

PHC2025-08: Enhancing knowledge on Potato Leaf Roll Virus (PLRV) to increase stakeholder awareness and support management solutions.

Background and knowledge gap: Potato is the second most important food crop (after wheat) in GB worth c£4.3 B to the economy. Scotland produces 77% of GB potato seed and exports to numerous other countries world-wide, besides currently being the only source of high-grade seed for the English and Welsh SPCS. Scotland is globally recognised as a high-grade seed potato producing area due to its high plant health status for seed production, including a robust certification system and strict controls to prevent the introduction and spread of pests and diseases. Part of Scotland's success in high health seed production is down to its relatively cool climate, which slows the spread of aphid-transmitted viruses, cultural controls such as having limited contact with ware potatoes, and requiring long field rotations, as well as winter frosts limiting groundkeeper survival. (Groundkeepers are potatoes that grow in fields following a potato crop that can harbour pest and pathogen populations across the rotation period).

Potato Leafroll Virus (PLRV) is spread in a persistent manner by aphids (particularly the peach potato aphid – *Myzus persicae*) which, once acquired, remains in the aphid gut long-term to facilitate spread. Once spread to potato, it can cause leaf rolling, stunting, yield loss and poor tuber size and quality.

Before the 1980s, PLRV was a major issue in Europe. However, in the decades that followed, improvements in seed certification, virus monitoring and aphid control led to reductions in incidence in many parts of Europe. Unfortunately, over recent years, there has been a resurgence in PLRV incidence (including in GB) and, while the reason(s) for this is not totally clear, it is thought that a combination of climate change, (warmer winters enabling aphid survival), reductions in available insecticides (negatively impacting vector control), and changes in production systems (increased ware production in the vicinity of seed crops) etc. may be playing a part.

To maintain GB's high quality ware production and supply of seed tubers, it is vital that the root cause of this increase in PLRV is identified and dealt with as swiftly as possible.

Due to the absence of PLRV in GB for over the past four decades, research on the PLRV pathosystem has largely ceased, making it necessary to look back over historical research to identify information that can be used to better understand PLRV spread and management.

Impact:

- Gather current knowledge of PLRV to help develop future control strategies.
- Identify possible causes on PLRV increase in GB and their potential solutions.
- Consider the impacts of changing farm practices to help control PLRV on the possible spread of other pests and diseases, e.g. Spraing.
- Enhance awareness of PLRV and related viruses that pose a threat to crop health and productivity, to the GB seed and ware potato industries.

This project is co-funded by the Plant Health Centre and by GB Potatoes, through a grant from AHDB, utilising the remaining Potato Levy funds.

Objectives and research required for this call:

1. Undertake a literature review on PLRV spread and management using national and international data.
2. Investigate possible cause(s) for the resurgence in PLRV in the GB seed and ware sectors and identify potential trigger points and solutions.
3. Compile gathered information into a PLRV Management / Information Guide to help members of both the seed and ware industries better understand the threat and the management solutions available.

Deliverables required from individual project:

- Develop and run/facilitate a knowledge exchange stakeholder workshop, including or following discussion with at least one EU expert to better understand the European landscape.
- Final Report with executive summary on investigations, to contain key sources, analysis findings and recommendations for implementation or further work. Reports should be a maximum of 20 pages of text (30 pages including figures but 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 words 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: 5pm on 1st October 2025
- Project start: 3rd November 2025
- Overview of plans and project start-up meeting with PHC Directorate: 14th November 2025
- Final report and policy summary: 28th February 2026
- Project outputs signed off by PHC Sector Lead: 28th February 2026

Detailed milestones to be confirmed by bidder.

Date all work needs to be completed by: 28th February 2026

Maximum funding available exclusive of VAT* (where applicable) and including any knowledge exchange activities: £30,000

*Please note that costs should be submitted net of VAT recovered by the applicant. Applicants should seek advice on appropriate VAT treatment of proposed funding.

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 5pm on Wednesday 1st October 2025. Successful applicants will be notified by 17th October 2025, 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.

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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.
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: - 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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