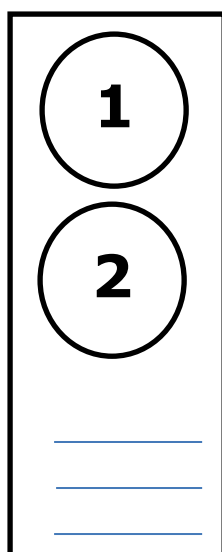




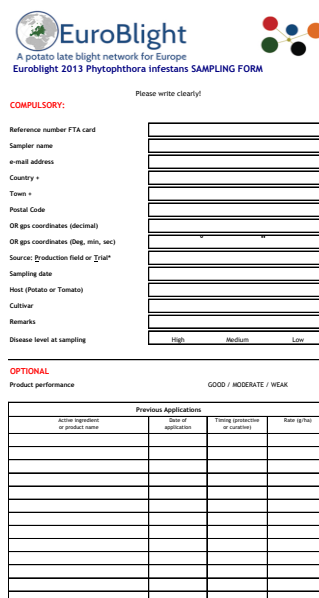
Protocol for sampling *Phytophthora infestans* DNA using FTA cards 2018

Despite this long text, **it's really simple!** Watch the YouTube videos for demo!

1. Use **1 card** with 2 sampling areas (circles) **per field**.
2. **Sample 2 lesions per late blight outbreak**, 1 lesion for each sample area (circle), preferably from the same plant.
3. **Label the FTA card** with a reference number (if not already done)
Provide the rest of the information on the sample form.
4. **Take the sample (instructions below)**
Do not touch the sampling area except with the *Phytophthora* sample!
5. **Fill out the sampling form**
1 form per card, clearly state the reference number.
Write clearly please!
6. **Air-dry the card**, store separately in a plastic bag or envelope and
return card + sampling form to your local coordinator.



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EuroBlight
A potato late blight network for Europe
Euroblight 2013 *Phytophthora infestans* SAMPLING FORM

Please write clearly!

COMPULSORY:

Reference number FTA card _____

Sampler name _____

e-mail address _____

Country + _____

Town + _____

Postal Code _____

OR gps coordinates (decimal) _____

OR gps coordinates (Deg, min, sec) _____

Source (Production field or 'trial') _____

Sampling date _____

Host (Potato or Tomato) _____

Cultivar _____

Remarks _____

Disease level at sampling _____ High _____ Medium _____ Low _____

OPTIONAL

Product performance _____ GOOD / MODERATE / WEAK

Previous Applications			
Active ingredient or product name	Date of application	Timing (preventive or curative)	Rate (g/ha)



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 (Figure 1). Both samples may come from the same plant.



Figure 1. Select a leaflet with a single lesion.



Figure 2. Select a fresh, sporulating area of the lesion and cut a sample 1-2 cm² from the area indicated.

Avoid:

- Dead leaves, old or dry lesions, leaflets with many lesions
- Wet, water soaked (bacterially infected) looking leaves
- Small restricted lesions



Collect sample on FTA card:

- Cut a 1-2 cm² piece of **sporulating lesion (Figure 2)**
- **Place the lesion sample inside a clean circular sampling area on the FTA matrix. Sporulating side facing down.**
- **Replace the cover sheet.**
- **Apply moderate pounding/pressure to the leaf sample through the cover sheet with a blunt object such as a small hammer, spoon, screw driver handle, car key or pestle. Take care not to damage the matrix.**
- When the **green leaf extract is visible on the back** of the FTA matrix the collection process is complete.
- **Remove plant residue from card**, ensure that no large pieces of plant tissue remain adhered to the FTA card (Figure 3).
- **Fill out the sampling form.**
- **Allow the FTA card to air dry** for a minimum of one hour at room temperature.
- Store **dry** FTA cards separately in a paper envelope or plastic zip-lock bag.
- Collect cards + Sampling Forms and return to local coordinator.
- Figure 3 shows a card after processing in the laboratory so you can see what the next stage will be

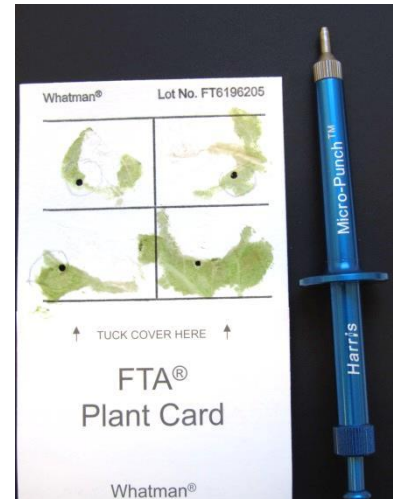


Figure 3. FTA card containing samples for SSR analysis. DNA has been extracted from the 2mm disks punched from each sample.

You may use cards not used in previous years but be sure to label with the current date

• **Materials needed:**

- Knife/Scissors for sampling the lesion (clean after use!)
- Whatman FTA plant-card
- Pen/Pencil
- **Blunt** object such as a small pestle, small hammer etc
- Zip lock bag to store used and air-dried FTA cards

Related You Tube videos:

search youtube : Guide to FTA card sampling
<https://www.youtube.com/watch?v=BQLe0G7vdHY>