Performance of Methyl Bromide Alternatives for Strawberry in Florida and Spain

Bielinski M. Santos[1], José Manuel López-Aranda[2], James P. Gilreath[1], Luis Miranda[2], Carmen Soria[2], and Juan J. Medina[2]

[1]Gulf Coast Research and Education Center, IFAS-University of Florida, Wimauma, Florida, USA; email: bmsantos@ifas.ufl.edu . [2]Instituto Andaluz de Investigación y Formación Agraria. IFAPA. CICE-Junta de Andalucía. Spain.

Field trials were conducted in two locations in Huelva, Spain, and one in Florida, USA, to determine the effect of selected methyl bromide (MBr) alternatives on strawberry yield and soilborne pest control. Treatments in both locations were: a) non-treated control, b) MBr + chloropicrin (Pic) at a rate of 400 kg/ha, c) 1,3-dichloropropene (1,3-D) + Pic at 300 kg/ha, d) Pic at 300 kg/ha, e) dimethyl disulfide (DMDS) + Pic at 250 + 250 kg/ha, and f) propylene oxide at 550 kg/ha. In both Spaniard locations, the results showed that 1,3-D + Pic, DMDS + Pic, and Pic had similar yields as MBr + Pic. Similar results were found in Florida, USA, with the exception of propylene oxide, which had equal marketable fruit weight as MBr + Pic.