

Table S1. The alteration of total phenolics, DPPH, total monomeric anthocyanin and protein content according to the varieties, drying methods, and their interaction (mean \pm standard deviation).

Variety		Total Phenolics (mg/L GAE)	DPPH (%)	Total Mono Ant	Protein (mg/ml)
	Deyvani	104.30 \pm 45.44a	0.69 \pm 0.05c	4.55 \pm 3.51a	1.23 \pm 0.64b
	Haseni	90.46 \pm 10.44b	0.83 \pm 0.08a	4.22 \pm 1.88b	1.07 \pm 0.22c
	Reşek	82.29 \pm 7.74c	0.75 \pm 0.08b	4.72 \pm 1.43a	2.49 \pm 1.35a
Drying method					
	AOW	80.43 \pm 8.36b	0.78 \pm 0.11a	4.81 \pm 1.46b	1.18 \pm 0.53b
	POT	118.37 \pm 35.41a	0.70 \pm 0.05b	6.42 \pm 2.31a	2.47 \pm 1.41a
	SD	78.24 \pm 6.54b	0.79 \pm 0.06a	2.25 \pm 0.78c	1.13 \pm 0.28b
Variety x Drying method					
Deyvani	AOW	77.00 \pm 4.42de	0.66 \pm 0.04f	3.24 \pm 0.19e	0.84 \pm 0.05f
	POT	164.34 \pm 9.43a	0.68 \pm 0.04ef	9.08 \pm 0.52a	2.08 \pm 0.12b
	SD	71.56 \pm 4.11e	0.73 \pm 0.04def	1.34 \pm 0.08g	0.77 \pm 0.04f
Haseni	AOW	90.09 \pm 5.17c	0.89 \pm 0.05a	6.55 \pm 0.38b	0.81 \pm 0.05f
	POT	101.50 \pm 5.82b	0.75 \pm 0.04cde	3.80 \pm 0.22d	1.08 \pm 0.06e
	SD	79.78 \pm 4.58de	0.84 \pm 0.05ab	2.29 \pm 0.13f	1.31 \pm 0.08d
Reşek	AOW	74.22 \pm 4.26de	0.78 \pm 0.04bcd	4.64 \pm 0.27c	1.88 \pm 0.11c
	POT	89.27 \pm 5.12c	0.66 \pm 0.04f	6.38 \pm 0.37b	4.25 \pm 0.24a
	SD	83.38 \pm 4.78cd	0.81 \pm 0.05bc	3.13 \pm 0.18e	1.33 \pm 0.08d
ANOVA					
FVariety		36.58***	22.80***	6.98**	456.50***
FDrying method		150.45***	12.03***	473.89***	435.88***
FVariety x Drying method		66.96***	3.87*	184.84***	161.76***

Different letters in the same column indicate a significant difference between means according to Student's t-test ($p < 0.05$) for each factor. *, **, and *** indicate significance at $p < 0.05$, $p < 0.01$, and $p < 0.001$, respectively. Total Mono Ant: total monomeric anthocyanin.

Table S2. Eigenvectors for the studied features.

Traits	PC1	PC2	PC3	PC4	PC5	PC6	PC7	PC8	PC9
DPPH (%)	-0.087	-0.271	0.494	0.084	0.248	-0.436	0.075	0.105	0.402
Protein (mg/ml)	-0.065	0.459	0.035	0.361	-0.094	0.046	0.036	-0.452	0.070
Berry Weight (g)	-0.175	-0.031	0.402	-0.062	-0.572	0.062	0.146	0.307	-0.410
TSS (%)	0.228	-0.047	0.521	-0.044	0.016	0.364	-0.547	0.000	-0.092
pH	0.106	0.332	0.184	-0.477	-0.223	0.110	0.314	-0.167	0.483
TA	-0.088	-0.357	0.276	0.302	0.219	0.425	0.455	-0.067	0.135
L	-0.117	0.142	0.230	-0.467	0.531	0.061	-0.063	-0.335	-0.331
a	0.409	-0.034	-0.068	0.059	-0.012	0.328	-0.026	-0.009	0.178
b	0.424	-0.011	-0.029	0.012	0.000	0.078	0.087	0.071	-0.037
Chroma	0.420	-0.011	-0.043	0.019	0.015	0.181	0.063	0.126	0.039
Hue	0.323	-0.064	0.275	-0.023	-0.328	-0.402	0.066	-0.385	-0.060
Mono Ant	0.265	0.307	0.138	0.279	0.175	-0.321	-0.269	0.257	0.085
Col Den	-0.205	0.430	0.111	-0.143	0.065	0.132	0.008	0.504	0.243
Pol Col	-0.185	0.339	0.201	0.466	0.003	0.153	0.033	-0.124	-0.097
Total Phenolics (mg/L GAE)	0.314	0.236	0.066	0.020	0.283	-0.150	0.522	0.202	-0.427

Col Den: color density; Pol Col: polymeric color; TA: titration acidity; Mono Ant: total monomeric anthocyanin;
TP: total phenolic content; TSS: total soluble solids.