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# Benzothiadiazole affects grape polyphenol metabolism and wine quality in two Greek cultivars: Effects during ripening period over two years.

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Table S1: Date of biostimulant applications and sampling dates during 2019 and 2020 vintages.

	Biostimulant Application			
	Mouhtaro		Savvatiano	
	2019	2020	2019	2020
1 <sup>st</sup> application	16 <sup>th</sup> July	17 <sup>th</sup> July	16 <sup>th</sup> August	21 <sup>th</sup> August
2 <sup>nd</sup> application	23 <sup>rd</sup> July	24 <sup>th</sup> July	23 <sup>st</sup> August	27 <sup>th</sup> August
3 <sup>rd</sup> application	30 <sup>th</sup> July	31 <sup>st</sup> August	30 <sup>th</sup> August	4 <sup>th</sup> September
Sampling dates				
1 <sup>st</sup> Sampling (Veraison)	30 <sup>th</sup> July	31 <sup>st</sup> August	30 <sup>th</sup> August	4 <sup>th</sup> September
2 <sup>nd</sup> Sampling (Mid Veraison)	15 <sup>th</sup> August	18 <sup>th</sup> August	10 <sup>th</sup> September	15 <sup>th</sup> September
3 <sup>rd</sup> Sampling (Harvest)	3 <sup>th</sup> September	8 <sup>th</sup> September	29 <sup>th</sup> September	24 <sup>th</sup> September

