



XXIV International Congress of Entomology

'New Era in Entomology'

August 19-25, 2012 | Daegu, Korea

ICE 2012 DAEGU KOREA

S1002M02

Integrated Pest Management

S1002

***Drosophila suzukii* (Diptera: Drosophilidae) in Europe: Geographic distribution, biology and economic impact three years after detection.**

Claudio Ioriatti¹, Gianfranco Anfora², Giorgio De Ros³, Alberto Grassi⁴

¹Fondazione Edmund Mach, Italy, ²Fondazione Edmund Mach, Italy, ³Fondazione Edmund Mach, Italy, ⁴Fondazione Edmund Mach, Italy

Unlike other *Drosophila* species, *Drosophila suzukii* (Matsumura) is economically important as enabling to infest fruits before harvest. In 2009 it was detected for the first time in Italy on raspberry, blueberry and strawberry. The EPPO included *D. suzukii* in the Pest Alert List; and in 2010 a Pest Risk Analysis was performed as it was considered a threat to all European countries. Extensive monitoring in 2010-2011 in the Italian regions as well as in other European countries confirmed its high dispersal rate and capability to infest a wide range of cultivated and spontaneous hosts. Significant attacks of *D. suzukii* on some thin skin cultivars of grape was reported in the Northern Italian regions in fall 2011 though not causing economic losses. Three years after the first detection *D. suzukii* has been reported in 9 countries (Italy, France, Spain, Switzerland, Austria, Slovenia, Croatia, Germany, Belgium). Despite the severe chemical control, important crop losses were found on berry fruits and cherry due to high insect population density and to the patched distribution of the crops. The increasing number of insecticide applications jeopardizes the results obtained with IPM, therefore development of alternative control methods is urgent for an economic safeguard of the concerned fruit industry. Mass trapping and physical crop protection by using anti-insect nets are under experimental evaluation and seems the more promising alternative control strategies accessible in the near future. Improvement of the attraction efficiency of the available lure is the major objective of the research teams dealing with chemical ecology.

Keywords: *IPM, alternative control methods, chemical ecology, anti-insect net, mass trapping*

All abstracts are subject to approval once submitted with the attendance certification issued by ICE2012