

**Title** Relationship between fruit surface conidia, incidence of latent infections caused by *Monilinia* spp. and brown rot of peach fruit in Spain

**Author** M. Villarino, I. Gell, C. Casals, N. Lamarca, J. Usall, J. Segarra, A. De Cal and P. Melgarejo.

**Citation** Journal of Plant Pathology Volume 90 (2, Supplement) August 2008, Book of Abstract, 9<sup>th</sup> International Congress of Plant Pathology, August 24-29, 2008 Torino, Italy, . 507 pages.

**Keywords** peach; brown rot; latent infection

### Abstract

*Monilinia* spp. are the most important cause of post-harvest brown rot in peaches and nectarines in Spain. Conidia produced in overwintered fruit mummies, and necrotic twigs infected by *Monilinia* spp. act as primary inoculum sources, causing blossom blight occasionally, and brown fruit rot frequently. Post-harvest losses are typically more severe, especially when conditions are favourable for disease development, in some cases reaching losses of 80-85%. When microclimatic conditions are unfavourable, infections may remain latent until conditions become favourable for disease expression, leading to fruit rot. To evaluate the effect of surface concentration of conidia on the incidence of latent infection and brown rot of peaches, 17 field experiments were done in commercial orchards located in Lleida, Spain, over six growing seasons from 2002 to 2007. A positive relationship between the numbers of conidia of *Monilinia* spp. on the fruit surface and the percentage of latent infections caused by *Monilinia* spp. in stone fruit was observed. Regression analyses indicated that the number of conidia on peach surfaces explained 68% of the incidence of latent infection variation caused by these fungi, and the correlation coefficient between the variables was 0.82. A positive relationship between the incidence of latent and postharvest brown rot was observed. Mean of latent infection over the crop season contributed to 55-75% of the post-harvest brown rot. The importance of conidia on fruit surfaces and latent infections on brown rot development will be discussed.