COLLECTION OF FIREBLIGHT SYMPTOMATIC PLANT TISSUE FROM APPLE TREES

- If available, use bacterial ooze directly for sample preparation (Picture 1) or
- From young twigs, collect sample tissue taking both healthy and diseased tissue from the transition zone (Picture 2) or
- For older bark and active cankers, skim off bark using a knife to sample the cambium layer (Picture 3).

Note: Non active fire blight cankers, old strikes, or dead tissue do NOT work.

PREPARATION AND RUNNING OF SAMPLES

Ooze

- Add 4 drops of extraction buffer to clean cuvette or small plastic cup.
- Touch a toothpick tip to ooze sample.
- Suspend toothpick into the cuvette or small plastic cup with extraction buffer.

Note: Too cloudy or opaque a solution can interfere with test efficacy.

Young shoots and older branches

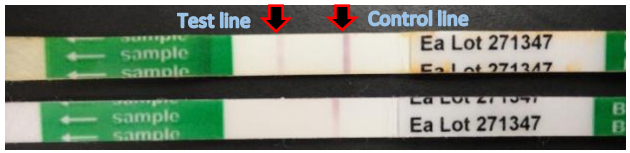
- Collect approximately 1 cm x 0.5 cm (0.5g) of young twigs or cut/scrape cambium layer with sharp knife into small 0.1 cm thick longitudinal pieces and use about 5 pieces (0.2-0.5g).
- Add samples to BioReba collection bag or a plastic snack bag.
- Add 4 ml (4 cc or ~3/4 tsp.) of extraction buffer.
- Crush samples in buffer with hammer on a solid surface, let debris settle.
- Take 4 drops of sample extract, avoiding debris, and add to a clean cuvette or small plastic cup.
- Suspend strip with arrows pointing down.
- Observe color of the control and test lines on the strip within 15 minutes.

Note: Do not add sample volume above green area on the strip!

INTERPRETING THE RESULTS

- If both a red test line and a control line are observed, the sample is fire blight positive (picture 4).
- If the control line is clearly visible but test line does not appear within 15 minutes, the sample is fire blight negative (picture 4).
- If no lines appear, test is invalid and should be repeated.

Note: We determined 10^7 fire blight bacterial cells per milliliter to be the detection limit for this kit.



Picture 4. Positive (top) and negative (bottom) AgriStrips.


Picture 1. Bacterial ooze.


Picture 2. Transition zone between healthy and infected tissue.


Picture 3. Scraped bark to expose cambium layer of fire blight canker.

Materials needed: AgriStrip Kit contains buffer and strips and you can get collection bags and cuvettes from the same company (www.bioreba.ch), or you can use a plastic snack bag and small plastic cup.

Additional items: toothpicks, knife, dropper, samples, and hammer.

Note: Kit must be stored at 4˚C. The expiration date is indicated on the kit.

Clean hands and any tools between samples.

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Fire Blight Testing In the Orchard (*Erwinia amylovora)* Using AgriStrip© by BioReba Ag

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