Table S4. Characterisation of the fungi taxa according to the FUNGuild platform. Mycotrophic classification was performed through bibliographic research. Taxa assignment by FUNGuild and "No data available" were additionally classified by bibliographic research (*). When no data resulted either from FUNGuild or bibliographic research, both "No data available" and (*) are presented. The list of references corresponds to the classifications via bibliographic research.

Taxon	Pathotrophic	Saprotrophic	Symbiotrophic	Mycotrophic	References
Aspergillus sp.	x	x	x	x	[5, 37, 40, 44, 47, 53]
Aspergillus aculeatus Iizuka	x				
Aspergillus flavus Link	x	x		x	[6, 36-37]
Aspergillus niger Tiegh.	x	x		x	[36-37]
Aspergillus tubingensis Mosseray	x	x	x		
Bipolaris sp.	x	x			
Bipolaris oryzae (Breda de Haan) Shoemaker	x				
Chaetomium sp.	x	x	x	x	[49, 51]
Chaetomium strumarium (J.N.Rai, J.P.Tewari & Mukerji) P.F.Cannon	*No data available in table*				
Cladosporium sp.	x	x	x	x	[40]
Curvularia sp.	x	x	x *		[45-46]
Curvularia eragrostidis (Henn.) J.A.Mey.	x				
Curvularia lunata (Wakker) Boedijn	x		x		
Epicoccum sp.	x	x	x	x	[42-43]
* *Epicoccum sorghinum* (Sacc.) Aveskamp, Gruyter & Verkley	x			x	[42, 54]
Exserohilum sp.	x	x			
Fusarium sp.	x	x	x	x	[5-6, 36-37, 40]
Lichtheimia sp.		x			
Lichtheimia hyalospora (Saito) Kerst.Hoffm., Walther & K.Voigt	x				
Orbilia sp.	x	x			
Orbilia foliicola Baral & E.Weber	*No data available in table*				
Ovatospora sp.		x			
* *Ovatospora brasiliensis* (Bat. & Pontual) X.Wei Wang & Samson		x			[50]
Penicillium sp.	x	x	x	x	[5, 37, 40]
Penicillium oxalicum Currie & Thom	x				
Pseudopithomyces sp.	x	x		x	[39]
* *Pseudothielavia* sp.	x				[48]
* *Pseudothielavia terricola* (J.C.Gilman & E.V.Abbott) X.Wei Wang & Houbraken	x				[48]
Rhizopus sp.	x	x			
Rhizopus microsporus Tiegh.	x				
Rhopalostroma sp.		x	x		
* *Rhopalostroma indicum* D.Hawksw. & Muthappa		x			[52]
Talaromyces sp.	x	x		x	[41]
Trichoderma sp.	x	x	x		

References correspond to (*) and mycotrophic bibliographic research.

References

[5] Moretti, A.; Susca, A. *Mycotoxigenic fungi: Methods and Protocols*; Humana Press: Totowa, NJ, USA, 2017.

[6] Manandhar, A.; Milindi, P.; Shah, A. An overview of the post-harvest grain storage practices of smallholder farmers in developing countries. *Agriculture* **2018**, *8*, 57. https://doi.org/10.3390/agriculture8040057.

[36] Serra, R. Microflora das uvas Portuguesas e seu Potencial para a Contaminação das uvas com Micotoxinas, com Destaque para a Ocratoxina A. Doctoral Dissertation, University of Minho, Braga, Portugal, 2005.

[37] Reddy, K.R.N.; Reddy, C.S.; Abbas, H.K.; Abel, C.A.; Muralidharan, K. Mycotoxigenic fungi, mycotoxins, and management of rice grains. *Toxin Rev.* **2008**, *27*, 287–317. https://doi.org/10.1080/15569540802432308.

[39] Perelló, A.; Aulicino, M.; Stenglein, S.A.; Labuda, R.; Moreno, M.V. *Pseudopithomyces chartarum* associated with wheat seeds in Argentina, pathogenicity and evaluation of toxigenic ability. *Eur. J. Plant Pathol.* **2017**, *148*, 491–496. https://doi.org/10.1007/s10658-016-1093-5.

[40] Tirumale, S.; Wani, N. Biological control of phytopathogenic fungi using different extracts of *Chaetomium cupreum*. *Asian J. Pharm. Clin. Res.* **2018**, *11*, 328–332. https://doi.org/10.22159/ajpcr.2018.v11i9.26836.

[41] Salvatore, M.M.; Andolfi, A. Phytopathogenic fungi and toxicity. *Toxins* **2021**, *13*, 689. https://doi.org/10.3390/toxins13100689.

