The importance of food safety - before, during and after the covid-19 pandemic

This year, the whole world has experienced a pandemic that no one could have expected and no one really knows when the covid-19 pandemic is over. The impacts of the coronavirus was a shock to all but the situation we now have to deal with demonstrates the importance of food security, food safety and one health throughout the world.

To feed the world is one of the most important UN Sustainable Development Goals (SGDs, www.un.org). To feed the world citizens with safe food is even more important. Therefore, food safety is an issue with global importance and international cooperation is essential. The research project **LowImpact: ChiNor solutions for Low Impact climate smart vegetable production with reduced pesticide residues in food, soil and water resources** aims to tackle food safety challenges posed by pesticides with joint efforts of a internationalconsortium. The project is coordinated jointly by NIBIO Division for Biotechnology and Plant Health and the Chinese partner, the Institute of Plant Protection, Chinese Academy of Agricultural Sciences (IPP-CAAS) and is funded by National Natural Science Foundation of China (NSFC) and the Research Council of Norway (RCN) and further. The project consortium further include our national partner SINTEF Energy, and European partners in Spain, France and China collaborate in a Norway-China joint project since 2019**.**

To share the project outcomes and also the challenges encountered during the past year, the LowImpact consortium gathered for their annual project meeting virtually using ZOOM platform. During two half-day meetings held on September 23-24, all consortium partners except the University of Almeria in Spain, were assembled to present the results and discuss further plans for the joint research activities within the project. In addition to sharing the project outcomes since the project kick-off meeting October 2019, the LowImpact consortium partners spent sufficient time to discuss WP-specific results and challenges in 5 sub-groups (based on WP organization) and with a concluding plenary discussion. The online meeting was successful and a great solution to overcome the travel restrictions due to covid-19 pandemic.

