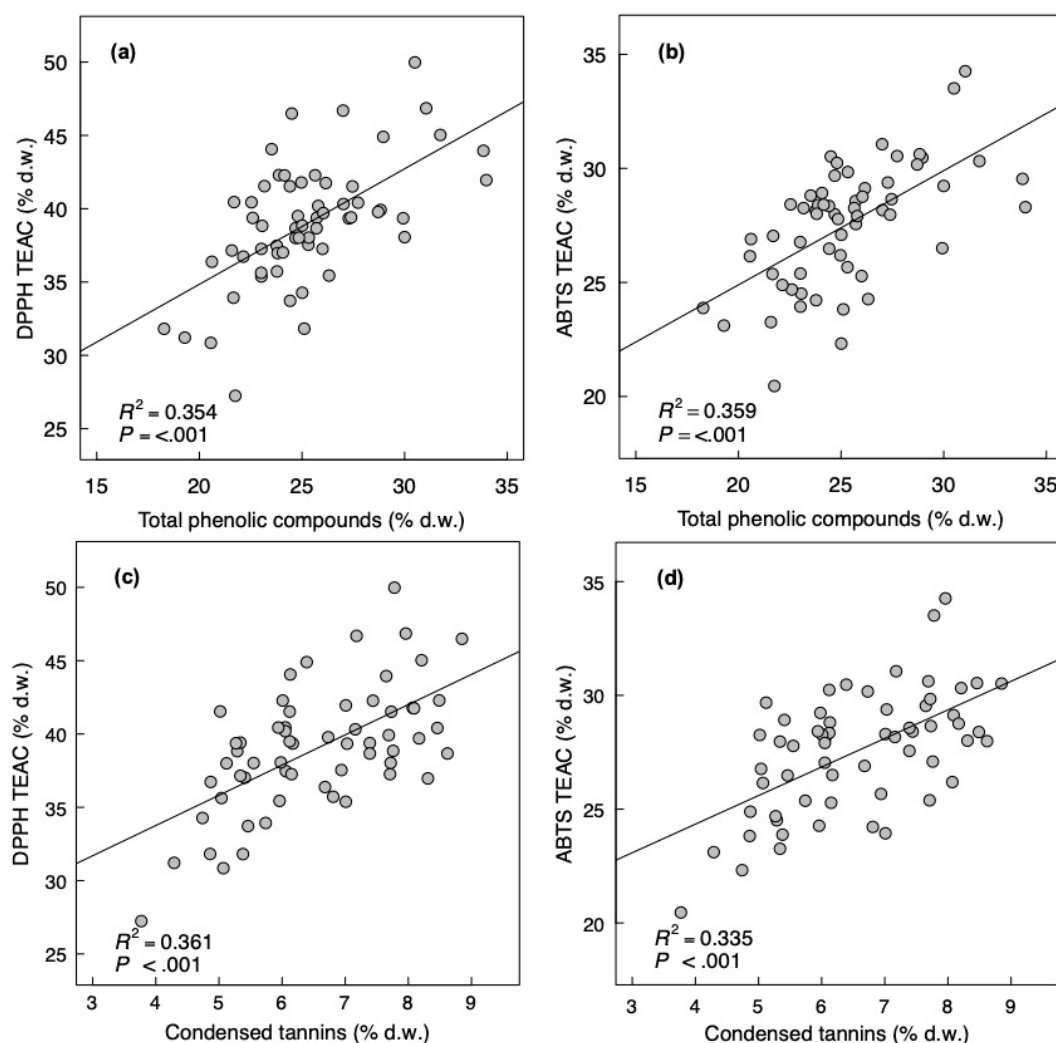# Supplementary

Figure S1. Regression analyses of total phenolic compounds and condensed tannins as a contributor to TEAC in DPPH (2,2-diphenyl-1-picrylhydrazyl) and ABTS (2,2'-azinobis-(3-ethylbenzothia-zoline-6-sulfonic acid) radical scavenging assay. Each point represents the value for a single plot replication within each of the 20 tea cultivars.

Table S1. Antioxidant capacity of major catechin components in tea leaves represented as TEAC (Trolox equivalent antioxidant capacity) in DPPH (2,2-diphenyl-1-picrylhydrazyl) and ABTS (2,2'-azinobis-(3-ethylbenzothiazoline-6-sulfonic acid) radical scavenging assays. % d.w.: % dry weight of the authentic standard of catechin components.

Catechin components	DPPH TEAC (% d.w.)	ABTS TEAC (% d.w.)
Epigallocatechin gallate, EGCG	222.0	278.0
Epigallocatechin, EGC	214.0	328.0
Epicatechin gallate, ECG	194.0	280.0
Epicatechin, EC	168.0	222.0
Catechin, C	130.0	184.0
Proanthocyanidin, PA	132.0	132.0

Table S2. Impacts of the interactions between catechins and condensed tannins (represented as pro-anthocyanidin) on the antioxidant capacity. DPPH TEAC: Trolox equivalent antioxidant capacity in 2,2-diphenyl-1-picrylhydrazyl radical scavenging assays; ABTS TEAC: Trolox equivalent antioxidant capacity in 2,2′-azinobis-(3-ethylbenzothiazoline-6-sulfonic acid) radical scavenging assays; EGCG: Epigallocatechin gallate; EGC: Epigallocatechin; ECG: Epicatechin gallate; PA: Proanthocyanidin; % d.w.: % dry weight of the authentic standard of catechin components.

(1) DPPH TEAC (% d.w.)

Combinations	Observed values	Calculated values	Relatively change	Coefficient of variation
EGCG+PA	188.0	177.0	6.2 %	4.3 %
EGC+PA	190.0	173.0	9.8 %	6.6 %
ECG+PA	168.0	163.0	3.1 %	2.1 %
EGCG+EGC+ECG+PA	196.0	190.5	2.9 %	2.0 %

(2) ABTS TEAC (% d.w.)

Combinations	Observed values	Calculated values	Relatively change	Coefficient of variation
EGCG+PA	218.0	205.0	6.3 %	4.3 %
EGC+PA	236.0	230.0	2.6 %	1.8 %
ECG+PA	206.0	206.0	0.0 %	0.0 %
EGCG+EGC+ECG+PA	260.0	254.5	2.2 %	1.5 %

Table S3. Partial least squares regression analyses examining the influence of condensed tannins and total catechins on the antioxidant capacity within tea leaves across 20 tea cultivars. Model fitting parameters indicate the strength of relationships between explanatory and response variables. Antioxidant capacity is represented as TEAC (Trolox equivalent antioxidant capacity) in DPPH (2,2-diphenyl-1-picrylhydrazyl) and ABTS (The 2,2′-azinobis-(3-ethylbenzothiazoline-6-sulfonic acid)) radical scavenging assays.

Dependent variable	Compounds	Estimate	*SE*	*df*	*P*-value	% Variance explained
DPPH TEAC	Catechins	0.66	0.29	59	**0.028**	58.40
	Condensed tannins	1.58	0.31	59	**<.001**	
ABTS TEAC	Catechins	1.15	0.47	59	**0.019**	60.39
	Condensed tannins	2.46	0.52	59	**<.001**	

Boldface values represent $P < 0.05$.