[42] Taguiam, J.D.; Evallo, E.; Balendres, M.A. *Epicoccum* species: Ubiquitous plant pathogens and effective biological control agents. *Eur. J. Plant Pathol.* **2021**, *159*, 713–725. https://doi.org/10.1007/s10658-021-02207-w.

[43] Xu, X.; Li, J.; Yang, X.; Zhang, L.; Wang, S.; Shen, G.; Hui, B.; Xiao, J.; Zhou, C.; Wang, X.; et al. *Epicoccum* spp. Causing maize leaf spot in Heilongjiang province, China. *Plant Dis.* **2022**, *106*, 3050–3060. https://doi.org/10.1094/PDIS-09-21-1948-RE.

[44] Stępień Ł. Plant-Pathogenic *Fusarium* species. *Fungi* **2022**, *9*, 13. https://doi.org/10.3390/jof9010013.

[45] Shao, M.-W.; Lu, Y.-H.; Miao, S.; Zhang, Y.; Chen, T.-T.; Zhang, Y.-L. Diversity, bacterial symbionts and antibacterial potential of gut-associated fungi isolated from the *Pantala flavescens* larvae in China. *PLoS ONE* **2015**, *10*, e0134542. https://doi.org/10.1371/journal. pone.0134542.

[46] Rodriguez, R.J.; Redman, R.S.; Henson, J.M. The role of fungal symbioses in the adaptation of plants to high stress environments. *Mitigation and Adaptation Strategies for Global Change* **2004**, *9*, 261–272. https://doi.org/10.1023/B:MITI.0000029922.31110.97.

[47] Perrone, G.; Gallo, A. *Aspergillus* species and their associated mycotoxins. In: Antonio Moretti and Antonia Susca (eds.), *Mycotoxigenic fungi: methods and protocols, methods in molecular biology* (Vol. 1542), © Springer Science+Business Media LLC, 2016. https://doi.org/10.1007/978-1-4939-6707-0_3.

[48] Noguchi, M.T.; Nagase, H.; Yamauchi, N.; Mimuro, G.; Sakai, H.; Furusawa, A.; Miki, S.; Yoshida, S. Taxonomical identification of Chinese cabbage yellows inhibitory fungus isolated from disease suppressive soil. *Journal of General Plant Pathology* **2022**, *88*, 239-245. https://doi.org/10.1007/s10327-022-01058-5.

[49] Madbouly, A.K.; Abdel-Wareth, M.T.A. The use of *Chaetomium* taxa as biocontrol agents. In: Abdel-Azeem A. M. (ed.), *Recent Developments on Genus* Chaetomium. Fungal Biology. Springer, Cham, 2020. https://doi.org/10.1007/978-3-030-31612-9_10.

[50] Gnanesh, B.N.; Tejaswi, A.; Arunakumar, G.S.; Supriya, M.; Manojkumar, H.B.; Tewary, P. Molecular phylogeny, identification and pathogenicity of *Rhizopus oryzae* associated with root rot of mulberry in India. *Journal of Applied Microbiology* **2021**, *131*, 360-374. https://doi.org/10.1111/jam.14959.

[51] Fogle, M.R.; Douglas, D.R.; Jumper, C.A.; Straus, D. Growth and mycotoxin production by *Chaetomium globosum* is favored in a neutral pH. *International Journal of Molecular Sciences* **2008**, *9*, 2357-2365. https://doi.org/10.3390/ijms9122357.

[52] Daranagama, D.; Liu, X.; Chamyuang, S.; Stadler, M.; Bahkali, A.H.; Hyde, K. *Rhopalostroma brevistipitatum* sp. Nov. from Thailand with an extended generic description for *Rhopalostroma*. *Phytotaxa* 2015, *227*, 229-242. http://dx.doi.org/10.11646/phytotaxa.227.3.2.

[53] Ajmal, M.; Hussain, A.; Ali, A.; Chen, H.; Lin, H. Strategies for Controlling the Sporulation in *Fusarium* spp. *Journal of Fungi* **2022**, *9*. https://doi.org/10.3390/jof9010010.

[54] Yu, X.; Li, Z.; Han, R.; Zhang, W.; Zhang, J.; Cao, W.; Ma, Y.; Wang, X.; Zhao, J.; Xiang, W. *Epicoccum sorghinum* as leaf spot disease-causing pathogen in ginger (*Zingiber officinale* Rosc.) in China. *Crop Protection* **2023**, *170*, 106263. https://doi.org/10.1016/j.cropro.2023.106263.