



## Europe, United States and Middle East join efforts to improve preparedness against possible use of plant pathogens against crops, feed and food

A 5 year Network of Excellence financed by the Security Research programme of the European Commission (7<sup>th</sup> Framework Programme for Research) to implement a virtual Center of Competence on increase the quality and impact of plant and food biosecurity training and research in Europe

Turin (Italy), 24th February 2011

Five years duration, almost **six million** euros financed from the European Commission (*DG ENTERPRISE and INDUSTRY*), within its Security Programme of the VII Framework Programme, **13** partners, **8** work packages, **3** continents involved: these are some of the numbers of the Network of Excellence (NoE) “**Plant and food Biosecurity**” started in February 2011, that **aims to build a virtual Centre of Competence in order to increase the quality and impact of plant and food biosecurity training and research in Europe**, thus enhancing preparedness and response capabilities to prevent, to respond and to recover from a possible use of plant pathogens against crops in the European agrifood system.

The main objectives of the project are:

- **to develop knowledge** frameworks and appraisal tools to plan, counteract and respond to the possibility of introduction, outbreak and spread of the most threatening plant pathogens and pests.
- **To identify priorities** for research and regulatory policy, and provide a baseline assessment of forensic capability to trace mycotoxins and human pathogens on plants (HPOP) enhancing the prevention, recognition, response, and recovery from foodborne illness due to the contamination of fresh produce.
- **To develop models** of spatial-temporal risk, to improve planning of effective and efficient national and regional responses.
- **To improve disease surveillance and detection systems** by facilitating international laboratory cooperation and by developing diagnostic tools.
- **To prevent** the establishment and spread within EU countries of deliberately-introduced pathogens by delineating the steps and the course of measures to be executed at European level in each category of pest detection and by enhancing the available measures to respond.
- **To build up a strong culture of awareness** and compliance with plant and food biosecurity for those with responsibilities in all sectors of agriculture and food production by harmonizing expertise across the network and by organizing regular trans-national and multi-sector training courses.

**Plant and food biosecurity is a relatively recent field of research in Europe.** The majority of work has been done in the United States, New Zealand and Australia where many agencies and entities within the government, State and local government, the private sector and universities are actively engaged in protecting agricultural resources from intentional or unintentional introduction of pathogens.

Starting from the experience gained in previous projects (see box), **this new project will focus on biological threats that have the capacity to affect and damage agriculture, ecosystems and ultimately compromise food and feed security at any stage in the food supply chain.**

**The Network of Excellence will renew and reinforce already established partnership, enlarge it by including new countries,** institutions and topics, also including food biosecurity, **with the aim of establishing a virtual Centre of Competence able to deal with the issues of crop and food biosecurity,** and to become a Centre of reference at the European level, so as to provide sustainability to an already well organized partnership.

**The Consortium involves thirteen partners:** University of Torino, Center of Competence for the innovation in the agro-environmental field (AGROINNOVA), also Project coordinator and Spin-To from **Italy**; National Institute of Agricultural Botany (NIAB), Food and Environment Research Agency (FERA) and London Imperial College from **United Kingdom**; Institute for crop sciences and resource conservation, University of Bonn (UNIBONN) from **Germany**; Institut National de la Recherche Agronomique (INRA) from **France**; Regional Environmental Center (REC) from **Hungary**, Middle East Technical University (METU) from **Turkey** United Nations Crime and Justice Research Institute (UNICRI) from **United Nations**, Agricultural Research Organisation (ARO) from **Israel**; National Institute for Microbial Forensics & Food and Agricultural biosecurity (NIMFFAB) of Oklahoma State University and Kansas State University from **USA**.

The **end users** of this work are expected to be the national and European level authorities responsible for plant health and for security; by using modelling and foresight approaches that have some common elements with conventional plant health risk analysis, whereas common understanding of the risks and management options should be identified.

Taking into account that policy options and decisions must be based on more solid scientific knowledge and a full and proper understanding of the economic and social aspects surrounding plant and food biosecurity, coordination with the policy-making process will ensure appropriate links to current research and management actions undertaken at national, European and international levels.

A more coherent implementation of national and European research activities and a closer relation among the various participants will permit to establish a common system of scientific and technical reference for the implementation of policies. The understanding of the concepts of risk based on environment, trade and securitization will highlight areas of convergence and difference, which will allow more relevant actions to be applied.

**Press office:**

Alessandro Bertin  
Spin-To - Communication for innovation & design  
Mob +39 338 8291494  
[bertin@spin-to.it](mailto:bertin@spin-to.it)  
[www.plantfoodsec.eu](http://www.plantfoodsec.eu)

## **INFORMATION FOR THE PRESS**

### **Previous projects**

Over the period between 2004 and 2006, a consortium of European researchers dealt with the topic of crop biosecurity, taking into account the risks posed to European agriculture and forestry by the deliberate introduction of plant pathogens. This EU- funded project on Crop Biosecurity was entitled “Crop and food biosecurity, and provisions of the means to anticipate and tackle crop bioterrorism”, Contract no: 6403).

The results obtained through such project were further exploited and improved throughout other projects, funded by NATO (Collaborative Linkage Grant. Rif. 981631: Tools for Crop Biosecurity. Nato Programme: Security through science) which dealt with the issue of crop biosecurity in the Mediterranean area, and through an EU funded project, Asia-Link “Tackling BIOSECurity between Europe and Asia: innovative detection, containment and control tools of Invasive Alien Species potentially affecting food production and trade (BIOSEC)”.

### **The activities carried out in the Network of Excellence (Security Research Programme, FP7)**

The partners will work divided in groups on eight specific topics called Work Packages (WPs):

#### **WP 1. Plant disease epidemiology applied to crop biosecurity**

To obtain scientific knowledge framework and appraisal tools for the possibility of deliberate contamination, epidemic outbreaks, spread of disease, pattern of propagation.

#### **WP 2. Food biosecurity**

To identify priorities for research and regulatory policy, and provide a baseline assessment of forensic capability to trace foodborne pathogens in partner and associated countries thus enhancing, by facilitating international laboratory cooperation.

#### **WP 3. Analysis of risks posed to the EU agri-food system and EU society by intentional introduction of new pest and disease agents**

To develop models of spatial-temporal risk, to improve planning of effective and efficient national and regional responses.

#### **WP 4. Diagnostic and detection systems**

To improve disease surveillance, detection and diagnostic systems by facilitating international laboratory cooperation and by developing diagnostic tools.

#### **WP 5. Responder systems on eradication and containment**

To prevent the establishment and spreads within EU countries of deliberately-introduced pathogens by delineating the steps and the course of measures to be executed at European level in each category of pest detection or outbreak and by enhancing the available measures to respond.

#### **WP 6. Training on Plant and Food biosecurity**

To build up a strong culture of awareness and compliance with plant and food biosecurity for those with responsibilities and interest in all sectors of crop agriculture, including extension specialists, students, crop consultants, regulators, and farm advisors at various levels; to harmonize expertise across the Network.

#### **WP 7. Dissemination, awareness and communication on Plant and Food biosecurity**

To improve awareness in stakeholder and general public in biosecurity issues.

#### **WP 8. Management and monitoring**

To overcome the fragmentation of partner’s research, by coordinating, monitoring and structuring the Joint Programme of Research (JPA) and by facilitating the cooperation within and among the work packages, thus ensuring a dynamic and efficient governance of the project.

### **Press office:**

Alessandro Bertin  
Spin-To - Communication for innovation & design  
Mob +39 338 8291494  
bertin@spin-to.it  
www.plantfoodsec.eu



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