Supplementary Information (SI) for Analytical Methods.

A)

B)

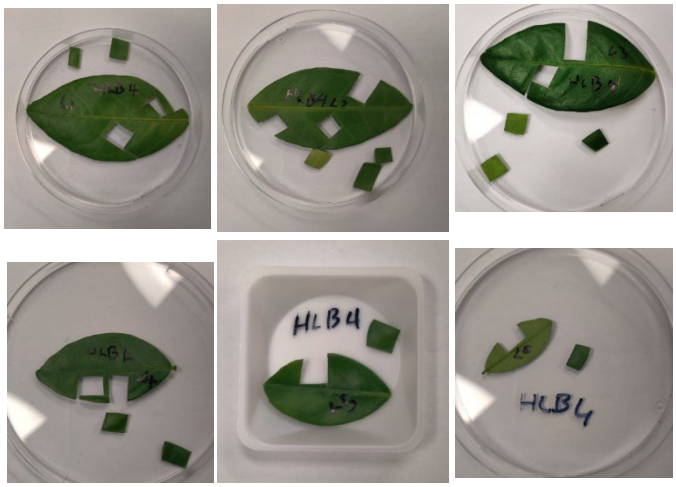

Figure S1: Photographs of (A) representative branches collected and (B) the rectangular segments that were excised from the respective leaves.

Grapefruit (GFT)

Healthy

Asymptomatic

Blotchy mottle

Yellow

Pummelo (PUM)

Healthy

Asymptomatic

Symptomatic

Lemon (LEM)

Healthy

Asymptomatic

Symptomatic

Valencia orange (VAL)

Healthy Asymptomatic Symptomatic Yellow

Figure S2: Leaf selection for PEF testing. Photographs showing representative leaves from each of the tested categories. A quarter is shown in the bottom right-hand corner of each photograph for reference purposes.

