Table S1. Dominant *Trichoderma* species/groups from soil surveys from different geographic regions[a]

Region or Country	Total isolates identified[b]	*aspe./aspo.*[c]	Harzianum clade[d]	*viens*	*atroviride*	*longibrachiatum*	*ceinum*	*koningii*	*erinaceum*	*reesei*	*hamatum*	*videscens*	*brevicompactum*	*crassum*	*spirale*	*ovalisporum*	*aggressivum*	*viride*	*citrinoviride*	*camentos*	*astrin*	*gamsii*	*sinensis*	*koningiopsis*	*radmanii*	*velutinum*	*pilosiusculum*	*semiorbis*	*orientale*	*ghanense*	*T. rossicum*	*T. sp.*[e]	*xoligrnae*	*pubescens*	*aureoviride*	*capillare*	*pleuroticola*	*fertile*	*oblongisporum*	*caerulescens*	*cawa*	*parareesei*	*polysporum*	*piluliferum*	*panaeganseoli*	*xoligrnae*	Reference[f]
Central and South America																																														
South America	183	60/0	49	8	3	3	0	6	3	3	2	7	5	3	1	1	0	7	0	3	0	2	0	0	0	0	0	0	0	0	0	4	11	0	2	0	0	0	0	0	0	0	0	0	0	0	Hoyos-Carvajal et al., 2009
Colombia	21	10/0	3	0	4	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Smith et al., 2013
Brazil	54	2/13	23	0	0	8	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Inglis et al., 2020
Central and South America	54	4/0	20	2	4	5	0	0	0	4	0	0	1	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Druzhinina et al., 2005
Europe																																														
Poland	170	0/0	43	6	20	4	0	17	0	0	9	13	0	0	0	0	35	7	11	1	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	Błaszczyk et al., 2011
Island of Sardinia	482	3/0	277	19	0	0	0	6	0	0	22	6	0	0	34	0	0	0	0	9	0	59	0	4	0	23	0	5	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Migheli et al. ,2008
Southern Italy	16	0	6	0	4	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Urbez-Torres et al., 2020
Africa																																														
Ethiopia	164	64/32	8	0	0	20	0	0	0	4	6	0	3	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Mulatu et al., 2022
Tunisia	53	0	15	0	7	3	0	0	0	0	14	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Sadfi-Zouaoui et al., 2009
Algeria	9	0	4	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Haouhach et al, 2020
Egypt	20	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	GHERBAWY et al., 2004
Asia																																														
Russia, Siberia, Himalaya	75	2/0	31	5	14	0	0	2	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	1	0	0	0	0	0	0	0	Kullnig et al., 2000
Iran	159	0	87	19	0	2	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Mirkhani and Alaei, 2015
Nepal	41	18/19	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Khadka et al., 2022
Malaysia	326	86/0	156	9	0	0	0	0	0	0	20	0	0	0	8	0	0	5	0	0	0	0	0	38	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Rahman et al., 2021
South Korea	26	2/4	3	6	1	1	0	0	0	0	1	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	Jang et al., 2017
China (East agri fields)	2,078	425/0	429	340	73	22	0	0	16	0	397	0	73	0	2	0	0	0	0	0	1	0	0	248	0	2	0	0	0	0	0	0	0	0	0	2	16	26	2	0	0	0	2	0	0	0	Jiang et al., 2016
China (Northwest)	312	20/0	108	0	3	26	0	0	0	0	1	7	2	0	0	0	0	0	17	0	6	5	0	0	0	0	0	4	0	2	14	0	0	0	0	0	3	1	17	1	0	46	24	1	1	0	Ma et al., 2020
China (four regions)	64	4/0	26	2	13	5	2	5	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0	1	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Zhang et al. , 2005
China (southeast sediments)	254	32/0	63	1	134	4	0	1	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0	12	0	0	0	0	0	1	0	0	0	0	0	Saravanakumar et al., 2016
China	13	12/0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Xue et al., 2021
China (Southwest)	57	0	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	4	0	0	0	0	0	0	0	0	1	0	0	7	7	Tang et al., 2022
South East Asia	78	4/0	37	16	3	0	0	3	0	2	1	0	0	0	8	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Kubicek et al., 2003
Total[g]	**4,760**	**9 816**	**1,456**	**417**	**283**	**107**	**2**	**41**	**21**	**13**	**491**	**34**	**94**	**3**	**61**	**1**	**35**	**23**	**29**	**14**	**6**	**66**	**1**	**301**	**1**	**27**	**2**	**5**	**7**	**1**	**7**	**92**	**4**	**2**	**12**	**2**	**16**	**26**	**20**	**1**	**1**	**46**	**30**	**1**	**1**	**7**	
Detection frequency among st	**N/A[i]**	**70% / 17%**	**100**	**52%**	**57%**	**65%**	**4%**	**35%**	**13%**	**17%**	**57%**	**22%**	**30%**	**4%**	**39%**	**4%**	**4%**	**26%**	**9%**	**17%**	**30%**	**22%**	**4%**	**35%**	**4%**	**17%**	**4%**	**9%**	**9%**	**9%**	**13%**	**26%**	**4%**	**4%**	**4%**	**4%**	**9%**	**9%**	**9%**	**4%**	**4%**	**4%**	**22%**	**4%**	**4%**	**4%**	

[a]Compilation of surveys published in the past 20 years that used *tef-1α* for *Trichoderma* species identification. Surveys were specific for *Trichoderma* isolates and all species listed in column headings are from the genus *Trichoderma* .

[b]Total number of *Trichoderma* isolates (of all species) identified in this study which are displayed in this row.

[c]*aspe./aspo.*: *T. asperellum*/*T. asperelloides* . Isolates from *T. asperellum* and *T. asperelloides* are grouped together because *T. asperelloides* is often misidentified as *T. asperellum* due to highly similar DNA sequences and identical morphology. Additionally many strains of *T. asperelloides* are incorrectly deposited in GEnBank as *T. asperellum* .

[d]Harzianum Complex Clade species. Isolates from the different Harzianum Complex Species Clade are not borken down into the individual species as isolates are often misidentified as *T. harzianum* and also deposited in GenBank as *T. harzianum* .

[e]T. sp.; *Trichoderma* sp. Identified to the genus level only.

[f]Reference for the information in this row.

[g]Totals for information in each respective column.

[h]Frequency of detection of this species in the different studies collectively. (Number of studies where this species was isolated)/(total number of studies) X 100.

[i]N/A, not applicable.