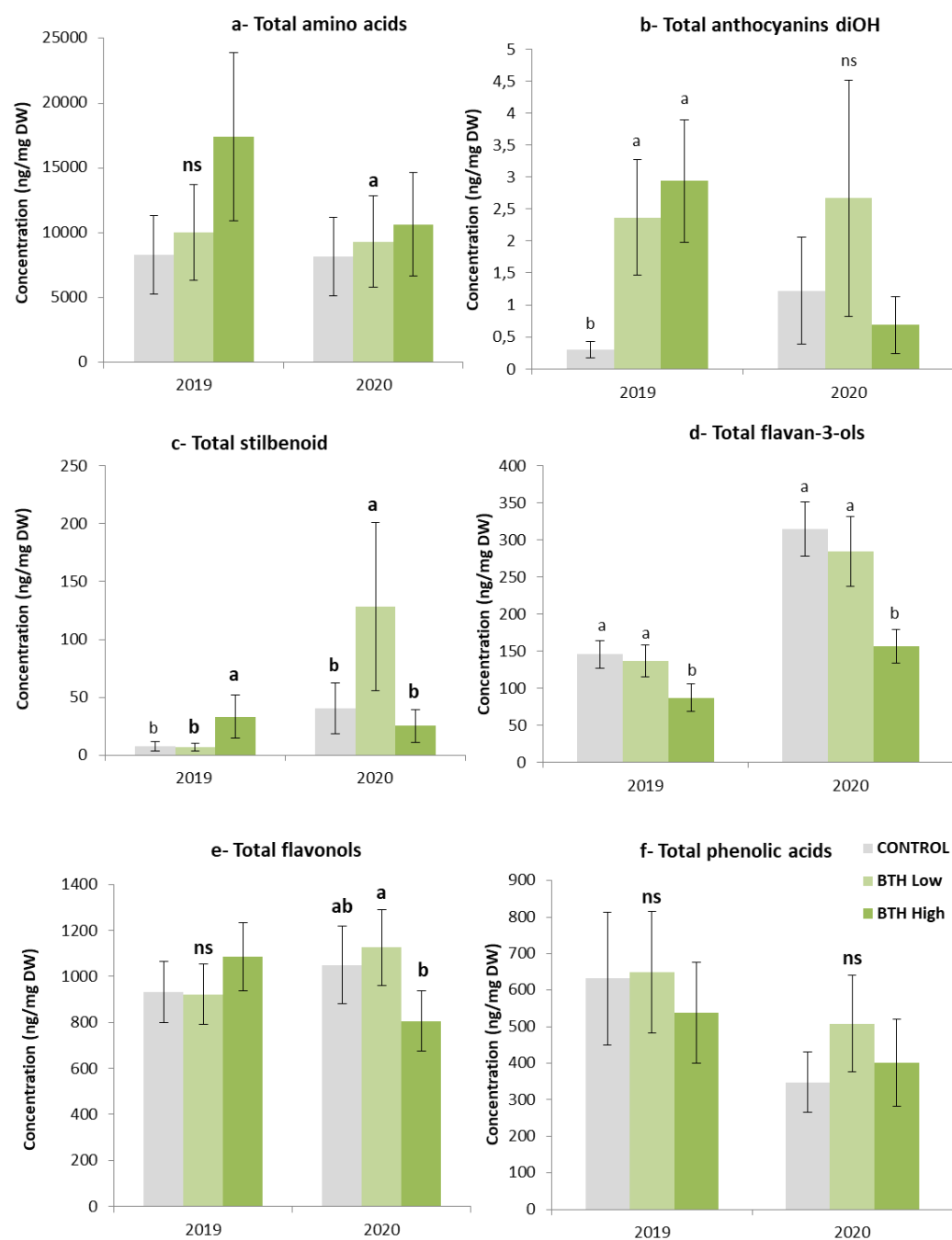


Figure S1. Total concentrations of amino acids (a), anthocyanins diOH (b), stilbenoids (c), flavan-3-ols (d), flavonols (e) and phenolic acids (f) in Savvatiano berries at Veraison (1<sup>st</sup> sampling) stage in 2019 and 2020 treated with benzothiadiazole. Control (grey), low concentration of benzothiadiazole (light green), and high concentration of benzothiadiazole (dark green). Error bars represent the standard deviations. Different letters indicate significant differences. No significant difference (ns) was found between values with the same letters (one-way ANOVA, p-value > 0.05).

