

Table S1. Identification of PPV strains (M, D, Rec) according to the PCR analysis with different primer pairs used in the study

Primer pair				Present strain(s)
P4/P3M ^[1]	P4/P3D ^[1]	CIP-M/CIP-MR ^[2]	CIP-D/CIP-DR ^[2]	
+	–	+	–	M
–	+	–	+	D
+	–	–	+	Rec
+	–	+	+	M and Rec
+	+	–	+	D and Rec
+	+	+	+	M, D and Rec

^[1] Candresse *et al.* (1998). ^[2] Kamenova *et al.* (2011). + positive reaction. – negative reaction

Table S2. Influence of the main variables and their interaction on polyphenolic profile and antioxidant capacity of plum fruits

Variables		Total anthocyanins ^[1]	Total flavonoids ^[1]	Total phenolics ^[1]	Antioxidant capacity (ABTS) ^[1]
A (viral status)	1 (Neg)	11.7 ± 16.5 ^b	95.3 ± 33.2	322.8 ± 107.3	0.99 ± 0.27
	2 (PPV-D)	9.7 ± 11.3 ^c	91.5 ± 26.5	304.7 ± 69.9	0.92 ± 0.15
	3 (PPV-Rec)	17.5 ± 21.3 ^a	94.6 ± 23.0	312.9 ± 71.0	0.99 ± 0.17
B (harvest season)	1 (HS1)	0.0 ± 0.0 ^c	124.6 ± 22.0 ^a	399.2 ± 102.1 ^a	1.14 ± 0.24 ^a
	2 (HS2)	1.5 ± 1.9 ^c	101.6 ± 20.5 ^b	317.3 ± 59.4 ^b	1.02 ± 0.14 ^b
	3 (HS3)	16.4 ± 11.2 ^b	78.0 ± 9.3 ^c	278.9 ± 23.8 ^c	0.90 ± 0.12 ^c
	4 (HS4)	34.0 ± 16.7 ^a	71.0 ± 17.7 ^c	258.4 ± 50.1 ^c	0.79 ± 0.09 ^d
C (harvest year)	1 (2017)	7.1 ± 9.0 ^b	101.7 ± 32.6 ^a	335.5 ± 107.9 ^a	0.99 ± 0.26
	2 (2018)	18.8 ± 20.9 ^a	85.9 ± 18.8 ^b	291.4 ± 40.3 ^b	0.94 ± 0.13
A × B	1 × 1	0.0 ± 0.0 ^e	135.2 ± 31.6 ^a	434.2 ± 155.1 ^a	1.26 ± 0.38
	1 × 2	0.56 ± 0.38 ^e	96.7 ± 13.5 ^{cd}	301.4 ± 46.3 ^{cd}	0.97 ± 0.15
	1 × 3	12.7 ± 10.2 ^d	76.3 ± 8.0 ^e	282.1 ± 26.2 ^{cde}	0.92 ± 0.17
