



Effect of Temperature and Storage Time on Some Biochemical Compounds from the Kernel of Some Walnut Cultivars Grown in Romania

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Table S1. Cultivar, storage type, storage time, and their interactions' effect on walnut kernel TPC (Three-Way ANOVA)

Source	DF	Adj SS	Adj MS	F-Value	P-Value	(P < 0.05)	Sig.
Cultivar	7	111248965	15892709	7936354.25	0.000	yes	**
Storage type	2	42823520	21411760	10692406.72	0.000	yes	**
Storage time	3	342909592	114303197	57079674.37	0.000	yes	**
Cultivar * Storage type	14	8617076	615505	307365.41	0.000	yes	**
Cultivar * Storage time	21	28679662	1365698	681989.74	0.000	yes	**
Storage type * Storage time	6	34775996	5795999	2894352.55	0.000	yes	**
Cultivar * Storage type * Storage time	42	14071398	335033	167305.83	0.000	yes	**
Error	192	384	2				
Total	287	583126592					

Table S2. Cultivar, storage type, storage time, and their interactions' effect on walnut kernel TFC (Three-Way ANOVA)

Source	DF	Adj SS	Adj MS	F-Value	P-Value	(P < 0.05)	Sig.
Cultivar	7	3529583	504226	3798.66	0.000	yes	**
Storage type	2	5662451	2831226	21329.45	0.000	yes	**
Storage time	3	12425527	4141842	31203.17	0.000	yes	**
Cultivar * Storage type	14	484289	34592	260.60	0.000	yes	**
Cultivar * Storage time	21	1233267	58727	442.43	0.000	yes	**
Storage type * Storage time	6	4386968	731161	5508.31	0.000	yes	**
Cultivar * Storage type * Storage time	42	670172	15956	120.21	0.000	yes	**
Error	192	25486	133				
Total	287	28417742					

Table S3. Cultivar, storage type, storage time, and their interactions` effect on walnut kernel TTC (Three-Way ANOVA)

Source	DF	Adj SS	Adj MS	F-Value	P-Value	(P < 0.05)	Sig.
Cultivar	7	23575343	3367906	555047.62	0.000	yes	**
Storage type	2	21097791	10548896	1738510.25	0.000	yes	**
Storage time	3	99988361	33329454	5492859.01	0.000	yes	**
Cultivar * Storage type	14	6481781	462984	76302.11	0.000	yes	**
Cultivar * Storage time	21	16469818	784277	129252.75	0.000	yes	**
Storage type * Storage time	6	9372893	1562149	257449.87	0.000	yes	**
Cultivar * Storage type * Storage time	42	11824564	281537	46398.73	0.000	yes	**
Error	192	1165	6				
Total	287	188811717					

Table S4. Cultivar, storage type, storage time, and their interactions` effect on walnut kernel lycopene content (Three-Way ANOVA)

Source	DF	Adj SS	Adj MS	F-Value	P-Value	(P < 0.05)	Sig.
Cultivar	7	26.326	3.7609	313301.79	0.000	yes	**
Storage type	2	7.348	3.6741	306066.81	0.000	yes	**
Storage time	3	206.455	68.8182	5732877.87	0.000	yes	**
Cultivar * Storage type	14	2.327	0.1662	13844.59	0.000	yes	**
Cultivar * Storage time	21	30.780	1.4657	122102.53	0.000	yes	**
Storage type * Storage time	6	3.051	0.5085	42360.61	0.000	yes	**
Cultivar * Storage type * Storage time	42	3.829	0.0912	7595.37	0.000	yes	**
Error	192	0.002	0.0000				
Total	287	280.119					

Table S5. Cultivar, storage type, storage time, and their interactions` effect on walnut kernel β-carotene content (Three-Way ANOVA)

Source	DF	Adj SS	Adj MS	F-Value	P-Value	(P < 0.05)	Sig.
Cultivar	7	1.40859	0.20123	4158.28	0.000	yes	**
Storage type	2	0.23457	0.11729	2423.67	0.000	yes	**
Storage time	3	5.34881	1.78294	36843.83	0.000	yes	**
Cultivar * Storage type	14	0.11204	0.00800	165.38	0.000	yes	**
Cultivar * Storage time	21	1.00272	0.04775	986.71	0.000	yes	**
Storage type * Storage time	6	0.21254	0.03542	732.00	0.000	yes	**
Cultivar * Storage type * Storage time	42	0.20498	0.00488	100.85	0.000	yes	**
Error	192	0.00929	0.00005				
Total	287	8.53353					