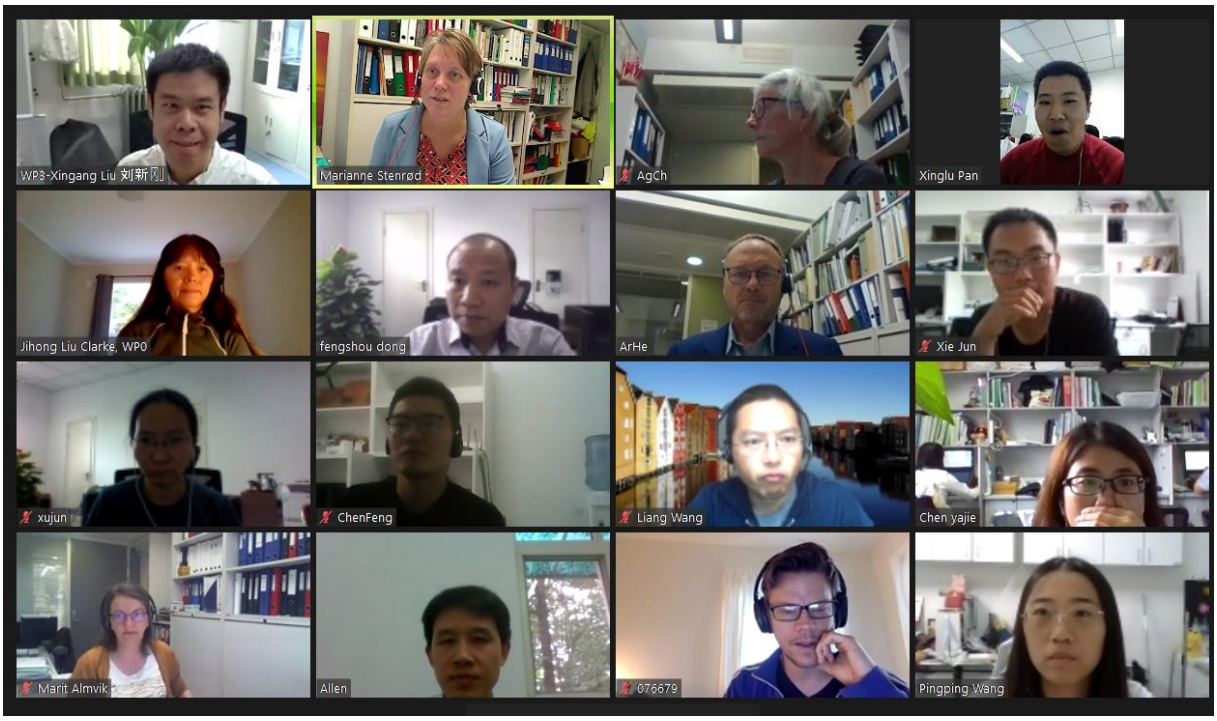


Fig.1: Screenshot of a selection of the meeting participants.

An invited talk given by Prof. Fengshou Dong, IPP CAAS provided an overview over the MRLs (maximum residue levels) recently (2019) established in China for a wide range of pesticides and food stuff. Prof. Dong is a committee member to the MRL development in China.

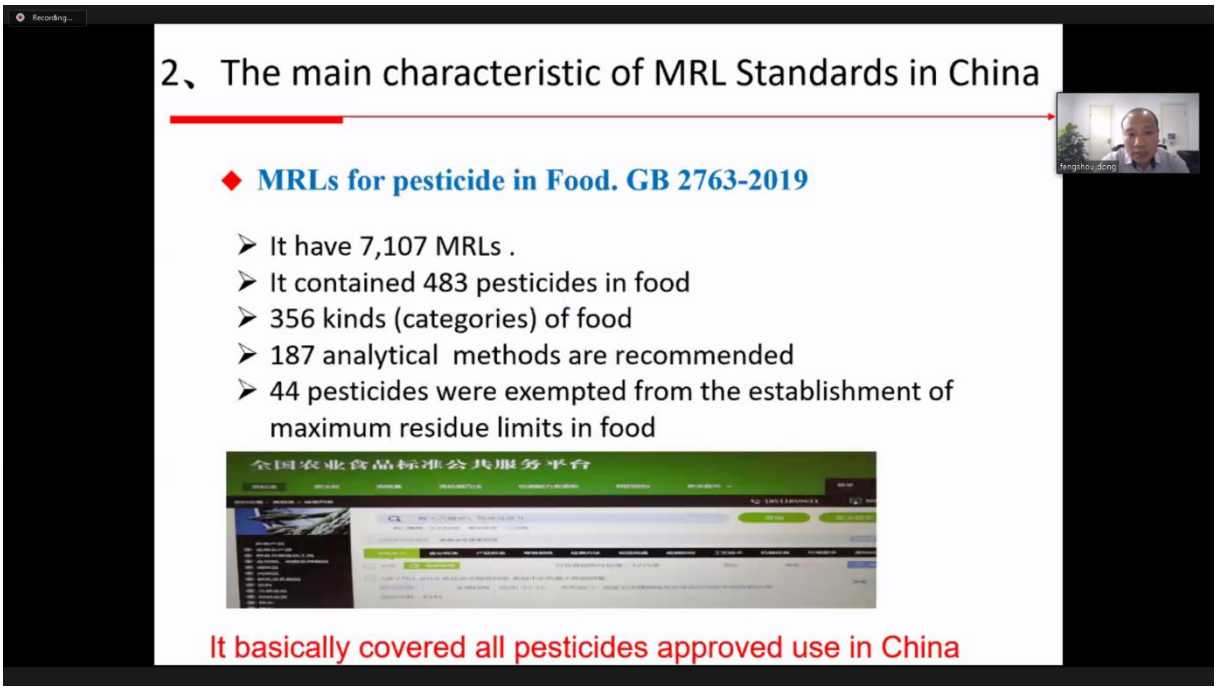


Fig 2: Screenshot of Prof. Dong's presentation.

The LowImpact project provides a platform for knowledge exchange about the European and Chinese regulatory systems aimed at securing food safety with regard to pesticide residues, as the University of Almeria holds the European reference laboratory for pesticide residues in fruit and vegetables and NIBIO holds the Norwegian national reference laboratory for pesticides in food of plant origin. Further, the project partner INRAE in Dijon presented the French and European perspective on the knowledge gaps for pesticide risk assessment, and contributed to the group discussions for research activities of pesticide impacts assessment in soil and potential effects on soil health.