	1 × 4	33.5 ± 16.5 ^b	73.0 ± 28.9 ^e	273.6 ± 69.1 ^{de}	0.81 ± 0.07
	2 × 1	0.0 ± 0.0 ^e	120.1 ± 15.9 ^{ab}	377.3 ± 62.7 ^b	1.07 ± 0.10
	2 × 2	1.2 ± 1.4 ^e	101.8 ± 28.2 ^{bcd}	315.9 ± 75.2 ^{cd}	0.99 ± 0.10
	2 × 3	12.6 ± 6.8 ^d	72.9 ± 7.6 ^e	264.1 ± 15.2 ^{de}	0.86 ± 0.09
	2 × 4	24.9 ± 7.0 ^c	71.3 ± 8.9 ^e	261.3 ± 40.0 ^{de}	0.76 ± 0.06
	3 × 1	0.0 ± 0.0 ^e	118.4 ± 11.9 ^{ab}	386.0 ± 64.2 ^{ab}	1.10 ± 0.12
	3 × 2	2.6 ± 2.9 ^e	106.2 ± 18.8 ^{bc}	334.7 ± 56.3 ^{bc}	1.12 ± 0.12
	3 × 3	23.8 ± 13.3 ^c	84.9 ± 8.7 ^{de}	290.4 ± 23.1 ^{cde}	0.93 ± 0.08
	3 × 4	43.6 ± 20.3 ^a	68.9 ± 10.2 ^c	240.3 ± 35.2 ^e	0.82 ± 0.13
A × C	1 × 1	5.9 ± 8.1 ^e	101.3 ± 41.5	347.6 ± 145.7	1.02 ± 0.38
	1 × 2	17.5 ± 20.8 ^b	89.3 ± 22.0	298.0 ± 35.4	0.96 ± 0.11
	2 × 1	6.3 ± 7.9 ^e	102.5 ± 30.2	329.1 ± 83.2	0.94 ± 0.17
	2 × 2	13.1 ± 13.3 ^c	80.5 ± 16.7	280.2 ± 43.5	0.90 ± 0.12
	3 × 1	9.3 ± 11.0 ^d	101.4 ± 26.3	329.6 ± 89.8	1.01 ± 0.18
	3 × 2	25.7 ± 26.2 ^a	87.8 ± 17.3	296.1 ± 41.8	0.97 ± 0.16
B × C	1 × 1	0.0 ± 0.0 ^e	142.4 ± 17.3 ^a	479.6 ± 76.8 ^a	1.25 ± 0.31 ^a
	1 × 2	0.0 ± 0.0 ^e	106.8 ± 4.1 ^b	318.8 ± 42.2 ^c	1.04 ± 0.08 ^b
	2 × 1	0.3 ± 0.5 ^e	117.6 ± 14.3 ^b	362.4 ± 46.4 ^b	1.04 ± 0.18 ^b
	2 × 2	2.6 ± 2.2 ^e	85.5 ± 10.5 ^c	272.3 ± 28.4 ^{de}	1.00 ± 0.09 ^{bc}
	3 × 1	7.2 ± 3.6 ^d	76.6 ± 9.2 ^{cd}	265.0 ± 22.7 ^{de}	0.86 ± 0.12 ^{cd}
	3 × 2	25.5 ± 8.1 ^b	79.4 ± 9.6 ^{cd}	292.8 ± 15.8 ^{cd}	0.95 ± 0.10 ^{bcd}
	4 × 1	21.0 ± 3.7 ^c	70.3 ± 9.9 ^d	234.8 ± 35.4 ^e	0.81 ± 0.10 ^d
	4 × 2	47.0 ± 14.0 ^a	71.8 ± 23.6 ^{cd}	281.9 ± 52.8 ^{cd}	0.78 ± 0.08 ^d

