FIGHT AGAINST BLIGHT
Response form – 2024 and instructions (see over)

Please complete and insert with sample

Unique Reference Number from FAB website (used for leaves **and** FTA sample) _____

Postcode where sample found | | | | | | | |

(2^{nd} part optional)

County where sample found:_____

Where was the infection found? *(Please circle)*

Conventional Crop | Volunteer | Outgrade pile (dump) | Garden/Allotment | Other (eg.Trial, Organic Crop) _____

Potato variety _____

Date sample taken _____

Type of infection *(Please circle)*

Single plant | Patch ($1m^2$) | Several patches | Scattered through field | Very severe

Please describe your sample distribution *(Tick boxes)* * See overleaf

1 lesion from each of 8 plants* ☐

2 lesions from each of 4 plants* ☐

Other (please describe) ☐

Were your samples: clustered ☐ Scattered through field ☐

Any other comments

Your name _____ Your mobile phone number _____

Please send me a replacement sampling kit ☐

For laboratory use only

Sample received by _____

Date _____

Confirmed ☐ **Negative** ☐

Sampling and Postage Instructions:

Please send us up to 8 lesions per incident (4 fresh leaf lesions **AND** 4 lesions pressed onto an FTA card). *Note: We need live samples for mating type and fungicide sensitivity testing and FTA samples allow us to provide you more rapid feedback.*

Please sample as follows:

Step 1 - Sampling

- Identify an individual blight infected plant.
- Remove an infected leaflet (ideally with a single sporulating lesion) or infected stem piece from each of 8 plants, if available.
- Place **each of four** single leaflet**s** between **the** two pieces of paper towel and into separate plastic sample bags and seal. **NB: please DO NOT add water as this will only encourage rotting of the sample.**
- Press a single lesion from each of the remaining 4 leaflets onto each sample zone of the provided FTA card (labelled E, F, G, H) following the enclosed protocol. Write your name, date and sample postcode on the card.
- Air dry card for minimum of an hour before sealing in plastic bag.

Step 2 – Reporting via https://blight.hutton.ac.uk/

- **Follow the emailed instructions for registration to the FAB site and submit the sample via the site to generate the sample ID number. If you are having problems with the website then please submit the sample and the FAB team will generate the number.**
- Complete the rest of the form overleaf.

Step 3 - Post

- Using the provided pre-paid jiffy bag, post completed forms with the samples to:
  Beatrix Keillor/ James Lynott, CMS, The James Hutton Institute, Invergowrie, Dundee, DD2 5DA
- Try to ensure that the samples reach the laboratory the next day by posting before the last post, (in some areas this can be as early as 12 noon).
- If the samples are taken on a Friday please store them in your refrigerator and post first thing on Monday.

If you are unable to collect lesions in the patterns described above, please just send us what you can.

Thank you for your continued support.

- **Contact:**
- For pack/sampling info: **fab@hutton.ac.uk**

SAMPLING INSTUCTIONS

Sampling:
Experience has shown that **sampling is the most critical process**. Time spent sampling correctly is well spent!

Select:
Select a leaflet with a single fresh, nicely sporulating lesion for each sample. Take samples from different plants if possible – but samples may come from the same plant if necessary. Make a note of how you have sampled. Sampling in the morning tends to be better as the pathogen sporulates overnight. Stem lesions may be sampled if that is the only blight infected material available.

Figure 1: Select a leaflet with a single lesion

Figure 2: Select a fresh sporulating area of the lesion to press onto the FTA card

Avoid:
Dead leaves, old or dry lesions, leaflets with many lesions. Wet, water soaked (bacterially infected) looking leaves.

Protocol for sampling pathogen DNA using FTA cards

Sample onto the card from the area indicated over the page and see YouTube video for further guidance. Search "Blight FTA card" on YouTube for video **https://www.youtube.com/watch?v=BQLe0G7vdHY**
The method relies on a very sensitive DNA amplification method so please limit cross-contamination between samples and only touch each FTA card sampling area with a single lesion sample.

1. Use **1 card** with 4 sampling areas (circles) **per reported incident**.

2. **Sample 4 lesions per infected field,** 1 lesion for each sample area (E, F, G, H).

3. **Label the FTA card with the same reference number used for leaf sample (added by JHI until website is available).** Don't worry if you haven't been able to get a number but make sure you fill out the Scout response form and write name, date and postcode on card.

4. **Take the sample (instructions below)**
Do not touch the sampling area except with the late blight lesion sample

5. **Air-dry the card,** store and **return card + sampling form** in postage paid envelope.

Place sample on FTA card:

Place the lesion sample (*Figure 2*) inside a clean circular sampling area on the FTA matrix. **Sporulating side facing down**. Cover a single sample area only per lesion.

Replace the cover sheet and press sample:

Apply moderate pounding/pressure to the leaf sample to extract lesion sap through the cover sheet with a round blunt object such as a spoon or a screwdriver handle. Take care not to damage the matrix. Repeat for other three lesions.

When the **green leaf extract is visible on the** FTA matrix the process is complete.

Remove plant residue from card, ensure that no large pieces of plant tissue remain adhered to the FTA card (*Figure 3*).

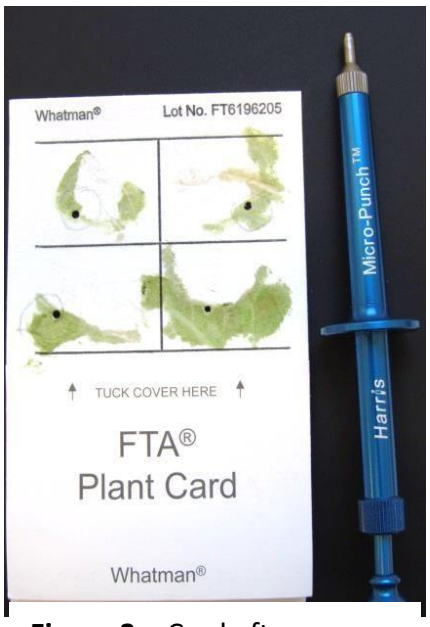

Figure 3: Card after processing in the laboratory (holes punched)

Allow the FTA card to air dry for a minimum of one hour at room temperature. Store **dry** FTA card in the plastic zip-lock bag. The sample is now stable at room temperature for several years.

Return cards and sampling forms in envelope provided.

Materials needed:
Whatman FTA card
Pen/Pencil
Blunt object such as a pliers, marker pen end, small hammer etc.
Zip lock bag to store and return air-dried FTA cards