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P.044 Genetic diversity of Botrytis cinerea between tomato greenhouses in Northern Algeria. A. ADJEBLI, C. LEYRONAS, K. AISSAT, P. C. NICOT. Laboratoire d’écologie Microbienne, Faculté des Sciences de la Nature et de la Vie, Université Abderrahmane Mira, Bejaia 06000, Algérie. INRA, UR407 Pathologie Végétale, Domaine St Maurice CS 60094, F-84143 Montfavet Cedex, France. E-mail: ahmed.adjebli@univ-bejaia.dz

To estimate the genetic diversity for a better understanding of the spread of Botrytis cinerea, we genotyped with nine microsatellite markers 174 isolates collected from four greenhouses during three growing seasons in the region of Bejaia. Four of these isolates were detected as Botrytis pseudocinerea according to the allele size at locus Bc6. For all other isolates further studied, all loci were polymorphic, with the mean number of alleles per locus ranging from 2.77 to 5.22. Considerable genetic variability was detected in all subpopulations (D* > 0.87; Hnb > 0.40). Based on the standardized index of association analysis, significant but low levels of clonality occurred, not excluding the possibility of recombination (rD = 0.07, P < 0.001). A total of 109 haplotypes were characterized among the isolates, few of which were shared between subpopulations. This, together with moderate genetic differentiation among subpopulations according to the geographical origin (0.80 ≤ Fst ≤ 0.167), suggested a low level of inoculum exchange among greenhouses and little carry-over of inoculum from one sampling season to the next. The importance of genetic structure of B. cinerea populations is discussed and should be taken into consideration for the management of grey mould.

P.045 Postharvest fungal diseases of loquat cv. ‘Algerie’ in Spain. L. PALOU, P. SÁNCHEZ-TORRES, C. MONTESINOS-HERRERO and V. TABERNER. Laboratori de Patologia, Centre de Tecnologia Postcollita (CTP), Institut Valencià d’Investigacions Agràries (IVIA), Aparat oficjal 46113 Montcada, València, Spain. E-mail: palou_liu@gva.es

Spain is the second world largest producer and the first exporter of Japanese loquat (Eriobotrya japonica (Thunb.) Lindl.) for fresh consumption. More than 50% of the cultivated area is located in Alacant province (SE of Spain), where about 98% of total production belongs to loquat cv. ‘Algerie’, which is mainly exported to European Union (EU) markets. For two consecutive seasons, commercially grown ‘Algerie’ loquats from two orchards were used to assess disease caused by both latent and wound pathogens. Selected healthy fruit were either surface-disinfected or artificially wounded in the rind and incubated in humid chambers at 20°C for up to 5 weeks. Additionally, disease was also assessed on commercially handled fruit (manually selected and packaged) stored at 5°C for up to 12 weeks; no loquat postharvest treatments are currently authorized in the EU. Isolated fungi were incubated on potato dextrose agar (PDA) plates at 25°C for purification and subsequent morphological and molecular identification. Pathogenicity of common isolates was demonstrated by fulfilling Koch’s postulates. Disease development was assessed on artificially inoculated loquats stored at either 20 or 5°C. Regardless of type of infection and postharvest fruit management, the most frequent postharvest diseases were black spot caused by Alternaria alternata and blue mold caused by Penicillium expansum. In addition, gray mold caused by Botrytis cinerea was frequently observed on both artificially wounded and commercially handled fruit, whereas anthracnose caused by Colletotrichum gloeosporioides was frequently observed on surface-disinfected loquats. Other minor pathogens that were found causing latent infections, especially in the fruit stem-end, were Pestalotiopsis clavispora and Diplodia seriata.

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15th MPU Congress. Córdoba 2017 139