

Intercambio experiencias entre Grupos Operativos y Proyectos Innovadores con la temática de sanidad vegetal agrícola

3 de junio de 2020
Intercambio virtual
10h-12.30h



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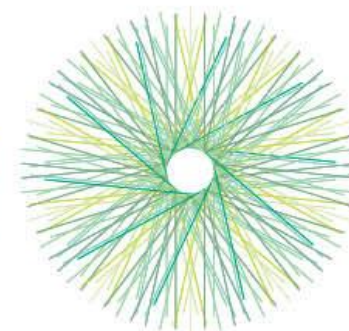
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EIP-AGRI Focus Group

Diseases and pests in viticulture



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AGRICULTURE & INNOVATION

Julián Palacios (Viticultura viva)

Gonzaga Santesteban (Universidad Pública de Navarra)

Daniel Durán (Fund. Empresa-Universidad Gallega, Paco y Lola)



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EIP-AGRI Focus Group

Diseases and pests in viticulture

OBJETIVO:

¿Cómo aumentar la **resiliencia** de los viñedos frente a las plagas y las enfermedades y mejorar la **productividad** del sector de manera **sostenible**?

TAREAS:

Inventario de las **principales plagas y enfermedades** del viñedo (distribución, impacto económico, influencia del cambio climático)

Balance de la situación actual respecto a **prevención, detección temprana, diagnóstico y seguimiento** de plagas y enfermedades

Inventario de **estrategias de manejo integrado de plagas** (incluyendo el control biológico)

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OBJETIVO:

¿Cómo aumentar la **resiliencia** de los viñedos frente a las plagas y las enfermedades y mejorar la **productividad** del sector de manera **sostenible**?

TAREAS:

Explorar soluciones de **manejo de plagas / enfermedades basadas en principios agroecológicos** como la biodiversidad.

Recopilar **ejemplos de «buenas prácticas»**, en diferentes regiones de Europa.

Identificar **necesidades y posibles lagunas de conocimiento** sobre cuestiones particulares relacionadas con el manejo de plagas y enfermedades.

Proponer **prioridades para las acciones / proyectos innovadores** especialmente Grupos Operativos de la EIP-AGRI.

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Diseases and pests in viticulture

MIEMBROS:

Austria

Compant, Stéphane	Scientist
Fabianek, Daniela	Representative of an NGO; Farmer
Rapf, Klaus	Farmer

Bulgaria

Tsvetkov, Ivan	Scientist
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Croatia

Majcenović, Irena	Farmer
Vrbaneč, Josip	Farm advisor; Farmer

España

Santesteban, Gonzaga	Farm advisor; Scientist
Durán, Daniel	Farm advisor
Palacios, Julián	Farm advisor; Farmer

Francia

Zekri, Olivier	Advisor; Scientist
Ait Barka, Essaid	Scientist

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Diseases and pests in viticulture

MIEMBROS:

Grecia

Legas, Markos

Farmer

Hungría

Csikós, Anett

Scientist

Donkó, Ádám

Scientist

Italia

Caffi, Tito

Scientist

Lucchi, Andrea

Scientist

Mugnai, Laura

Scientist

Micheloni, Cristina

Coordinating expert

Portugal

Rego, Cecilia

Scientist

Rumanía

Popescu, Daniela

Farm advisor & Scientist

Alemania

Gaetje, Emilie

Task manager

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RESULTADOS:

Starting paper



EIP-AGRI Focus Group

Diseases and pests in viticulture

STARTING PAPER
Version 19 January 2017

Cristina Micheloni, EIP-AGRI Service Point

https://ec.europa.eu/eip/agriculture/sites/agriculture/files/2017.03.13_diseases_and_pests_in_viticulture-cristina_micheloni_0.pdf

ANNEX 1

Most common diseases, their characteristics and management practices

Regions/countries where it is reported as problematic	Latin name	Common name in English	How relevant is the damage it causes to the plant? (0=no at all 5=extremely)	How relevant can the damage be on the economic performance of the vineyard (in terms of quantity or quality of)	How frequently is it relevant? (0= rarely, 1= every 4-6 years; 2= every 2-3 years; 3= every year)	Which climatic conditions lead to higher impact? Please describe.	Which soil and location conditions lead to higher impact? Please describe.	Which viticultural practices lead to higher impact? Please describe.
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ANNEX 2

