

[View this email in your browser](#)

PHC Bulletin Newsletter



Updating you on recent activities of the Plant Health Centre

Issue 12, June 2023

In this Bulletin



PHC News



New Projects



Publications

Scotland's
Plant Health
Conference
2023

Thursday 1st June,
Novotel Edinburgh Park



Events

PHC News



Welcome to Issue 12

Welcome to the June edition of our news bulletin. In this issue we have exciting news to share with you about the future of the Plant Health Centre, as well as updates on recently commissioned Centre projects, reports from PHC-funded work that has been completed since our last bulletin, and in our events section a summary of the Scotland's Plant Health Conference 2023 that ran on the 1st of June.

Plant Health Centre Recommissioning

It is our absolute delight to let you know that the Scottish Government, through RESAS, has recommissioned the Plant Health Centre with an investment of £3.3M over the next five years. This was officially announced by Ms Lorna Slater (Minister for Green Skills, Circular Economy and Biodiversity) at Scotland's Plant Health Centre 2023. This means that we can continue our work of, as Ms Slater said, "providing the Scottish Government with interdisciplinary evidence-based research to inform policy across agriculture, horticulture, forestry and the natural environment. Their evidence-based research is provided to Gerry, our Chief Plant Health Officer for key initiatives like our emergency response plans, and horizon scanning to identify threats to rural industry."

Much of the structure of the PHC remains the same as was established five years ago - we are still a partnership between four main organisations (the James Hutton Institute, Forest Research, the Royal Botanic Gardens Edinburgh and SRUC), with the secretariat based out of Hutton. Prof Ian Toth continues as Centre Director, as do the Sector Leads: Prof Fiona Burnett (Agriculture), Prof Chris Quine (Forestry) and Prof Pete Hollingsworth (Horticulture and Natural Environment). Dr Sonia Humphris continues as Centre Manager, with Dr Damian Bienkowski as Centre Facilitator and Deputy Manager. In addition, we are happy to announce that there are some new faces joining the PHC team in this second phase of the Centre - new roles we have termed "Impact Officers" have been appointed for our four sectors, who will help us to make sure that the findings and recommendations from our work reaches our stakeholders, as well as improving the flow of plant health concerns back to us to inform our commissioning process. The Impact Officers are Dr Katy Hayden (Horticulture), Dr Lisa Ward (Forestry), Dr Henry Creissen (Agriculture) and Dr Matt Elliot (Natural Environment). We will also be bringing on board a Communications Officer, who we are in the process of recruiting currently.

We are all looking forward to building on the foundation that the last five years has given us, and doing what we can to help protect Scotland's plant-based assets!

As always, please don't hesitate to get in touch with us (details at the end of this email) if you have any issue around plant health in Scotland that you would like to highlight, or questions that you have about our work.

-Sonia Humphris, Plant Health Centre Manager

New Projects



In the past few months, we have advertised and awarded three calls:

First is project [“PHC2022/02: Understanding farmer / agronomist perceptions for decision making in crop health and the impact of that on key metrics such as IPM scores and pesticide usage”](#). This project builds on previous PHC-commissioned research into IPM uptake, and seeks to improve the flow of IPM knowledge and its uptake to increase the resilience of Scotland's crops to pests and diseases, whilst reducing reliance on pesticides. PHC2022/02 will be delivered by a consortium led by Dr Henry Creissen at SRUC, with collaborators at The James Hutton Institute, SASA and Angus Growers.

Second is project [“PHC2022/03: Potential of biocontrol for the sustainable management of plant diseases in Scotland: Opportunities and barriers”](#). This project aims to improve our understanding of the potential of microbial biocontrol agents across sectors in Scotland, synthesising findings from workshops with stakeholders and a literature review. PHC2022/03 will be delivered by a team led by Dr Helen Rees at SRUC and includes collaboration from the Royal Botanic Gardens Edinburgh.

Our third project call was our first open call titled “Enhancing preparedness against pests and diseases: plugging evidence gaps for Scotland”, where research teams got to put forward their ideas for important research to support plant health in Scotland. We received many high-quality applications, and we would like to thank everyone who put time and care into their submissions. We were able to fund four of these projects, which are as

follows (in no particular order):

PHC2022/04: Assessing long-term resilience of Scottish Sitka spruce forests to climate change and novel pests, delivered by Prof Adam Kleczkowski and a consortium including University of Strathclyde, Forest Research, Scottish Forestry and Forestry and Land Scotland. This project will leverage the results of previous PHC-funded projects, updating a Decision Support Tool (PHC2018/14) with key processes and parameterisation for *D. micans* and a preliminary parameterisation for *I. typographus* (including biocontrol effects and improving the economic module), which the project will make available online for policy makers.

