EFSA News

Xylella fastidiosa: 'Together we can find solutions'

The whole EU territory is at risk from *Xylella fastidiosa*, and the more the scientific community works together on this issue, the quicker we'll be to find solutions to tackle this pest." That was how Claude Bragard, chair of EFSA's Panel on Plant Health, summed up the importance of the conference on *X. fastidiosa* held in Corsica this week.

Around 350 plant health specialists from around the world attended the conference for two days of intensive discussions on how science can help find solutions to the plant pest that is causing environmental and economic damage across Europe. Hundreds of people followed proceedings via a special live web streaming of the event.

Prof Bragard praised the commitment of the conference participants, saying: "Science should not be kept in an ivory tower, and is better used when shared to inform collective knowledge."

Giuseppe Stancanelli, head of EFSA's plant health team, added: "This was yet another successful conference – following on from the event we held in Mallorca two years ago – with hundreds of experts from many countries coming together to discuss what is known about *Xylella* and what research still needs to be done.

"What we know today paves the way for the prioritisation of new research and new scientific findings to help us better understand and control one of the most dangerous plant bacteria in the world."

Food Safety News

Nebraska feedlots prepare to test new European E. coli vaccine

By Dan Flynn on October 1, 2019

Commercial development is underway for a third E. coli O157:H7 vaccine for cattle to help prevent human illnesses with a Nebraska field trial set to begin soon.

Two North American vaccines developed since 2010 have proven their effectiveness, but for various reasons, including cost, they remain in limited demand in the marketplace.

A Scottish venture, led by Rosin Technologies in an agreement with Moredun Research Institute, Scotland's Rural Collge and Roslin Institute at the University of Edinburgh, has agreed to a commercial funding agreement for the third vaccine.

Roslin Technologies COO, Simon Wheeler, is the leader of the project. Principal investigators, professor David Gally of the Roslin Institute and Tom McNeilly of the Moredun Research Institute, will provide significant input.

"Drs. David Gally and Tom McNeilly performed extensive initial research on the vaccine " Wheeler said. "They've been doing the fundamental research necessary to understand whether the vaccine works and the essential science behind it."

Wheeler says the team remains intact as the vaccine reaches commercial development.

According to the new funding agreement, Roslin Technologies will perform a two-step validation trial from May to September 2020 in Nebraska.

"The biggest market for this vaccine is the USA and South America," said McNeilly. "To be commercially viable one has to show the vaccine works in their systems.

"We have a wonderful collaboration with the USDA, and they've agreed to run a field trial in Nebraska with the help of Roslin Technologies."

A license for the third vaccine will require positive results from large scale trials, including those involving the U.S. feedlots. McNeilly and Gally will design and execute the field trials, monitor the cattle, administer the vaccine, and collect the data.

"I'm delighted that Roslin Technologies has invested in the vaccine as it allows the chance for what's been over a decade of work, investment and research go to the next phase," Gally said.

He also said the investment means the Scottish team "can build collaboration with U.S. partners to understand how the vaccine works."

The experimental vaccine works by limiting E. coli O157:H7 shedding from and transmission between cattle. Although the bacteria do not harm the cattle, farmers, and ranchers will be encouraged to vaccinate animals against infection to prevent future harm to humans.

The team is looking for results that are both more effective and more affordable than the two vaccines developed in the U.S. and Canada.

As it moved to the commercial phase, Rosin Technologies put its chief technology officer,

professor Jacqui Matthews, in overall charge of the vaccine project.

E. coli O157:H7 is a serotype of the bacterial species Escherichia coli and is one of the Shiga toxin-producing types of E. coli. It is a cause of disease in people, typically foodborne illness, through consumption of contaminated and/or raw food, including unpasteurized milk and undercooked ground beef.

The United States, along with the United Kingdom, Argentina, and Sweden, has clusters of more virulent strains of the pathogen. According to Roslin Technologies, E. coli O157:H7 causes 1 to 10 infections per 100,000 people.

People are at risk when they come in contact with cattle feces or indirect contact with contaminated water, food, or the environment. E. coli O157: H7 can cause everything from diarrhea to renal failure from the toxins produced by the bacteria.

EU votes against renewing chlorpyrifos approval

European officials have voted not to renew the approvals of chlorpyrifos and chlorpyrifos-methyl. Chlorpyrifos and chlorpyrifos-methyl are insecticides to control insect pests on a range of crops. Chlorpyrifos-methyl is also used to treat stored cereal grain.

This past week at a meeting of the Standing Committee on Plants, Animals, Food and Feed (PAFF) member states voted on two draft implementing regulations proposing to not renew their approvals. The committee also discussed renewal of metalaxyl-M, foramsulfuron and approval of Lcysteine.

Newly-appointed European Commissioner for Health and Food Safety, Stella Kyriakides, welcomed the decision on Chlorpyrifos.

Once the European Commission formally adopts the regulations, which is expected in January 2020, member states must withdraw all authorisations for plant protection products containing the active substances. A period of grace for final storage, disposal and use of a maximum of three months may be granted by countries. After that, such products cannot be put on the market or used in Europe.

