacteria	Alteromod-	Alteromod-	<i>Endobugula</i>	0.03	0.02	0.01	0.07	2.73
Chloroflexi	Aerolineae	GCA004			0.02	0.00	0.00	1.89	0.00
Proteobacteria	γ-Proteobacteria	Alteromod-	Idiomarin-		0.02	0.00	0.01	0.00	3.22
Proteobacteria	γ-Proteobacteria	Methylococc-	Methylococc-	<i>Methylocaldum</i>	0.02	0.00	0.00	2.80	0.00
Chloroflexi	Aerolineae	CFB-26			0.01	0.01	0.00	2.68	0.00
Proteobacteria	γ-Proteobacteria	Thiotrich-	Piscirickettsi-		0.01	0.05	0.00	1.29	0.02
Proteobacteria	β-Proteobacteria	Rhodocycl-	Rhodocycl-	<i>Thauera</i>	0.00	0.00	0.00	1.05	0.00

Table S3 Most abundant fungal genera Median relative abundance (of total reads per sample) across six concurrent sample times between November 2016 and May 2017. Colors represent relative abundance within farm (most abundant: red; intermediate abundance: white, low abundance: blue). Blank cells represent unknown or uncertain taxonomy.

Phylum (-mycota)	Class (-mycetes)	Order (-ales)	Family (-aceae)	Genus	Farm C	Farm B	Farm D	Farm L	Farm S
Asco	Saccharo-	Saccharomycet-	Pichi-	<i>Pichia</i>	36.46	2.59	31.95	17.41	3.78
Asco	Saccharo-	Saccharomycet-	Phaffomycet-	<i>Wickerhamomyces</i>	9.06	3.59	7.64	0.92	7.26
Asco	Saccharo-	Saccharomycet-	Phaffomycet-	<i>Cyberlindnera</i>	3.93	0.10	0.69	0.07	0.83
Asco	Saccharo-	Saccharomycet-	Pichi-	<i>Nakazawaea</i>	3.58	0.00	0.00	0.00	0.00
Asco	Pezizo-	Peziz-	Ascobol-		3.55	0.00	0.78	0.05	0.29
Asco	Saccharo-	Saccharomycet-	Cephaloasc-	<i>Cephaloascus</i>	2.32	0.00	0.09	0.00	0.00
Basidio	Tremello-	Trichosporon-	Trichosporon-	<i>Trichosporon</i>	2.13	0.04	0.00	0.08	0.05
Asco	Saccharo-	Saccharomycet-	Debaryomycet-	<i>Yamadazyma</i>	1.83	0.00	0.08	0.00	0.00
Asco	Saccharo-	Saccharomycet-	Phaffomycet-	<i>Cyberlindnera</i>	1.65	0.21	0.00	0.00	0.00
Asco	Saccharo-	Saccharomycet-	Debaryomycet-	<i>Debaryomyces</i>	1.15	4.39	0.58	0.01	0.00
Asco	Saccharo-	Saccharomycet-	Phaffomycet-	<i>Barnettozyma</i>	1.13	0.03	0.00	0.19	0.62
Asco	Saccharo-	Saccharomycet-	Debaryomycet-	<i>Kurtzmaniella</i>	1.04	0.00	0.00	0.00	0.00
Asco	Saccharo-	Saccharomycet-	Debaryomycet-	CTG clade	0.92	0.48	0.00	0.00	0.00
Basidio	Agarico-	Agaric-	Agaric-		0.61	0.06	4.28	1.14	0.16
Asco	Eurotio-	Euroti-	Trichocom-	<i>Aspergillus</i>	0.60	1.26	5.12	1.15	0.55
Asco	Eurotio-	Euroti-	Trichocom-	<i>Emericella</i>	0.54	0.17	0.19	0.00	0.00
Asco	Saccharo-	Saccharomycet-	Debaryomycet-	<i>Kurtzmaniella</i>	0.50	0.53	0.04	0.25	0.00
Asco	Eurotio-	Euroti-	Incertae sedis	<i>Thermomyces</i>	0.35	19.46	0.26	6.66	0.09
Asco	Saccharo-	Saccharomycet-	Saccharomycet-	<i>Nakaseomyces</i>	0.35	0.00	0.00	0.00	0.00
Asco	Eurotio-	Euroti-	Trichocom-	<i>Penicillium</i>	0.34	0.34	0.25	0.56	0.31
Asco	Saccharo-	Saccharomycet-	Debaryomycet-	<i>Debaryomyces</i>	0.32	0.00	0.00	0.00	0.00
Asco	Sordario-	Sordari-	Chaetomi-	<i>Humicola</i>	0.26	0.06	0.00	0.16	0.00
Zygo	Incertae sedis	Mortierell-	Mortierell-	<i>Mortierella</i>	0.24	0.36	0.09	0.34	0.59
Basidio	Agarico-	Agaric-	Pleurot-		0.17	0.00	0.00	0.00	0.00
Asco	Eurotio-	Ascosphaer-	Ascosphaer-	<i>Ascosphaera</i>	0.14	0.00	0.08	0.00	0.05

