

P14. Microsatellite analysis of Italian isolates of *Pyricularia oryzae* over the years

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Rice blast, caused by *Pyricularia oryzae* Cavara, is the main threat to Italian rice cultivation. The choice of resistant varieties and the use of chemical fungicides are the main management strategies adopted against the disease. Pathogen evolutionary potential, a measure of the speed needed to overcome fungicide sensitivity and host resistance genes, can be evaluated through DNA fingerprinting analyses. The first study characterising European *P. oryzae* populations was performed in 1997 by Roumen et al., giving crucial information for rice breeding based on a combination of pathotyping and DNA fingerprinting through the RFLP method. The use of microsatellites (SSRs) as fingerprinting markers was explored to define the *P. oryzae* composition in Italy in 2012 and 2013, but the results were not published. This work aimed to collect and molecularly characterize the genetic variability of 96 Italian *P. oryzae* isolates, obtained from diseased rice panicles collected from Piedmont, Lombardy, Emilia Romagna, and Sardinia over the years 2020, 2021, and 2022. Isolation was carried out using the monoconidial method, and DNA fingerprinting was performed using the same SSR regions chosen in 2013 to compare the populations of 2012-13 with those of 2020-22. Reference strains were included in the analysis. This study set the basis for elucidating the genetic variability of *P. oryzae* in Italy over the years.