

Table S8 Relative contents of volatile components in leaves at different disease development stages

Volatile compounds	Chemical formulas	Relative contents (mg/g)			
		H	S1	S2	S3
2-Methylheptane	C ₈ H ₁₈	0.51±0.01 ^a	0.36±0.06 ^b	0.18±0.07 ^c	0.22±0.05 ^c
2,3,5-Trimethylhexane	C ₉ H ₂₀	0.17±0.07 ^a	0.18±0.02 ^a	0.10±0.03 ^a	0.12±0.02 ^a
2,4-Dimethylheptane	C ₉ H ₂₀	3.31±0.59 ^a	2.23±0.23 ^b	1.29±0.36 ^c	1.45±0.28 ^c
2,4-Dimethyl-1-heptene	C ₉ H ₁₈	0.15±0.05 ^a	0.15±0.01 ^{ab}	0.10±0.02 ^b	0.11±0.02 ^{ab}
(<i>E</i>)-2-Hexenal	C ₆ H ₁₀ O	0.41±0.13 ^a	0.59±0.05 ^a	0.37±0.01 ^a	0.44±0.06 ^a
4-Methyloctane	C ₉ H ₂₀	0.63±0.06 ^a	0.65±0.06 ^a	0.41±0.10 ^b	0.46±0.08 ^b
2,6-Dimethyldecane	C ₁₂ H ₂₆	ND	ND	ND	0.04±0.01
4-Methylnonane	C ₁₀ H ₂₂	0.11±0.02 ^b	0.14±0.01 ^a	0.13±0.003 ^a	0.15±0.003 ^a
2-Methylnonane	C ₁₀ H ₂₂	0.42±0.03 ^a	0.44±0.03 ^a	0.30±0.04 ^b	0.33±0.04 ^b
Undecane	C ₁₁ H ₂₄	0.91±0.43 ^a	0.07±0.01 ^b	0.05±0.01 ^b	0.06±0.01 ^b
2,4,6-Trimethylheptane	C ₁₀ H ₂₂	0.45±0.09 ^a	0.44±0.03 ^a	0.34±0.04 ^a	0.37±0.05 ^a
2,2,7,7-Tetramethyloctane	C ₁₂ H ₂₆	0.41±0.09 ^a	0.32±0.06 ^a	0.37±0.001 ^a	0.43±0.04 ^a
Decane	C ₁₀ H ₂₂	0.18±0.03 ^a	0.17±0.01 ^a	0.13±0.01 ^b	0.14±0.02 ^{ab}
2,6,7-Trimethyl-decane	C ₁₃ H ₂₈	0.09±0.01 ^a	0.09±0.01 ^a	0.07±0.002 ^a	0.07±0.01 ^a
2,5-Dimethylhexane	C ₁₁ H ₂₄	0.47±0.05 ^b	0.44±0.04 ^b	0.82±0.088 ^a	0.91±0.13 ^a
2,6-Dimethyloctane	C ₁₁ H ₂₄	1.34±0.14 ^a	1.32±0.08 ^a	0.97±0.08 ^b	1.05±0.13 ^b
2-Methyl-3-methylidenenonan e	C ₁₁ H ₂₂	0.08±0.004 ^a	0.08±0.01 ^a	0.06±0.005 ^a	0.07±0.005 ^a
2,2-Dimethyl-1-octanol	C ₁₀ H ₂₂ O	ND	ND	0.13±0.003	ND
Octane, 2,3,6,7-tetramethyl-	C ₁₂ H ₂₆	0.24±0.01 ^a	0.23±0.02 ^a	0.06±0.001 ^b	0.20±0.02 ^a
Dodecane	C ₁₂ H ₂₆	4.13±0.60 ^a	4.14±0.44 ^a	3.15±0.18 ^a	3.39±0.37 ^b
1,4-Dimethylcyclooctane	C ₁₀ H ₂₀	0.21±0.002 ^a	0.19±0.02 ^a	0.16±0.001 ^a	0.18±0.02 ^a

