The Director General

Maisons-Alfort, 2 july 2012

OPINION
of the French Agency for Food, Environmental and Occupational Health & Safety

concerning a request for a simplified risk assessment of *Xylella fastidiosa*

ANSES undertakes independent and pluralistic scientific expert assessments.
ANSES primarily ensures environmental, occupational and food safety as well as assessing the potential health risks they may entail.
It also contributes to the protection of the health and welfare of animals, the protection of plant health and the evaluation of the nutritional characteristics of food.

It provides the competent authorities with all necessary information concerning these risks as well as the requisite expertise and scientific and technical support for drafting legislative and statutory provisions and implementing risk management strategies (Article L.1313-1 of the French Public Health Code).

Its opinions are made public.

On 9 May 2012, ANSES received a request from the Directorate General for Food (DGAL), within the Ministry of Agriculture and Fisheries for an Opinion concerning a request for a simplified risk assessment of *Xylella fastidiosa.*

1. BACKGROUND AND PURPOSE OF THE REQUEST

Background

Xylella fastidiosa is a bacterium listed in Annex 1, Part A, Section 1 of Directive 2000/29/EC. As such, it is a harmful polyphagous organism not known to occur in any part of the European Union and relevant for the entire territory of the European Union. *X. fastidiosa* is also an organism covered by mandatory permanent control measures for the entire French territory, in accordance with the Ministerial Order of 31 July 2000, as amended.

In France, *X. fastidiosa w*as detected on 27 July 2011 on *Prunus* seedlings kept at the Clermont-Ferrand quarantine facility that had been transferred there from the INRA Experimental Unit for Integrated Research (UERI) in Saint-Marcel-lès-Valences, Drôme *département*. Analyses performed to date have however not confirmed the source of contamination. Of note, import of *Prunus* seedlings intended for planting is authorised and requires a plant health certificate, without any specific provisions concerning *X. fastidiosa*, and without a period of quarantine, from Mediterranean countries, Australia, New Zealand, Canada, and continental states of the USA, bearing in mind that some of these countries are contaminated.

The bacterium was also recently detected by the Plant Health Laboratory (ANSES-LSV) in Angers on 22 March 2012 in a sample of *Coffea* plants held by the Nestlé R&D Centre in Tours, and coming from Ecuador. The sample had been transported to France as a cutting/bare root seedling. Import of *Coffea* seedlings intended for planting in the European Union requires a plant health certificate, although Directive 2000/29/EC does not stipulate any specific requirements concerning *X. fastidiosa*.

In addition, a joint review on *X. fastidiosa* was carried out in late 2011 by ANSES and the DGAL for the General Secretariat for Defence and National Security (SGDSN), as part of a case study on accidental introduction of this bacterium into French territory.

Purpose

The review of current knowledge carried out by the Agency involved a simplified risk assessment for *X. fastidiosa*:

- Background
- Assessment of the pest risk
- Management of the pest risk

2. ORGANISATION OF THE EXPERT APPRAISAL

General organisation

The expert appraisal was carried out in compliance with Standard NF X 50-110 "Quality in expertise activities – general requirements of competence for an expertise activity (May 2003)".

The Biological Risk Assessment Unit of the Plant Health Laboratory called on two expert rapporteurs to produce this report. The report was based on a literature review carried out on the subject.

The expert assessment of the rapporteurs was submitted to the Expert Committee (CES) on Biological risks for plant health for appraisal of both methodological and scientific aspects. The rapporteurs' report takes into account the remarks of the members of the CES and additional data they provided.

The work is therefore based on contributions from a group of experts with complementary skills.

Method

Searches, data collection, classification and literature reviews were conducted on all the subjects presented above. Several search configurations were combined in Scopus, one of the major databases for scientific publications that includes Medline and ScienceDirect. Scopus contains nearly 18,000 peer-reviewed journals, issued by more than 5000 international publishers, and more than 1200 open-access journals.

The literature search in Scopus was complemented by an iterative search in the reference lists of the main articles identified, and on the internet via the Google search engine.

Additional data on insects were obtained by consulting the Fauna Europaea database and on agricultural statistics through the Eurostat and Agreste databases.

3. ANALYSIS AND CONCLUSIONS OF THE EXPERT COMMITTEE

X. fastidiosa is a complex species with a sub-species structure and a very wide range of hosts, some of which are important crops for agriculture and the environment in France. *X. fastidiosa* is classified in Annex 1, Part A, Section 1 of Directive 2000/29/EC. This organism is not officially found in the European Union. The bacterium was recently detected on a *Prunus* plant in an orchard in the Drôme *département,* but this case was not confirmed. It was also detected on *Coffea* seedlings in covered research facilities in the Touraine area.
X. fastidiosa is a bacterium of the xylem that is transmitted from plant to plant by vector insects or during grafting, cutting or seeding procedures. In France, potential insect vector species exist, but there is still uncertainty about the effectiveness of transmission by these species.

- Probability of entry of the organism into the PRA (pest risk analysis) area: moderately likely
- Probability of establishment of the organism in the PRA area: moderately likely
- Speed of dissemination of the organism in the PRA area: moderate rate
- Economic and environmental impact of the organism without official control: major
- Potential of the organism to act as a vector of plant disease: none
- Probability of continuing to exclude the organism from the open-air PRA area: likely
- Probability of continuing to exclude the organism from the covered crop PRA area: likely
- Probability of eradication of outbreaks if the organism becomes established in the PRA area: very unlikely.

Available management options to contain and control the organism:

- Plant health certificate or ban on import of host plants not referenced in Directive 2000/29/EC coming from contaminated regions
- If the organism becomes established in certain regions of the PRA area: European plant passport (EPP)
- Removal of infected host plants from an area that is wider than the initially identified area, due to disease latency (target crops and plants in the environment)
- Disinfection of cutting equipment
- Treatment with an insecticide
- No biological or chemical control is available targeting this bacterium.

A cost-benefit analysis would help to determine the effectiveness of the proposed control measures.

4. CONCLUSIONS AND RECOMMENDATIONS OF THE AGENCY

ANSES concludes that:

X. fastidiosa represents a real threat to many plant production sectors and to the environment in France. The regulatory measures (2000/29/EC) in place have contributed to protection of mainland France from invasion by this organism that is widely distributed in North and South America. There is however still uncertainty concerning the presence of the bacterium in France.

ANSES recommends:

- Reviewing import channels to France for host plants for non-agricultural use, so that all possible introduction routes may be taken into account.
- Determining the presence or absence of *X. fastidiosa* in France, and assessing the effectiveness of transmission by Cicadellidae present in Europe.

The Director General

Marc Mortureux

KEY WORDS

Xylella fastidiosa, Simplified risk assessment