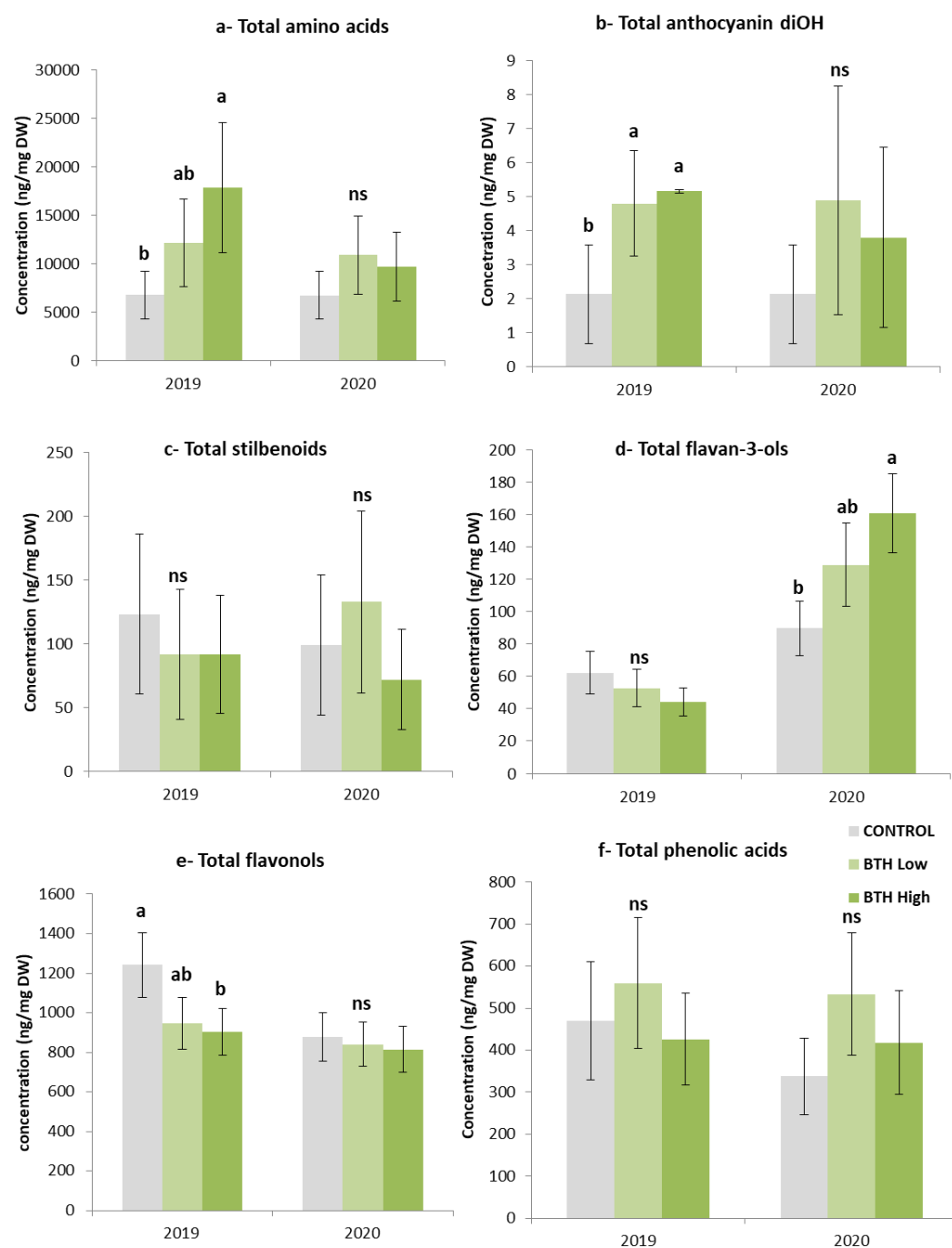


Figure S2. Total concentrations of amino acids (a), anthocyanins diOH (b), stilbenoids (c), flavan-3-ols (d), flavonols (e) and phenolic acids (f) in Savvatiano berries at Mid Veraison (2<sup>nd</sup> Sampling) stage in 2019 and 2020 treated with benzothiadiazole. Control (grey), low concentration of benzothiadiazole (light green), and high concentration of benzothiadiazole (dark green). Error bars represent the standard deviations. Different letters indicate significant differences. No significant difference (ns) was found between values with the same letters (one-way ANOVA,  $p$ -value > 0.05).