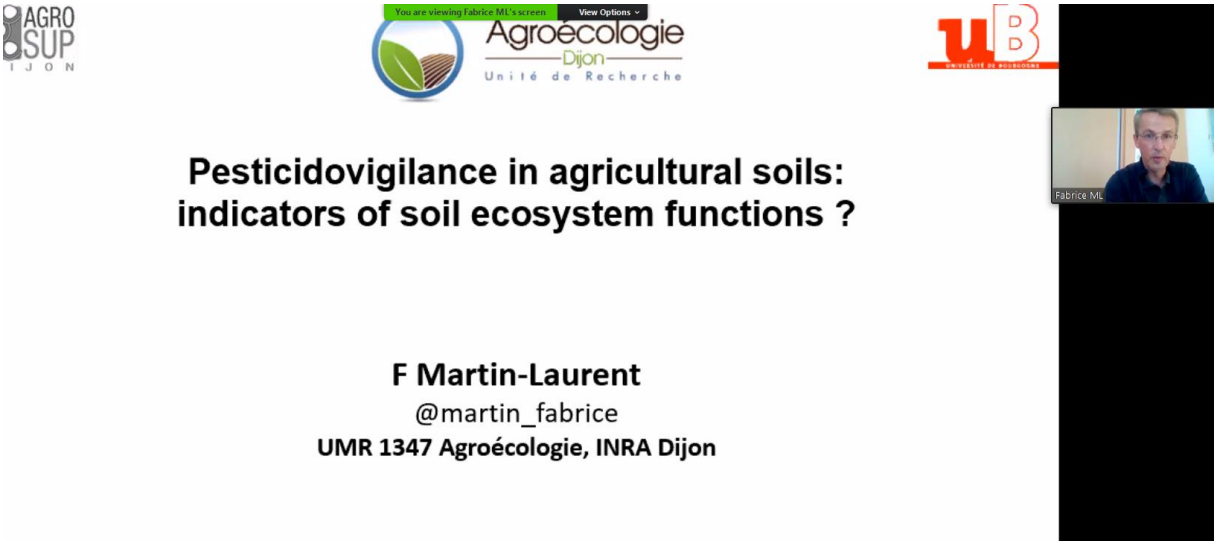
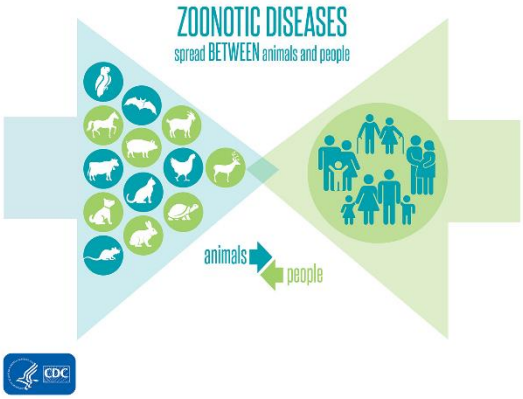


Fig 3: Screenshot of Research Director Martin-Laurent's presentation.

Despite the difficulties caused by the covid-19 pandemic, the LowImpact project has overcome these obstacles and achieved results in various aspects including 3 scientific publications in international journals and 6 conference/meeting presentations. Important results from the project so far include both analytical methods for suspect screening of 800 to 1000 pesticides and metabolites and modelling tools to predict pesticide concentrations, that will enable a better exposure assessment of pesticides in food and the environment. Specific effort is put into identifying and characterizing potentially toxic metabolites of pesticides that are formed under different environmental conditions. The tools that are developed in the project will help establish valuable knowledge for us to more effectively implement better future low impact production practices.

The LowImpact project can contribute to food safety and one health through our research and knowledge sharing and dissemination during and after the end of the project period in 2022.


ZOONOTIC DISEASES
spread BETWEEN animals and people
animals
people
CDC