Table S2 continued

Variables		Neochlorogenic acid ^[2]	Caffeic acid ^[2]	Chlorogenic acid ^[2]	P-coumarolyquinic acid ^[2]
A (viral status)	1 (Neg)	17.5 ± 5.3	0.27 ± 0.12	1.90 ± 1.40 ^b	0.13 ± 0.07
	2 (PPV-D)	17.8 ± 5.6	0.27 ± 0.09	2.34 ± 1.60 ^a	0.13 ± 0.06
	3 (PPV-Rec)	17.9 ± 5.7	0.27 ± 0.10	2.17 ± 1.27 ^a	0.13 ± 0.06
B (harvest season)	1 (HS1)	22.6 ± 6.0 ^a	0.35 ± 0.15 ^a	2.86 ± 1.69 ^a	0.18 ± 0.09 ^a
	2 (HS2)	19.1 ± 5.1 ^b	0.29 ± 0.08 ^b	2.54 ± 1.45 ^b	0.14 ± 0.05 ^b
	3 (HS3)	15.0 ± 3.4 ^c	0.21 ± 0.06 ^c	1.76 ± 1.01 ^c	0.10 ± 0.04 ^c
	4 (HS4)	14.3 ± 2.0 ^c	0.21 ± 0.03 ^c	1.40 ± 1.01 ^d	0.10 ± 0.02 ^c
C (harvest year)	1(2017)	21.3 ± 5.3 ^a	0.34 ± 0.11 ^a	3.32 ± 1.04 ^a	0.17 ± 0.06 ^a
	2 (2018)	14.1 ± 2.4 ^b	0.20 ± 0.04 ^b	0.96 ± 0.41 ^b	0.09 ± 0.02 ^b
A × B	1 × 1	22.6 ± 7.0 ^{ab}	0.38 ± 0.19 ^a	3.03 ± 1.88 ^a	0.19 ± 0.11 ^a
	1 × 2	18.8 ± 3.4 ^d	0.27 ± 0.07 ^{cd}	2.16 ± 1.16 ^{bc}	0.15 ± 0.04 ^{bc}
	1 × 3	13.3 ± 2.4 ^g	0.19 ± 0.05 ^e	1.51 ± 0.66 ^d	0.09 ± 0.03 ^f
	1 × 4	15.5 ± 1.5 ^{ef}	0.22 ± 0.03 ^e	0.92 ± 0.89 ^e	0.10 ± 0.02 ^{ef}
	2 × 1	21.5 ± 6.1 ^{bc}	0.33 ± 0.11 ^{ab}	2.84 ± 1.72 ^a	0.17 ± 0.08 ^{ab}
	2 × 2	19.6 ± 6.9 ^{cd}	0.30 ± 0.10 ^{bc}	2.89 ± 1.88 ^a	0.14 ± 0.07 ^{cd}
	2 × 3	16.0 ± 3.7 ^e	0.22 ± 0.07 ^{de}	2.01 ± 1.42 ^{cd}	0.11 ± 0.04 ^{def}
	2 × 4	14.0 ± 1.8 ^{efg}	0.22 ± 0.03 ^{de}	1.63 ± 1.36 ^d	0.10 ± 0.02 ^{def}
	3 × 1	23.6 ± 5.9 ^a	0.34 ± 0.15 ^{ab}	2.71 ± 1.77 ^a	0.16 ± 0.09 ^{abc}
	3 × 2	18.7 ± 5.2 ^d	0.31 ± 0.06 ^{bc}	2.58 ± 1.40 ^{ab}	0.13 ± 0.05 ^{cde}
	3 × 3	15.7 ± 3.8 ^e	0.22 ± 0.08 ^{de}	1.75 ± 0.93 ^{cd}	0.11 ± 0.04 ^{def}
	3 × 4	13.5 ± 2.2 ^{fg}	0.19 ± 0.03 ^e	1.66 ± 0.63 ^{cd}	0.11 ± 0.02 ^{def}
A × C	1 × 1	20.4 ± 5.9 ^b	0.34 ± 0.14	2.94 ± 1.23 ^b	0.18 ± 0.08
	1 × 2	14.7 ± 2.5 ^c	0.20 ± 0.03	0.87 ± 0.52 ^c	0.09 ± 0.02
	2 × 1	21.9 ± 4.9 ^a	0.34 ± 0.09	3.78 ± 0.83 ^a	0.18 ± 0.05
	2 × 2	13.6 ± 1.8 ^c	0.20 ± 0.04	0.91 ± 0.42 ^c	0.08 ± 0.02
	3 × 1	21.7 ± 5.3 ^a	0.34 ± 0.10	3.24 ± 0.92 ^b	0.17 ± 0.04
	3 × 2	14.0 ± 2.9 ^c	0.20 ± 0.05	1.11 ± 0.24 ^c	0.08 ± 0.01
B × C	1 × 1	28.3 ± 1.1 ^a	0.49 ± 0.06 ^a	4.45 ± 0.50 ^a	0.25 ± 0.04 ^a
	1 × 2	16.9 ± 1.8 ^{cd}	0.22 ± 0.02 ^d	1.26 ± 0.31 ^d	0.10 ± 0.02 ^d
	2 × 1	23.7 ± 2.0 ^b	0.36 ± 0.03 ^b	3.88 ± 0.63 ^b	0.18 ± 0.01 ^b
	2 × 2	14.4 ± 1.2 ^{ef}	0.23 ± 0.04 ^d	1.20 ± 0.21 ^{de}	0.10 ± 0.02 ^{de}
	3 × 1	17.8 ± 2.2 ^c	0.27 ± 0.03 ^c	2.66 ± 0.57 ^c	0.14 ± 0.02 ^c
	3 × 2	12.2 ± 1.1 ^g	0.16 ± 0.01 ^e	0.86 ± 0.13 ^{ef}	0.07 ± 0.01 ^e
	4 × 1	15.5 ± 0.5 ^{de}	0.23 ± 0.01 ^d	2.28 ± 0.51 ^c	0.12 ± 0.01 ^c
	4 × 2	13.1 ± 2.2 ^{fg}	0.20 ± 0.04 ^d	0.53 ± 0.44 ^f	0.08 ± 0.00 ^{de}

