

Bijlage 8

Onderzoeksthema's (RI-projecten): plantengezondheid - Euphresco update 22/03/2018

Topic code	Topic title
2018-A-289	Community Network for Plant Health Bioinformatics
2018-A-293	Phytosanitary risks of newly introduced crops
2018-I-296	Review of fumigants and other treatments for phytosanitary purposes
2018-I-298	Risk based sampling

2018-A-289 Community Network for Plant Health Bioinformatics

Short description

Next generation sequencing (NGS) is probably the most significant diagnostic technology to be explored in Plant Health since the adoption of PCR in the late 1980's. The technology is proving extremely versatile in Plant Health, enabling the sequencing of genomes which enables characterisation of emerging pathogens/pests and the selection of unique diagnostic markers for routine testing. In virology it enables us to rapidly characterise the cause of new diseases without the need for any a priori knowledge about the pathogen identity and is beginning to be used for rapid multiplex screening in certification schemes.

One of the main bottlenecks for NGS to be widely adopted as a diagnostic tool, is the data interpretation and bioinformatics. Often institutes do not have dedicated bioinformaticians or computational biologists, and if they have, these people tend to be working by themselves or in very small groups surrounded by lots of plant pathologists or diagnosticians. To help to improve this situation we propose a Community Network for Plant Health Bioinformatics which will bring together the bioinformaticians who are all working in plant health (virology, bacteriology, mycology, entomology, nematology) to achieve for example: active experience and data analysis pipelines exchange, harmonisation of bioinformatics tools used in plant health and intensify the development of plant health oriented bioinformatics solutions.

Description of the end product

An established support network of bioinformaticians working in Plant Health to enable the network partners to maximise the impact of NGS techniques.

Provisional other funders (update 22/03/2018)

- Ministry of Agriculture Foresty and Food, Slovenia
(Contact: Ms Erika Oresek, erika.oresek@gov.si)
- Institute for Agricultural and Fisheries Research, Belgium
(Contact: Mr Kris De Jonghe, kris.dejonghe@ilvo.vlaanderen.be)
- Department of Plants, Ministry of Food, Agriculture and Fisheries, Denmark
(Contact: Mr Mogens Nicolaisen, mogens.nicolaisen@agro.au.dk)
- French Agency for Food, Environment and Occupational Health, France
(Contact: Ms Géraldine Anthoine, geraldine.anthoine@anses.fr)

- Canadian Food Inspection Agency – Plant Research & Strategies, Canada
(Contact: Dr. Jamie Schnell, Jaimie.Schnell@inspection.gc.ca)
- Council for Agricultural Research and Agricultural Economics Analysis, Italy
(Contact: Mr Luca Riccioni, luca.riccioni@crea.gov.it)
- National Institute for Agricultural Research and Food Technology, Spain
(Contact: Ms Elena Rodriguez, rodriguez.elena@inia.es)

Provisional project duration

1 – 3 years

2018-A-293 Phytosanitary risks of newly introduced crops

Short description

In recent years, a tendency towards cultivation of alternative crops has been shown. Often, such “new”, “forgotten” or “exotic” crops are grown locally and marketed in the short food supply chain, including community supported agriculture initiatives and non-commercial trade. When these amateur crops are grown close to main crops, they may pose a threat for commercial production and even more if some of these crops would be more widely cultivated in the future.

The associated phytosanitary risk can be illustrated by a recent finding of multiple viruses, including quarantine or quarantine like on *Ullucus tuberosus* (Ulluco) grown for the non-commercial market in the United Kingdom. A number of these “new” seed tubers originate from the Andes area, though other regions could be non-negligible.

