

Supplemental Data for:

Englezos V, Rantsiou K, Torchio F, Pollon M, Giacosa S, Río Segade S, Gerbi V, Rolle L and Cocolin L. 2019.

Efficacy of ozone against different strains of *Brettanomyces bruxellensis* on winegrapes postharvest and impact on wine composition. *Am J Enol Vitic* 70:249-258. doi: 10.5344/ajev.2019.18058.

Supplemental Table 1 <i>Brettanomyces bruxellensis</i> population at the beginning of fermentation.	
Treatment ^a	<i>B. bruxellensis</i> population (Log CFU/mL) at the beginning of fermentation
WA	3.4 ± 0.1 d ^b
WOA	3.5 ± 0.2 d
WB	3.6 ± 0.2 d
WOB	2.9 ± 0.1 bc
GA	3.2 ± 0.2 cd
GOA	2.5 ± 0.1 b
GB	2.6 ± 0.1 b
GOB	1.9 ± 0.1 a
Signif.	***

^aWA: treated with water for 6 min; WOA: treated with aqueous ozone (5.00 ± 0.25 mg/L) for 6 min; WB: treated with water for 12 min; WOB: treated with aqueous ozone (5.00 ± 0.25 mg/L) for 12 min; GA: exposed to air for 12 hr; GOA: exposed to gaseous ozone (32 ± 1 µL/L) for 12 hr; GB: exposed to air for 24 hr; GOB: exposed to gaseous ozone (32 ± 1 µL/L) for 24 hr; and ***: significance at $p < 0.001$.

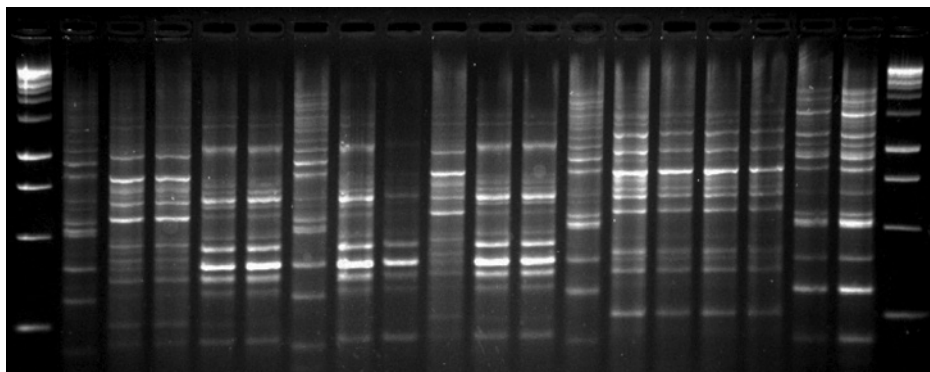
^bAll data are expressed as average value ± standard deviation (n = 2). Different Latin letters within the same column indicate significant differences among the different treatments applied, according to the Tukey-b test ($p < 0.05$).

Supplemental Table 2 Volatile phenol (µg/L) contents in wines.				
Treatment ^a	4-Vinylguaiacol	4-Vinylphenol	4-Ethylphenol	4-Ethylguaiacol
Control WA	180.2 ± 0.4 a ^b	507.4 ± 3.5 f	169.4 ± 5.5 b	<10
Treatment WOA	<10	200.1 ± 4.4 c	<10	<10
Control WB	80.4 ± 0.7 b	230.2 ± 3.4 e	134.7 ± 2.2 a	<10
Treatment WOB	<10	145.3 ± 2.2 b	<10	<10
Control GA	<10	220.4 ± 0.2 d	<10	<10
Treatment GOA	<10	40.4 ± 0.3 a	<10	<10
Control GB	<10	200.2 ± 0.1 c	<10	<10
Treatment GOB	<10	37.5 ± 0.2 a	<10	<10
Signif.	***	***	***	- ^c

^aWA: treated with water for 6 min; WOA: treated with aqueous ozone (5.00 ± 0.25 mg/L) for 6 min; WB: treated with water for 12 min; WOB: treated with aqueous ozone (5.00 ± 0.25 mg/L) for 12 min; GA: exposed to air for 12 hr; GOA: exposed to gaseous ozone (32 ± 1 µL/L) for 12 hr; GB: exposed to air for 24 hr; GOB: exposed to gaseous ozone (32 ± 1 µL/L) for 24 hr; ***: significance at $p < 0.001$.

^bAll data are expressed as average value ± standard deviation (n = 2). Different Latin letters within the same column indicate significant differences among the different treatments applied, according to the Tukey-b test ($p < 0.05$).

^cStatistical analysis was not performed for this compound.



Supplemental Figure 1 Agarose gel of the products obtained by Rep-using primer GTG₅ on *Brettanomyces bruxellensis* isolates. Lane 1 and 20, 1 Kb ladder (Promega); lane 2, *B. bruxellensis* B23F; lane 3, *B. bruxellensis* C4F; lane 5, *B. bruxellensis* DSM7001; lanes 2 to 6, *B. bruxellensis* strains isolated from grapes before treatments; lanes 7 to 11, *B. bruxellensis* strains isolated from grapes after treatment with WOA; lanes 12 to 16, *B. bruxellensis* strains isolated from grapes after treatment with GOA; lanes 17 to 19, *B. bruxellensis* strain isolated from grapes after treatment with GOB. WOA: treated with aqueous ozone (5.00 ± 0.25 mg/L) for 6 min; GOA: exposed to gaseous ozone (32 ± 1 µL/L) for 12 hr; GOB: exposed to gaseous ozone (32 ± 1 µL/L) for 24 hr.