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Evaluation of *Monilinia fructicola* on apricot fruits

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State of the art

Monilinia fructicola has been a quarantine pathogen in Europe until 2014; however, the disease risk remains large for *Prunus* species, because of the continuing spreading around Europe. In order to assess the impact of this fungus on apricot fruits, differences in variety susceptibility need to be evaluated.

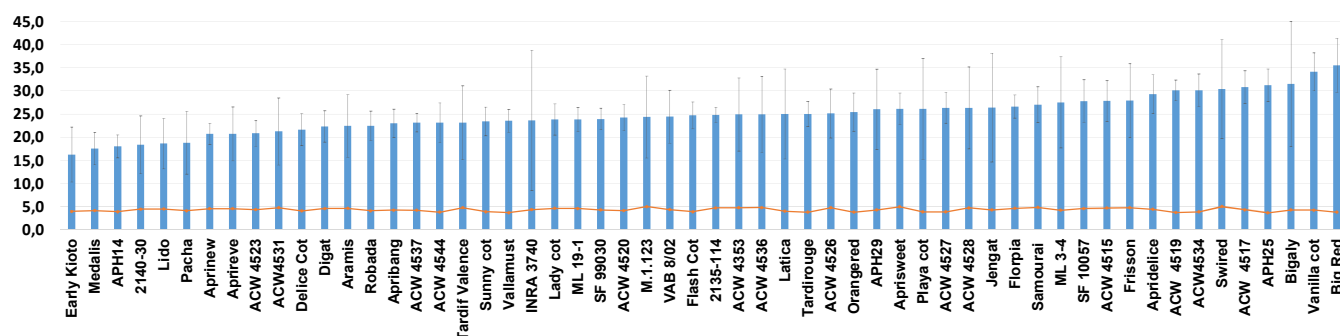
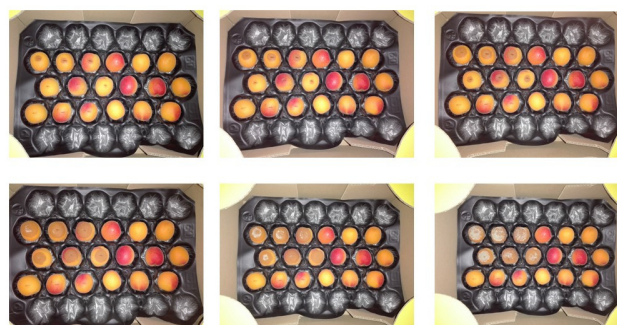


Materials and methods

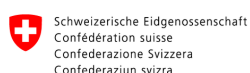
- ✓ More than 50 different international varieties tested in Agroscope orchards in Switzerland were inoculated with *M. fructicola* at harvest time under controlled conditions (22°C, 80% RH, darkness).
- ✓ Ten mature fruits per variety were washed and, in a 4-mm long cut, infected with 10 µl of a spore suspension (10⁵ /ml) into the wound.
- ✓ After 60 hours, the diameter of the infection in the fruit was measured, as well as the pH of the flesh that could be a mechanism of resistance of the fruit by impeaching the entrance of the fungus.

Results and Conclusions

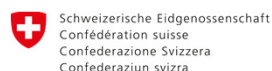
- ✓ Differences between the varieties were observed, varying between 15 and 35 mm of infection diameter.
- ✓ The most susceptible varieties were Big Red, Vanilla cot, Bigaly or Swired, while the most tolerant were Early Kioto, Medalis or Lido.
- ✓ No good correlation between branches and flowers symptoms and fruit symptoms was found, corroborating the fact that both infections are independent of each other.
- ✓ Furthermore, no link between the levels of *M. fructicola* infection and the pH characteristics of the fruit was found.



Fruit infection diameter (in mm) under controlled conditions in different varieties after inoculation with spores of *M. fructicola* under controlled conditions. Orange line indicates pH of the flesh.



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