

Elena Baraza^{1*}, Islem Hmida², Miquel A. J. Ribas¹, Rubén Moreno-Díaz¹ and Josefina Bota¹

The use of arbuscular mycorrhizal inoculum in viticulture is not always positive: a systematic review

Affiliations

¹Departamento de Biología; PLANMED group research; Instituto de Investigaciones Agroambientales y de Economía del Agua (INAGEA). Universidad de las Islas Baleares, Islas Baleares, España.

²Department of Microbiology, Infectiology and Immunology, Faculty of Medicine, Montreal University, Montreal, Canada.

Correspondence

Elena Baraza: elena.baraza@uib.es, Islem Hmida: islem.hmida.2013@gmail.com, Miquel A. J. Ribas: majrc1996@gmail.com, Rubén Moreno-Díaz: rumodi@hotmail.com, Josefina Bota: j.bota@uib.es

Supplementary material

Table S1: List of references of the publication used to calculate de ID and the principal factor that showed variation in the ID.

References	Principal factor of variation
Aguín, O., et al., (2004) "Effects of mycorrhizal inoculation on root morphology and nursery production of three grapevine rootstocks." <i>American Journal of Enology and Viticulture</i> 55(1), 108-111.	Rootstock
Alarcón, A., et al., (2001). Efectividad de <i>Glomus fasciculatum</i> y <i>Glomus etunicatum</i> en el crecimiento de plántulas de <i>Vitis vinifera</i> L. obtenidas por micropropagación. <i>Terra Latinoamericana</i> , 19(1), 29-35.	AMF species
Ambrosini, V. G., et al., (2015). Effect of arbuscular mycorrhizal fungi on young vines in copper-contaminated soil. <i>Brazilian Journal of Microbiology</i> , 46, 1045-1052.	AMF species and measure variable
Anzanello, R., et al., (2011). Fungos micorrízicos arbusculares (FMA) em porta-enxertos micropropagados de videira. <i>Bragantia</i> , 70, 409-415.	AMF specie and Rootstock combination
Belew, D., et al., (2010). Effects of salinity and mycorrhizal inoculation (<i>Glomus fasciculatum</i>) on growth responses of grape rootstocks (<i>Vitis</i> spp.). <i>South African Journal of Enology and Viticulture</i> , 31(2), 82-88.	Rootstock
Biricolti, S., et al., (1997). VAM fungi and soil lime content influence rootstock growth and nutrient content. <i>American Journal of Enology and Viticulture</i> , 48(1), 93-99.	Measure variable
Caglar, S., & Bayram, A., (2006). Effects of vesicular-arbuscular mycorrhizal (VAM) fungi on the leaf nutritional status of four grapevine rootstocks. <i>European Journal of Horticultural Science</i> , 71(3), 109.	AMF specie and Rootstock combination
Camprubí, A., et al., (2008). Response of the grapevine rootstock Richter 110 to inoculation with native and selected arbuscular mycorrhizal fungi and growth performance in a replant vineyard. <i>Mycorrhiza</i> , 18(4), 211-216.	AMF stain
Cetin, E. S., et al., (2014). The roles of arbuscular mycorrhizal fungi on some growth parameters and biochemical compounds on some <i>Vitis</i> rootstock. <i>International Journal of Agricultural and Natural Sciences</i> , 7(1), 39-44.	Measure variable
Eftekhari, M., et al., (2010). Integration of arbuscular mycorrhizal fungi to grape vine (<i>Vitis vinifera</i> L.) in nursery stage. <i>Journal of Advanced Laboratory Research in Biology</i> , 1(2), 102-111.	Measure variable and AMF specie
Heuvel J.V. & Berdeja, M., (2019). Testing soil microbial stimulators for enhancing vine health. Penn State Extension Wine & Grapes U. https://psuwineandgrapes.wordpress.com/2019/08/19/testing-soil-microbial-stimulators-for-enhancing-vine-health/ .	Self-rooted versus Grafted
Holland, T. C., et al., (2019). Response of grapevine rootstocks to soil inocula from different sources. <i>American Journal of Enology and Viticulture</i> , 69(1), 94-100.	AMF specie and Rootstock combination
Karagiannidis, N. et al., (1995). Influence of three VA-mycorrhiza species on the growth and nutrient uptake of three grapevine rootstocks and one table grape cultivar <i>Vitis</i> 34(2), 85-89.	AMF specie and Rootstock combination
Khalil, H. A., (2013). Influence of vesicular-arbuscula mycorrhizal fungi (<i>Glomus</i> spp.) on the response of grapevines rootstocks to salt stress. <i>Asian Journal of Crop Science</i> , 5(4), 393-404.	AMF specie and Rootstock combination
Krishna, H., et al., (2005). Screening of arbuscular-mycorrhizal fungi for enhanced growth and survival of micropropagated grape (<i>Vitis vinifera</i>) plantlets. <i>Indian Journal of Agricultural Science</i> , 76(5), 297-301.	AMF species and measure variable



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| Table S1: Continued.