Asco	Saccharo-	Saccharomycet-	Pichi-	<i>Ogataea</i>	0.14	0.17	0.84	0.14	0.00
Chytridio	Neocallimastigo-	Neocallimastig-	Neocallimastig-	<i>Cyllamyces</i>	0.14	0.10	0.51	0.00	0.26
Basidio	Wallemio-	Wallemi-	Wallemi-	<i>Wallemia</i>	0.12	20.96	5.98	0.00	7.39
Chytridio	Neocallimastigo-	Neocallimastig-	Neocallimastig-	<i>Orpinomyces</i>	0.12	0.43	1.44	0.02	0.00
Chytridio	Neocallimastigo-	Neocallimastig-	Neocallimastig-	<i>Caecomycetes</i>	0.11	0.22	0.40	0.02	0.66
Basidio	Agarico-	Agaric-	Psathyrell-	<i>Coprinopsis</i>	0.08	0.01	0.02	0.00	0.23
Asco	Dothideo-	Pleospor-	Phaeosphaeri-	<i>Phaeosphaeria</i>	0.05	0.47	0.59	0.02	3.71
Asco	Sordario-	Microasc-	Microasc-	<i>Scedosporium</i>	0.05	0.00	0.11	0.02	0.07
Basidio	Agarico-	Agaric-	Psathyrell-	<i>Coprinellus</i>	0.05	0.01	1.68	0.18	2.66
Basidio	Tremello-	Cystofilobasidi-	Cystofilobasidi-	<i>Mrakia</i>	0.05	1.20	0.42	1.14	0.02
Asco	Dothideo-	Pleospor-	Leptosphaeri-	<i>Leptosphaeria</i>	0.04	0.17	0.01	0.00	0.10
Basidio	Tremello-	Filobasidi-	Filobasidi-	<i>Cryptococcus</i>	0.04	0.25	0.05	0.04	0.22
Asco	Dothideo-	Pleospor-	Leptosphaeri-	<i>Neosetophoma</i>	0.03	2.01	0.18	0.08	9.41
Asco	Dothideo-	Pleospor-	Phaeosphaeri-	<i>Stagonospora</i>	0.03	0.11	0.22	0.00	1.02
Asco	Eurotio-	Euroti-			0.03	16.46	11.47	1.68	0.05
Asco	Leotio-	Heloti-	Heloti-	<i>Articulospora</i>	0.03	0.45	0.24	0.00	0.19
Basidio	Tremello-	Cystofilobasidi-	Cystofilobasidi-	<i>Cystofilobasidium</i>	0.03	3.21	0.02	2.51	0.07
Basidio	Tremello-	Tremell-	Incertae sedis	<i>Dioszegia</i>	0.03	0.12	0.06	0.00	0.34
Chytridio	Neocallimastigo-	Neocallimastig-	Neocallimastig-	<i>Anaeromyces</i>	0.03	0.02	0.56	0.01	0.03
Chytridio	Neocallimastigo-	Neocallimastig-	Neocallimastig-		0.03	0.02	0.07	0.00	0.18
Zygo	Incertae sedis	Mucor-	Lichtheimi-	<i>Lichtheimia</i>	0.03	0.14	0.00	0.00	0.00
Asco	Dothideo-	Dothide-	Dothior-	<i>Aureobasidium</i>	0.02	0.20	0.11	0.00	1.15
Asco	Dothideo-	Pleospor-	Incertae sedis		0.02	0.07	0.37	0.00	0.36
Asco	Dothideo-	Pleospor-	Phaeosphaeri-		0.02	1.01	0.97	0.00	17.27
Asco	Dothideo-	Pleospor-	NA	NA	0.02	0.07	0.05	0.00	0.65
Basidio	Agarico-	Agaric-	Agaric-	<i>Coprinus</i>	0.02	0.00	0.00	0.83	0.00
Basidio	Microbotryo-	Sporidiobol-	Incertae sedis	<i>Sporobolomyces</i>	0.02	0.51	0.10	0.00	0.35
Asco	Dothideo-	Dothide-	Dothior-	NA	0.01	0.26	0.08	0.01	0.10
Asco	Dothideo-	Pleospor-	Cucurbitari-	<i>Pyrenochaetopsis</i>	0.01	0.00	0.23	0.00	0.00
Asco	Dothideo-	Pleospor-	Montagnul-	<i>Paraphaeosphaeria</i>	0.01	0.05	0.15	0.01	0.03
Asco	Dothideo-	Pleospor-	Phaeosphaeri-	NA	0.01	0.24	0.09	0.00	0.51

