

PHC2022/03: Potential of biocontrol for the sustainable management of plant diseases in Scotland: Opportunities and barriers

Background: Previous PHC projects found that biocontrol is one of the elements of Integrated Pest Management (IPM) with a role to play in mitigating pesticide withdrawals (PHC2020/09 Economic Impact of Pesticide Withdrawals to Scotland, with Case Studies; PHC2018/15: Potential Impacts Arising from Pesticide Withdrawals to Scotland's Plant Health). However, it is currently unclear (a) how practical widespread microbial biocontrol is as a suitable alternative to pesticides in Scotland, (b) what the opportunities are for deployment across different sectors, and (c) what barriers exist to uptake (including regulatory barriers).

To provide a holistic overview of the potential future use of biocontrol agents, a review is required to understand what relevant previous work has taken place; the potential benefits for agricultural, horticultural, forestry and environmental applications in Scotland; and whether the current risk assessment framework and regulatory system is fit for purpose.

This is a call for a project team to undertake a review of the topic, and develop a position paper, outlining the current status and future potential role of biocontrol agents in Scotland.

Impact: Informed decision-making regarding microbial biocontrol use in Scotland to promote plant health

Objectives and research required for this call:

Improve our understanding of the potential of microbial biocontrol agents across sectors in Scotland, synthesising findings from workshops with stakeholders and literature review.

1. A workshop with stakeholders from agriculture, horticulture, forestry and the natural environment, to understand:
 - a) biocontrol methods currently being used in Scotland.
 - b) which approaches have potential for future application in Scotland.
 - c) what are the potential risks / concerns regarding their widespread application?
 - d) Is the current regulatory system sufficient to address these risks?

2. Summarise existing literature (including peer-reviewed papers and grey literature such as trade publications and internet material) to:
 - a) build a picture of the potential for biocontrol to mitigate pesticide withdrawal within IPM in Scotland.

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- b) assess current risk assessment framework to establish if it is fit for purpose for the wider application of biocontrol agents across the different sectors (agriculture, horticulture, forestry and the natural environment).
3. Clearly describe and categorise the situations in which biocontrol could be used in Scotland, taking into consideration regional variations in climate.

Outputs required from individual project:

- A Final Report (<20 pages of text excluding figures, appendices, and references) summarising the project findings, including key sources and recommendations for implementation or further work.
- An executive summary, acting as a standalone policy brief (1-2 pages).
- Attendance at briefing discussion with PHC Steering group to discuss findings and next steps
- Presentation at Scotland's Plant Health conference or any other relevant stakeholder meeting(s) to disseminate findings and contribution to other KE output such as the PHC virtual poster room or blogs.

Indicative key dates:

- Deadline for submission of applications: **12pm on 31st October 2022**
- Project start: by 28th February 2023
- Overview of plans and project start-up meeting with PHC Directorate: by 17th March 2023
- Final report: by end of August 2023
- Briefing meeting with PHC and Conference participation: dates to be confirmed

Detailed milestones to be confirmed by bidder.

Date all work needs to be completed by: 31st August 2023

Project type: Collaborative

Maximum funding available (including overheads and VAT, where applicable): Up to £25,000

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