PHC2022/05: Interdisciplinary analysis of plant health threats to Scotland, delivered by Prof Daniel Bebber (University of Exeter) in collaboration with colleagues from the James Hutton Institute. The project will combine biophysical modelling with social science methods to analyse the threat from emerging crop pests and pathogens to agriculture in Scotland, informing future detection and surveillance efforts, sharing this with stakeholders and identifying priority knowledge gaps for further research.

PHC2022/06: GIbase 2.0: Enhanced preparedness in Scotland's Green Infrastructure, delivered by Dr Harry Watkins (St Andrews Botanic Garden Trust) with collaborators from Forest Research and the Urban Plant Initiative (Myerscough College, Gothenburg Botanic Garden). Built as part of PHC2019/05, GIbase 1.0 recorded publicly available data held on planning portals to create a database of plants specified in development projects in Scotland over the past five years. This project will build on GIbase 1.0, with a higher-resolution update and will also develop assessments of the plant health risks associated with GI projects (using the UK plant health risk register).

PHC2022/07: Understanding an emerging health threat to Scots pine (Pinus sylvestris), delivered by Dr Sarah Green (Forest Research) in collaboration with a colleague at the Royal Botanic Garden Edinburgh. PHC2022/07 was proposed due to unusual disease symptoms reported on Caledonian Scots pine (*Pinus sylvestris*). PHC2022/07 will carry out a targeted survey of Caledonian pine in Scotland to assess the extent and incidence of symptoms and their cause.

We have one further project that has recently been commissioned, which we are co-funding (50%) with Defra - *PHC2022/08: Plant Biosecurity Resources – Increasing the accessibility of notifiable plant pest information for professional operators*. This project addresses concerns that stakeholders, many of which will be registered as professional operators and issuing plant passports, are lacking confidence in their notifiable pest risk knowledge. PHC2022/08 will create summary overview documents that cross references the 39 notifiable pests (from the PHRR) with management measures and the requirements of the Plant Health Management Standard. Therefore, plant pest information will be presented in manner to support businesses and organisations conduct a Site and Operations Pest Risk Analysis.

Needless to say, we are very excited about the latest tranche of PHC commissioned projects that have recently commenced, and the breadth and quality of tools and information they will add to Scotland's Plant Health landscape, and the strong level of stakeholder engagement that each of these projects includes.

Publications



Since our last bulletin, we have four final reports from commissioned projects live on our website. We strongly encourage you to read the full reports and policy summary documents, as the descriptions below do not do them justice.

PHC2021/01: Biosecurity practices to support plant health: a review of knowledge and practice. This research investigated plant biosecurity risks from site visitors, tools & equipment, and large machinery. In addition to reviewing published guidance, UK businesses and organisations were engaged via questionnaires and interviews to explore how these aspects of biosecurity are understood and what procedures may be in place to address them. By better understanding the issues faced by individuals attempting to protect their businesses and organisations from these risks, more appropriate guidance can be produced to help them. This review has gained a good understanding of current biosecurity practices across sectors in Scotland, highlighting the need for clear, evidence led, sector-relevant, biosecurity guidance for businesses and organisations managing the biosecurity risks associated with visitors, tool hygiene and machinery movement.

Biosecurity success is likely to depend on coordination across sectors through a shared understanding of the issues and aligned activity to address them. Assessing risk is very difficult for organisations and therefore a key recommendation of the report was the requirement for a simple resource showing the highest risk and notifiable pests for each sector that would greatly help organisations trying to understand risk.

