



## **International Stakeholder Workshop on Best Practice for the Control of Human Pathogenic Microorganisms in Plant Production Systems**

Report of COST Action CA16110 Huplant Control Stakeholder Workshop

Dublin, Sept 2nd-3<sup>rd</sup> 2019

This workshop, which was organised jointly by WP1, WP4 and WP5 of the Huplant COST Action CA16110 (<https://huplantcontrol.igzev.de/work-plan/>), brought together researchers, regulators, growers and other stakeholders focused on examining the impact of plant microbiomes and occasional occurrence of human pathogens on agricultural produce on human health. Participants included a multidisciplinary group of scientific experts including researchers in food microbiology, plant microbiology, soil microbiology, microbial ecology, agricultural production, horticulture, microbial pathogenicity and virulence, risk assessment and food safety management.



Photo: (Some) participants of the best practice stakeholder workshop pictured in Teagasc, Dublin (Sept 2019)



The aim of the workshop was to bring together relevant stakeholders to examine biological hazards and control strategies in plant production systems in order to ensure the microbiological safety of horticultural products. With a particular focus on examining interventions used across Europe, the regulatory landscape and undertaking risk analysis, the workshop aimed to generate a series of best practice recommendations that could feasibly be implemented by growers, and identify barriers to implementation of current best practice. A specific horticulture industry targeted event was held on the second day to disseminate the workshop outputs, and to incorporate the views and opinions of growers and processors. Furthermore, a tour of the horticultural research facilities in Teagasc was offered to participants at the end of the first day. The workshop was hosted in Teagasc food research centre in Dublin. In total 50 participants took part in the workshop over the 2 days.

The initial day and a half was divided into 3 main sessions: 'Protecting fresh produce from microbial pathogens', 'Control strategies and sampling', and 'Risk assessment and risk based sampling'. Each comprised of a series of overview talks by expert scientific, regulatory or advisory speakers followed by breakout sessions of participants that focused on a series of key questions.



Photos: Workshop participants hard at work at HUPLANT work best practice stakeholder workshop in Teagasc, Dublin. Ana Allende, CSIC presenting on current EC guidance on microbial safety of fresh produce (left) and participants taking part in breakout group sessions (right).

- 'The Protecting Fresh Produce from Microbial Pathogens' breakout session encompassed discussions on knowledge gaps around preventative measures designed to reduce risk, what the major hazards were and what advice could be given to growers towards identifying and controlling contamination sources.



- In the 'Control Strategies and Sampling' session discussions centred on disinfection of water, the impact and feasibility of hygiene and sanitary measures, the impact of agronomic activities on human pathogens in plants and whether agricultural practices aimed at directing microbial communities towards higher antagonism against human pathogens could be designed.
- On the 2<sup>nd</sup> day in the 'Risk Assessment' session discussions focused around what constitutes a risk, how risk should be assessed, risk assessment tools available to growers, knowledge gaps around risk and whether there was a value in sampling for pathogens within plant production systems.

A specific horticulture industry stakeholder event was held on the afternoon of the 3<sup>rd</sup> where participants were asked to voice their perspectives on what they saw as the biggest issues for growers with respect to potential contamination of produce with human pathogens and what they perceived as the missing gaps in knowledge. Participants also discussed which control measures they think are technical feasible/acceptable by consumers, policy makers, and companies, what information would be helpful to growers to better manage the risk of microbial contaminants in fresh produce and what form would they like to get information in?

The output of this workshop will be a report outlining a series of recommendations on management control procedures to control microbial contaminants in fresh produce



Photo: (Some) participants taking part in a tour of horticultural facilities at Teagasc Dublin, led by Michael Gaffney, Teagasc

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