Title Evidence for the non-pest status of codling moth on commercial fresh sweet cherries intended

for export

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Abstract

Before accepting a systems approach as an alternative to methyl bromide fumigation for U.S. fresh sweet cherries, Prunus avium (L.) L., exported to Japan, the Ministry of Agriculture, Forestry and Fisheries of Japan required additional evidence that sweet cherries are poor or non-hosts for codling moth, Cydia pomonella (L.) (Lepidoptera: Tortricidae). Evidence was collected through field trapping and fruit evaluations in Washington state and California. During the 2006 cherry season, pheromone traps were placed in six commercial cherry orchards within the Yakima Valley in Washington, and in four commercial orchards in the San Joaquin Valley in California. All cherry orchards were adjacent or near to walnuts, apples, or pear orchards. No pest control measures that might affect codling moth were used in the cherry orchards. The maximum weekly trap catch in California was 5.5 codling moth adults per trap, whereas in Washington an organic orchard had the maximum weekly trap catch of 36.5 moths per trap and the highest weekly average catch of 11.0 moths per trap. At least 10,000 harvested cherries from each of three of the commercial Washington orchards, and all four California orchards were examined under a dissecting microscope for the presence of codling moth larvae. A total of 78,701 fruits were examined, yet no codling moth larvae were found. These results suggest that cherries are not preferred hosts for codling moth, even in areas with high adult populations. This information supports the system approach for quarantine security for domestic cherries exported to Japan.