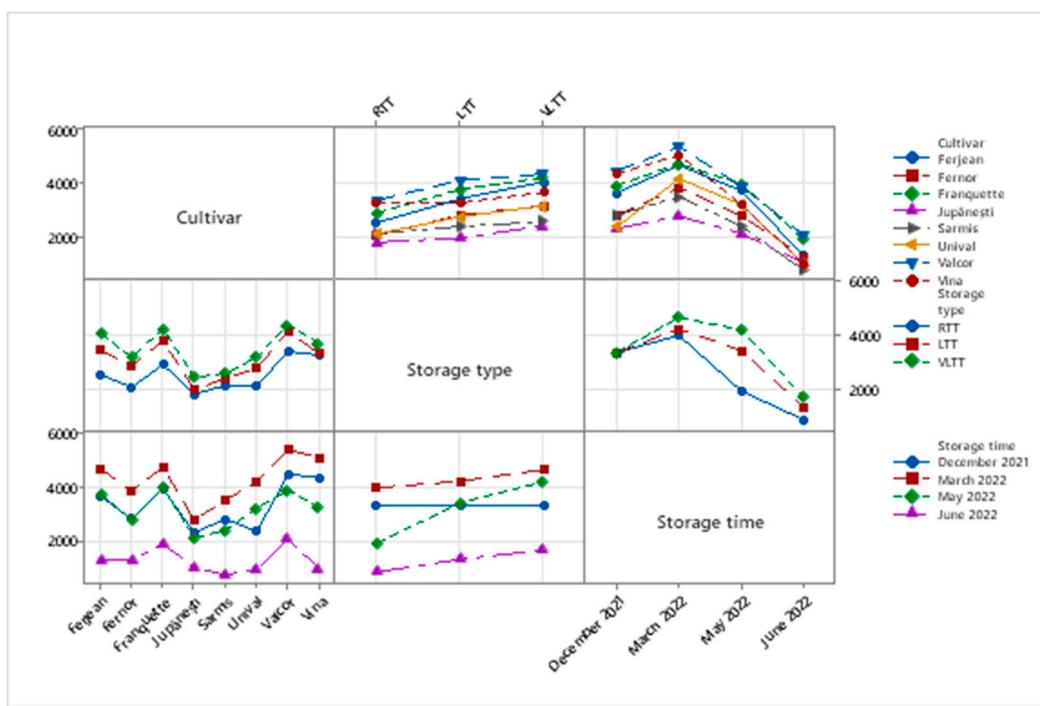


Figure S1. Interaction Plot for TPC (mg GAE/100 g). Storage type: RTT = stored at room temperature (20–22 °C), LTT = low-temperature treatment (3–4 °C), VLTT = very low-temperature treatment (-18; -20 °C), Storage time: mid-December 2021 = before storage experiment, mid-March 2022 = after three months (short-term storage), mid-May 2022 = after five months (medium storage), mid-June 2022 = after six months (long-term storage).

