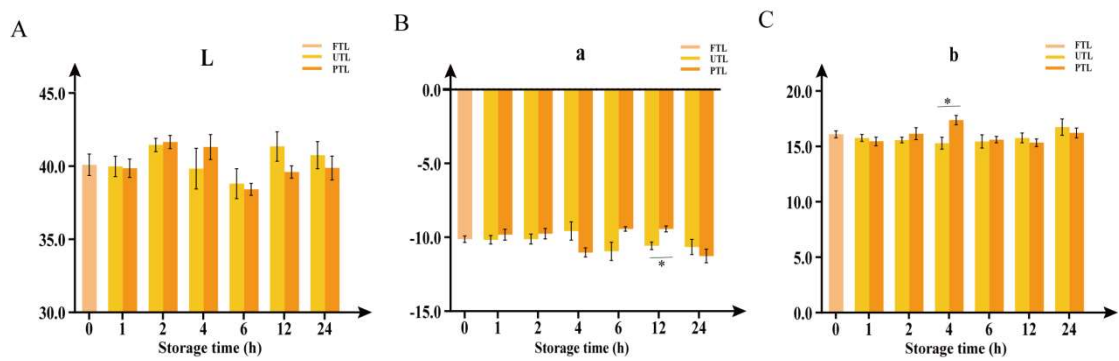
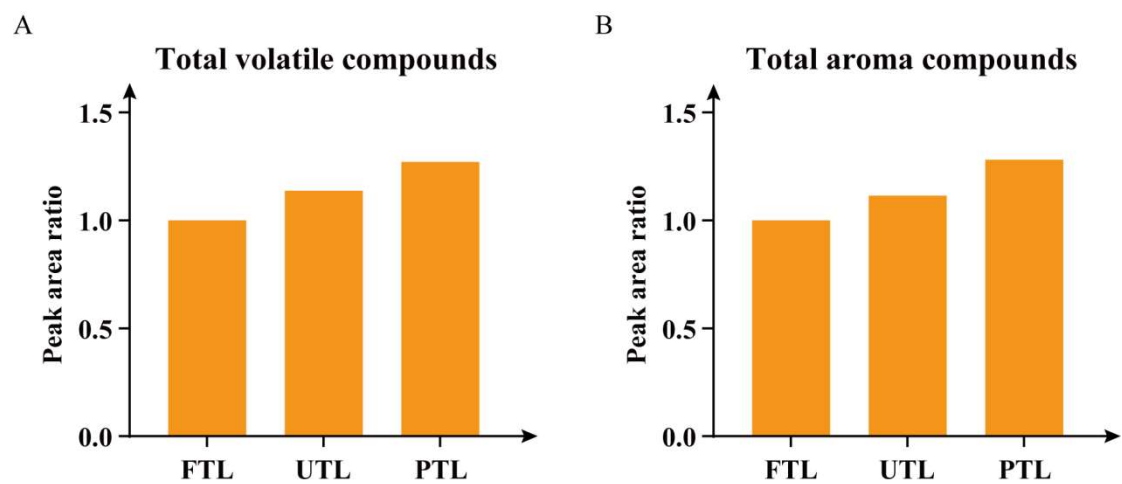


**Table S1.** PCR primers used for gene expression analysis.

Enzyme name	Primer	Primer sequence (5'-3')
Farnesene synthase	qCsFAS-F	GAGATAGCCAGGAAGAAG
	qCsFAS-R	TGGTAAATAAAATGAGCC
Limonene synthase	qCsLMS-F	GTTGACAGATGGGATGTG
	qCsLMS-R	CAATGTTGGCTTGTACCC
Germacrene D synthase	qCsGDS-F	GGTACCGGAGGTCACTCG
	qCsGDS-R	TGTCATCATGGTGATCAT
Mevalonate-5-pyrophosphate decarboxylase	qCsMVD-F	GGAATCGCTCAGAAGAAT
	qCsMVD-R	TTAGGAGGGAAGTGGAAA
4-Hydroxy-3-methylbutenyl diphosphate reductase	qCsHDR-F	GGGGTTTGATCCAGACAG
	qCsHDR-R	TGAAGTGCTCGTTGAGGT
Terpene synthase 78	qCsTPS78-F	AGGCATTGATTACCACTTCCGGGAG
	qCsTPS78-R	GCACATTGTAGCCTTGTTCCTCAA
Terpene synthase 77	qCsTPS77-F	GCAAGAAGGGTACAATGTGCCCCGCG
	qCsTPS77-R	CTGCGGCTTGATCAAGAATGTCTTC
Tea caffeine synthase1	qCsTCS1-F	TTACTTTTCTGACGAGGCA
	qCsTCS1-R	TGCGTTAAGAGCTTGAAGG
Tea caffeine synthase2	qCsTCS2-F	CCATTGCAGTTGGCACCA
	qCsTCS2-R	ACAACCCAAGTCCACTGC
Alanine decarboxylase	qCsAlaDC-F	GATTGGTTTGCCCGTCTATG
	qCsAlaDC-R	ATTATGGCTGGTTGTCCTT
Theanine synthetase	qCsTSI-F	GTTGATGTTTCTGGGCAGCA
	qCsTSI-R	CTCACCCACACCAGTCAGAT
Glutamine synthetase 2	qCsGS2-F	CAGATTTTGGCTCCTTCC
	qCsGS2-R	GTGCTGTTTTCGGACTGT
Flavonoid 3',5'-hydroxylase	qCsF3'5'-H-F	AAAGTAATTGGAAGAAACCGCC
	qCsF3'5'-H-R	TAGGAATACTGAGGGGAAGTGA
Flavonoid 3-hydroxylase	qCsF3H-F	GACCTACTTCTCATACCCGATC
	qCsF3H-R	AGTCCATCAATTTCTCGCTGTA
Leucoanthocyanidin reductase	qCsLAR-F	GTGTTGGAATCTGTGTCCGCAG
	qCsLAR-R	CTCCATGAATGCTTGATCCTTG
Anthocyanidin reductase	qCsANR-F	AACCAGCAATTCAAGGAGTAGT
	qCsANR-R	TCCCATTGAGCTTATTGATCGA
Serine carboxypeptidase-like acyltransferases 7	qCsSCPL1A7-F2	CGCGCCAATATACTATATGTAGAT
	qCsSCPL1A7-R2	ATAAGAATCACCACCAATGTATAG
Actin	qCsActin-F	GCCATATTTGATTGGAATGG
	qCsActin-R	GGTGCCACAACCTTGATCTT



**Figure S1.** Changes in the values of L\* (A), a\* (B), and b\* (C) in tea leaves in UTL and PTL at different time points and FTL at 0 h. Dunnett's multiple comparisons and t test was used to identify significant differences (\*,  $P < 0.05$ ). Values are the mean  $\pm$  SEM of all replicates.



**Figure S2.** Total volatile compounds (A) and aroma compounds (B) contents in FTL, UTL, and PTL at 24 h postharvest.