

Emerging pest of horticultural crops in Emilia Romagna: innovative strategies applied to sustainable crop protection

Riferimenti

Tipo di progetto

Gruppo Operativo

Acronimo

FRUTTANOVA

Tematica

Difesa da malattie e infestazioni

Information

Time frame

2016 - 2019

Durata

36 months

Partners (no.)

10

Regione

Emilia-Romagna

Comparto

Multifiliera

Localizzazione

ITH55 - Bologna

ITH57 - Ravenna

ITH58 - Forlì-Cesena

Costo totale

€328.749,00

Fonte di finanziamento principale

Programma di sviluppo rurale

Programma di sviluppo rurale

2014IT06RDRP003: Italy - Rural Development

Programme (Regional) - Emilia Romagna

Parole chiave

Pest /disease control

Plant production and horticulture

Sito web

<https://progetti.crpv.it/Home/ProjectDetail/11>

Project status

completed



Objectives

The agricultural sector of the Emilia-Romagna region has seen in recent years the spreading of several emerging pathogens and pests that affected the economic viability of some important fruit crops and of viticulture: among them, the serious production losses due to the spotted-wing drosophila and to various diseases caused by viruses, viroids and prokaryotes.

This plan has the overall objective to develop a strategic and sustainable (environmentally, economically and socially) protection protocols against these developing pathogens and pests in order to reduce the use of chemicals.

Activities

The activities planned in the project include comparison of attractants and traps models; development of a forecasting model and definition of pest control strategies; verification of a parasitic capacity in the control of *Drosophila suzukii*; assessment of tolerance of stone fruit cultivars by inoculation with infectious material and molecular quantification of the viral titer; cross-protection tests; use of plant resistance inducers. Moreover the project will validate diagnostic protocols for the evaluation of nursery material, will perform transmission tests and research on possible vectors and will evaluate the effectiveness of low copper-content and alternative products against PSA.

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Partenariato

Role	Azienda	Address	Telephone	E-mail
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Role	Azienda	Address	Telephone	E-mail
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Pratiche abstract

Description

The expected results are the identification and application of non-conventional strategies of control such as developing of population dynamics models to optimize timing of spraying, the identification of the most attractive and high performant hyper-parasites (Spotted Wing Drosophila). Moreover, the project will evaluate the effectiveness of inducers of plant resistance or of the "recovery" phenomenon, will identify and select genotypes with characteristics of resistance or tolerance to various pathogens (viruses, viroids and phytoplasmas) and will promote the use of products with low content of copper and other alternative products (PSA).

In the case of emerging diseases, the results will focus on the validation of new diagnostic methods and on the assessment of the real economic impact of such disorders, linked also to the identification of the way of transmission of pathogens in the field. The main benefits will initially involve the development of alternative or at least complementary control protocols for the management of various pathogens, with low environmental impact methods able to preserve a precarious balance of resources, such as water, and, at the same time, to protect the productive capacity of farmers. The use of new diagnostic tools targeted to a large scale use and epidemiological knowledge that will be obtained, will also be of great advantages in the nursery sector, since many of these adversities cause negative situations especially in the early years of plant growth.

Link utili

Titolo/Descrizione	Url	Tipologia
Informazioni progettuali	https://progetti.crpv.it/Home/ProjectDetail/11	Materiali utili

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Titolo/Descrizione	Url	Tipologia
Presentazione Piano operativo	https://progetti.crpv.it/File/DownloadFile/111?name=1_Piano_FRUTTANOVA%2011%20D...	Materiali utili
Ecologia e gestione integrata di <i>Drosophila suzukii</i> al Nord - Informatore Agrario 12-2017	https://progetti.crpv.it/File/DownloadFile/106?name=Ecologia%20e%20gestione%20i...	Materiali utili
Monitoraggio e prove di difesa da <i>Drosophila suzukii</i> in Emilia-Romagna - Frutticoltura 3-2018	https://progetti.crpv.it/File/DownloadFile/141?name=5005112FrutticolturaMarzo18...	Materiali utili
Malattia del Pinot grigio, nuova emergenza sulla vite - Informatore Agrario 10-2018	https://progetti.crpv.it/File/DownloadFile/140?name=5005112FruttanovaInformator...	Materiali utili
Ciliegio: <i>Drosophila</i> , mosca e afidi impongono cambiamenti radicali nella difesa - Frutticoltura 3-2019	https://progetti.crpv.it/File/DownloadFile/245?name=Drosophila3_%202019.pdf%29	Materiali utili
Atti 4th IPWG Meeting, Valencia 8/12 settembre 2019	https://progetti.crpv.it/File/DownloadFile/253?name=abstract67_ratti.pdf%29	Materiali utili
Video - Indagini su tecniche di difesa del ciliegio da <i>Drosophila suzukii</i>	https://www.youtube.com/watch?v=a7w3AbUFD4U%29	Materiali utili
Video - Studio sensibilità pesco e albicocco a Sharka e metodi alternativi lotta con induttori di resistenza	https://www.youtube.com/watch?v=czoQgsFxUd8%29	Materiali utili

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