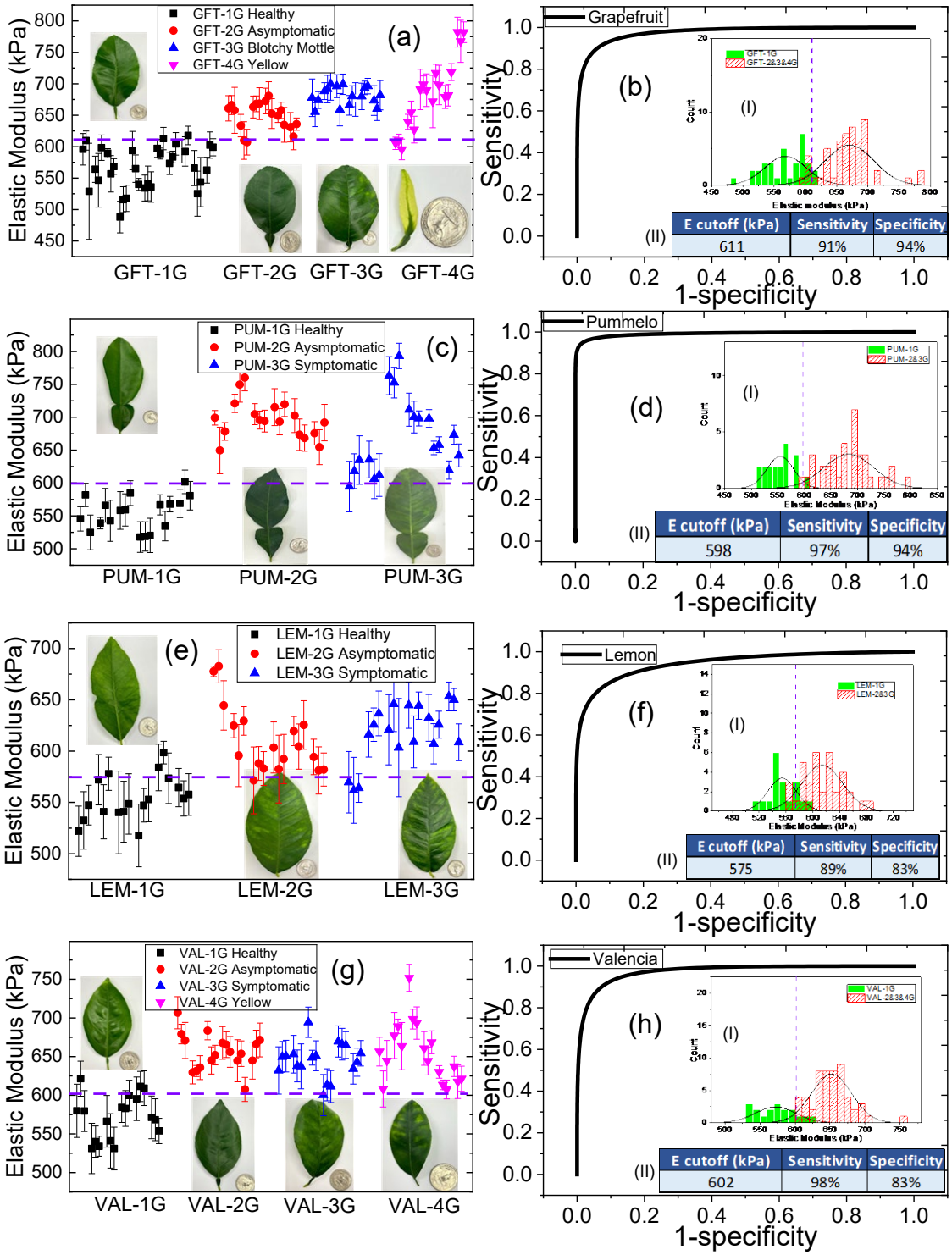

Figure S3: Detection of HLB in GFT, PUM, LEM, and VAL at early and late stages of infection using the PEF. Elastic modulus comparison (a) amongst GFT leaves: Healthy GFT-1G (Las-), Asymptomatic GFT-2G (Las+), Blotchy mottle GFT-3G (Las+) and Yellow GFT-4G (Las+), (b) Receiver operating characteristic (ROC) curve for healthy (GFT-1G) vs diseased GFT leaves derived from the distribution of elastic modulus values in between Las- (GFT-1G) and Las+ (GFT-2G, GFT-3G and GFT-4G) GFT leaves shown in insert (I) of (b), (c) Elastic modulus comparison amongst PUM leaves; Healthy PUM-1G (Las-), Asymptomatic PUM-2G (Las+), and Symptomatic PUM-3G (Las+), (d) ROC curve for healthy vs diseased PUM leaves derived from the distribution of elastic modulus values between Las- (PUM-1G) and Las+ (PUM-2G and PUM-3G) PUM leaves shown in insert (I) of (d), (e) Elastic modulus comparison amongst LEM leaves; Healthy LEM-1G (Las-), Asymptomatic LEM-2G (Las+), and Symptomatic LEM-3G (Las+), (f) ROC curve for healthy vs diseased LEM leaves derived from the distribution of elastic modulus values between Las- (LEM-1G) and Las+ (LEM-2G and LEM-3G) LEM leaves shown in insert (I) of (f), (g) elastic modulus comparison amongst Valencia sweet orange leaves; Healthy VAL-1G (Las-), Asymptomatic VAL-2G (Las+), Symptomatic VAL-3G (Las+), and Yellow VAL-4G (Las+), and (h) ROC curve of healthy vs diseased grapefruit leaves derived from the normal distribution of elastic modulus values between Las- (VAL-1G) and Las+ (VAL-2G, VAL-3G and VAL-4G) VAL leaves in insert (I) of (h). The dashed line in (a), (c), (e), and (g) (represent the cutoff values selected for differentiation of Las+ from Las- samples, Inserts (II) in (b), (d), (f), and (h) are tables showing the cutoff elastic modulus values deduced from distribution shown in inserts (I) in (b), (d), (f), and (h) and the sensitivity and specificity between healthy and diseased GFT, PUM, LEM, and VAL leaves, respectively. Except for GFT-1G that had 11 different leaves tested, all other categories had six different leaf samples tested. Each leaf was tested in triplicate with error bars representing the standard deviation of the measurement. Note Figs. S3(a) and S3(b) are shown in Figs. 4(a) and 4(b) as examples.