Diversity of *Botrytis cinerea* from vineyards in the north west Iberian peninsula

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Botrytis cinerea is associated with a fungal gray rot in the concomitant regions of north west Spain and northern Portugal, where it is the most damaging pathogen and results in severe economic losses. Also, the physiological interactions of *B. cinerea* with *Penicillium expansum* are responsible for the production of geosmin, a volatile metabolite that transmit undesirable earthy odours to must and thus to wine. *B. cinerea* is not a homogeneous species and may be divided into several sub-species groupings. Some previous studies indicated two groups or cryptic species (I and II). Other work revealed that spore size and vegetative compatibility are characteristic features of these groups. In the present work a survey was taken of the population of *B. cinerea* from the above mentioned regions. The spore size and compatibility tests allowed characterisation of most isolates of *B. cinerea* into Group I or Group II taxa. Interestingly, some isolates could not be characterised according to their spore size and also presented ambiguous vegetative compatibility features. Furthermore, the influence of other factors on the spore size and grouping were studied. Grape variety, vineyard, country, sanitary state of the bunch and whether the isolates were obtained from the exterior or the interior of the bunch were compared with spore size and vegetative compatibility. Characterization of strains was affected by whether isolates were obtained from a particular grape variety. Also, isolates from Group II were obtained

exclusively from a particular vineyard. The results suggest that there is considerable genetic diversity within the species which may explain patterns of gray rot within grapes.