

PHC2023/05: The impact of agricultural policy reforms on plant health risks in Scotland: Guidance on maximizing plant health benefits.

Background and knowledge gap: Upcoming major changes to agricultural policies in Scotland could have significant impacts on crop health (and by extension, crop yields). There could also be plant health implications to the wider natural environment if, for example, pesticide use is altered or if land is taken out of production for restoration work or other public goods. There is an urgent need, before the agricultural policy reforms are finalised, to review options and identify those that maximise plant health benefits, and those where risks to plant health might be enhanced, in order to consider any mitigations or best practice recommendations that could be put in place.

The Scottish Government has the ambition, through transformation of the system of rural payments and services, to make Scotland a “global leader in sustainable and regenerative agriculture” ([Agricultural Reform Route Map \(ruralpayments.org\)](https://ruralpayments.org)), and a suite of measures is being considered for support. Options that could be incentivised for arable systems include examples such as extended soil cover, efficient/ reduced use of synthetic inputs and greater crop diversity. It is possible that regular soil testing and the implementation of biodiversity plans may be promoted by future policy, but it is currently unclear whether this would include testing for soil health issues, or whether IPM plans will be included in Scotland, as has been introduced by Defra.

The implementation of these types of measures would constitute a significant change to conventional agricultural practice, and the impacts on plant (crop) health could be substantial and in many cases are not well understood, with the potential for significant shifts in plant health risks. Some measures (for example promoting greater crop diversity) may be beneficial to crop health, while others such as continuous ground cover may increase aphid and virus risks or be particularly problematic to implement in Scottish-dominant crops such as spring barley or potatoes. Other landscape restoration measures may have risks or benefits to the wider natural environment.

The options available to farmers within these proposed measures, and their impact on practices and on plant health need to be fully explored and it would be to the benefit of policy makers, growers and advisors to have plant health and biosecurity guidance produced that highlights any emerging risks and identifies where best practice could be positive for plant health and other net zero and biodiversity targets. Further, the uptake of best practice will depend on the levels of payment involved so that also needs to be assessed. The [ARIOB group](#), and its Academic Advisory Board, are still working through options and the literature review and impact assessment generated by this project prior to the 2024/25 implementation period will make an important contribution to the evidence base available to the group.

Impact: Impact will be improved plant health in Scotland through the prioritisation of agricultural reform options and best-practice guidance which maximise plant health.

Plant Health Centre

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The project will create an evidence base which will underpin guidance to policy makers on the likely impact of measures under consideration, and it will also make recommendations on best practice options which could maximise plant health. Best practice through the appropriate deployment of options by farmers to satisfy basic and enhanced subsidy requirements will minimise potential negative plant health impacts to crops and the wider natural environment.

Objectives and research required for this call:

This project will explore the upcoming changes to Scottish rural payment and support services for incentives and statutory measures that could impact on plant health, and through desk study of available evidence and literature, summarise the potential plant health and biosecurity risks and benefits, so that guidance can be prepared for policy makers, practitioners and advisors to make fully informed decisions regarding the implementation of new practices, from a plant health and biosecurity perspective (e.g. to mitigate against any emerging risks).

Review proposed Scottish agricultural reform packages and measures:

1. Through a literature review, collate currently available information on the plant health impacts of proposed measures within Scottish agricultural reform, with particular reference to Scotland's key crops and in the context of likely uptake of measures.
2. Identify potential regulatory options (statutory, basic or enhanced) that could pose an emerging risk for plant health and biosecurity in the context of likely uptake of measures.
3. Provide a source of information to policy for mitigations within agricultural reform to protect plant health while achieving environmental sustainability ambitions.
4. Develop best practice guidance which optimises plant health risk whilst also delivering other environmental and biodiversity goods.

The information generated, collated and summarised by this project will guide advice to policy makers, farmers and advisors on any changes to plant health risks and priorities in Scotland. It will recommend for KE any emerging risks and awareness raising needed and will produce guidance on the most appropriate/ most beneficial use of options available to maximise plant health benefits. It will be essential to do this in the context of how incentives are set, as some best practice measures may not be incentivized to a level that will see much uptake. It also has the potential of informing policy as to mitigations that can be put in place within these reforms, to protect crop health and productivity in Scotland.