Most common pests, their characteristics and management practices

Regions/countries where it is reported as problematic	Latin name	Common name in English	How relevant is the damage it causes to the plant? (0=no at all 5=extremely relevant)	How relevant can the damage be on the economic performance of the vineyard (in terms of quantity or quality of production)? (0=no at all 5=extremely relevant)	How frequently is it relevant? (0= rarely, 1= every 4-6 years; 2= every 2-3 years; 3= every year)	Which climatic conditions lead to higher impact? Please describe.	Which location conditions lead to higher impact? Please describe.
Hungary, Spain, Bulgaria and Romania	<i>Calepitrimerus vitis</i> <i>Eriophyes vitis</i> <i>Eotetranychus pruni</i> , <i>Panonychus ulmi</i>	Spider mites, leaf blister mite, Grape leaf rust mite, prapeleaf bud mite, grapevine yellow mite, grape gall mite, red spider	3	2,5	2	cold Springs and hot Summers, , while for red mite, yellow and bud mite warm and wet Springs are favorable	not clear
all countries	<i>Lobesia botrana</i> - <i>Eupocilia ambiguella</i>	Grapevine moth	1-5	3-4	3	Mild winters; high temperatures and high atmospheric humidity during the vegetation period	no clear
Spain, Hungary, Greece	<i>Empoasca vitis</i>	Smaller green leafhopper	1-3	2, 4 in Greece	3	high temperatures in June,	
Italy, Hungary but all countries as FD	<i>Scaphoideus titanus</i> ball	American Grapevine leafhopper	as vector of FD, not per se	as vector of FD	3	Mediterranean climate	no impact
Italy and Greece	<i>Planococcus ficus</i>	Med. Mealy bag	depends, increasing	high	increasingly frequent	higher temperatures, humid summer	vigor of
Greece and Spain	<i>Thrips Tabaci</i> / _ _ _ _ _	trips	depends	can be high	2-3	no specific	wild area

RESULTADOS:

Mini-papers

Annex B. List of mini-papers

	Title	Main author	Other authors
<u>1</u>	Practical ways to increase functional biodiversity to control pests and diseases, including soil pathogens	Luis Gonzaga Santesteban	Luis Gonzaga Santesteban*, Julián Palacios Muruzábal, Ivan Tsvetkov, Daniela Popescu, Ádám Donkó
<u>2</u>	How gain the interest and trust of vine growers: training, demonstration, capacity building & education.	Daniel Durán	Daniel Durán*, Ivan Tsvetkov, Daniela Fabianek, Josip Vrbaneč, Irena Majcenović, Tito Caffi
<u>3</u>	How can winter pruning practices help to reduce the impact of Grapevine Trunk Diseases	Julián Palacios Muruzábal, Luis Gonzaga Santesteban	Julián Palacios Muruzábal*, Luis Gonzaga Santesteban*, Anett Csikós, Daniela Popescu, Stéphane Compant, Essaid Ait Barka, Cecilia Rego, Ivan Tsvetkov
<u>4</u>	SHARING NEEDS AND KNOWLEDGE PROMOTES IPM	Andrea Lucchi	
<u>5</u>	Strategies for a better use of copper-based fungicides in organic viticulture	Tito Caffi	

RESULTADOS:

Mini-papers

EIP-AGRI Focus Group

Disease and pests in viticulture

MINIPAPER: Practical ways to increase functional biodiversity to control pests and diseases, including soil pathogens

Luis Gonzaga Santesteban*, Julián Palacios Muruzábal, Ivan Tsvetkov, Daniela Popescu, Ádám Donkó

https://ec.europa.eu/eip/agriculture/sites/agri-eip/files/eip-agri_fg_diseases_and_pests_in_viticulture_final_report_2019_en.pdf

Páginas 27-33

RESULTADOS:

Mini-papers

EIP-AGRI Focus Group

Disease and pests in viticulture

MINIPAPER: How gain the interest and trust of vine growers: training, demonstration, capacity building & education.

