

Mattia, D., Mavica, S., Di Pietro, C., Efstathiou, S., Makris, G., Kanetis, L. I., & Aiello, D. (2025). Fungi associated with table grape propagation material, with emphasis on *Neoscytalidium dimidiatum* and *Quambalaria cyaneascens* in Italy. *Phytopathologia Mediterranea* 64(3): 537–558. doi: 10.36253/phyto-16099

Supplementary Table 1. List of the isolates collected from table grape propagation material and their accession numbers.

Strain	Species	Part of grafted cutting ^b	GenBank Accession Numbers ^a	
			ITS	<i>tef 1-a</i>
GP2	<i>Alternaria</i> sp.	15 cm	PV440781	-
GP3	<i>Fusarium proliferatum</i>	Graft union	PV440746	PV591893
GP4	<i>Alternaria</i> sp.	15 cm	PV440782	-
GP5	<i>Diaporthe novem</i>	15 cm	PV440798	PV591885
GP7	<i>Fusarium proliferatum</i>	Graft union	PV440747	PV591894
GP8	<i>Cladosporium</i> sp.	15 cm	PV440794	-
GP9*	<i>Quambalaria cyaneascens</i>	15 cm	PV440727	-
GP10	<i>Quambalaria cyaneascens</i>	15 cm	PV440728	-
GP12	<i>Idriella</i> sp.	Base of rootstock	PV440799	-
GP14	<i>Quambalaria cyaneascens</i>	Graft union	PV440729	-
GP15*	<i>Quambalaria cyaneascens</i>	Graft union	PV440730	-
GP16	<i>Paraphoma</i> sp.	Base of rootstock	PV440800	-
GP17	<i>Alternaria</i> sp.	15 cm	PV440783	-
GP18	<i>Arthrinium</i> sp.	Graft union	PV440796	-
GP19	<i>Fusarium</i> sp.	Graft union	PV440748	-
GP22	<i>Fusarium</i> sp.	Graft union	PV440749	-
GP24	<i>Ilyonectria liriodendri</i>	Base of rootstock	PV440764	PV591905
GP25*	<i>Quambalaria cyaneascens</i>	15 cm	PV440801	-
GP26	<i>Cladosporium</i> sp.	15 cm	PV440795	-
GP27	<i>Trichoderma</i> sp.	15 cm	PV440777	-
GP28	<i>Trichoderma</i> sp.	15 cm	PV440778	-
GP29	<i>Neofusicoccum parvum</i>	Base of rootstock	PV440754	PV591898
GP30	<i>Trichoderma</i> sp.	15 cm	PV440779	-
GP31	<i>Trichoderma</i> sp.	Graft union	PV440780	-
GP32	<i>Neofusicoccum</i> sp.	15 cm	PV440806	-
GP33	<i>Neoscytalidium dimidiatum</i>	Graft union	PV440739	-
GP34*	<i>Neoscytalidium dimidiatum</i>	15 cm	PV440740	PV591900
GP36*	<i>Neoscytalidium dimidiatum</i>	Base of rootstock	PV440742	PV591901
GP37	<i>Neoscytalidium dimidiatum</i>	Graft union	PV440743	-
GP38*	<i>Neoscytalidium dimidiatum</i>	Graft union	PV440744	PV591902
GP39*	<i>Neoscytalidium dimidiatum</i>	15 cm	PV440745	PV591903
GP40*	<i>Neoscytalidium dimidiatum</i>	15 cm	PV392803	PV591904
GP41	<i>Ilyonectria destructans</i>	Base of rootstock	PV440765	PV591896
GP42	<i>Ilyonectria destructans</i>	Base of rootstock	PV440766	PV591897
GP43	<i>Phaeomoniella chlamydospora</i>	Base of rootstock	PV440805	PV591909
GP44	<i>Aspergillus</i> sp.	Base of rootstock	PV440789	-
GP46*	<i>Quambalaria cyaneascens</i>	Graft union	PV440732	-
GP48	<i>Aspergillus</i> sp.	Graft union	PV440790	-
GP49	<i>Fusarium proliferatum</i>	15 cm	PV440750	PV591895
GP50	<i>Fusarium oxysporum</i>	Graft union	PV440751	PV591891
GP51	<i>Fusarium oxysporum</i>	Graft union	PV440752	PV591892
GP52	<i>Fusarium</i> sp.	Graft union	PV440753	-
GP54*	<i>Quambalaria cyaneascens</i>	Graft union	PV440733	-

(Continued)

Supplementary Table 1. (Continued).

