Supplementary Table S1. Gene-specific sequences for relative gene expression analysis in healthy (HLY) and Huanglongbing (HLB)-affected tree leaves using quantitative real-time polymerase chain reaction (qPCR).

Description (gene symbol)	Citrus gene ID	GenBank accession no.	Forward and reverse primer sequences (5' to 3')	Amplicon size (bp)
senescence-associated gene 13 (*SAG13*)	orange1.1g036388m	XM_006488326.2	GTTCAGTGTGCGATGTATCA CCACAGTCGCCTTTCTTATAG	129
2-oxoglutarate and Fe dependent oxygenase superfamily protein (*2OG-Fe*)	orange1.1g039524m	XM_006490040.3	GGACTTGACGAACGTTGCTT ATCAAGCAGCATGAAGCTTTG	127
ethylene responsive element binding factor 1 (*ERF1*)	orange1.1g042174m	XM_006477063.3	ACGTAGCGCTTCTCAAACCC GCCAATGACCACGATGTTGA	136
ethylene response factor 5 (*ERF5*)	orange1.1g047334m	XM_006477063.3	CAATCGTCTCGCAAACCGTC CCTTGCTTTTCCGGTTGGTG	82
salicylate carboxymethyl transferase (*JMT*)	orange1.1g017514m	XM_006466773.2	AGAGGAAGCCATGACCAAAC TAATTGACTGCCCAACTTATCGCA	154

auxin response factor 8 (*ARF8*)	orange1.1g041715m	XM_006487050.3	AGCGGTGCTCTGGAGAAAG CTCTGCCTGTTTCCTCTCCAA	168
dormancy/auxin associated family protein (*DRM2*)	orange1.1g033116m	XM_006472041.3	ACTCCTTACGACGTGTGATA ACTACTCGGTTGTCACATCTA	129
copine (calcium-dependent phospholipid-binding protein) family (*BON*)	orange1.1g013900m	XM_006465021.1	GAACCGGTTTGCCCCATTTG TGGGCATGAGGAAATTGTGGT	102
calcium dependent calmodulin (*CAM8*)	orange1.1g031903m	XM_006489415.3	TGACGCTGAGGAAGAGCTTAAA ATCACCGTCCAAATCAGCCTC	163
actin-7 (*ACT*)	n/a	XM_006464503.2	GTTGGTTGACATGGAGAAG ACGGTTGAGTACAGAAATAAG	121
thioredoxin-like protein YLS8 (*DIM1*)	n/a	XM_006484463.2	CGAAACCTGTATGCAGATGG ACGGTTGAGGGATCGTAAAG	138

Supplementary Table S2. Average pH value with standard deviation in the Hoagland solution of healthy (HLY) and Huanglongbing (HLB)-affected trees at the start (Day 0) and on alternate day (Day 2) grown at pH 6.0, 7.0, and 8.0 respectively, during the course of experiment.

Disease	pH treatments	pH (D 0)	pH (D 2)
HLY	6.0	5.99±0.04	6.66±0.05
	7.0	7.00±0.05	7.29±0.03
	8.0	7.99±0.04	8.16±0.06
HLB	6.0	6.03±0.02	6.73±0.05
	7.0	7.00±0.05	7.35±0.04
	8.0	7.99±0.04	8.04±0.04

Supplementary Table S3. Average nutrient concentration (mg•kg^{-1}) with standard deviation in the leaves of healthy (HLY) and Huanglongbing (HLB)-affected trees grown at pH 6.0, 7.0, and 8.0 respectively, at the start of the experiment (Day 0). Significant differences were calculated at $P < 0.1$ using Student t test, means followed by different letters are different from each other. Italic lower case letters correspond to the disease incidence.

Nutrients (mg•kg^{-1})	***P value***	**Disease**	**D 0**	**Optimum range (mg•kg^{-1})**
N	*DI 0.001*	HLY	13200 ± 400 *b*	25000-27000
		HLB	15300 ± 400 *a*	
P	*DI 0.001*	HLY	3500 ± 400 *a*	1200-1600
		HLB	2700 ± 400 *b*	
K	*DI 0.001*	HLY	24000 ± 400 *a*	12000-17000
		HLB	22000 ± 400 *b*	
Ca	*DI 0.08*	HLY	21500 ± 400 *a*	30000-49000
		HLB	17900 ± 400 *b*	
Mg	*DI NS*	HLY	3600 ± 400	3000-4900
		HLB	3900 ± 400	
S	*DI 0.01*	HLY	4100 ± 800 *a*	
		HLB	3800 ± 400 *b*	
B	*DI 0.003*	HLY	68.3 ± 2.68 *a*	36.0-100
		HLB	64.0 ± 2.68 *b*	
Zn	*DI 0.002*	HLY	22.1 ± 2.68 *a*	25-100
		HLB	16.3 ± 2.68 *b*	
Mn	*DI 0.001*	HLY	23.3 ± 2.68 *a*	25-100
		HLB	16.3 ± 2.68 *b*	
Fe	*DI 0.001*	HLY	71.0 ± 2.80 *a*	60-120
		HLB	47.3 ± 2.80 *b*	
Cu	*DI NS*	HLY	5.09 ± 1.36	5.00-16.0
		HLB	5.10 ± 1.36	