Call for research proposals on IPM in apples and pears

Research for improving integrated pest and disease management in commercial apples and pears.

Background

On-going development of integrated pest management (IPM) strategies is a priority area for apple and pear growers given:

- Potential for crop losses
- Reduced availability of approved crop protection products
- Increasing consumer concern about residues on food
- Pests and diseases overcoming resistant varieties
- Pests and diseases developing resistance to conventional crop protection products
- Uncertainty of the consequences of climate change
- Increasing risk from alien pests and diseases
- Pressure to achieve Net Zero emissions and reduce the carbon footprint of production

It is essential that carefully targeted work is undertaken within an integrated programme so that growers and propagators can control the key pests and diseases of tree fruit crops with minimal environmental impact.

The new apple and pear IPM research programme will concentrate on the main issues for the apples and pear industry at present. In addition, it will cover areas which we expect will increase in importance with the loss of key actives whilst keeping abreast of new and invasive pests and diseases.

Purpose/primary objective

British Apples and Pears Limited (BAPL) wishes to commission research to provide information and opportunities to further develop viable integrated management of key pests and diseases of commercial apples and pears. Future pesticide withdrawals and ongoing consumer environmental concerns about over reliance on pesticides and residue levels on fruit, must be considered. The focus will be on building resilient integrated programmes which are able to control all the major pest and disease species in apple and pear crops. It is essential the control of an individual pest or disease is not studied alone but takes into consideration the control of other pests and diseases in a crop production system. Control for one pest or disease must not be at the expense of the control of another.

The outputs of the work will provide recommendations to growers on best practice to control the 'high risk' pests and diseases with the focus on biological, environmental and cultural approaches. The programme should promote new biological and environmental controls, alongside monitoring, forecasting and prediction techniques.

Scope

Work should be relevant to pests and diseases of British apple and pear crops.

The programme should cover:

- Apples and pears
- Research and commercial sites
- Relevant controls practised or under development globally
- Novel innovations, undeveloped elsewhere
- Novel technologies, products and approaches providing good control
- Reduced levels of chemical residues in produce

Out of scope

Product efficacy trials are out of scope. Efficacy trials will be commissioned separately by Horticultural Crop Protection Ltd.

Specific objectives

The key targets of the proposed work should cover:

- Surveillance for new and invasive pests and diseases
- European apple canker (*Neonectria ditissima*)
- Scab (*Venturia inaequalis*)
- Woolly apple aphid (*Eriosoma lanigerum*)
- Hard bodied insects including woodlice
- Codling moth (*Cydia pomonella*)

Parameters

The following parameters will apply to the call and the subsequent programme:

- Submissions may address any number of the pests and diseases listed. Applicants can apply for a single objective or multiple objectives depending on their expertise. British Apples and Pears Limited (BAPL) reserves the right to award different objectives to different contractors or all objectives to a single applicant.
- Submissions may be from single contractors or collaborative consortia.
- Any questions posed by potential applicants will be published on the BAPL webpage, along with responses.

Outputs

- Facilitate effective crop protection programmes using new conventional, biological, and environmental controls, alongside monitoring, forecasting and prediction techniques
- Provide support for applications for Extensions of Approval for Minor Use (EAMU)
- To inform best practice
- Monthly update reporting on the programme
- Annual interim and final reports

Budget, duration, and collaboration

- A maximum budget of £150,000 has been allocated for these objectives for a duration of one year. If sufficient progress has been made, it is the intention of BAPL to then extend the project(s) for a further two years.
- BAPL may, if it is deemed desirable, request applicants to form a project consortium. A programme management group (PMG) will guide the successful applicant(s) to refine and agree the work programme. The PMG will review progress and agree programme revisions annually in the light of results gained and new challenges which may have arisen

Proposed timings for application and project delivery

Call Published	**30 January 2023**
Full Proposal submission deadline	**12:00pm on 28 February 2023** Make an electronic submission via the BAPL website: https://www.britishapplesandpears.co.uk/r-d-proposal-submissions/
Applications reviewed	Submissions will be evaluated internally, then shortlisted applicants will be invited to present at the British Apples and Pears Technical Committee meeting on 08/03/2023 for a final decision on funding. Please ensure you are available on this day.
Applicants informed of outcome	**15 March 2023**
Anticipated start date	**03 April 2023**
Project duration	**One years (ending 31 March 2024)**. With a view to extension until 31st March 2026.

Questions

If you have a specific question related to this call, please email research@britishapplesandpears.co.uk.

Assessment criteria and evaluation of submissions

The following criteria will be used to judge the quality of the submissions. There is no template for submissions but please ensure this information is included in the application:

- Technical approach and work plan
- Project outcomes
- Relevant expertise
- Project costs

Due to the short lead times for this project. Applicants are only expected to describe in detail the work for year one. Subsequent years can be planned in more detail later.