

# Virtual toolbox to bolster Europe's food and agricultural security

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The EU PLANTFOODSEC project has developed an extensive virtual toolbox to help protect both agriculture and plant life from biological weapons that could contaminate Europe's food supply chain.

The overall goal of the project was to create a virtual research [network](#) in order to improve the quality and impact of training and research in relation to crop and food biosecurity research in Europe. In order to achieve this, the project has compiled its toolbox to enhance capabilities to prevent, respond to, and recover from a biological incident or deliberate terrorist or criminal activity that threatens the European agrifood system.

## **Risk assessment tool**

The PLANTFOODSEC [risk assessment tool](#) enables rapid assessments of agro-terrorism scenarios, making it possible to assess the effects of potential prevention and mitigation methods.

The tool was demonstrated on almost 100 scenarios covering a wide range of potential motivations, biological agents, pathways and receptor systems in order to provide a comparative measure of risk.

## **Determining a criminally induced outbreak**

One of the key challenges in food biosecurity is the ability to differentiate between accidental and intentional food contamination.

Primary factors to differentiate between a deliberately-initiated outbreak and an accidental outbreak were thus assessed by the project, and these were then used to develop an additional tool for determining the likelihood that an outbreak is criminally induced or not.

## **Virtual diagnostic network**

The project also created a virtual diagnostic network that allows for information to be gathered, searched and reported, and also facilitates information flow between experts and field workers.

The principal components of the network are a database of diagnostic laboratories and expertise across the 28 EU Member States, as well as a community resource detailing plant pathogen news, updates on diagnostic techniques, and a structure to allow the uploading of diagnostic records and their interrogation.

As a result, the network provides a unique addition to the PLANTFOODSEC toolbox and allows countries easy access to summary

information on disease outbreaks across Europe.

## **The Virtual Centre of Competence on Plant and Food Security**

Described by the project as the 'backbone' in the field of plant and food biosecurity, the Virtual Centre comprises a network of research centres, universities and other key stakeholders. The network will enhance preparedness, response and recovery capabilities in the event of intentional and unintentional biosecurity threats to EU agriculture, farming and agro-food industry.

Current EU capabilities to detect and respond to agro-terrorist and bio-criminal acts are modest and capacities are spread amongst many regional and national bodies. This lack of coordination is a prevalent concern as biosecurity risks transcend both national and regional boundaries.

Realising the challenges still to be addressed in order to improve coordination and create a real pan-European biosecurity network, the PLANTFOODSEC Virtual Centre for Competence is intended to be the first concrete step in making such a network a reality.

**More information:** For more information, please see the PLANTFOODSEC project website: [www.plantfoodsec.eu/index.php](http://www.plantfoodsec.eu/index.php)

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