Sex Pheromone Composition of the Summer Fruit Tortrix, Adoxophyes orana in Korea

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The summer fruit tortrix, Adoxophyes orana has been claimed as the major leafroller on apple trees in Korea, Most A. orana mated lights-on under the photoperiod of 16L:8D concentration of sex pheromone components peaked at the mating period although the major components were detected throughout a day. GC-MS and GC-EAD analysis of its sex pheromone gland extracts revealed the two main known compounds. (Z9-14:Ac) and (Z)-11-tetradecenyl (Z)-9-tetradecenvl acetate acetate (Z11-14:Ac). In EAG assay, Z11-14:Ac and Z9-14:Ac elicited significant antennal responses in male moths, but compounds, which have been previously reported for species of Adoxophyes, did. GC analysis showed that A. orana sex pheromone is composed of Z11-14:Ac and Z9-14:Ac with the ratio of 95:5. In field trapping tests conducted at apple and peach orchards in Korea. A. orana males were attracted mainly to 95:5 blend, before the dawn.