References	Principal factor of variation
Linderman, R. G., & Davis, E. A., (2001). Comparative response of selected grapevine rootstocks and cultivars to inoculation with different mycorrhizal fungi. <i>American Journal of Enology and Viticulture</i> , 52(1), 8-11.	AMF specie and Rootstock combination
Lovato, P.E., et al (1992). Application of commercial arbuscular endomycorrhizal fungal inoculants to the establishment of micropropagated grapevine rootstock and pineapple plants. <i>Agronomie</i> 12(10), 873-880.	Inoculate doses
Luciani, E., et al., (2019) Effects of a new arbuscular mycorrhizal fungus (<i>Glomus iranicum</i>) on grapevine development. In <i>BIO Web of Conferences</i> (Vol. 13, p. 04018). EDP Sciences.	Measure variable
van Rooyen, M., et al., (2004). Arbuscular Mycorrhizal Colonisation Modifies the Water Relations of Young Transplanted Grapevines (<i>Vitis</i>). <i>South African Journal of Enology and Viticulture</i> , 25(2), 37.	Measure variable
Motosugi H., et al., (2002) Comparison of the growth and leaf mineral concentrations between three grapevine rootstocks and their corresponding tetraploids inoculated with an arbuscular mycorrhizal fungus <i>Gigaspora margarita</i> , <i>Vitis</i> 41(1), 21-25.	Diploids versus tetraploid
Nikolaou, N., et al., (2003). Effects of drought stress on mycorrhizal and non-mycorrhizal Cabernet Sauvignon grapevine, grafted onto various rootstocks. <i>Experimental Agriculture</i> , 39(3), 241-252.	Rootstock
Nogales, A., et al., (2019). Mycorrhizal inoculation differentially affects grapevine's performance in copper contaminated and non-contaminated soils. <i>Frontiers in Plant Science</i> , 9, 1906.	Soil Cu
Nogales, A., et al., (2009). Differential growth of mycorrhizal field-inoculated grapevine rootstocks in two replant soils. <i>American Journal of Enology and Viticulture</i> 60(4), 484-489.	Soil and Rootstock
Ozdemir, G., et al., (2010). Effect of inoculation with mycorrhizal fungi on growth and nutrient uptake of grapevine genotypes (<i>Vitis</i> spp.). <i>European Journal of Horticultural Science</i> , 75(3), 103-110.	AMF specie and Rootstock combination
Pogiatzis, A., (2017). Comparative Responses of Six Grapevine Rootstocks to Inoculation with Arbuscular Mycorrhizal Fungi Based on Root Traits. <i>Master's Thesis, University of British Columbia, Kelowna, BC, Canada</i> .	Rootstock
Schreiner, R. P., (2007). Effects of native and nonnative arbuscular mycorrhizal fungi on growth and nutrient uptake of 'Pinot noir' (<i>Vitis vinifera</i> L.) in two soils with contrasting levels of phosphorus. <i>Applied Soil Ecology</i> , 36(2-3), 205-215.	Soil
Schubert, A., et al., (1990). Effects of vesicular-arbuscular mycorrhizal fungi on micropropagated grapevines: Influence of endophyte strain, P fertilization and growth medium. <i>Vitis</i> , 29(1), 5-13.	AMF specie
Valentine, A. J., et al., (2006). Drought responses of arbuscular mycorrhizal grapevines. <i>Symbiosis</i> 41, 127-133.	Environmental conditions
Velásquez, A., et al., (2020). Responses of <i>Vitis vinifera</i> cv. Cabernet Sauvignon roots to the arbuscular mycorrhizal fungus <i>Funneliformis mosseae</i> and the plant growth-promoting rhizobacterium <i>Ensifer meliloti</i> include changes in volatile organic compounds. <i>Mycorrhiza</i> , 30(1), 161-170.	Measure variable
Wee, C. D., et al., (2010). Effectiveness on the Inoculation of Arbuscular Mycorrhizal Fungi in Cutting of Grapevine. <i>Korean Journal of Soil Science and Fertilizer</i> , 43(6), 1002-1007.	Variety