The project is aimed to:

- Identify the variety, origin and distribution of “new” crops
- Perform a survey of plant pathogens associated with plant propagation material and marketed crops
- Assess phytosanitary risks of “new” crops
- Explore risk management options in order to control the identified phytosanitary risks

Description of the end product

Improved knowledge of distribution and phytosanitary risks of “new” crops

Provisional other funders (update 22/03/2018)

- French Agency for Food, Environment and Occupational Health, France
(Contact: Ms Géraldine Anthoine, geraldine.anthoine@anses.fr)
- Netherlands Food and Consumer Products Safety Authority, The Netherlands
(Contact: Mr Martijn Schenk, M.Schenk1@nvwa.nl)
- Federal Ministry of Food and Agriculture, Germany
(Contact: Ms Silke Steinmöller, silke.steinmoeller@julius-kuehn.de)
- Department for Environment, Food and Rural Affairs, United Kingdom
(Contact: Ms Belinda Phillipson, belinda.phillipson@defra.gsi.gov.uk)
- Canadian Food Inspection Agency – Plant Research & Strategies, Canada
(Contact: Dr. Jamie Schnell, Jaimie.Schnell@inspection.gc.ca)
- Council for Agricultural Research and Agricultural Economics Analysis, Italy
(Contact: Mr Sauro Simoni, sauro.simoni@crea.gov.it)
- Department of Agriculture, Food and the Marine, Ireland
(Contact: Mr James Choisel, james.choisel@agriculture.gov.ie)

Provisional project duration

> 2 years

2018-I-296 Review of fumigants and other treatments for phytosanitary purposes

Short description (update 22/03/2018)

A review of the many chemicals and procedures developed for the mitigation of phytosanitary risks encountered during export and import of plant products, to guide further development and inform risk assessors and risk managers what treatments have been devised and tested, and on what products, in the last ten years.

It is anticipated that much information on this topic will be found in non-English scientific publications, in particular those published in Chinese languages. In order for a robust analysis of the literature to be conducted, it will be important to have someone who can access these publications. Participation from representatives from China or others who speak Chinese languages should therefore be sought.

Description of the end product

Review paper

Provisional other funders (update 22/03/2018)

- Canadian Food Inspection Agency – Plant Research & Strategies, Canada
(Contact: Dr. Jamie Schnell, jamie.schnell@inspection.gc.ca)
- Department for Environment, Food and Rural Affairs, United Kingdom
(Contact: Ms Belinda Phillipson, belinda.phillipson@defra.gsi.gov.uk)

Provisional project duration

> 2 years

2018-I-298 Risk based sampling

Short description

Risk-based sampling combines evidence and statistics to inform inspection strategies that allow to detect pests and diseases in a more systematic manner, thereby optimising the effectiveness and efficiency of inspection activities.

At the last EPPO Workshop on Phytosanitary Inspectors (2017-12-13/15), it was noted that NAPPO is planning to co-ordinate the development of a Risk Based Sampling training manual (following the NAPPO International Symposium for Risk-Based Sampling held in Baltimore (US) in June 2017). The support from other regions to the initiative is highly relevant.

A project is consequently suggested to streamline the EPPO region involvement in this important topic and ensure broad involvement of senior inspectors in the development of such manual.

The project would aim at

- a) Establishing a group of experts to support NAPPO in the development of the manual on risk based sampling.
- b) Reviewing and describing case studies from across the region to identify the main methodologies regarding risk based sampling.
- c) Investigating possible tools to support risk based sampling.

Description of the end product

Report on risk based sampling

Provisional other funders (update 22/03/2018)

- European and Mediterranean Plant Protection Organization (EPPO), France (Contact: Ms Françoise Petter, fp@eppo.int)
- Netherlands Food and Consumer Products Safety Authority, The Netherlands (Contact: Mr Martijn Schenk, M.Schenk1@nvwa.nl)
- French Agency for Food, Environment and Occupational Health, France (Contact: Ms Géraldine Anthoine, geraldine.anthoine@anses.fr)
- Department of Agriculture, Food and the Marine, Ireland (Contact: Mr James Choiseul, james.choiseul@agriculture.gov.ie)

Provisional project duration

1-2 years