

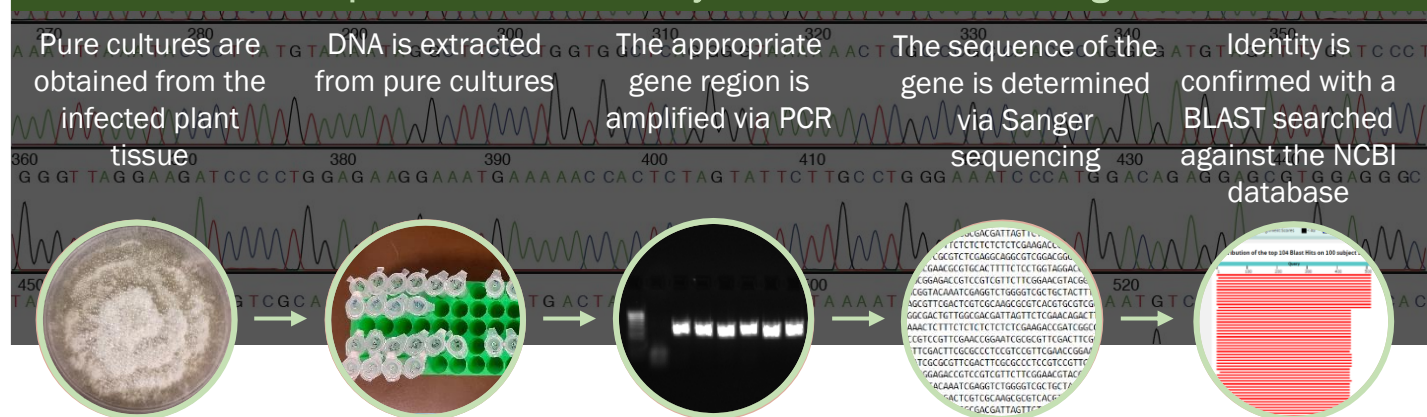
FABI DISEASE DIAGNOSTIC CLINIC

Macadamia
Protection
Programme

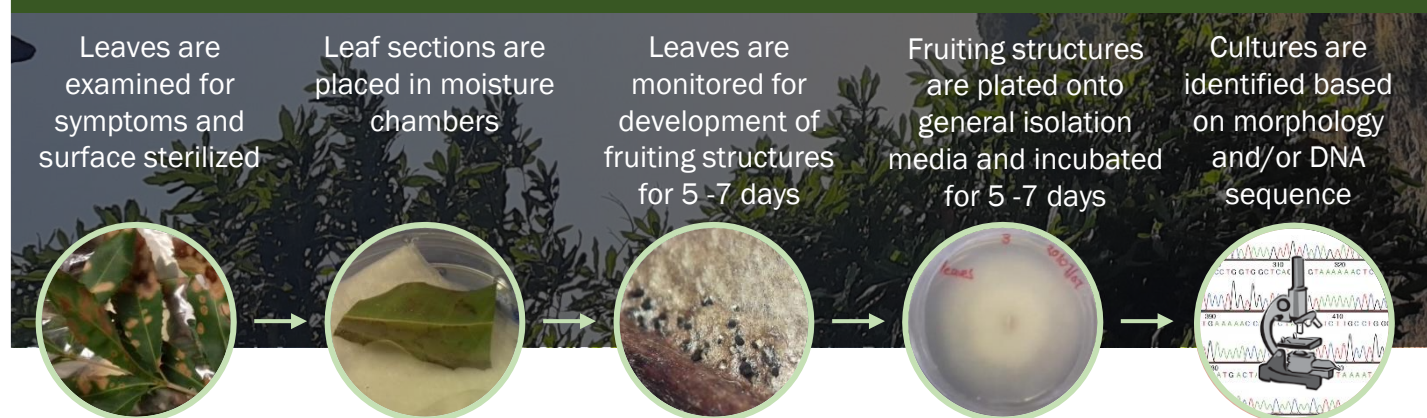


Processing samples can take time, but you should receive feedback in 2 – 3 weeks. To identify potential pathogens based on morphology, a pure culture of the isolate must first be obtained. This is done through cultural techniques and requires time for the isolates to grow. In cases where a more in depth analysis is required, such as baiting, DNA sequencing etc., we usually require an additional week or two, but this will be communicated to growers.