Daniel Durán*, Ivan Tsvetkov, Daniela Fabianek, Josip Vrbanek, Irena Majcenović, Tito Caffi

https://ec.europa.eu/eip/agriculture/sites/agri-eip/files/eip-agri_fg_diseases_and_pests_in_viticulture_final_report_2019_en.pdf

Páginas 34-46

RESULTADOS:

Mini-papers

EIP-AGRI Focus Group

Disease and pests in viticulture

MINIPAPER: How can winter pruning practices help to reduce the impact of Grapevine Trunk Diseases

Julián Palacios Muruzábal*, Luis Gonzaga Santesteban*, Anett Csikós, Daniela Popescu, Stéphane Compant, Essaid Ait Barka, Cecilia Rego, Ivan Tsvetkov

https://ec.europa.eu/eip/agriculture/sites/agri-eip/files/eip-agri_fg_diseases_and_pests_in_viticulture_final_report_2019_en.pdf

Páginas 47-50

RESULTADOS:

Mini-papers

EIP-AGRI Focus Group

Disease and pests in viticulture

MINIPAPER: SHARING NEEDS AND KNOWLEDGE PROMOTES IPM

Andrea Lucchi

https://ec.europa.eu/eip/agriculture/sites/agri-eip/files/eip-agri_fg_diseases_and_pests_in_viticulture_final_report_2019_en.pdf

Páginas 51-55



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RESULTADOS:

Mini-papers

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Disease and pests in viticulture

MINIPAPER: Strategies for a better use of copper-based fungicides in organic viticulture

Tito Caffi

https://ec.europa.eu/eip/agriculture/sites/agri-eip/files/eip-agri_fg_diseases_and_pests_in_viticulture_final_report_2019_en.pdf

Páginas 56-62



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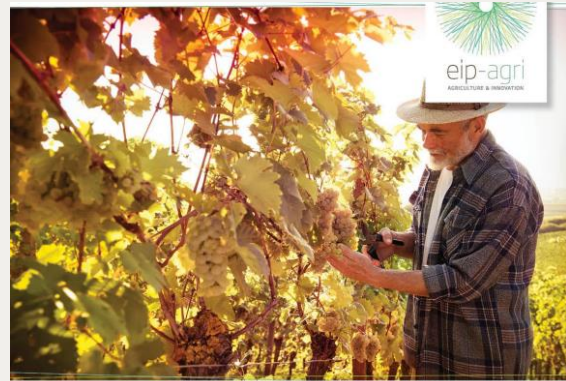


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RESULTADOS:

Final report



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4.1 Integrated Pest Management (IPM)

The FAO defines IPM as the careful consideration of all available pest control techniques and subsequent integration of appropriate measures that discourage the development of pest populations and keep pesticides and other interventions to levels that are economically justified and reduce or minimise risks to human health and the environment.

4.2 Functional biodiversity

The Focus Group experts specifically considered **functional biodiversity** and its role in vineyards.. Functional biodiversity is the diversity on microorganisms, insects, plants etc that live in the vineyard and can develop or not depending on the management of the vineyard, including pesticide use, soil management etc. Promoting functional biodiversity can help to create a more resilient vineyard system, as it can help to both prevent and fight pests and diseases. Healthy soils will for instance also contain beneficial microorganisms which limit the growth of pathogens and promote plant health in different ways. Functional biodiversity also includes pollinators, and predators of plant pests, such as spiders, ladybirds which eat plant lice, and insect-eating birds. The experts

4.3 Main pests and diseases and corresponding IPM recommendations

The experts agreed that the following lists include the main pests and diseases currently affecting vineyards in Europe. They indicated their relevance in the different wine areas, and recommended practices to be integrated in an IPM approach, that can help to reduce their impact.

The experts emphasised that an Integrated Pest Management strategy is essential. It should consider:

- ▶ the whole life cycle of the vineyard;
- ▶ all the pests and diseases that may affect the vineyard;
- ▶ the combined use of different means and tools, starting from preventive measures (like soil fertility

RESULTADOS:

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Grape mealybug / Med. Mealy bug
Planococcus ficus

Flavescence dorée of grapevine
Flavescence dorée (FD)



Optimal temperature for the vectors.

