

Resistance inducers may influence leaves endophytic microflora

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Different strategies for grapevine protection (organic and integrated protection) were compared in experimental trials conducted on *Vitis vinifera* cv. Sangiovese in a production vineyard (Chianti Classico), in order to evaluate the effectiveness of agronomic techniques and foliar applications, based on the use of resistance inducers, to support grapevine in *Plasmopara viticola* control. Microorganisms can establish different types of interactions with superior organisms, in some cases very narrow or obligatory. Microbial communities associated with plants are defined as “plant microbiome” and it is extensively demonstrated that plants host in their internal tissues a set of fungi and bacteria, called endophytes, which may play a beneficial role on the host fitness under biotic and/or abiotic stress. Therefore, a part of this work is focused on the quantitative and qualitative assessment of the cultivable endophytic bacterial communities present in the leaves of plants affected by downy mildew, focusing the attention on the treatments with organic management. The microbiological analysis permitted to isolate endophytic bacteria belonging to at least three different haplotypes, and to identify them by sequencing specific target genes (16S rDNA). The dominant haplotype ($\approx 99\%$) resulted the species *Bacillus amyloliquefaciens*, known for its biocontrol properties. The results showed that the abundance of *B. amyloliquefaciens* in the samples, taken in every treatment, had an increasing trend as did the quantities of the resistance inducers applied, suggesting a potential role of these products in inducing the selection of beneficial endophytes by the plant.

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