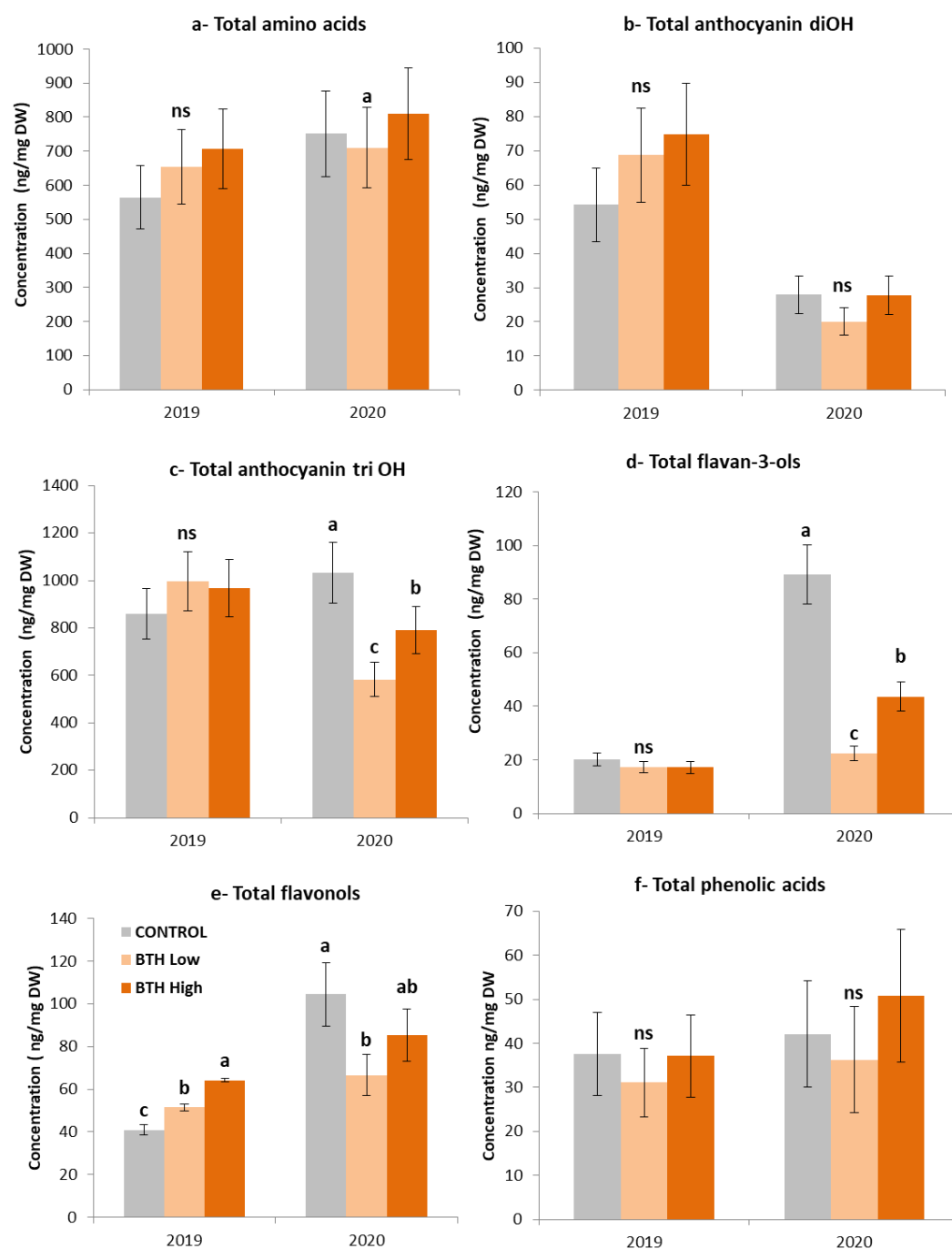


Figure S3. Total concentrations of amino acids (a), anthocyanins diOH (b), stilbenoids (c), flavan-3-ols (d), flavonols (e) and phenolic acids (f) in Mouhtaro berries at Veraison (1<sup>st</sup> sampling) stage in 2019 and 2020 treated with benzothiadiazole: control (grey), low concentration of benzothiadiazole (pale orange), and high concentration of benzothiadiazole (dark orange). Error bars represent the standard deviations. Different letters indicate significant differences. No significant difference (ns) was found between values with the same letters (one-way ANOVA, p-value > 0.05).