Table S2 continued

Variables		Quercetin rutinoside (rutin) ^[2]	Quercetin galactoside (hyperoside) ^[2]	Quercetin glucoside (isoquercetin) ^[2]	Cyanidin 3- O-galactoside (idaein) ^[2]
A (viral status)	1 (Neg)	0.12 ± 0.04 ^{ab}	0.14 ± 0.04 ^{ab}	0.04 ± 0.02 ^b	0.48 ± 0.53
	2 (PPV-D)	0.13 ± 0.06 ^a	0.15 ± 0.06 ^a	0.05 ± 0.02 ^{ab}	0.41 ± 0.42
	3 (PPV-Rec)	0.11 ± 0.03 ^b	0.13 ± 0.03 ^b	0.05 ± 0.02 ^a	0.54 ± 0.63
B (harvest season)	1 (HS1)	0.14 ± 0.03 ^a	0.16 ± 0.04 ^a	0.04 ± 0.02 ^b	0.02 ± 0.02 ^d
	2 (HS2)	0.14 ± 0.07 ^a	0.15 ± 0.06 ^{ab}	0.04 ± 0.02 ^b	0.26 ± 0.24 ^c
	3 (HS3)	0.10 ± 0.03 ^b	0.12 ± 0.03 ^c	0.04 ± 0.02 ^b	0.65 ± 0.52 ^b
	4 (HS4)	0.10 ± 0.03 ^b	0.13 ± 0.02 ^{bc}	0.06 ± 0.02 ^a	0.98 ± 0.51 ^a
C (harvest year)	1(2017)	0.13 ± 0.06 ^a	0.16 ± 0.06 ^a	0.05 ± 0.02	0.21 ± 0.22 ^b
	2 (2018)	0.11 ± 0.02 ^b	0.13 ± 0.02 ^b	0.04 ± 0.02	0.74 ± 0.61 ^a
A × B	1 × 1	0.15 ± 0.05 ^{ab}	0.17 ± 0.05 ^{ab}	0.05 ± 0.02 ^{abcd}	0.02 ± 0.02
	1 × 2	0.11 ± 0.03 ^{bcd}	0.12 ± 0.02 ^c	0.03 ± 0.01 ^d	0.26 ± 0.25
	1 × 3	0.09 ± 0.01 ^{cd}	0.11 ± 0.03 ^c	0.03 ± 0.01 ^{cd}	0.68 ± 0.56
	1 × 4	0.12 ± 0.03 ^{bcd}	0.16 ± 0.02 ^{abc}	0.05 ± 0.01 ^{abc}	0.96 ± 0.54
	2 × 1	0.12 ± 0.01 ^{bcd}	0.15 ± 0.04 ^{bc}	0.03 ± 0.01 ^{cd}	0.01 ± 0.01
	2 × 2	0.19 ± 0.10 ^a	0.20 ± 0.09 ^a	0.05 ± 0.02 ^{abc}	0.21 ± 0.13
	2 × 3	0.11 ± 0.04 ^{bcd}	0.14 ± 0.05 ^{bc}	0.05 ± 0.01 ^{abcd}	0.52 ± 0.26
	2 × 4	0.11 ± 0.02 ^{bcd}	0.13 ± 0.02 ^{bc}	0.06 ± 0.01 ^{ab}	0.89 ± 0.44
	3 × 1	0.14 ± 0.03 ^{bc}	0.15 ± 0.03 ^{abc}	0.04 ± 0.02 ^{bcd}	0.01 ± 0.02
	3 × 2	0.12 ± 0.02 ^{bcd}	0.14 ± 0.02 ^{bc}	0.04 ± 0.01 ^{abcd}	0.31 ± 0.32
	3 × 3	0.10 ± 0.03 ^{cd}	0.11 ± 0.01 ^c	0.05 ± 0.02 ^{abc}	0.75 ± 0.71
3 × 4	0.08 ± 0.02 ^d	0.11 ± 0.01 ^c	0.06 ± 0.03 ^a	1.11 ± 0.60	
A × C	1 × 1	0.12 ± 0.05 ^b	0.14 ± 0.05 ^b	0.04 ± 0.02 ^{bc}	0.18 ± 0.21
	1 × 2	0.11 ± 0.02 ^b	0.14 ± 0.02 ^b	0.04 ± 0.02 ^c	0.78 ± 0.59
	2 × 1	0.17 ± 0.07 ^a	0.19 ± 0.07 ^a	0.05 ± 0.01 ^{ab}	0.22 ± 0.21
	2 × 2	0.10 ± 0.02 ^b	0.12 ± 0.02 ^b	0.04 ± 0.02 ^c	0.59 ± 0.50
	3 × 1	0.11 ± 0.04 ^b	0.14 ± 0.03 ^b	0.04 ± 0.01 ^{bc}	0.23 ± 0.26
	3 × 2	0.11 ± 0.03 ^b	0.12 ± 0.02 ^b	0.06 ± 0.02 ^a	0.85 ± 0.74
B × C	1 × 1	0.16 ± 0.03	0.18 ± 0.03 ^a	0.06 ± 0.02 ^{ab}	0.00 ± 0.00 ^d
	1 × 2	0.11 ± 0.01	0.13 ± 0.02 ^c	0.03 ± 0.00 ^e	0.03 ± 0.01 ^d
	2 × 1	0.16 ± 0.09	0.17 ± 0.09 ^{ab}	0.04 ± 0.02 ^{bcd}	0.05 ± 0.04 ^d
	2 × 2	0.12 ± 0.02	0.13 ± 0.02 ^c	0.03 ± 0.01 ^{de}	0.47 ± 0.13 ^c
	3 × 1	0.11 ± 0.04	0.13 ± 0.05 ^c	0.04 ± 0.01 ^{cde}	0.28 ± 0.01 ^{cd}
	3 × 2	0.10 ± 0.02	0.12 ± 0.02 ^c	0.05 ± 0.02 ^{bc}	1.02 ± 0.51 ^b
	4 × 1	0.11 ± 0.03	0.14 ± 0.02 ^{bc}	0.04 ± 0.01 ^{bcd}	0.52 ± 0.12 ^c
	4 × 2	0.09 ± 0.03	0.13 ± 0.03 ^c	0.07 ± 0.02 ^a	1.45 ± 0.22 ^a