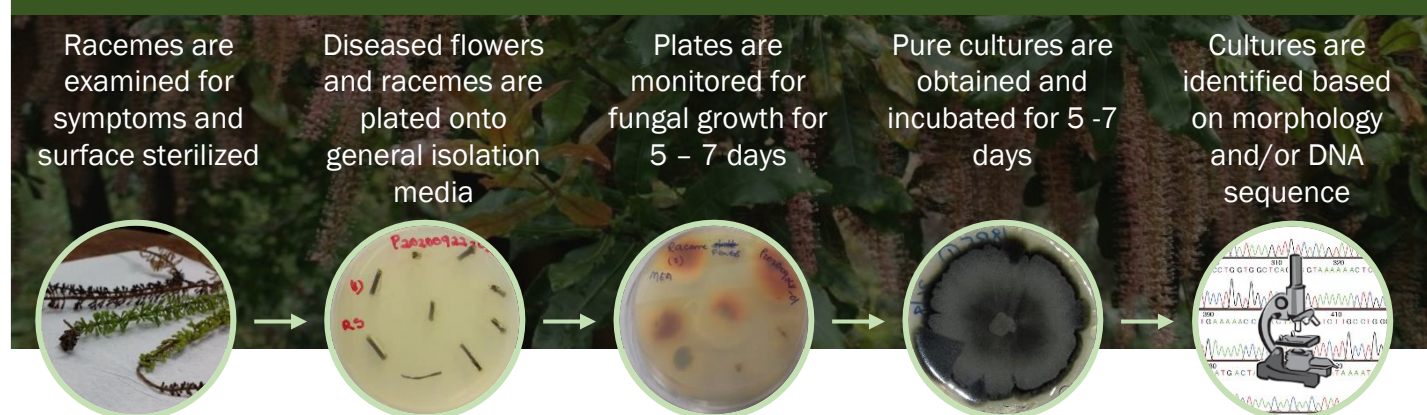
Species identification by means of DNA barcoding



Leaves



Racemes

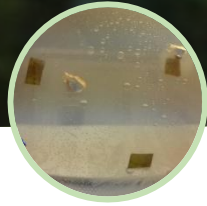


Nuts

Nuts are examined for symptoms and surface sterilized



Pericarps are cut into pieces and plated onto general isolation media



Plates are monitored for fungal growth for 5 - 7 days



Pure cultures are obtained and incubated for 5 - 7 days



Cultures are identified based on morphology and/or DNA sequence



Branches

Branches are surface sterilized and examined for discoloration



Pieces are cut to expose the pith and plated onto general isolation media



Plates are monitored for fungal growth for 5 - 7 days



Pure cultures are obtained and incubated for 5 - 7 days



Cultures are identified based on morphology and/or DNA sequence



Roots and soil

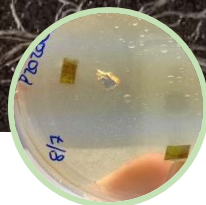
Roots and soil are screened for *Phytophthora*, *Pythium* and *Rosellinia*



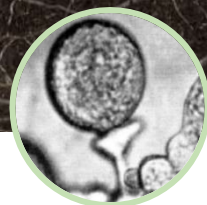
Soil and roots are flooded with distilled water, baited with susceptible leaves and monitored for 2-10 days



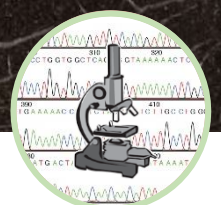
Infected leaves are plated onto *Phytophthora* selective media and monitored for 5 - 7 days



Pure cultures transferred from primary isolation plates are incubated for 5 - 7 days



Cultures are identified based on morphology and/or DNA sequence



Roots and soil continued

Roots that display rot are plated onto *Rosellinia* specific media



Plates are monitored for fungal growth for 7-14 days



Cultures are identified based on morphology and/or DNA sequence



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