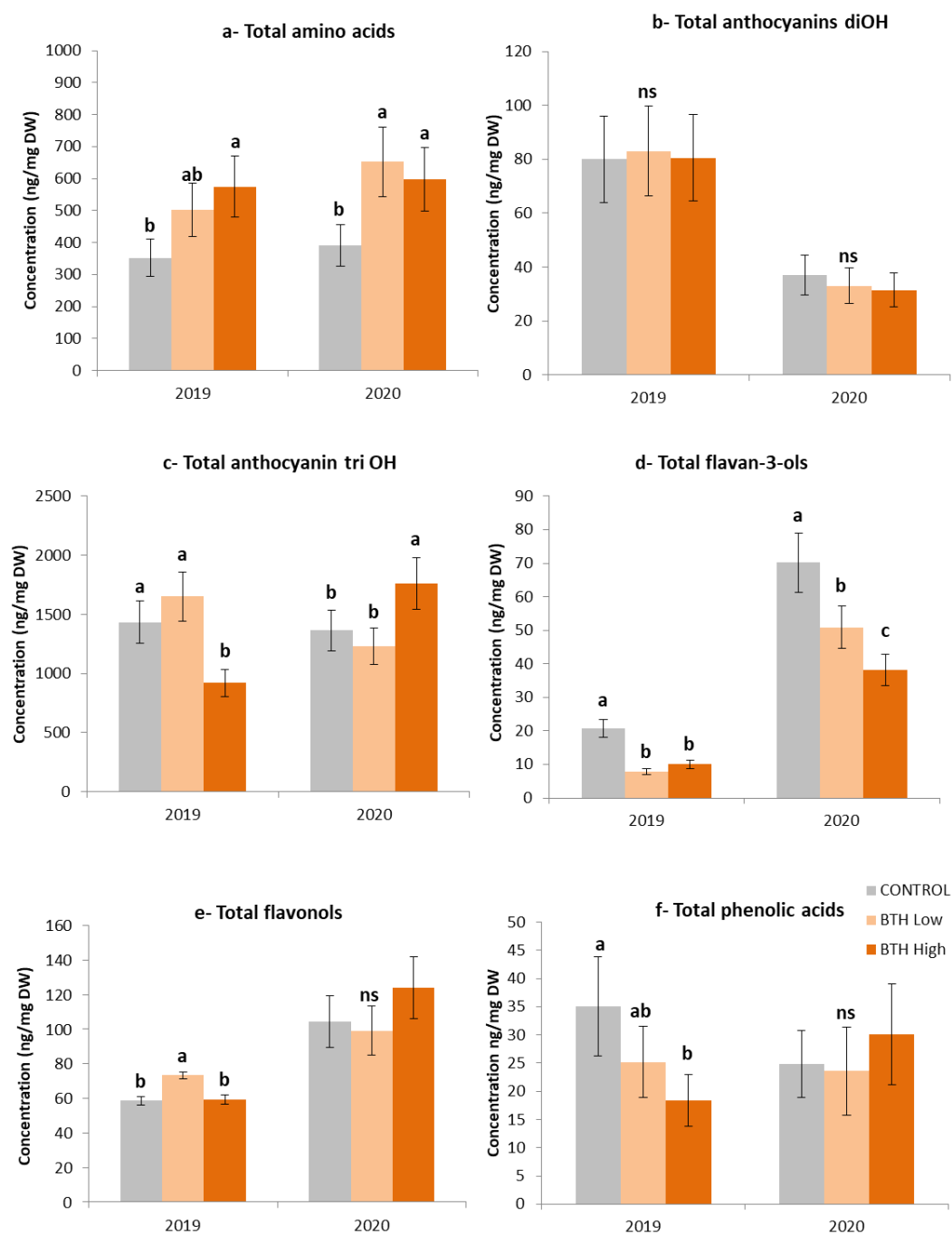


Figure S4. Total concentrations of amino acids (a), anthocyanins diOH (b), stilbenoids (c), flavan-3-ols (d), flavonols (e) and phenolic acids (f) in Mouhtaro berries at Mid Veraison (2<sup>nd</sup> sampling) stage in 2019 and 2020 treated with benzothiadiazole: control (grey), low concentration of benzothiadiazole (pale orange), and high concentration of benzothiadiazole (dark orange). Error bars represent the standard deviations. Different letters indicate significant differences. No significant difference (ns) was found between values with the same letters (one-way ANOVA, p-value > 0.05).