It will be important to produce information in formats that allow informed decisions as to the selection of options that both satisfy requirements for statutory and support measures, while maximising plant health outcomes.

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Deliverables required from individual project:

- A review and evidence base setting out likely policy reform options and a summary report on available literature and key impacts on plant health.
- Final Report with executive summary on investigations, to contain key sources, analysis, findings and recommendations for implementation or further work (<30 pages of text and figures, excluding appendices and references). Cover image(s) with associated photo credits should also be supplied.
- Brief policy summary (2 pages maximum) explaining how the work has contributed to filling evidence gaps and the context in which the findings can be used by policy makers and practitioners.
- Presentation at Scotland's Plant Health conference and any other relevant stakeholder meeting(s) to disseminate findings and contribution to other KE output such as the PHC virtual poster room or blogs.
- 200 word lay summary for project overview at outset, and of findings at completion (for website and newsletter).
- Slide deck of the key project findings.

Meetings

- Project meetings throughout project lifecycle to include PHC manager, PHC Sector Lead, Scottish Government policy contact and commissioning stakeholder.
- Meeting/s with relevant PHC Impact Officer and Communications Officer to plan dissemination of project findings and impact strategy.
- Attendance at briefing discussion with PHC Steering group to discuss findings and next steps.

Indicative key dates:

- Deadline for submission of applications: **12pm on 21st December 2023**
- Project start: **01st March 2024**
- Overview of plans and project start-up meeting with PHC Directorate: **by 15th March 2024**
- Final report and policy summary: **31st July 2024**
- Project outputs signed off by PHC Sector Lead: **30th August 2024**

Detailed milestones to be confirmed by bidder.

Date all work needs to be completed by: 31st July 2024

Maximum funding available exclusive of VAT (where applicable) and including any knowledge exchange activities: £35,000

Submitting an application form

Applicants should use the PHC Application Form when applying for projects and must ensure they are able to accept the PHC Funding Terms and Conditions before submitting an application.

Completed applications should be submitted to info@planthealthcentre.scot for evaluation by **12pm on 21st December 2023**. Successful applicants will be notified by **19th January 2024** and we may request further clarification on any aspect of the application prior to contract award. You should highlight any potential conflicts of interest in your proposal.

Please contact the Centre Manager if you have any queries (info@planthealthcentre.scot). Answers to any non-confidential questions will be published on our website.

Review of application

Applications will be reviewed by a panel selected from the PHC Directorate, Scottish Government, PHC partners and/or commissioning stakeholder, as appropriate.

Expectations for section 1 of the application form:

Expectation	Descriptor
Duration	The proposed duration will align closely to the details provided in the anticipated timescales section of the specification.
Staff time and effort	The proposed allocation of staff time and effort is appropriate and includes all deliverables. The proposal must also provide a commitment that named staff members will be available to work on the contract if the bid is successful.
Project costs	The estimated breakdown of project costs is realistic and inclusive of all deliverables.

Expectations for section 2 of the application form:

Expectation	Descriptor
Background	The proposal should include an introduction which demonstrates a clear understanding of the project requirements. This should include the need for this research; the project aim; and how the proposal will address this aim.
Proposed methodology and outcomes	The proposal should demonstrate a high quality and workable methodology, including: how the evidence will be identified, reviewed and assessed, consulting relevant stakeholders and/or experts where appropriate, to address the key questions and produce the deliverables in the timescales required.
Milestones	The project milestones are logical, practical and include all deliverables.

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Project Management	The staff, resources and expertise are appropriate for conducting the proposed project. The proposal should name the project lead.
General and specific topic expertise and experience	The proposal should provide details of individual staff members who will work on this project and demonstrate how they will meet the project requirements, specifically: <ul style="list-style-type: none"> - general research experience and expertise - specific experience and expertise relevant to the call
Risk	The proposal should provide a risk assessment matrix detailing any risks identified in relation to the delivery of this contract, and proposed mitigation measures to minimise their probability and impact, focused particularly on risks to completion on time.

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