

Title Conidial density of *Monilinia* spp. on peach fruit surfaces in relation to the incidences of latent infections and brown rot

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Abstract

To evaluate the effect of conidial density of *Monilinia* spp. on the fruit surface on the incidence of latent infection and brown rot in peaches, eleven field surveys were performed in commercial orchards located in Cataluña, Spain over four growing seasons from 2002 to 2005, and nine surveys were conducted to determine the sources of overwintered *Monilinia* spp. inoculum. There was a significant positive relationship ($r = 0.69$) between the numbers of conidia of *Monilinia* spp. on the fruit surface and the incidence of latent infections, but not with brown rot at harvest. Although mummified fruit, twigs and pits have been identified as being able to carry the pathogen from year to year in peaches grown in Spanish orchards, no relationships between any of these sources and the numbers of conidia on the fruit surface, or incidence of latent infection or brown rot were found. The effect of temperature (T), solar radiation (SR), rainfall (R) and wind speed (WS) on the area under the number of conidia of *Monilinia* spp. curve (AUncC) on peach surfaces was analysed. Regression analysis revealed that T , SR, R , and WS could account for 99% of the total variation in the area of the AUncC on peach surfaces. Thus, in order to reduce the incidence of latent infection and brown rot it is essential not only to remove the sources of primary inoculum but also to reduce the number of *Monilinia* spp. conidia on the fruit surface. Furthermore, the sources of airborne conidia of *Monilinia* spp. should be taken into consideration in disease management programmes in Spain.

<http://www.springerlink.com/content/jp5672153431132u/fulltext.pdf>