



LIFE.SU.SA.FRUIT - Low pesticide IPM in sustainable and safe fruit production

LIFE13 ENV/HR/000580



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#### Contact details:

Contact person: Mladen FRUK  
Tel: 38512394032  
Fax: 38512393630  
Email: [mladenfruk@agr.hr](mailto:mladenfruk@agr.hr)

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#### Project description:

##### Background

Plant pests and diseases cause important yield and quality losses in fruit crops. Due to the hazardous effects of agrochemicals on both humans and environment, there is a growing trend towards agro-ecosystems based on the management of ecological interactions and the use of integrated pest management (IPM). IPM has become an accepted model for plant protection in the EU, as it helps maintain food security while addressing environmental considerations. Moreover, sustainable fruit production is a top priority for European producers. With the new Regulation on Plant Protection Products (1107/2009) and the Directive for the Sustainable Use of Pesticides (2009/128), many chemical products have disappeared from the European market, creating new challenges for pest and disease control. The promotion of low pesticide input management, notably IPM and organic farming, has achieved a significant reduction in pesticide use, but the sustainable use of pesticides requires additional efforts to ensure technology transfer.

##### Objectives

The overall objective of the LIFE.SU.SA.FRUIT project is to develop, apply and demonstrate an economically viable strategic plan to implement integrated pest management (IPM), by promoting the use of low chemical approaches in orchards

and in post-harvest fruit production in typical Croatian and Italian agro-ecosystems. The project aims to create an environmentally-friendly management system for fruit production and storage, by making more efficient use of resources and ensuring food safety is not compromised. Specific objectives are to:

- Implement innovative practices in the field (e.g. insect exclusion netting systems and biocontrol agents) and post-harvest (e.g. hot water treatments) for fruit production;
- Promote practices aimed at reducing the use of pesticides; and
- Through reduced pesticide applications, lower their environmental impact and the risk of worker exposure.

Expected results:

- Reduction of chemical pressure and of risks for growers (e.g. reduction of about 50% of insecticides, and of about 25% of chemicals used against diseases and pests);
- Reduction of agricultural costs and increase in growers' profits, in terms of money and energy saved due to the use of exclusion netting systems (e.g. saving of about €300-500/ha for the control of insects);
- Reduction of fruit losses (at least 20%) derived by pest and fungal diseases;
- Increase of fruit quality due to the effects of nets, on the basis of some quality parameters such as firmness, colour, acidity, RSR (e.g. increase of sugar content of 1-1.5° Brix in apples); and
- Reduction of pesticide residues (at least 60%, due to less insecticide and fungicide treatments, and to the hot water treatment to remove residue), and consequent increase of food safety and decrease of risks for consumers and environmental health (e.g. lower pollution of water, soil and air).

Results

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Environmental issues addressed:

Themes

Industry-Production - Agriculture - Forestry  
Industry-Production - Food and Beverages  
Risk management - Pollutants reduction  
Waste - Waste reduction - Raw material saving

Keywords

pest control, human exposure to pollutants, Agriculture, integrated management, horticulture

Natura 2000 sites

Not applicable

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Beneficiaries:

Coordinator	University of Zagreb Faculty of Agriculture
Type of organisation	University
Description	The University of Zagreb's Faculty of Agriculture (FAZ) is the leading higher education and scientific research institution in the field of agriculture and related sciences in the Republic of Croatia. During the past 90 years, more than 12 000 students have received graduate, postgraduate and doctoral degrees at FAZ.
Partners	APOFRUIT(Apofruit Itali Soc. Coop. Agricola), Italy UNITO(Università degli Studi di Torino), Italy XEDA(Xeda International S.A.), France UNIBO(ALMA MATER STUDIORUM – UNIVERSITA' DI BOLOGNA), Italy AGRA(Agra d.o.o.), Croatia

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Administrative data:

Project reference	LIFE13 ENV/HR/000580
Duration	16-JUN-2014 to 16-DEC -2017
Total budget	1,839,378.00 €
EU contribution	901,938.00 €
Project location	Mediterr. Croatia (CRO)(Croatia Hrvatska) Piemonte(Italia) Emilia-Romagna(Italia)

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