**Fungicide resistance profiles in *Botrytis cinerea* from strawberry fields in Spain.**

Dolores Fernández-Ortuño\*, Rocío Cerezo-Arrabal\*, Manuel Chamorro#, Juan A. TorésΦ, Antonio de Vicente\*

\*Instituto de Hortofruticultura Subtropical y Mediterránea "La Mayora"-Universidad de Málaga-Consejo Superior de Investigaciones Científicas (IHSM-UMA-CSIC), Facultad de Ciencias, Dept. de Microbiología, 29071 Malaga, Spain.

*#*Instituto de Investigación y Formación Agraria y Pesquera (IFAPA), Consejería de Agricultura, Pesca y Desarrrollo Rural, Junta de Andalucía, 41012 Seville, Spain.

ΦInstituto de Hortofruticultura Subtropical y Mediterránea "La Mayora"-Universidad de Málaga-Consejo Superior de Investigaciones Científicas (IHSM-UMA-CSIC), Estación Experimental “La Mayora”, 29750 Algarrobo-Costa, Malaga, Spain.

Email: [dfernandez-ortuno@uma.es](mailto:dfernandez-ortuno@uma.es)

*Botrytis cinerea* Pers., is one of the most economically important pre- and post-harvest pathogen of strawberry. The main strategy to control the disease involves the application of different classes of fungicides despite that *B. cinerea* is considered a high-risk pathogen for resistance development. We collected a total of 367 *B. cinerea* isolates from 14 strawberry fields in Huelva (Spain) during 2014 and 2015 and determined *in vitro* fungicide sensitivity to all classes of fungicides currently used for gray mold control in Spain. The overall resistance frequencies of 242 isolates collected in 2014 for pyraclostrobin, boscalid, cyprodinil, fenhexamid, iprodione, and fludioxonil were 79, 71, 38, 25, 17, and 0%, respectively. Frequencies of 125 isolates collected in 2015 were 65, 52, 31, 22, 7, and 4%, respectively. Resistant isolates were resistant to either one (10%), two (21%), three (37%), four (15%), five (1%), or six (0%) chemical classes of fungicides in 2014. In 2015, this distribution was 9, 22, 26, 9, 1, and 1%, respectively. The molecular basis of resistance for all chemical classes of fungicides, including point mutations in the corresponding target genes (*bos1, cytb, erg27*, and *sdhB*) and expression of the ABC transporter *artB*, are under investigation.