

morphological and molecular characterization. Morphological observations assigned 21 strains to *Albifimbria verrucaria*, and 18 strains to *Paramyrothecium*-like fungi (without precise species identification). Six-loci molecular characterization allowed the assignment of all strains into four species: *A. verrucaria*, *P. roridum*, *P. foliicola* and *P. nigrum*. Concatenated phylogenetic analyses grouped the isolated fungi into four distinct clusters. *Albifimbria verrucaria*, *Paramyrothecium roridum*, *P. foliicola*, and *P. nigrum* were able to induce necrotic leaf spots as single species in pathogenicity assays, confirming to be the causal agents of the leaf spot disease. The involvement of previously described saprophytic fungi, *P. foliicola* and *P. nigrum*, in plant diseases for the first time is of considerable importance, requiring further studies for their efficient management. Furthermore, some of *Paramyrothecium* and *Albifimbria* species are known to be seed-transmitted, which increases the risk of their introduction and spread into new geographic areas. More molecular and epidemiological studies are needed to elucidate inter- and intra-species evolutionary aspects of these fungi, the members of the polyphyletic *Stachybotriaceae* family.

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### Role and importance of accredited private laboratories for the phytosanitary surveillance in Italy: challenges and advantages

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In the frame of the Italian regulation no. 214 of August 19, 2005, in line with the EU 2002/89/CE, the National Plant Protection Organization (NPPO) can accredit private diagnostic laboratories to carry out plant testing with official recognition. The laboratory of the Centre of competence AGROINNOVA of the University of Torino, Italy, is accredited by the regional NPPO for the detection of fungal pathogens in crops of economic importance in Italy (vegetables, ornamentals, grapevine, fruit, cereals). The laboratory has recently engaged in the European Project Horizon 2020 VALITEST for the validation of diagnostic tests to support plant health and surveillance. So far, the laboratory carried out molecular and serological Test Performance Studies (TPS) organized by two different European reference laboratories to detect *Erwinia amylovora* with three PCR, one LAMP and two serological protocols; *Pantoea stewartii* with six PCR protocols, and *Fusarium circinatum* with five PCR protocols. TPS constitute a challenge for a laboratory where technical and scientific competence are compared at an international level and the results are the passport to widen the scope of the accreditation of the laboratory. The role of private reference laboratories is primary in a country like Italy, where the NPPO is fragmented in the regional administrations with different levels of efficiency. One of the most successful strategy to prevent the outbreak of dangerous plant diseases is the continuous surveillance that requires: resources, efficient communication, effective national and international networks between the academy, that can provide the updated scientific competence, and the NPPO.

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### Effect of onion yellow dwarf virus infection on 'Rossa di Tropea' onion bulb quality and organoleptic properties

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Onion yellow dwarf virus (OYDV, genus *Potyvirus*) has been reported to be the most widely spread virus in onion and *Allium* spp., causing detrimental effects on crop and bulb yield. Despite the agronomic effects of the viral infection in onion are well documented, little information is available about the effect of OYDV on bulb organoleptic properties and quality. "Rossa di Tropea" onion, a particular onion cultivated in Calabria region (Italy), with a Protected Geographical Indication (PGI) trademarks is characterised by a high nutraceutical compounds content. In this study, the effect of OYDV infection on overall bulb quality of "Rossa di Tropea" onion was evaluated, determining the total volatile organic compounds (VOCs) in healthy and infected bulbs by gas chromatography-mass spectrometry (GC-MS), highlighting a structural alteration and modulation of compounds related to flavor and organoleptic properties in the infected bulbs. In addition, the total content of ascorbic acid (AA-Vitamin C) was determined and a double AA degradation rate was observed in infected bulbs. Moreover, a sensory analysis was performed by 10 panelists, addressed to evaluate general and specific attributes of acceptability of healthy/infected bulbs (*i.e.* odor, color, pungency, spiciness, etc.). In general, it was observed that OYDV could reduce the bulb sweetness and crunchiness, increasing spiciness and pungency, altering overall organoleptic features of "Rossa di Tropea".

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### The effectiveness of different storage methods for the shelf-life and the fungal populations of the Hungarian tart cherry varieties

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Hungary is among the three largest producers in the European Union, also the world's largest fresh tart cherry exporter. In case of cherry (*Prunus avium* L.) and tart cherry (*Prunus cerasus* L.), half of the loss was estimated to be caused by moulds. There are restricted information about the effectivity for decreasing postharvest losses, primarily caused by postharvest diseases. The optimization of the storage and the shelf-life of the fruits could provide longer time for availability of fresh fruit with high nutritional value. The aim of our research was the investigation of the normal and the modified atmosphere packaging (MAP) during cold storage following different preharvest treatments on three Hungarian sour cherry varieties: 'Érdi bőtermő', 'Petri', and 'Újfehértói fűrtös'. The surface mould number and the morphology based identification of moulds were detected following harvest. Moulds were isolated from rotten fruits during shelf-life studies and identified based on morphological and