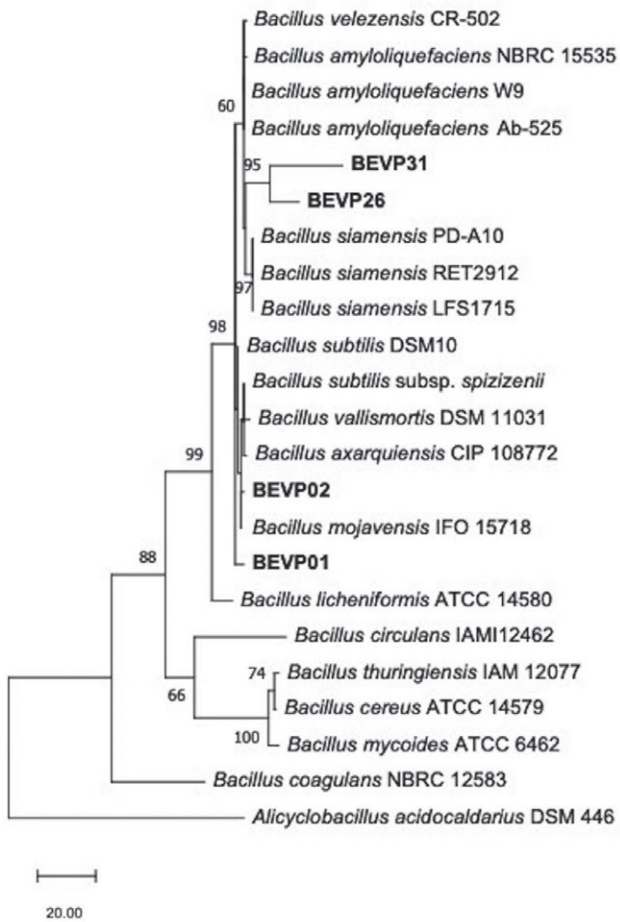


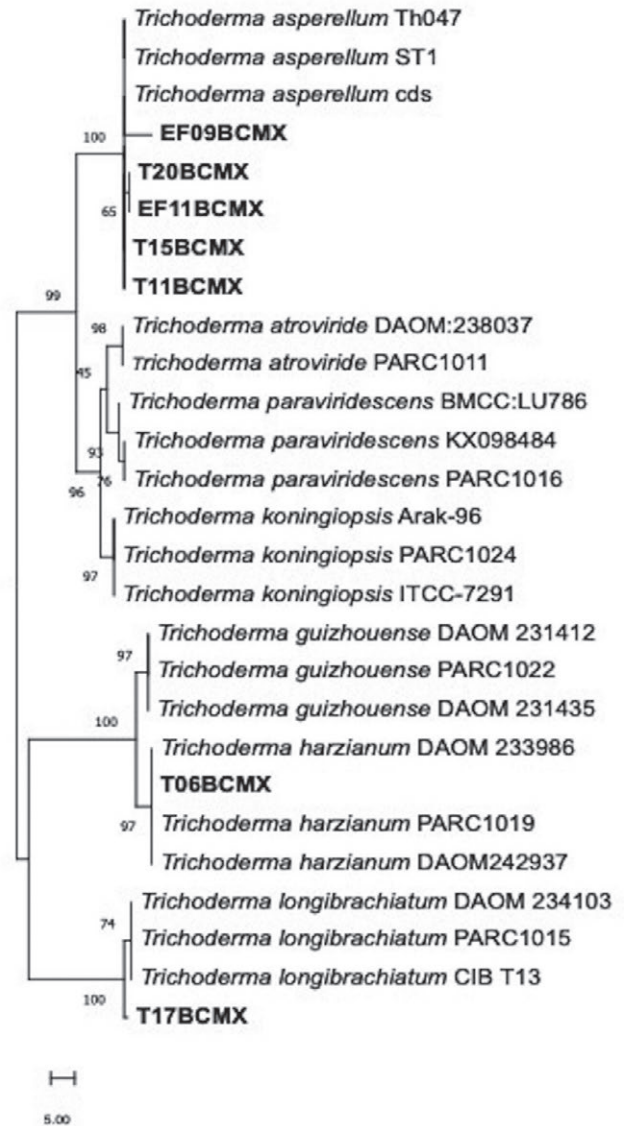
C.S. Delgado-Ramírez, E. Sepúlveda, E.A. Rangel-Montoya, C. Valenzuela-Solano, R. Hernández-Martínez (2023). Heritage grapevines as sources of biological control agents for *Botryosphaeria dieback* pathogens. *Phytopathologia Mediterranea* 62(2): 115-134. doi: 10.36253/phyto-14154



**Figure S1.** Vineyard biocontrol assay establishment. 1, A pruning cut was made in one of the branches of the grapevine. 2, First inoculation of beneficial microorganisms. 3, Second inoculation of beneficial microorganisms and inoculation of *L. brasiliensis*. 4, A moistened cotton swab was applied at the pruning site. 5, The inoculated branches were sealed with parafilm. 6, Inoculated branches were covered with a paper bag to avoid fungus spread.



**Figure S2.** Maximum Parsimony tree of *Bacillus* isolates, using the analyses of partially sequenced *tef-1 $\alpha$* . Bold font indicates isolates described in the present study. Values above nodes are bootstrap values obtained from 1000 replicates.



