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Management of strawberry blossom weevil and European tarnished plant bug in organic strawberry and raspberry using semiochemical traps

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The strawberry blossom weevil (Anthonomus rubi) and the European tarnished plant bug (Lygus rugulipennis) cause large (10 - >80%) losses in yield and quality in organically grown berries. A consortium with 6 European countries has been created to work on the management of those pests. The pheromones of A. rubi and L. rugulipennis have been characterized in England by NRI/EMR. For the attraction of A. rubi the importance of host plant volatiles in combination with the pheromones has also been documented. The natural semiochemical mechanisms of sexual attraction and host plant finding of A. rubi and L. rugulipennis will be further studied and exploited to develop effective semiochemical traps for their management through mass trapping. Attractive lures for these two species will then be combined into a single multitrap with the aim of managing two pests simultaneously in each crop. This will be one of the first approaches to pest management of non-lepidopteran insect pests of horticultural crops using semiochemicals in the EU, and probably the first to target multiple species from different insect orders. The project will be organized in the following work packages; 1) Chemical analysis of plant volatiles, 2) Pest insects in strawberry, 3) Pest insects in raspberry and 4) Trap design and lure development. The authors gratefully acknowledge the financial support for this project provided by the CORE Organic II Funding Bodies, being partners of the FP7 ERA-Net project, CORE Organic II (Coordination of European Transnational Research in Organic Food and Farming systems, project no. 249667).

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