Decision backed by campaign groups
Chlorpyrifos is a commonly used pesticide in Europe and its residues can be present in fruits, vegetables, cereals and dairy products, as well as drinking water.

Genon K. Jensen, executive director of the Health and Environment Alliance (HEAL), said the ban was a "major win" for the healthy development of children and future generations.

"While we can't take away the decades of exposure to these substances and the associated neurodevelopmental impacts, the new Commission can make sure this doesn't continue to happen with other substances by committing to decreasing Europe's dependency on pesticides and addressing remaining loopholes in evaluation processes."

Angeliki Lyssimachou, science policy officer at Pesticide Action Network Europe, said human health has been put above industry interests and private profit.

"It took an overwhelming amount of evidence – showing that chlorpyrifos insecticides may cause brain toxicity in children – for the European Commission to propose a ban; member states voting against it would had left European citizens in complete despair."

Nabil Berbour, campaign manager at SumOfUs, said European citizens are more and more concerned by dangerous pesticides on their plates.

"The EU is the largest single market in the world and the most powerful trading power, so we hope this ban will pave the way to other bans elsewhere in the world."

In April 2019, the European Food Safety Authority (EFSA) and member states discussed the human health assessment of chlorpyrifos and chlorpyrifos-methyl. Experts found concerns related to human health due to possible genotoxicity and developmental neurotoxicity. The Commission then mandated EFSA to provide statements on the main findings on health for the two substances.

In August, EFSA confirmed concerns for health have been identified and safe levels of exposure cannot be determined based on available data. The agency concluded the approval criteria for health in EU legislation are not met.

The Commission is discussing a draft regulation with member states to lower Maximum Residue Levels (MRLs) of chlorpyrifos and chlorpyrifos-methyl in food and feed to the lowest level that can be measured by analytical laboratories. A vote on this is expected in February 2020.

Situation in the United States
Chlorpyrifos has been banned in Hawaii and California, and a ban in New York ban is pending the governor's signature.

Kristin Schafer, PAN North America executive director, said EU leaders have followed the science and taken a stand for public and environmental health, despite pressure from the pesticide industry.

"Unfortunately the U.S. government is not as strong in the face of such pressure. The politically appointed leaders of our Environmental Protection Agency flouted the recommendations of their own scientists, and reversed the planned ban of Dow's chlorpyrifos just weeks after meeting with representatives of the corporation in early 2017," she said.

"This kow-towing to industry pressure left another generation of U.S. children needlessly exposed to a brain-harming pesticide. We'll continue to support action at the state level here in this country, and heartily congratulate EU countries for doing the right thing."

Chlorpyrifos is a widely used pesticide in the U.S. on food crops, including apples, strawberries, cherries, pears, peaches, nectarines, and cherries.

"American children and farmworkers would not be exposed to this dangerous pesticide today if the Trump EPA had not ignored the advice of its scientists and kowtowed to the chemical agricultural industry," said Environmental Working Group president Ken Cook.

"Why should kids in France, Germany and Italy be protected from a brain-damaging chemical while U.S. kids continue to be exposed?"

Chance of negative food standards impact from Brexit rises

The likelihood of a negative impact on food standards from Brexit has increased, according to a report from Public Health Wales.

The document looks at evidence since January about the possible real-life effects Brexit could have on people's health and well-being in Wales. The United Kingdom held a referendum on June 2016 and voted to leave the European Union, a move that became known as Brexit.

It found the odds of some negative impacts, such as those relating to food standards or environmental regulations, have increased from possible to probable. This change has been mostly due to evidence of a potential negative impact on food standards in published United States trade objectives.

Kath Dalmeny, CEO of Sustain, has previously said research has shown the U.K. public will not exchange their food standards for a trade deal with the U.S.

"U.K. consumers know now that chlorine washes, hormone injections and overuse of antibiotics are used to mask poor hygiene and low animal welfare standards. We want a race to the top on food standards after Brexit, and will continue to press the government to protect our food and farmers' livelihoods."

In the Public Health Wales report, the likelihood of a major negative impact on the food supply has also increased from possible to probable. This was because of the increased chance of a no-deal Brexit leading to a possibly disrupted food supply in the short term.

The prospect of negative impacts on the food safety system is listed as probable and possible for food safety regulation. Both of these did not change in the latest report.

Professor Mark Bellis, Director of Policy and International Health at Public Health Wales, said it's easy to forget that Brexit is an issue that is already impacting many people in the country.

"That is why Public Health Wales has now conducted two assessments of how Brexit may affect the health and well-being of people living in Wales. Our latest assessment shows little evidence of change in the likelihood of positive impacts since our last analysis in January. On the other hand, we have seen the likelihood of other potentially negative outcomes increase."

The review's findings suggest that while Brexit will affect the whole general population, there could be vulnerable groups who may be particularly affected. For example, elderly people and those who have chronic conditions or disabilities, who require access to medication and health and social care services, and who may also be on a low income.

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