**Figure S3.** Maximum Parsimony tree of *Trichoderma* isolates, using analyses of partially sequenced *tef-1 $\alpha$* . Bold font indicates isolates described in the present study. Values above nodes are bootstrap values obtained from 1000 replicates.

**Table S1.** Mean percent inhibition of *Lasiodiplodia brasiliensis* by different potential biocontrol microorganisms, and their respective production of plant growth promotion compounds for *Bacillus* and *Trichoderma* isolates.

Microorganisms	Isolates	Inhibition (AA)	Production				Solubilization		
			SID	CHI	HCN	IAA	P	K	Zn
Bacteria	BEVP13BCMX	51.6	-	-	-	-	-	-	-
	BEVP15BCMX	52.0	+	+	-	-	-	-	-
	BEVP01BCMX	51.28	+	+	-	+	-	-	-
	BEVP02BCMX	17.09	-	+	-	+	+	+	-
	BEVP03BCMX	14.87	-	-	-	-	+	-	-
	BEVP05BCMX	7.69	+	-	-	-	-	-	-
	BEVP08BCMX	33.33	-	-	-	-	+	-	-
	BEVP10BCMX	13.68	-	-	-	-	-	-	-
	BEVP11BCMX	40.17	+	-	-	-	-	-	-
	BEVP19BCMX	18.12	-	-	-	-	-	-	-
	BEVP26BCMX	37.95	+	+	-	+	+	-	-
	BEVP29BCMX	50.43	-	-	-	-	-	-	-
	BEVP30BCMX	23.93	-	-	-	-	-	-	-
	BEVP31BCMX	50.60	-	-	-	+	-	-	-
	BEV15BCMX	51.62	+	+	-	+	-	-	-
	BEVPRP11BCMX	21.34	+	-	-	+	-	+	-
	BEVPRP12BCMX	12.72	-	-	-	-	-	+	-
	BEVPRP22BCMX	16.85	+	-	-	+	-	-	-
	BEVPRP25BCMX	33.43	+	-	-	-	-	+	-
	BEVP2-39BCMX	12.1	-	-	-	-	-	-	-
BEVPE-60BCMX	19.4	+	+	-	-	-	+	-	
<i>Trichoderma</i> isolates	EF09BCMX	51.83	+	+	-	+	+	-	-
	EF11BCMX	51.67	+	+	-	+	+	-	-
	T01BCMX	36.29	+	+	-	-	-	-	-
	T02BCMX	23.93	+	+	-	-	-	-	-
	T03BCMX	42.73	+	+	-	-	-	-	-
	T04BCMX	41.02	+	+	-	-	-	-	-
	T05BCMX	37.60	+	+	-	-	-	-	-
	T06BCMX	41.02	+	+	-	+	-	-	-
	T07BCMX	48.71	+	+	-	-	-	-	-
	T08BCMX	45.29	+	+	-	-	-	-	-
	T09BCMX	36.92	+	+	-	-	-	-	-
	T10BCMX	29.91	+	+	-	-	-	-	-
	T11BCMX	29.05	+	+	-	+	-	-	-
	T12BCMX	39.31	+	+	-	-	-	-	-
	T13BCMX	42.72	+	+	-	-	-	-	-
	T14BCMX	33.33	+	+	-	-	-	-	-
	T15BCMX	25.05	+	+	-	+	-	-	-
	T16BCMX	39.31	+	+	-	-	-	-	-
	T17BCMX	52.82	+	+	-	+	-	-	-
	T18BCMX	35.89	+	+	-	-	-	-	-
	T19BCMX	35.04	+	+	-	-	-	-	-
	T20BCMX	39.31	+	+	-	-	-	-	-
	T21BCMX	38.46	+	+	-	-	-	-	-
T22BCMX	21.14	+	+	-	-	-	-	-	
T23BCMX	16.26	+	+	-	-	-	-	-	

(Continued)

**Table S1.** (Continued).

Microorganisms	Isolates	Inhibition (AA)	Production				Solubilization		
			SID	CHI	HCN	IAA	P	K	Zn
	T24BCMX	17.89	+	+	-	-	-	-	-
	T25BCMX	9.75	+	+	-	-	-	-	-
	T26BCMX	35.77	+	+	-	-	-	-	-
	T26BCMX	15.45	+	+	-	-	-	-	-
	T28BCMX	39.35	+	+	-	-	-	-	-
	T29BCMX	37.40	+	+	-	-	-	-	-
	T30BCMX	41.79	+	+	-	-	-	-	-
	T31BCMX	48.71	+	+	-	-	-	-	-
	T32BCMX	34.18	+	+	-	-	-	-	-
	T33BCMX	3.41	+	+	-	-	-	-	-
	T34BCMX	16.67	+	+	-	-	-	-	-
	T35BCMX	36.75	+	+	-	-	-	-	-

+ positive result, - negative result, (AA) Antagonistic activity reported in inhibition percentage, (SID) siderophore production, (CHI) chitinase production, (HCN) HCN production, (IAA) indole acetic acid production, (P) phosphate solubilization, (K) potassium solubilization, (Zn) zinc solubilization.