2017-2022
Euphresco strategic research agenda

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A manifesto on Plant Health research

- Transnational research priorities
- Common research objectives to be addressed in the next 5-10 years
- Support research co-ordination and collaboration

Euphresco Strategic Research Agenda
2017-2022

Plant health research co-ordination, cross-sectoral collaboration and learning
Agenda: instructions for use

Transnational interest

National consultations
Agenda: instructions for use

SFS-05-2018-2010-2020: New and emerging risks to plant health

Specific Challenge: Trade and the movement of goods and people have facilitated the introduction, spread and establishment of plant pests and diseases. While new pests and diseases are likely to arise, existing ones might become more severe as a result of intensification, climatic variations and changes in agricultural and forest management practices. They can have a significant impact on agricultural and forest productivity. Appropriate and rapid responses from decision-makers need to be informed by scientific knowledge which addresses pest and disease management in a comprehensive manner.

Scope: Proposals will target one or more new or emerging plant pests and/or diseases (regulated or non-regulated, introduced or native) that are causing, or likely to cause, significant socio-economic and/or environmental losses to EU agriculture/forestry. The choice of target pest and/or disease will consider the potential threat in terms of development and spread, its potential exacerbation under climate change as well as the potential impact on agricultural production, forestry, trade and the wider environment. Proposals will increase knowledge of the biology, development and spread of pests/diseases. They will improve methods and strategies for early detection, prevention and control as well as enlarge the range of tools for integrated and sustainable pest/disease management. International cooperation with countries affected or threatened by the same pest(s)/disease(s) is encouraged. Proposals should fall under the concept of the ‘multi-actor approach’ including a range of actors to ensure that knowledge and needs from various sectors such as research, plant health services and the farming/forestry sector are brought together.

The Commission considers that proposals requesting a contribution from the EU of up to EUR 7 million would allow this specific challenge to be addressed appropriately. Nevertheless, this does not preclude submission and selection of proposals requesting other amounts.

Expected Impact: Activities will contribute to finding adequate responses to new and/or emerging plant pests/diseases. More specifically, knowledge and solutions generated by these actions will contribute to:

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European Conference on Xylella fastidiosa 2017: finding answers to a global problem
To explore the use of remote sensing technologies to support surveillance and detection activities

Satellites, piloted aircraft and drones
Computer-assisted treatment
Spectroscopic analysis
Locations difficult to survey

Early warning
Prevent expansion

Spectroscopy
Geography
Epidemiology
International collaboration
Statistics
Plant physiology
Engineering

Euphresco SRA objective 2017-R-4.2
To test and validate the use of volatile organic compounds for early detection and pest management
On site detection and identification of diseases and pests

- NGS
- LAMP
- Lateral flow devices
- Identification without *a priori* knowledge
- In situ
- Non-expert user
- Multiple infections

**Euphresco SRA objectives 2017-R-5.4; 2017-R-6.1**

- Taxonomy
- Molecular biology
- Bioinformatics
- Nanotechnology
- Genetics
- Epidemiology
- Statistics
- Forensic
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