



Monitoring viable airborne inoculum of *Botrytis cinerea* in the South-East of France over 3 years: relation with climatic parameters and the origin of air masses

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001.006 Monitoring viable airborne inoculum of *Botrytis cinerea* in the South-East of France over 3 years: relation with climatic parameters and the origin of air masses

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Viable airborne inoculum of *Botrytis cinerea* was monitored bimonthly during 3 years (September 2007- December 2010) on a site in the South-East of France located approximately 5 km away from susceptible crops. Viable inoculum was observed on 96 % of the sampling days, including during cold winter periods and hot and dry summer conditions. The concentration of airborne inoculum was significantly higher during day-time than at night. Peaks of concentration were recorded at different periods each year (September-October in 2008, May in 2010). The abundance of viable inoculum was positively correlated with average daily relative humidity and negatively correlated with air temperature and solar radiation. The analysis of backward trajectories suggested that air masses originating from the North or the South brought more viable inoculum than those from the West. This study showed that susceptible crops may be at danger from viable inoculum of *B. cinerea* during all seasons of the year, but that risk prediction models could be developed on the basis of climatic conditions and the origin of air masses.

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