



Biodiversity Challenge Funds Projects Darwin Initiative, Illegal Wildlife Trade Challenge Fund, and Darwin Plus

Half Year Report

It is expected that this report will be a **maximum of 2-3 pages** in length.

If there is any confidential information within the report that you do not wish to be shared on our website, please ensure you clearly highlight this.

Submission Deadline: 31st October 2025

Please note all projects that were active before 1st October 2025 are required to complete a Half Year Report.

Submit to: BCF-Reports@niras.com including your project ref in the subject line.

Project reference	DARNV024
Project title	Digital innovation to protect Colombian coffee farms and farmers
Country(ies)/territory(ies)	Colombia
Lead Organisation	CABI
Partner(s)	Cafexport (Fundación Local Partners)
Project leader	Steve Edgington
Report date and number (e.g. HYR1)	17 Nov 2025 HYR2
Project website/blog/social media	https://www.cabi.org/projects/enabling-safe-and-climate-smart-coffee-production-in-colombia/

1. Outline progress over the last 6 months (April – September) against the agreed project implementation timetable (if your project started less than 6 months ago, please report on the period since start up to end of September).

HYR2: In Yr2 Q1, the team analysed and validated datasets on CBB, crop phenology, rainfall and temperature, collected in Yr1 from the 16 project farms. From this analysis the team concluded that the alerts from the prototype CBB model were accurate. This field validation was a major project milestone.

In May 2025 (Yr2 Q1), the team initiated the next phase of model testing which combined the model outputs, namely the CBB alerts (or time-to-action - TTA), with timed biopesticide sprays. To complement this trial, earlier biopesticide spray training between the project field officer and the 16 coffee farmers, continued into Yr2 Q1. The model forecast for this project period was between 3 and 5 biopesticide sprays, before a TTA cut-off. To support the trial, the project team contacted a local biopesticide manufacturer and were able to obtain sufficient, freshly produced biopesticide material, free of charge, for the full trial (equivalent of £300 matched additional funding). The package of TTA + biopesticide spraying began in June 2025 and ran until harvest time in October 2025, when CBB infestation is no longer possible due to berry absence. The forecasted TTAs were ground-truthed in-situ by the field officer at each site, prior to spraying. The CBB infestation threshold for lot-rejection from Nespresso is >2% of berries, hence the target at trial end was to have CBB infestation at <2%. The infestation levels on three of the farms never exceeded 2% when ground-truthed, so these farms received no spray. Ten of the farms had three validated TTAs hence had three biopesticide sprays. Three farms had four TTAs hence received four sprays (the final one was at week 62 and presently not shown on graph). The level of CBB infestation was monitored weekly on each farm throughout the trial. None of the farms sprayed chemical insecticides during the trial. The results can be seen in Figure 1. For all 13 farms that received biopesticide sprays, the combination of TTA and biopesticide brought levels down to <2%. To note (and this is discussed in Section 7), none of the farms wanted to be a no-spray control or the chemical insecticide positive control and as the project couldn't force them to do so, all farms became biopesticide spray farms. Hence the trial was not done with the scientific rigour of the original plan. Nevertheless, the results indicated that a combination of the automatically generated TTAs and timely biopesticide sprays can provide excellent CBB control. For such a devastating pest globally, on which there is heavy reliance on chemical pesticides, this is a very exciting result.

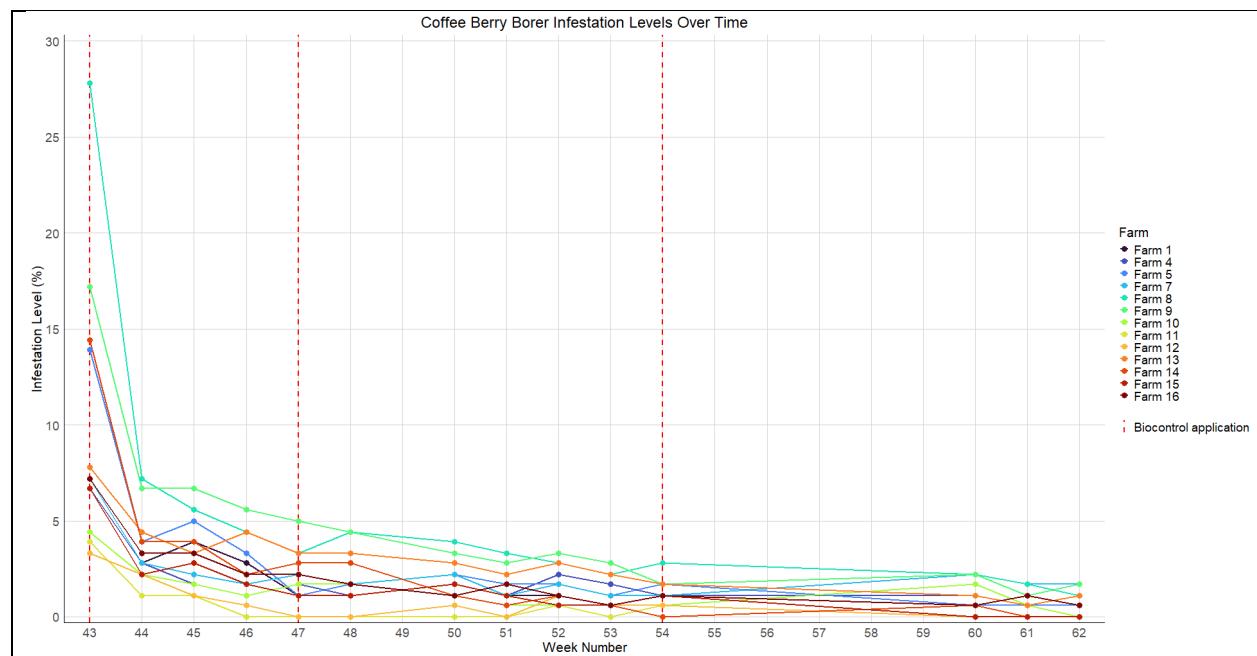


Figure 1. Levels of coffee berry borer infestation following biopesticide sprays according to TTA alerts.