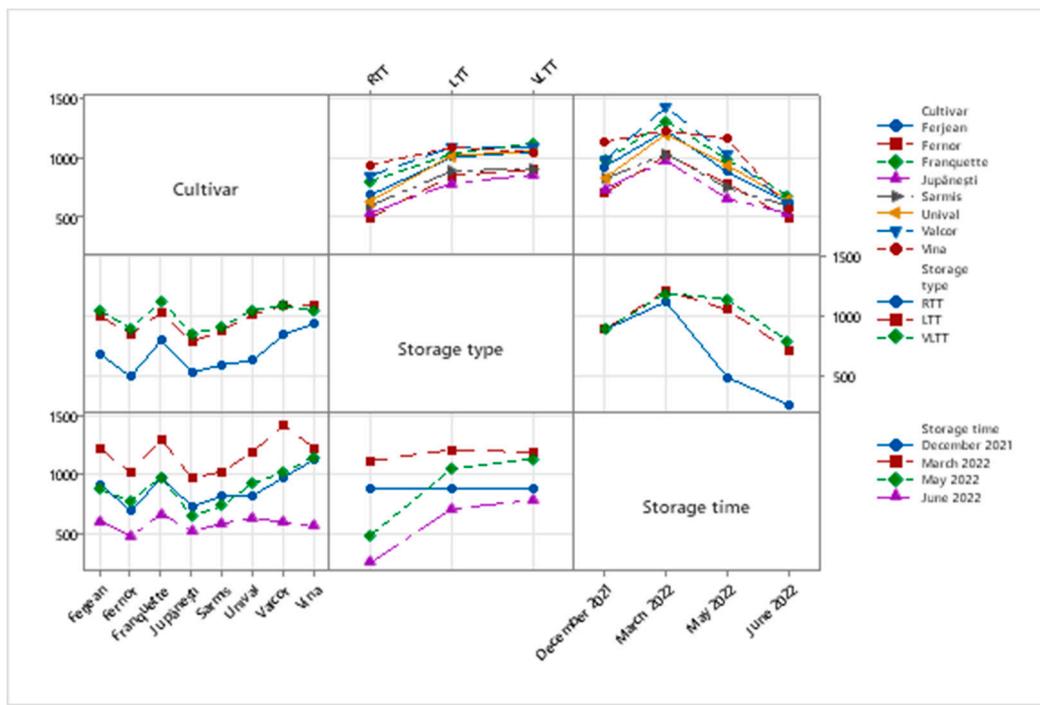


Figure S2. Interaction Plot for TFC (mg EC/100 g). Storage type: RTT = stored at room temperature (20–22 °C), LTT = low-temperature treatment (3–4 °C), VLTT = very low-temperature treatment (-18; -20 °C), Storage time: mid-December 2021 = before storage experiment, mid-March 2022 = after three months (short-term storage), mid-May 2022 = after five months (medium storage), mid-June 2022 = after six months (long-term storage).

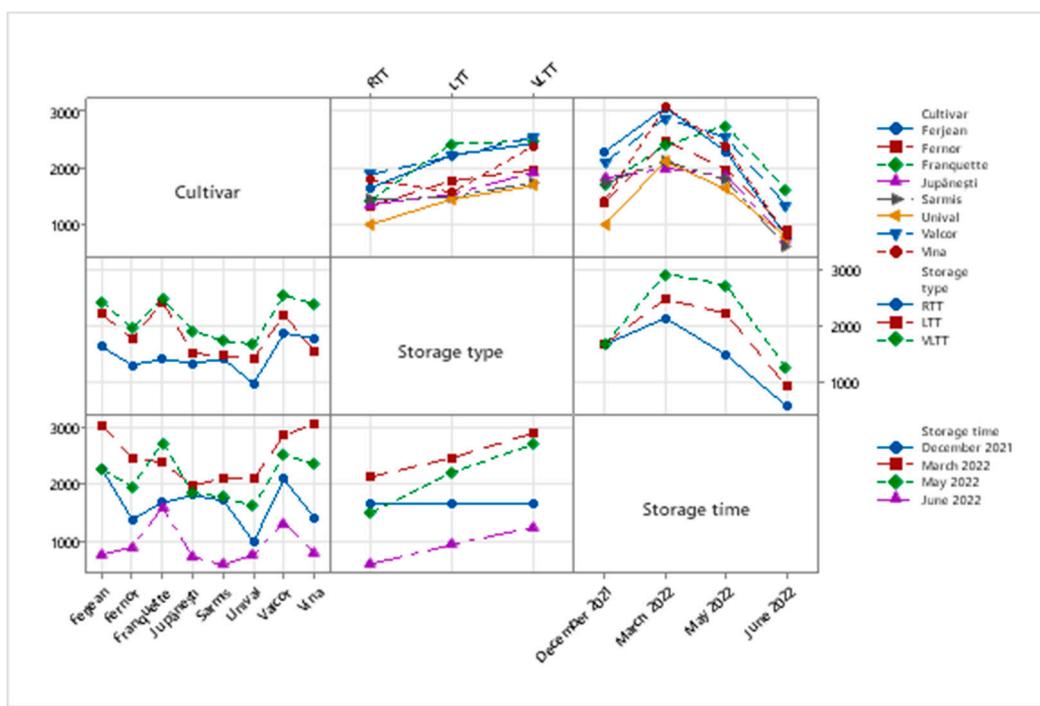


Figure S3. Interaction Plot for TTC (mg GAE/100 g). Storage type: RTT = stored at room temperature (20–22 °C), LTT = low-temperature treatment (3–4 °C), VLTT = very low-temperature treatment (-18; -20 °C), Storage time: mid-December 2021 = before storage experiment, mid-March 2022 = after three months (short-term storage), mid-May 2022 = after five months (medium storage), mid-June 2022 = after six months (long-term storage).

