

A pipeline to investigate the interaction of soil fungi: nucleation dynamics of three *Trichoderma* strains against plant-associated fungi isolated from vineyards in Northern Italy

Marianna Dourou^{a,b}, Caterina A. M. La Porta^{a,b,1,*}

^aDepartment of Environmental Science and Policy, University of Milan, Via Celoria 10,
20133 Milan, Italy

^bCenter for Complexity and Biosystems, University of Milan, Via Celoria 16, 20133
Milan, Italy

Videos V1-V3: Time-lapse videos during single nucleation dynamic assay showing mycelium growth over time of the three *Trichoderma* strains. V1 refers to *Trichoderma simmonsii* EXF-17015 (No. 1); V2 refers to *Trichoderma* sp. EXF-17016 (No. 2); V3 refers to *Trichoderma* sp. EXF-17020 (No. 3).

Videos V4-V6: Time-lapse videos during dual nucleation dynamic assay showing mycelia growth over time of the three *Trichoderma* strains against themselves.

V4 refers to *Trichoderma simmonsii* EXF-17015 vs *Trichoderma simmonsii* EXF-17015; V5 refers to *Trichoderma* sp. EXF-17016 vs *Trichoderma* sp. EXF-17016; V6 refers to *Trichoderma* sp. EXF-17020 vs *Trichoderma* sp. EXF-17020.

Videos V7-V9: Time-lapse videos during dual nucleation dynamic assay showing mycelia growth over time of the three *Trichoderma* strains against the other *Trichoderma* strains. This behaviour is called mutual slight inhibition.

V7 refers to *Trichoderma simmonsii* EXF-17015 (No. 1) vs *Trichoderma* sp. EXF-17016 (No. 2); V8 refers to *Trichoderma* sp. EXF-17016 (No. 2) vs *Trichoderma* sp. EXF-17020 (No. 3); V9 refers to *Trichoderma simmonsii* EXF-17015 (No. 1) vs *Trichoderma* sp. EXF-17020 (No. 3).

*Corresponding author: Caterina A. M. La Porta, email: caterina.laporta@unimi.it

Video V10: Time-lapse video during the dual nucleation dynamic assay between *Trichoderma* sp. EXF-17020 (No. 3) vs *Rhizopus arrhizus* EXF-17019 (No. 8) over time. This behaviour is called mutually intermingling growth.

Video V11: Time-lapse video during the dual nucleation dynamic assay between *Trichoderma* sp. EXF-17020 (No. 3) vs *Fusarium remigenum* EXF-17018 (No. 7) over time. This behaviour is the subtype of the antagonistic called growth around.

Video V12: Time-lapse video during the dual nucleation dynamic assay between *Trichoderma* sp. EXF-17016 (No. 2) vs *Botrytis caroliniana* EXF-17025 (No. 9) over time. This behaviour is the subtype of the antagonistic called growth above.