Asco	Dothideo-	Pleospor-	Sporormi-	<i>Preussia</i>	0.01	0.02	0.13	0.00	0.04
Asco	Dothideo-	Pleospor-			0.01	0.27	0.00	0.00	0.03
Asco	Leotio-	Heloti-	Incertae sedis	<i>Helgardia</i>	0.01	0.09	0.01	0.00	0.18
Asco	Leotio-	Heloti-	Incertae sedis	<i>Tetracladium</i>	0.01	0.00	0.10	0.00	0.90
Asco	Orbili-	Orbili-	Orbili-		0.01	0.00	0.00	0.00	2.68
Asco	Pezizo-	Peziz-	Ascobol-	<i>Ascobolus</i>	0.01	0.04	0.00	3.08	3.55
Asco	Dothideo-	Incertae sedis	Incertae sedis	<i>Leptospora</i>	0.00	0.06	0.00	0.00	0.89
Asco	Dothideo-	Pleospor-	Incertae sedis	<i>Ascochyta</i>	0.00	0.66	0.01	0.00	1.28
Asco	Eurotio-	Chaetothyri-	Chaetothyri-	<i>Cyphellophora</i>	0.00	2.39	0.00	0.00	0.22
Asco	Eurotio-	Euroti-	Thermoasc-	<i>Thermoascus</i>	0.00	0.15	0.12	0.00	0.00
Asco	Eurotio-	Euroti-	Trichocom-	<i>Rasamsonia</i>	0.00	0.55	0.00	0.04	0.00
Asco	Eurotio-	Euroti-	Trichocom-	NA	0.00	0.08	0.00	0.11	0.03
Asco	Eurotio-	Onygen-			0.00	0.00	0.00	0.00	0.70
Asco	Incertae sedis	Incertae sedis	Incertae sedis	<i>Hymenula</i>	0.00	0.00	0.25	0.00	0.00
Asco	Leotio-	Heloti-	Hyaloscyph-	<i>Cistella</i>	0.00	0.02	0.00	0.00	0.35
Asco	Leotio-	Heloti-	Hyaloscyph-	<i>Rodwayella</i>	0.00	0.02	0.00	0.00	0.17
Asco	Pezizo-	Peziz-	Peziz-		0.00	0.18	0.00	0.00	0.00
Asco	Pezizo-	Peziz-	Pyronemat-	<i>Pseudaleuria</i>	0.00	0.00	0.00	0.00	0.17
Asco	Pezizo-				0.00	0.00	0.00	0.01	0.23
Asco	Saccharo-	Saccharomycet-	Cephaloasc-	<i>Cephaloascus</i>	0.00	0.50	0.00	0.87	0.01
Asco	Saccharo-	Saccharomycet-	Debaryomycet-	<i>Ambrosiozyma</i>	0.00	1.68	0.00	0.00	0.00
Asco	Saccharo-	Saccharomycet-	Debaryomycet-	<i>Meyerozyma</i>	0.00	0.04	0.00	0.52	0.00
Asco	Saccharo-	Saccharomycet-	Debaryomycet-	<i>Ogataea</i>	0.00	2.70	0.00	0.00	0.00
Asco	Saccharo-	Saccharomycet-	Incertae sedis	<i>Candida</i>	0.00	0.00	2.77	0.00	0.00
Asco	Saccharo-	Saccharomycet-	Pichi-	<i>Nakazawaea</i>	0.00	0.20	0.02	0.04	0.00
Basidio	Agarico-	Agaric-	Bolbiti-	<i>Conocybe</i>	0.00	0.02	0.00	0.00	0.17
Basidio	Agarico-	Agaric-			0.00	0.00	0.00	0.00	0.72
Basidio	Agarico-	Cantharell-	Ceratobasidi-	<i>Ceratobasidium</i>	0.00	0.01	0.01	0.01	0.13
Basidio	Agarico-	Cortici-			0.00	0.03	0.00	0.00	0.13
Basidio	Microbotryo-	Leucosporidi-	Leucosporidi-	<i>Leucosporidiella</i>	0.00	0.38	0.01	0.08	0.01
Basidio	Microbotryo-	Leucosporidi-	Leucosporidi-	<i>Leucosporidium</i>	0.00	0.28	0.00	0.07	0.03

Basidio	Microbotryo-	Sporidiobol-	Incertae sedis	<i>Rhodotorula</i>	0.00	0.11	0.02	0.00	0.21
Basidio	Microbotryo-	Sporidiobol-	Incertae sedis		0.00	0.34	0.00	0.01	0.03
Basidio	Puccinio-	Incertae sedis	Incertae sedis	<i>Zymoxenogloea</i>	0.00	0.00	0.55	0.00	0.00
Basidio	Tremello-				0.00	0.11	0.00	0.00	0.10
Basidio	Tremello-	Cystofilobasidi-	Cystofilobasidi-	<i>Guehomyces</i>	0.00	0.24	0.05	0.54	0.04
Basidio	Tremello-	Cystofilobasidi-	Incertae sedis	<i>Mrakiella</i>	0.00	0.08	0.01	0.12	0.01
Basidio	Tremello-	Holtermanni-	Incertae sedis	<i>Holtermannia</i>	0.00	0.00	0.00	0.00	0.17
Basidio	Tremello-	Tremell-	Incertae sedis	<i>Cryptococcus</i>	0.00	0.04	0.14	0.03	0.68
Basidio	Tremello-	Tremell-	Incertae sedis	<i>Hannaella</i>	0.00	0.00	0.00	0.00	0.17
Chytridio	Neocallimastigo-	Neocallimastig-	Neocallimastig-	<i>Piromyces</i>	0.00	0.07	0.15	0.00	0.00