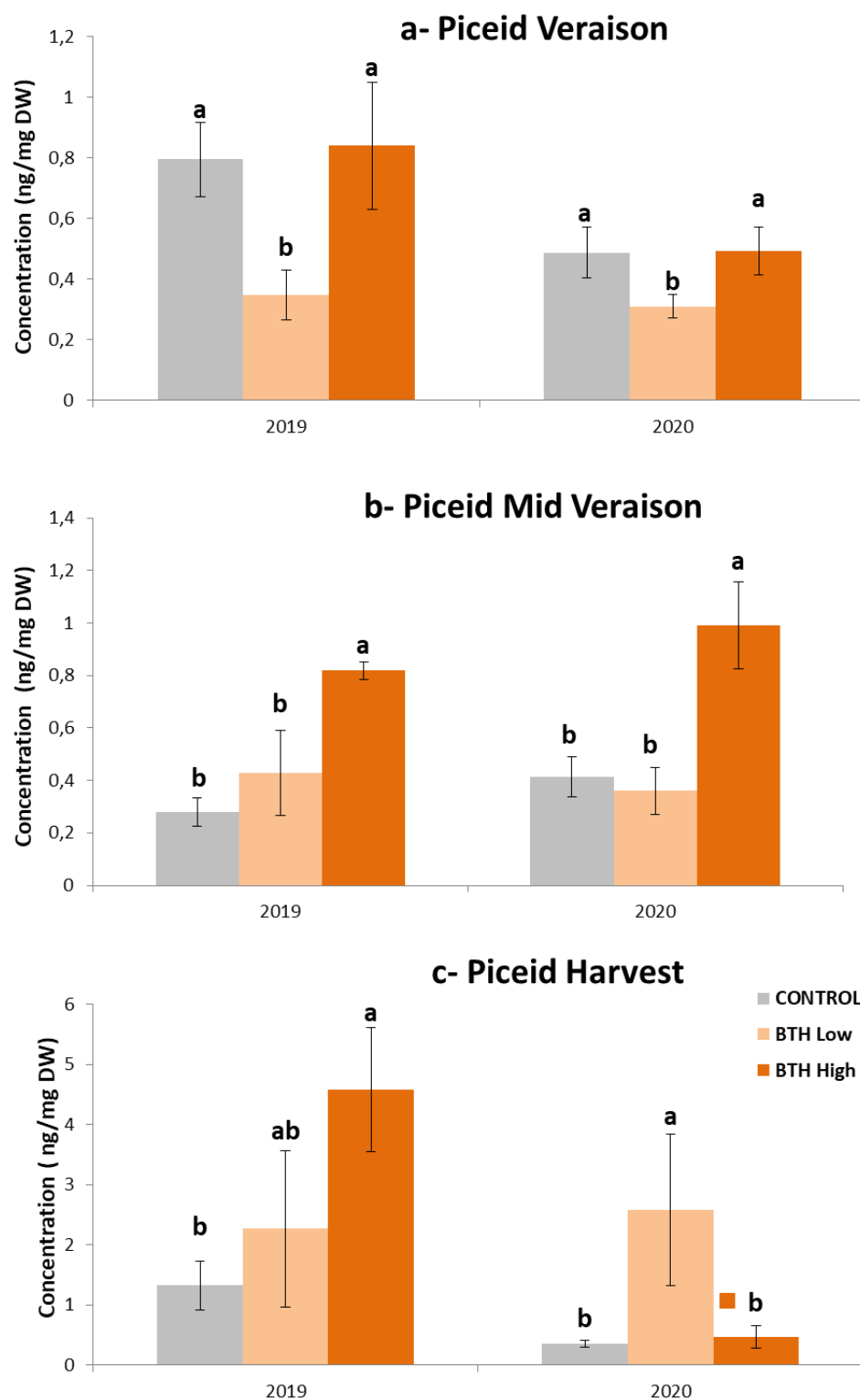


Figure S5. Concentrations of Piceid in Mouhtaro berries in three sampling dates, 2019 and 2020 treated with benzothiadiazole: control (grey), low concentration of benzothiadiazole (pale orange), and high concentration of benzothiadiazole (dark orange). Error bars represent the standard deviations. Different letters indicate significant differences. No significant difference (ns) was found between values with the same letters (one-way ANOVA.  $p$ -value > 0.05).

