

**Table S7** Contents of main non-volatile components in leaves at different disease development stages

Components (mg/g)	H	S1	S2	S3
GA	4.86±0.20 <sup>a</sup>	2.82±0.05 <sup>b</sup>	2.79±0.11 <sup>b</sup>	2.32±0.04 <sup>c</sup>
EC	14.08±1.12 <sup>b</sup>	16.20±0.30 <sup>a</sup>	15.19±0.96 <sup>ab</sup>	16.08±0.38 <sup>ab</sup>
C	6.32±0.39 <sup>a</sup>	5.63±0.16 <sup>a</sup>	4.69±0.37 <sup>b</sup>	3.97±0.13 <sup>b</sup>
EGC	59.54±3.93 <sup>b</sup>	73.31±1.01 <sup>a</sup>	63.94±3.51 <sup>b</sup>	58.94±1.17 <sup>b</sup>
GC	4.73±0.27 <sup>a</sup>	4.35±0.07 <sup>a</sup>	3.85±0.17 <sup>b</sup>	3.90±0.09 <sup>b</sup>
ECG	31.26±1.83 <sup>a</sup>	24.64±0.49 <sup>b</sup>	23.84±1.28 <sup>b</sup>	23.29±0.60 <sup>b</sup>
CG	0.41±0.01 <sup>d</sup>	0.46±0.003 <sup>c</sup>	0.68±0.02 <sup>b</sup>	0.84±0.02 <sup>a</sup>
EGCG	138.57±8.79 <sup>a</sup>	133.04±2.39 <sup>a</sup>	126.61±6.79 <sup>a</sup>	108.57±2.79 <sup>b</sup>
GCG	5.15±0.27 <sup>a</sup>	4.76±0.09 <sup>a</sup>	5.37±0.57 <sup>a</sup>	5.51±0.09 <sup>a</sup>
Catechins	260.06±16.58 <sup>a</sup>	262.39±4.42 <sup>a</sup>	244.18±13.41 <sup>ab</sup>	221.10±5.24 <sup>b</sup>
Caffeine	43.79±3.06 <sup>a</sup>	42.08±0.66 <sup>a</sup>	44.18±2.59 <sup>a</sup>	42.05±0.86 <sup>a</sup>
Theobromine	1.60±0.12 <sup>c</sup>	1.51±0.03 <sup>c</sup>	2.01±0.10 <sup>b</sup>	2.64±0.06 <sup>a</sup>
Theophylline	0.94±0.06 <sup>a</sup>	0.97±0.01 <sup>a</sup>	0.73±0.06 <sup>b</sup>	0.66±0.03 <sup>b</sup>
Soluble sugar	10.79±0.43 <sup>a</sup>	10.40±0.16 <sup>a</sup>	10.78±0.79 <sup>a</sup>	90.52±0.07 <sup>b</sup>
Free amino acid	0.38±0.02 <sup>ab</sup>	0.35±0.01 <sup>b</sup>	0.36±0.02 <sup>b</sup>	0.51±0.03 <sup>a</sup>

Note: GA, gallic acid; EC, (-)-epicatechin; C, (+)-catechin; EGC, (-)-epigallocatechin; GC, (-)-gallocatechin; ECG, (-)-epicatechin gallate; CG, (-)-catechin gallate; EGCG, (-)-epigallocatechin gallate; GCG, (-)-gallocatechin gallate. 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. 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.