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		H	S1	S2	S3
2,3-Dimethyldecane	C ₁₂ H ₂₆	0.12±0.003 ^a	0.12±0.01 ^a	0.10±0.002 ^a	0.10±0.01 ^a
Linalool	C ₁₀ H ₁₈ O	0.07±0.001 ^a	0.12±0.09 ^a	ND	ND
1-Chlorohexadecane	C ₁₆ H ₃₃ Cl	2.01±0.16	ND	ND	ND
Cyclohexyldimethoxy(methyl) silane	C ₉ H ₂₀ O ₂ Si	1.37±0.05 ^a	1.29±0.14 ^{ab}	1.09±0.01 ^b	1.15±0.10 ^{ab}
4-Methylundecane	C ₁₂ H ₂₆	0.05±0.003 ^a	0.05±0.002 ^a	0.04±0.002 ^a	0.04±0.005 ^a
2-Methylundecane	C ₁₂ H ₂₆	0.32±0.05 ^a	0.32±0.02 ^a	0.25±0.01 ^a	0.27±0.03 ^a
Methyl salicylate	C ₈ H ₈ O ₃	0.19±0.02 ^a	0.20±0.01 ^a	0.23±0.003 ^a	0.16±0.04 ^a
2,4-Dimethylundecane	C ₁₃ H ₂₈	0.27±0.01 ^a	0.24±0.01 ^{ab}	0.21±0.004 ^b	0.22±0.02 ^b
2,6-Dimethylundecane	C ₁₃ H ₂₈	0.50±0.13 ^a	0.46±0.11 ^a	0.44±0.004 ^a	0.47±0.06 ^a
2,4-Dimethylbenzaldehyde	C ₉ H ₁₀ O	0.97±0.11 ^a	0.84±0.07 ^a	0.78±0.07 ^a	0.92±0.07 ^a
4-Methyldodecane	C ₁₃ H ₂₈	0.59±0.10 ^a	0.57±0.03 ^a	0.46±0.005 ^a	0.49±0.06 ^a
2,6,10-Trimethyltetradecane	C ₁₇ H ₃₆	ND	ND	ND	0.06±0.01
Tetradecane	C ₁₄ H ₃₀	2.85±0.18 ^a	1.41±0.12 ^b	1.20±0.04 ^b	2.67±0.28 ^a
2,6,10-Trimethyltridecane	C ₁₆ H ₃₄	ND	1.74±0.91 ^a	1.01±0.004 ^a	ND
2,6,10-Trimethyldodecane	C ₁₅ H ₃₂	0.95±0.09 ^b	ND	2.37±0.09 ^a	ND
Pentadecane	C ₁₅ H ₃₂	2.57±0.11 ^b	4.47±0.39 ^a	0.85±0.03 ^c	4.98±0.52 ^a
2,6,11-Trimethyldodecane	C ₁₅ H ₃₂	ND	0.30±0.02	ND	ND
10-Methylnonadecane	C ₂₀ H ₄₂	0.29±0.018 ^a	0.27±0.016 ^a	0.23±0.003 ^a	0.24±0.02 ^a
Hexadecane	C ₁₆ H ₃₄	0.93±0.31 ^b	5.29±0.46 ^a	1.92±0.05 ^b	1.27±0.15 ^b
Heptadecane	C ₁₇ H ₃₆	5.82±0.56 ^a	0.41±0.03 ^c	1.24±0.17 ^b	4.02±0.40 ^a
2,4-Di-tert-butylphenol	C ₁₄ H ₂₂ O	2.59±0.72 ^a	2.19±0.27 ^a	2.89±0.91 ^a	2.48±0.35 ^a
2-Octyl-1-dodecanol	C ₂₀ H ₄₂ O	0.25±0.01 ^a	0.23±0.02 ^a	0.20±0.004 ^a	0.21±0.03 ^a
2,6,11,15-Tetramethylhexadecane	C ₂₀ H ₄₂	1.31±0.06 ^a	1.20±0.09 ^{ab}	0.92±0.05 ^b	1.07±0.13 ^{ab}

Volatile compounds	Chemical formulas	Relative contents (mg/g)			
		H	S1	S2	S3
Isohexadecane	C ₁₆ H ₃₄	0.28±0.02 ^a	0.26±0.01 ^a	0.25±0.004 ^a	0.23±0.03 ^a
2,6,10-Trimethylpentadecane	C ₁₈ H ₃₈	0.32±0.01	ND	ND	ND
Icosane	C ₂₀ H ₄₂	4.34±0.14 ^a	3.25±0.25 ^b	2.79±0.09 ^c	0.70±0.08 ^d
2,6,10,15-Tetramethylheptane	C ₂₁ H ₄₄	ND	0.66±0.05 ^a	ND	ND
Heneicosane	C ₂₁ H ₄₄	0.72±0.01 ^b	ND	0.59±0.03 ^b	1.55±0.23 ^a
3-Methylheptadecane	C ₁₈ H ₃₈	0.11±0.001	ND	ND	ND
Neophytadiene	C ₂₀ H ₃₈	0.92±0.30 ^a	1.31±0.23 ^a	1.50±0.82 ^a	0.86±0.09 ^a
Palmitic acid	C ₁₆ H ₃₂ O ₂	1.46±0.02 ^c	1.95±0.14 ^b	3.52±0.13 ^a	3.72±0.26 ^a
Tetracosane	C ₂₄ H ₅₀	0.75±0.12 ^a	0.74±0.16 ^a	0.56±0.08 ^a	0.52±0.04 ^a
Stearic acid	C ₁₈ H ₃₆ O ₂	1.29±0.08 ^b	0.72±0.14 ^c	1.78±0.05 ^a	1.88±0.12 ^a
Pentatriacont-17-ene	C ₃₅ H ₇₀	0.27±0.04 ^a	0.27±0.04 ^a	0.20±0.03 ^a	0.38±0.12 ^a
3-Ethyl-5-(2-Ethylbutyl)-Octadecane	C ₂₆ H ₅₄	ND	ND	ND	0.12±0.004
1-Monolinolein	C ₂₁ H ₃₈ O ₄	ND	ND	ND	0.14±0.08
2-Monostearin	C ₂₁ H ₄₂ O ₄	ND	ND	ND	0.35±0.12
2,2'-Methylenebis(6-tert-Butyl-4-methylphenol)	C ₂₃ H ₃₂ O ₂	3.57±0.19 ^a	3.98±0.39 ^a	3.31±0.37 ^a	2.24±0.01 ^b
2-Palmitoylglycerol	C ₁₉ H ₃₈ O ₄	1.01±0.14 ^a	1.03±0.18 ^a	1.23±0.31 ^a	0.92±0.11 ^a

Note: ND, not detection. H, healthy leaves; S1, tea leaves in the early disease stage; S2, tea leaves in the middle disease stage; S3, tea leaves in the late disease stage. Values were expressed as the mean ± standard error. Lowercase letters in the same row are labelled with different significantly at $P < 0.05$; and statistical analysis was performed using One-Way ANOVA with Tukey's post hoc test.