

Supplementary material Table S1. Phenolic compounds (µg/L) of the raisin grapes produced from the Gök Uzüüm cultivar applied the treatments Oak ash and K₂CO₃ dipping solutions.

Terms in the model	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Phenolic Compounds					
(µg/L)					
Gallic acid					
Treatments	1	5.414	5.414	14.85	0.018 *
Residuals	4	1.458	0.365		
Vanillic acid					
Treatments	1	13.015	13.015	35.09	0.004 **
Residuals	4	1.484	0.371		
Trans-caffeic acid					
Treatments	1	12.622	12.62	23.36	0.008 **
Residuals	4	2.161	0.54		
Trans-p-coumaric.acid					
Treatments	1	16.747	16.747	85.02	0.000 ***
Residuals	4	0.788	0.197		
Ferulic acid					
Treatments	1	2.3667	2.3667	88.52	0.000 ***
Residuals	4	0.1069	0.0267		
Kaftaric acid					
Treatments	1	5.813	5.813	4.823	0.093
Residuals	4	4.821	1.205		
Catechin					
Treatments	1	0.220	0.220	0.217	0.666
Residuals	4	4.062	1.015		
(-)-Epicatechin					
Treatments	1	29.236	29.24	73.03	0.001 **
Residuals	4	1.601	0.40		
Quercetin					
Treatments	1	5.497	5.497	76.11	0.000 ***
Residuals	4	0.289	0.072		
Rutin					
Treatments	1	2.243	2.2430	4.511	0.101
Residuals	4	1.989	0.4972		
Myricetin					
Treatments	1	1.458	1.4575	1.471	0.292
Residuals	4	3.962	0.9905		
Tyrosol					
Treatments	1	1.800	1.7997	2.221	0.210
Residuals	4	3.241	0.8101		

Df, degrees of freedom; Sum Sq, sums of squares; Mean Sq, mean sums of squares, *, Significant at *p*-value <0.05; **, Significant at *p*-value < 0.01; ***, Significant at *p*-value < 0.001.

Supplementary Material Table S2. The anthocyanin content (%) and phenolic acids (peak/IS ratio) of the raisin grapes produced from the Gök Üzümlü cultivar applied the treatments Oak ash and K₂CO₃ dipping solutions.

Terms in the model	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Anthocyanin content					
Malvidin-3-o glucoside					
Treatments	1	34.65	34.65	38.66	0.003 **
Residuals	4	3.58	0.90		
Delphinidin-3 glycoside					
Treatments	1	8.846	8.846	7.967	0.047 *
Residuals	4	4.441	1.110		
Cyanidin-3 glycoside					
Treatments	1	4.507	4.507	12.89	0.022 *
Residuals	4	1.398	0.350		
Petunidin-3 glycoside					
Treatments	1	82.81	82.81	33.41	0.004 **
Residuals	4	9.92	2.48		
Malvidin-3 glycoside					
Treatments	1	52.7	52.68	0.512	0.514
Residuals	4	411.6	102.90		
Peonidin-3 glycoside					
Treatments	1	95.47	95.47	56.48	0.001 **
Residuals	4	6.76	1.69		
Malvidin-3-glycoside acetyl					
Treatments	1	10456	10456	20.6	0.010 *
Residuals	4	2030	508		
Peonidin-3-glycoside acetyl					
Treatments	1	2197	2197.0	5.342	0.081
Residuals	4	1645	411.3		
Malvidin-3-glycoside p coumaryl					
Treatments	1	1007.0	1007.0	10.86	0.030 *
Residuals	4	370.9	92.7		
Phenolic acids					
Hydroxycinnamic acids					
Treatments	1	3.704	3.704	9.61	0.036 *
Residuals	4	1.542	0.385		
Hydroxybenzoic acids					
Treatments	1	0.8649	0.8649	3.601	0.131
Residuals	4	0.9608	0.2402		
Benzaldehyde					
Treatments	1	3006	3006	1.474	0.291
Residuals	4	8154	2038		
Phenylacetaldehyde					
Treatments	1	1673.4	1673.4	7.848	0.048 *
Residuals	4	852.9	213.2		

Df, degrees of freedom; Sum Sq, sums of squares; Mean Sq, mean sums of squares, *, Significant at *p*-value <0.05; **, Significant at *p*-value < 0.01; ***, Significant at *p*-value < 0.001.

Supplementary Material Table S3. Flavonoids (mg/kg) and Phytoalexins (mg/kg) of the raisin grapes produced from the Gök Üzümler cultivar applied the treatments Oak ash and K₂CO₃ dipping solutions.

Terms in the model	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Flavonoids (mg/kg)					
Anthocyanidins					
Treatments	1	5457	5457	72.72	0.001 **
Residuals	4	300	75		
Flavonols					
Treatments	1	456.5	456.5	20.36	0.010 *
Residuals	4	89.7	22.4		
Flavones					
Treatments	1	1062.8	1062.8	24.94	0.007 **
Residuals	4	170.5	42.6		
Flavanones					
Treatments	1	24.417	24.417	73.23	0.001 **
Residuals	4	1.334	0.333		
Catechins					
Treatments	1	714.9	714.9	29.57	0.005 **
Residuals	4	96.7	24.2		
Phytoalexins (mg/kg)					
Resveratrol					
Treatments	1	167.15	167.15	268.5	0.000 ***
Residuals	4	2.49	0.62		
Pterostilbene					
Treatments	1	1.1635	1.1635	15.83	0.016 *
Residuals	4	0.2941	0.073		
Piceid					
Treatments	1	0.2341	0.2341	36.02	0.003 **
Residuals	4	0.0260	0.0065		
Viniferin					
Treatments	1	92.00	92.00	68.37	0.001 **
Residuals	4	5.38	1.35		

Df, degrees of freedom; Sum Sq, sums of squares; Mean Sq, mean sums of squares, *, Significant at p -value < 0.05; **, Significant at p -value < 0.01; ***, Significant at p -value < 0.001.