

# PHC Bulletin Newsletter

Updating you on recent activities of the Plant Health Centre

Issue 5, June 2021

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# **PHC News**



#### Welcome to Issue 5

Welcome to the June edition of our news bulletin. It's hard to believe that we are already halfway through the year, and while there are still some restrictions on what we can do it's fantastic to see how much has opened up again, even compared to when the last bulletin was circulated in April. It's great to see that some in-person events are starting to return to our calendars, mostly the outdoor ones of course, but everyone at the Centre is really looking forward to some face-to-face catch-ups with our plant health colleagues and stakeholders.

## Conference success

Spring would normally have seen Scotland's Plant Health Conference take place, an event shared between ourselves, Scottish Government, HTA, NatureScot and Scottish Forestry, but we all decided that this works much better as an in-person event, and should be postponed until later in the year or early 2022. To keep the cross-sectoral plant health dialogue in Scotland open in the meantime, we hosted our own mini-conference on the 3rd of June - which hopefully many of you were able to attend (if not then please go to the Events section of this bulletin for links to recordings of the presentations), and it was fantastic to be able to share our recent work and plans for the future with so many at a live online event.

#### Ministerial changes

These recent months have also seen changes to ministerial portfolios in the Scottish Government. Mairi Gougeon in now Cabinet Secretary for Rural Affairs and Islands, with Màiri McAllan appointed as Depute and as Minister for Environment, Biodiversity and Land Reform. We would like to take the opportunity to welcome the new Cabinet Secretary and Depute to their roles, and we anticipate a productive and dynamic future relationship with them both.

#### *Research about tree borer threats*

The last few months have seen several items published on tree borers; Forest Research released a briefing note on threats to European trees from the emerald ash borer and bronze birch borer which our forestry Sector Lead Chris Quine described as "Good context for our commissioned project on BBB". Our project being 'A preliminary investigation into the threat of Bronze Birch Borer (BBB - Agrilus anxius) for Scotland', led by Katy Dainton at Forest Research. A recent publication on EAB by researchers at the University of Cambridge's Epidemiology and Modelling Group 'Predicting the potential for spread of emerald ash borer (Agrilus planipennis) in Great Britain: What can we learn from other affected areas?', predicts that "EAB could establish and spread across large parts of southern England within a relatively short time period; however, further northern spread may be limited by the relatively cool climate". This compliments research by the Plant Health Centre's former fellow Vincent Keenan who found that while Scotland may be less favourable for emerald ash borer than other parts of the UK currently, our suitability will increase under predicted climate change scenarios. See Vincent's recently published policy summary for more details. On the subject of climate change, Forest Research have recently published fact sheets on climate change and tree diseases, and diseases of tree foliage.

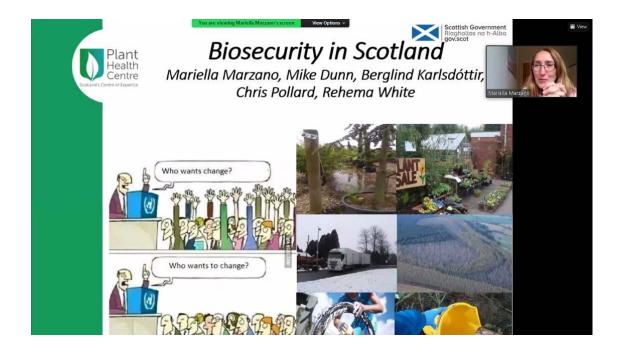
#### Plant Health Week

The UKs Plant Health Week began on the 10th of May and saw a flurry of public-facing communications to raise the profile of plant health, and the part everyone can play to protect our plant based assets. For our part, we published blogs on 'the Ethics of Detection' by David Kenyan (SASA) and Sarah Green (Forest Research) and on 'Identifying strategies to help tackle the growing threat of PCN to the Scottish potato industry' (see our blog section of this bulletin). We also reminded everyone of our Key Principles to minimise plant health risks in Scotland, and hosted 'a day in the life of a crop doctor' by Maciej Kaczmarek (SRUC) on our YouTube channel. During plant health week, APHA asked people to pick the name for the assistant of Issy the Inspector, a character that will help teach kids about the importance of plant health. Three Scottish names had been shortlisted and in the end the public chose to call Issy's assistant - 'Midge'.