Almost all countries, but not all regions; in Spain the vector is present, but the disease is not reported

Uncontrolled vineyards; lack of protection against *Scaphoideus titanus*; infected vines

no clear link

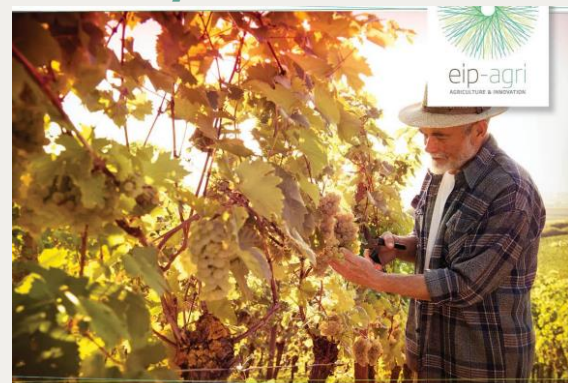
It is caused by a phytoplasma transmitted by the vector *Scaphoideus titanus*; it develops in the phloem vessels of the host plants. FD arrived in Europe in the 80s, starting from France and rapidly spreading to Italy and it is now moving Eastwards. FD and Grapevine Trunk Diseases are the core topics of the recently concluded Thematic Network Winetwork.¹

- ▶ implementation of a territorial strategy: uprooting of unmanaged vineyards, large scale monitoring, monitoring of symptomatic plants, timing direct control etc.;
- ▶ use of controlled/certified planting material;
- ▶ precise monitoring and control of the vector (see *Scaphoideus titanus*);
- ▶ thermotherapy in nursery (no unanimous opinion on efficacy).

¹ www.winetwork.eu

RESULTADOS:

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Diseases and pests in viticulture

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5. Recommendations

Taking into consideration the main challenges and bottlenecks in the protection of the vineyard, the experts listed a set of recommendations for:

- ▶ innovation projects, that can be implemented at local level, to make use of the knowledge and skills already available but often underexploited;
- ▶ research projects, on topics where the available knowledge is still missing

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Diseases and pests in viticulture

RECOMENDACIONES

5.1 Ideas for local innovation projects, including EIP-AGRI Operational Groups (OGs)

- Working **with owners and managers of small-scale** and scattered vineyards to identify and test appropriate practices, with **locally adapted strategies** and specific regional implementation requirements
- **Involving local vineyard** managers, owners, wine producers in the testing and selection of **locally adapted varieties and heterogeneous planting materials** fitting local conditions and market demands.
- Developing local strategies for a **proper use of cover-crops**. This will include vineyard managers identifying the best, locally adapted species (and mixtures), sowing time, mowing/terminating method and time for different cover-crops management.
- **Testing ways to enhance biodiversity in vineyards**, through the activation of local networks including gene banks, in situ conservation etc. to protect and enhance both **functional biodiversity** and vine biodiversity in vineyards.
- Involving local vineyard owners and managers in testing site specific **GTDs management through preventive and control strategies**.



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RECOMENDACIONES

5.2 Research needs from practice

Topics where more research is needed and is recommended for consideration within a large framework, either national, transnational or European:

- Selection and breeding of **grape varieties** and heterogeneous planting materials
- To increase health in planting materials by **improving nursery management**.
- Measures to **downscale IPM and precision viticulture**
- Management strategies to control **powdery mildew**
- The role of **organic matter** and soil fertility on plant health.
- Effects of **climate change** on pests and diseases.
- Understanding the main factors of **vine decline**
- Develop strategies to manage **Grapevine Trunk Diseases (GTDs)**
- Involving local vineyard owners and managers in testing site specific **GTDs** management through **preventive and control strategies**.



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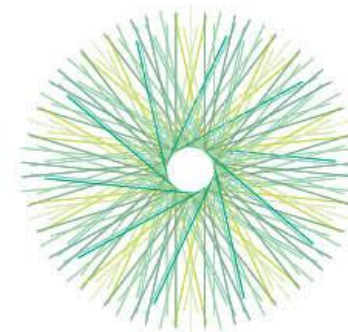
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RECOMENDACIONES

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- **Understanding the main factors of vine decline**
- **Develop strategies to manage Grapevine Trunk Diseases (GTDs)**
- **Involving local vineyard owners and managers in testing site specific GTDs management through preventive and control strategies.**



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SOSTENIBILIDAD Y COMPETITIVIDAD DE LA VITICULTURA EN EL TERRITORIO POCTEFA.

AUMENTO DE LA LONGEVIDAD Y LA SALUD DE LA VIÑA A TRAVÉS DE LA EVALUACIÓN Y TRANSFERENCIA DE PRÁCTICAS DE PRODUCCIÓN DE PLANTA Y DE PODA



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¡¡Gracias por la atención!!

Jornada de Intercambio
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