P70. Fungal postharvest pathogens of apple in a climate change scenario: PRediction models, Epidemiological studies and sustainable control STrategies (PREST.APPLES)

A. Di Francesco[1], A. Sadallah[1], S. Mosca[2], A. Malacrinò[2], I. Martino[3], V. Guarnaccia[3,4], D. Spadaro[3,4], M. Camardo Leggieri[5], P. Battilani[5]

[1]*Department of Agriculture, Food, Environmental and Animal Sciences, University of Udine, Italy;* [2]*Department of Agriculture, University of Reggio Calabria, Italy;* [3]*Department of Agricultural, Forest and Food Sciences, University of Torino, Italy;* [4]*Interdepartmental Centre for the Innovation in the Agro-Environmental Sector AGROINNOVA, University of Torino, Italy;* [5] *Department of Sustainable Crop Production, Università Cattolica del Sacro Cuore, Piacenza, Italy. E-mail:* alessandra.difrancesco@uniud.it

Apple is an economically important fruit crop worldwide, highly appreciated by consumers, and cultivated in various areas of northern Italy. Postharvest diseases of apple determine significant economic losses during storage. Even if fungicides applied before harvest can be effective against wound pathogens, several other plant pathogens with a long latency can remain quiescent on symptomless fruits, causing rots only after different months of storage. They include two major postharvest apple diseases: bull's eye rot (BER), caused by *Neofabraea vagabunda,* and white haze (WH), by *Tilletiopsis*-like basidiomycetes, a complex of fungal species belonging to the genera *Entyloma, Golubevia, Tilletiopsis.* PREST.APPLES project is based on an interdisciplinary consortium with the aim to characterize *N. vagabunda* and *Tilletiopsis*-like basidiomycetes epidemiology and to develop sustainable strategies to reduce food losses. A successful control of latent postharvest diseases requires a deep understanding of the causal agent infection process and its interaction with the host crop to define the proper disease management plan. The project will focus on the support of prediction modelling and biological tools to develop a sustainable approach to managing apple diseases.