I hope that you enjoy reading the rest of our bulletin, covering our recent publications, recent and future events, and a featured blog. I have my fingers crossed that by the next edition of this bulletin we will have had the chance to leave our computers and see a lot of you in person!

- Sonia Humphris, Plant Health Centre Manager

Image by StockSnap from Pixabay



## Successful Online Event

On the 3rd of June the Plant Health Centre hosted an online two-hour 'mini-conference'. We recorded the live session, and the videos for each of the presentations and their respective Q&A sessions have been uploaded to our YouTube channel:

- 1. Welcome and Introduction
- 2. Overview of the Plant Health Centre's Activities
  - 3. Pesticide Withdrawals
  - 4. Biosecurity Risks to Scotland
    - 5. Plenary Discussion

And remember that our <u>Virtual Poster Room</u> will also be kept live going forward, and added to over time, as well as a <u>quick survey</u> if you have any plant health needs in your sector that you would like to tell us about.

### **Event Cancellation**

Our Agriculture Sector Lead, Fiona Burnett and SRUC colleague Henry Creissen were due to have a demonstration on the <u>Scottish IPM assessment plan</u> (hosted on the Centre's website) at the LEAF Technical Day on the 22nd of June 2021. Unfortunately, this event has been cancelled by the organisers - but we will be moving Fiona and Henry's demonstration content onto our website soon.

## **Publications**



Since our last edition of this bulletin, we have published one report and two policy summaries from Plant Health Centre funded projects.

The project "Metabarcoding analysis of *Phytophthora* diversity in spore traps and implications for disease forecasting in the *P. ramorum* management zone" is now complete, and the final report and policy summary can be found here. Acknowledging that surveillance and monitoring of airborne pathogens is a key tool in the management of healthy forests and controlling disease outbreaks, the project validated different spore-trapping techniques for monitoring airborne *P. ramorum* inoculum using a species-specific qPCR diagnostic assay, as well as investigating the suitability of DNA metabarcoding to screen spore trap samples for *P. ramorum* and other *Phytophthora* species. The project recommended; the use of both rain and wind-borne spore capture methods due to the variety of weather conditions under which *Phytophthora* can disperse; that lineage testing in Southwest Scotland should be carried out, and; that the development of a new DNA barcode more specific to *Phytophthora* would be beneficial.

As mentioned in the introduction, our former modelling fellow Vincent Keenan, along with colleagues Adam Klezckowski (University of Strathclyde) and Glenn Marion (BioSS) prepared a policy report titled 'Assessment of suitability for EAB invasion for Scotland and the UK'. Their modelling of climatic and ecological variables has shown that southern England is a highly suitable habitat for EAB, and while Scotland is currently less favourable, they project that we will become increasingly suitable for EAB under climate change.

All our existing publications can be found on our <u>website</u>.

Image is of *P. ramorum* damage by Black Loch

# Blog Spot - Identifying strategies to help tackle the growing threat of PCN to the

# **Scottish potato industry**



Authors: Ian Toth and Vivian Blok (James Hutton Institute)

Potato is a very nutrient rich crop and so, not surprisingly, as well as it being a popular food for us, lots of other organisms also try to feed on it, either while plants are growing in the soil or during storage. These unwelcome visitors are carefully controlled by growers who try to reduce crop losses to a minimum. Even so, across Europe, somewhere between 15-25% of the potato crop may be lost to pest and pathogen damage.

Potato cyst nematode (PCN) is one such pest and is the scourge of potato production in many countries. Once present in the soil it can severely limit potato plant growth and yield, and is easily spread between fields either on plant material or machinery. Because PCN can remain dormant in the soil for decades, once land is infested it is very difficult to remove.

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Please visit our website to read the rest of <u>Ian and Vivian's blog</u>, about the working group of over 50 people including Government, industry and academia representatives working together to identify potential solutions to tackle PCN and ways to put these solutions into practice.

Image is of potato cyst nematode (*Globodera rostochiensis*), second stage juveniles and eggs - Ulrich Zunke, University of Hamburg, Bugwood.org, licenced under a Creative Commons Attribution-Noncommercial 3.0 License.



The Plant Health Centre is a virtual centre of expertise funded by Scottish Government through RESAS (Rural and Environment Science and Analytical Services Division) to help tackle plant health challenges for Scotland





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