The TTA + biopesticide trial has finished and berries have been harvested. The team will track yield on all 16 farms over the next few months. Biodiversity assessments were done during the trial and these are yet to be analysed (see Section 2 for additional comment).

In Yr2 Q1-2, the team met on a number of occasions with Nestle Nespresso and Nestle R&D to update on project activity and in particular the field trials; with the next meeting scheduled for 28th November 2025. This meeting will give the project the opportunity to present the trial results and next steps beyond project with the CBB model. The team has also kept the key coffee policymaker in Colombia, the Federación Nacional de Cafeteros de Colombia (FNC), updated on progress and in January 2026 the team has an in-person meeting with senior staff there, to present the trial results and discuss next steps.

In Yr2 Q2 there was a two-day video participatory learning workshop in Aguadas (see Figs 2 & 3). This was originally planned for the 16 women farmers in the project but, a decision was made to run this for both farmers and young adults. After discussions with the project farmers, it was decided that home/farm commitments, distance to the workshop and, for some, old age and chronic illness, would have prevented full attendance. Outputs of the workshop are still being produced/edited and will be provided in the final report. The workshop was attended by 2 farmers and seven young adults.



Figures 2 & 3. Video participatory learning workshop in Aguadas, Colombia

Overall, the project is on-track against implementation plan and budget.

2. Give details of any notable problems or unexpected developments/lessons learnt that the project has encountered over the last 6 months. Explain what impact these could have on the project and whether the changes will affect the budget and timetable of project activities.

Changes to the original plan for the the **participatory video learning workshop**, as noted above. Whilst this means not all project women farmers took part, this gave an opportunity for youth to participate. Some were children of the project farmers.

Following biopesticide training in Yr1 none of the project farmers wanted to be in the control groups of 'spray nothing' or 'spray chemical pesticide'; they all wanted to apply biopesticides. All 16 project farmers are suppliers to Nespresso and they perceived the control groups as more risky with regards final yields/sales. Nespresso advised that the farmers could not and should not be forced into activities to suit an experiment and so it was agreed that all 16 farmers would be part of the biopesticide group. This clearly limits the scientific rigour of the trial and impacts on the **biodiversity assessments** as no comparative controls exist.

3. Have any of these issues been discussed with NIRAS and if so, have changes been made to the original agreement?

Discussed with NIRAS:	No
Formal Change Request submitted:	No

Received confirmation of change acceptance:	No
Change Request reference if known: <i>If you submitted a financial Change Request, you can find the reference in the email from NIRAS confirming the outcome</i>	

4a. Please confirm your actual spend in this financial year to date (i.e. from 1 April 2025 – 30 September 2025)

Actual spend: [REDACTED]

4b. Do you currently expect to have any significant (e.g. more than £5,000) underspend in your budget for this financial year (ending 31 March 2026)?

No Estimated underspend: £

4c. If you expect an underspend, then you should consider your project budget needs carefully. Please remember that any funds agreed for this financial year are only available to the project in this financial year.

If you anticipate a significant underspend because of justifiable changes within the project, please submit a re-budget Change Request as soon as possible, and not later than 31st December. There is no guarantee that Defra will agree a re-budget so please ensure you have enough time to make appropriate changes to your project if necessary. **Please DO NOT send these in the same email as your report.**

NB: if you expect an underspend, do not claim anything more than you expect to spend this financial year.

5. Are there any other issues you wish to raise relating to the project or to BCFs management, monitoring, or financial procedures?

Suspicions or allegations related to fraud and error concerns should be reported to fraudanderror@Defra.gov.uk

none

6. Project risk management

6a. If your project has an Overseas Security and Justice assessment, please provide an update on any related risks, and any special conditions in your award paperwork if relevant for your project.

None

7. Please use this section to respond to any feedback provided when your project was confirmed, or from your most recent Annual Report. As a reminder, all projects that were scored as 'Not Yet Sensitive' in the Gender Equality and Social Inclusion (GESI)

assessment of their latest Annual Report should demonstrate how they are meeting the minimum GESI-Sensitive standard.

Annual report:

GESI scale was graded as **Sensitive**.

“A baseline population of 16 female farmers is now set, but the narrative does not provide baseline values for biodiversity or livelihood metrics, nor any early measurements against the indicators.” This was mentioned earlier in Section 2.

Checklist for submission

Have you responded to feedback from your latest Annual Report Review ? You should respond in section 6, and annex other requested materials as appropriate.	yes
Have you reported against the most up to date information for your project ?	yes
Have you clearly highlighted any confidential information within the report that you do not wish to be shared on our website?	yes
Include your project reference in the subject line of submission email.	yes
Submit to BCF-Reports@niras.com	
Please ensure claim forms and other communications for your project are not included with this report.	