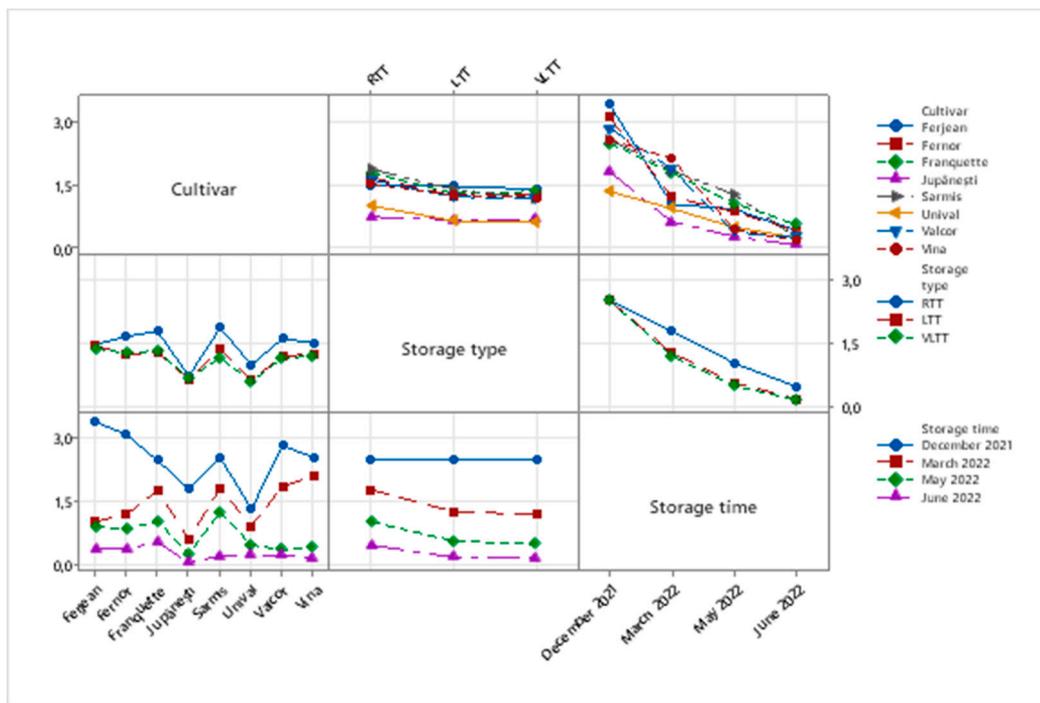


Figure S4. Interaction Plot for lycopene (mg/100 g). Storage type: RTT = stored at room temperature (20–22 °C), LTT = low-temperature treatment (3–4 °C), VLTT = very low-temperature treatment (-18; -20 °C), Storage time: mid-December 2021 = before storage experiment, mid-March 2022 = after three months (short-term storage), mid-May 2022 = after five months (medium storage), mid-June 2022 = after six months (long-term storage).

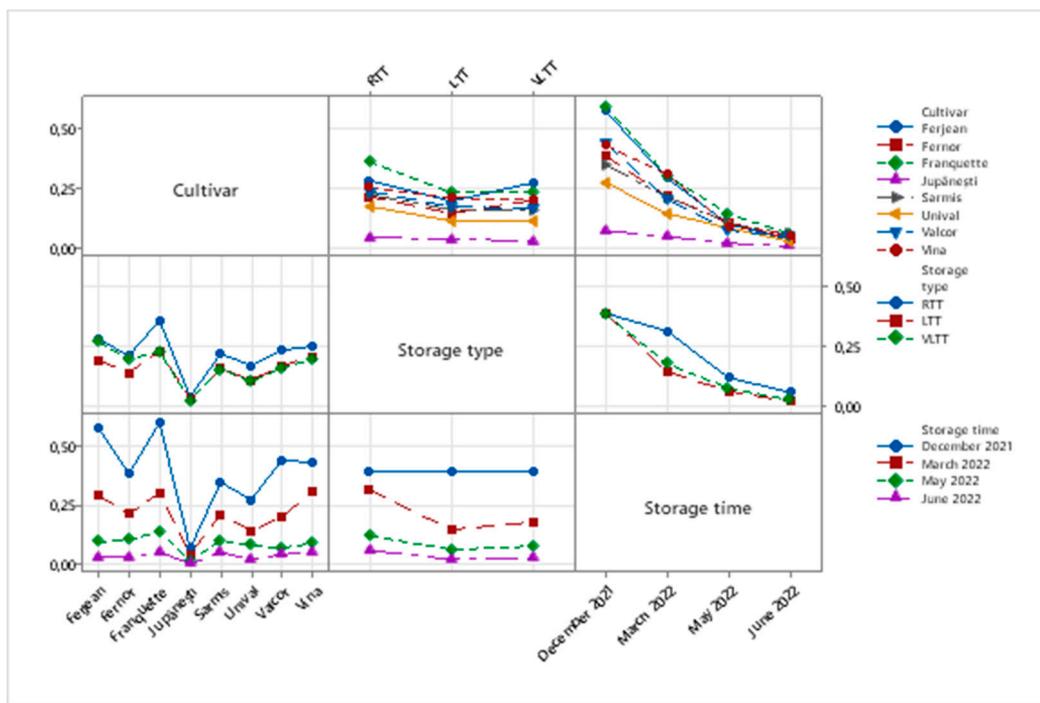


Figure S5. Interaction Plot for β -carotene (mg/100 g). Storage type: RTT = stored at room temperature (20–22 °C), LTT = low-temperature treatment (3–4 °C), VLTT = very low-temperature treatment (-18; -20 °C), Storage time: mid-December 2021 = before storage experiment, mid-March 2022 = after three months (short-term storage), mid-May 2022 = after five months (medium storage), mid-June 2022 = after six months (long-term storage).