PHC2021/02: Identifying the plant health risks associated with plant waste disposal and peat-free growing media and developing best practice guidance for waste disposal and composting across sectors. This research focussed on two areas of biosecurity that provide significant risk to plant businesses and the wider environment in Scotland, i) plant waste management, and ii) the constituents of reduced-peat and peat-free growing media. Workshops were conducted with stakeholders in plant production (horticulture, agriculture, and forestry), park and garden management and managers of the natural environment, and a review of policy and related literature was performed to increase understanding of current practices and identify barriers to change for these aspects of biosecurity. Diagnostic work was also undertaken to provide evidence of the biosecurity risks posed by *Phytophthora* spp. in plant waste heaps and constituents of reduced-peat and peat-free growing media. The results indicated that biosecurity risk from plant waste is high, with two quarantine-regulated species, *P. ramorum* and *P. austrocedri* being

identified. The findings also indicated that a thorough assessment of the potential plant health risks posed by each of the major constituents used in peat-free compost is required.

An evidence-led [best practice guidance leaflet](#) was produced to provide clear advice on how to achieve a well-managed waste disposal/re-use strategy. This guidance will become part of the Plant Health Management Standard so that organisations and businesses that are applying to become Plant Healthy Certified can identify what is required to raise their biosecurity standards.

[PHC2020/08: Modelling the spread of PCN in Scotland](#). Potato cyst nematodes (PCN) cost Scottish agriculture over £25 million/year and threatens food security in the developed and developing world. Improved understanding of PCN epidemiology is a priority for the Scottish potato industry, with spatial and temporal modelling identified by the recent PHC PCN working group as essential components. The aim of this project was to gain a better understanding of the spatial epidemiology of PCN in Scotland, by applying mapping, statistical and artificial intelligence (machine learning) techniques to existing landscape-scale datasets.

Several factors were shown to influence the presence of PCN in fields, either positively or negatively, which may help to better understand how management practices could be used to help reduce the presence of the pest. These principal drivers of PCN incidence were used to create a machine learning model that can predict PCN incidence to an accuracy of 82%. Further work is planned to develop predictive tools for PCN for the potato industry under the Scottish Government funded [PCN project](#) and [Strategic Research Programme 2022-2027](#).

[PHC2020/07: Enhancing the Plant Health Centre's communication with stakeholders](#). This project was commissioned to implement a selection of the recommendations made in the PHC stakeholder engagement strategy and communication plan. The team developed strategies to manage time and resources of the Plant Health Centre more efficiently regarding communication of outputs, general information on activities, aims and current issues related to plant health. Over the course of the project the social media presence of the Centre was increased, a website 'refresh' that improved accessibility of content was performed (the website now conforms to current accessibility criteria), and our slide template was redesigned. Recommendations on future collaborations and potential funding streams that the Centre could leverage to support new knowledge exchange initiatives and to improve Centre communication were captured in the final report.

Events



Scotland's Plant Health Conference, a mainstay of our events calendar, was held on the 1st of June 2023 at Novotel Edinburgh Park. One hundred and forty delegates attended this event, which is co-organised between the Plant Health Centre and Scottish Government, with HTA, NatureScot and Scottish Forestry as our partner organisations.

Ms Lorna Slater, Scottish Minister for Green Skills, Circular Economy and Biodiversity opened the event, launching a day of presentations that included Plant Health Centre projects, plant health policy updates - both UK (Nicola Spence, UK Chief Plant Health Officer) and Scottish (John Speirs, Scottish Government) - as well as presentations on the HTA's Scottish Environmental Horticulture Growth Strategy (Stan Green, Growforth Ltd), ending the sale of peat in Scotland (Ros McHugh, Scottish Government) and an update on tree health in Scotland (James Nott, Scottish Forestry). There was also a workshop on plant health in the natural environment, where Ruth Mitchell (James Hutton Institute), who has recently completed a Centre Fellowship, sought input from the delegates as to where priorities should lie, who could be the 'eyes on the ground' for surveillance, and what methods/training and reporting methods could be deployed to help protect Scotland's Natural Environment from plant health threats. We would like to extend an enormous thank-you to all presenters and delegates for coming together to make the conference a great success (as attested by the lovely comments made to the organisers on the day, and in the conference feedback form).

There was high demand for places this year, and we were sorry that there were several people who were keen to come but couldn't, since we hit capacity for the venue. Over the coming weeks the slides from presentations and electronic versions of the posters from the conference will be posted onto the Plant Health Centre Website for anyone who was not able to attend in person.

We look forward to Scotland's Plant Health Conference 2024, and hopefully we will see you there!



Scottish Government Riaghaltas na h-Alba gov.scot

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



Copyright © 2023 The Plant Health Centre, All rights reserved.

Want to change how you receive these emails?

You can [update your preferences](#) or [unsubscribe from this list](#).