Strain	Species	Part of grafted cutting ^b	GenBank Accession Numbers ^a	
			ITS	<i>tef 1-a</i>
GP55*	<i>Quambalaria cyanescens</i>	Base of rootstock	PV440734	-
GP56	<i>Quambalaria cyanescens</i>	Base of rootstock	PV440735	-
GP57	<i>Quambalaria cyanescens</i>	15 cm	PV440802	-
GP59	<i>Acremonium</i> sp.	Graft union	PV440792	-
GP60*	<i>Quambalaria cyanescens</i>	15 cm	PV440736	-
GP61	<i>Phaeoacremonium minimum</i>	15 cm	PV440771	PV591907
GP62*	<i>Quambalaria cyanescens</i>	Graft union	PV521998	-
GP63	<i>Acremonium</i> sp.	15 cm	PV440793	-
GP64	<i>Phaeoacremonium minimum</i>	Graft union	PV440772	PV591908
GP66	<i>Phaeomoniella chlamydospora</i>	15 cm	PV440804	PV591910
GP68	<i>Quambalaria cyanescens</i>	Graft union	PV440737	-
GP69*	<i>Quambalaria cyanescens</i>	15 cm	PV440738	-
GP70*	<i>Quambalaria cyanescens</i>	15 cm	PV440803	-
GP71	<i>Neofusicoccum</i> sp.	15 cm	PV440755	-
GP75	<i>Dactylonectria macrodidyma</i>	Base of rootstock	PV440767	PV591887
GP76	<i>Dactylonectria torresensis</i>	Base of rootstock	PV440768	PV591894
GP79	<i>Entoleuca</i> sp.	15 cm	PV439841	-
GP80	<i>Clonostachys</i> sp.	15 cm	PV440773	-
GP81	<i>Clonostachys</i> sp.	15 cm	PV440774	-
GP84	<i>Cadophora luteo-olivacea</i>	15 cm	PV492507	PV591906
GP85	<i>Ilyonectria</i> sp.	Base of rootstock	PV440769	-
GP87	<i>Neofusicoccum</i> sp.	15 cm	PV440756	-
GP88	<i>Neofusicoccum</i> sp.	Graft union	PV440757	-
GP89	<i>Neofusicoccum</i> sp.	15 cm	PV440758	-
GP90	<i>Diplodia seriata</i>	Base of rootstock	PV440784	PV591888
GP91	<i>Entoleuca</i> sp.	15 cm	PV440787	-
GP92	<i>Diplodia seriata</i>	15 cm	PV440785	PV591889
GP93	<i>Neofusicoccum</i> sp.	Graft union	PV440759	-
GP94	<i>Neofusicoccum luteum</i>	Graft union	PV440760	PV591899
GP95	<i>Neofusicoccum australe</i>	Base of rootstock	PV440761	PV796569
GP96	<i>Clonostachys</i> sp.	15 cm	PV440775	-
GP97	<i>Cadophora</i> sp.	15 cm	PV440791	-
GP98	<i>Entoleuca</i> sp.	15 cm	PV440788	-
GP99	<i>Diplodia seriata</i>	Graft union	PV440786	PV591890
GP100	<i>Clonostachys</i> sp.	15 cm	PV440776	-
GP101	<i>Neofusicoccum</i> sp.	Base of rootstock	PV440762	-
GP102	<i>Neofusicoccum</i> sp.	Base of rootstock	PV440763	-
GP106	<i>Dactylonectria</i> sp.	Base of rootstock	PV440770	-
GP107	<i>Botryosphaeria dothidea</i>	Graft union	PV440797	PV796570

^aGenBank accession numbers of the Internal Transcribed Spacer (ITS) and Translation Elongation Factor 1-alpha (*tef1-a*) sequences. ^b Fungal isolates was obtained from different parts of cutting: the graft union, 15 cm from the base and the base of the rootstock. * Isolates used in the phylogenetic analysis.

Supplementary Table S2. Conidial and conidiogenous cells of *Quambalaria cyaneescens* isolates.

Strain	Conidiogenous cells (µm)	Conidia (µm)		Sources
		Primary	Secondary	
CBS 357.73 ^{T a}	Mostly 30-40 x 1.7-3	3.5-6.5 x 2.8-3.3	2.5-3.5 x 2-2.5	de Hoog & de Vries 1973
WAC12955, WAC12952, WAC12953 ^b	5-75 x 0.5-2	2-10 x 1-4	- (frequent)	Paap <i>et al.</i> 2008
CCTU 1684, CCTU 1738 ^c	Up to 45 long	4-7 x 1.5-2.5	2-4 x 1.5-2	Narmani & Arzanlou 2019
IRAN 2465C ^d	5-40 x 2	4-7 x 2-4	1.5 x 2.5	Vahedi-Darmiyan <i>et al.</i> 2017
GP9	7.6-21.2 x 1.3-1.9	4.1-7.7 x 1.7-3.9	2.5-3.9 x 1.6-2.8	Present study
GP15	8.2-30.8 x 1.4-2.3	3.9-7.2 x 2.3-3.3	2.6-4.2 x 1.7-2.8	Present study

^a Type strain of the species, CBS: Culture collection of the Westerdijk Fungal Biodiversity Institute, Utrecht; ^b Specimens WAC12955, WAC12952, and WAC12953 deposited at the Department of Agriculture, Western Australia Plant Pathogen Collection, Perth (WAC); ^c Specimens CCTU 1684 and CCTU 1738, Culture Collection of Tabriz University; ^d Iranian Fungal Culture Collection, Iranian Research Institute of Plant Protection, Tehran; - = not available.

Supplementary Table S3. Conidial features and pycnidial structures of *Neoscytalidium dimidiatum* isolates.

Strain	Arthroconidia		Pycnidia (µm)	Pycnidiospores (µm)	Sources
	Septa (No.)	Dimensions (µm)			
CBS 145.78 ^{IT a}	0-2	5-12 x 2.5-3.5	-	-	Crous <i>et al.</i> 2006
CBS 312.90	0-1	3.5-10.5 x 2.5-6.5	430 x 530	10.5-15 x 3.5-5.5	Zhang <i>et al.</i> 2021
KARE472, KARE510, KARE790 ^b	0-1	9.4±1.2 x 5.1±0.8	-	11.1±0.7 x 5.5±0.5	Nouri <i>et al.</i> 2018
PSU-SC02	-	3.1-18 x 3.8-10.3	-	8.5-15.5 x 3.5-5.7	Dy <i>et al.</i> 2022
GP33	0-1 (2)	4.7-11 x 2.4-4.5	181-485	10.9-14.0 x 3.9-5.0	Present study
GP40	0-1 (2)	4-10.1 x 2.1-5.3	164-555	10.4-14.1 x 3.8-5.2	Present study

^a Isotype strain of the species, CBS: Culture collection of the Westerdijk Fungal Biodiversity Institute, Utrecht; ^b Specimens KARE472, KARE510, and KARE790; - = not available.