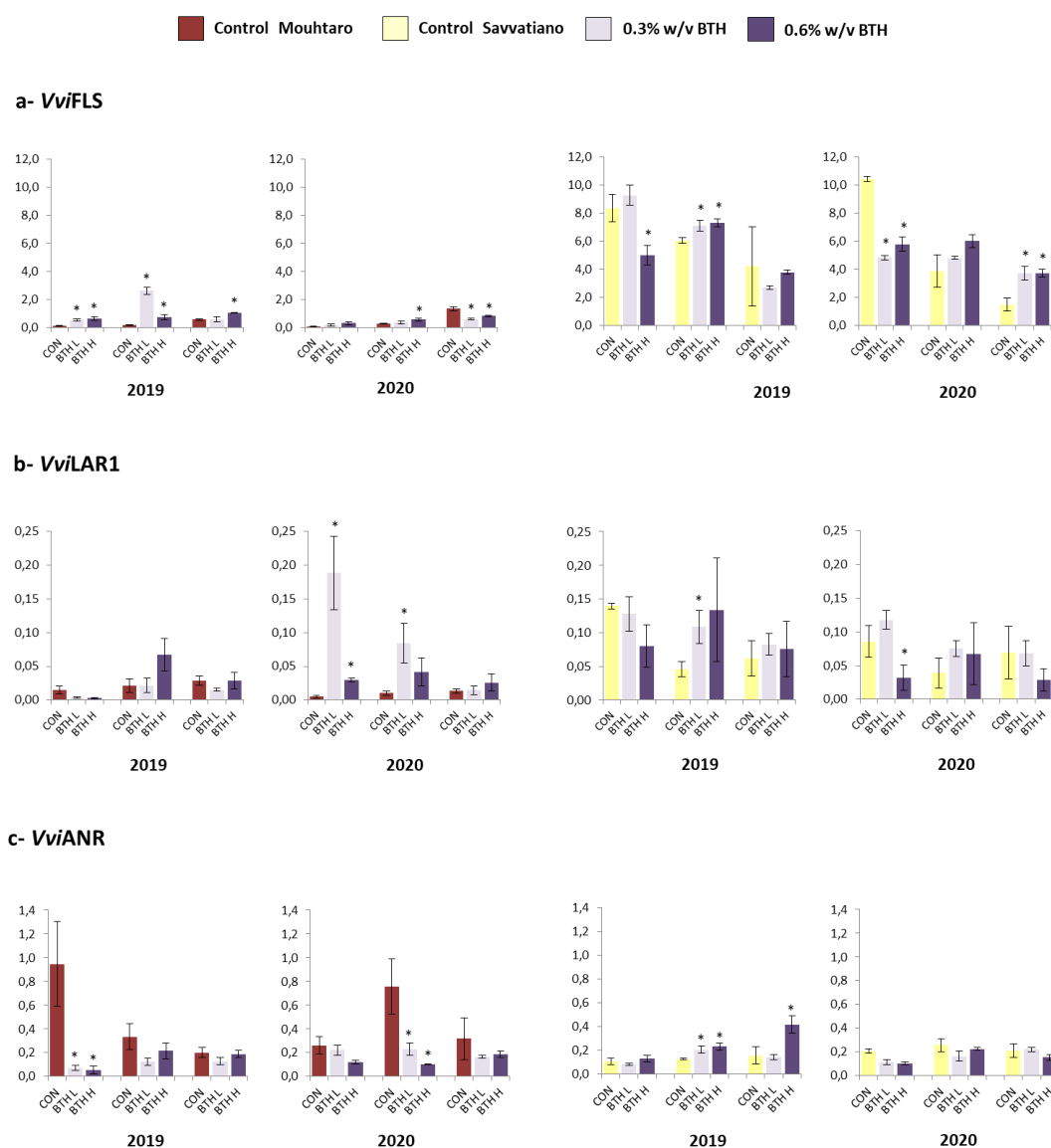


Figure S6. Expression level of genes involved in phenylpropanoid pathway: *Vvi*FLS (a), *Vvi*LAR1 (b) and *Vvi*ANR (c) in Mouhtaro and Savvatiano during two growing seasons (2019 and 2020). Vertical bars represent the standard deviation and asterisks indicate the statistically significant differences (Student's *t*-test, *p*-value < 0.05). The three sampling points (veraison; middle veraison, and harvest) are indicated under each graph.



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**Data Availability Statement:** The data presented in this study are available on request from the corresponding authors (pending privacy and ethical considerations).

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