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FUNGAL TRUNK PATHOGENS IN GRAPEVINE NURSERIES: CURRENT STATUS AND FUTURE PROSPECTS FOR ITS MANAGEMENT

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TRUNK PATHOGENS IN NURSERIES

► BLACK FOOT

- *Campylocarpon* spp.
- *Cylindrocarpon* spp.
- *Cylindrocladiella* spp.
- *Ilyonectria* spp.

► PETRI DISEASE

- *Cadophora luteo-olivacea*
- *Phaeoacremonium* spp.
- *Phaeomoniella chlamydospora*

► BOTRYOSPHAERIA DIEBACK

- *Botryosphaeriaceae* spp.





TRUNK PATHOGENS IN NURSERIES

► THEY HAVE BEEN DETECTED FROM:

- Rootstock and scion mother plants
- Cuttings of scion and rootstock varieties
- Pregrafting hydration tanks
- Scissors used for cutting buds
- Omega-cut grafting machines
- Peat used for callusing and rooting
- Grafted plants in nursery fields
- Failed graft unions
- Nursery soils
- Weeds on nursery fields



TRUNK PATHOGENS IN NURSERIES

► THESE FINDINGS STRONGLY SUGGEST THAT:

- Infected stock materials (rootstocks and scions) are used in the propagation process.
- Infected planting material is used to establish new plantations



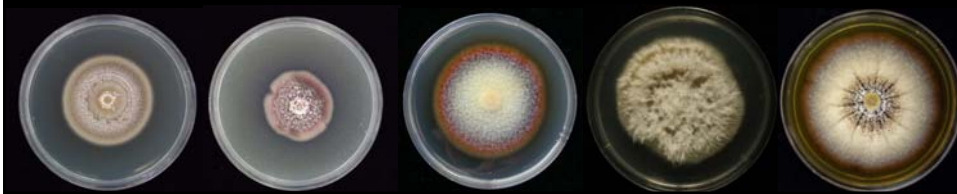


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► IN ADDITION, trunk pathogens may be present in APPARENTLY HEALTHY PLANTS and so carried over into vineyards.



TRUNK PATHOGENS IN NURSERIES

► GRAPEVINE NURSERIES APPEAR AS A POTENTIAL INOCULUM SOURCE OF TRUNK PATHOGENS.

► THIS ASSUMPTION IMPLIES THAT THE INCIDENCE OF TRUNK DISEASES IN NEW PLANTATIONS AND ESTABLISHED VINEYARDS MAY HAVE ORIGINATED PARTIALLY FROM NURSERIES.



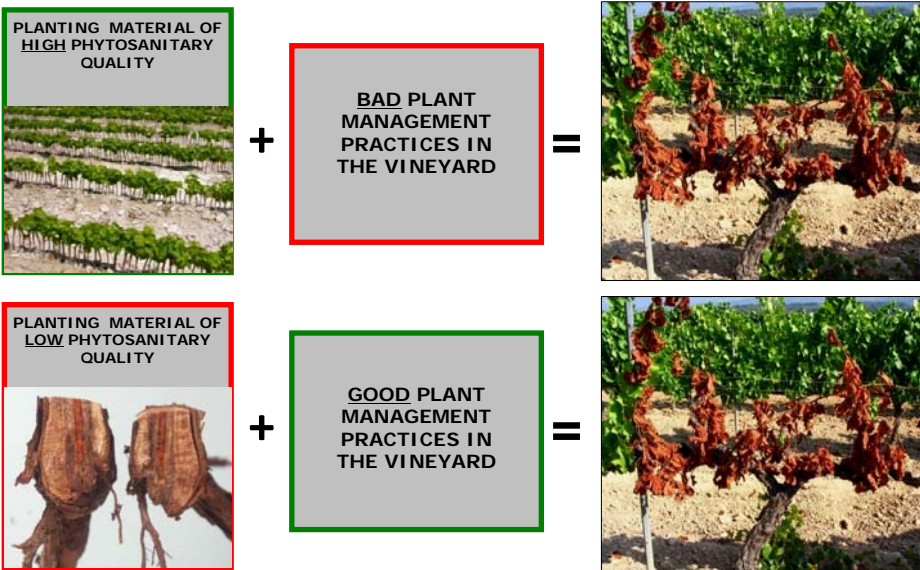


TRUNK PATHOGENS IN NURSERIES

► THERE IS A NEED TO IMPROVE THE PHYTOSANITARY QUALITY OF THE PLANTING MATERIAL



TRUNK PATHOGENS IN NURSERIES





FUTURE PROSPECTS

- ▶ Development of molecular techniques which could allow the detection of several trunk pathogens at the same time, for a fast, accurate and reliable diagnose of planting material.
- ▶ Development of nursery protocols leading to an improvement of the phytosanitary quality of planting material.
- ▶ Development of new management strategies based on chemical, biological or hot-water treatments, to be applied in the propagation process.



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