Table S2 continued

Variables		Cyanidin 3- <i>O</i> -glucoside (chrysanthemins) ^[2]	Cyanidin-3- <i>O</i> -rutinoside (keracyanin) ^[2]
A (viral status)	1 (Neg)	0.75 ± 0.73 ^b	0.17 ± 0.19 ^b
	2 (PPV-D)	0.71 ± 0.46 ^b	0.21 ± 0.18 ^a
	3 (PPV-Rec)	0.95 ± 0.78 ^a	0.24 ± 0.22 ^a
B (harvest season)	1 (HS1)	0.21 ± 0.27 ^d	0.04 ± 0.06 ^c
	2 (HS2)	0.38 ± 0.29 ^c	0.07 ± 0.04 ^c
	3 (HS3)	1.09 ± 0.59 ^b	0.24 ± 0.11 ^b
	4 (HS4)	1.53 ± 0.42 ^a	0.49 ± 0.12 ^a
C (harvest year)	1(2017)	0.51 ± 0.52 ^b	0.15 ± 0.16 ^b
	2 (2018)	1.09 ± 0.69 ^a	0.27 ± 0.21 ^a
A × B	1 × 1	0.06 ± 0.06 ^f	0.01 ± 0.01
	1 × 2	0.28 ± 0.25 ^{ef}	0.04 ± 0.02
	1 × 3	1.04 ± 0.66 ^{cd}	0.19 ± 0.05
	1 × 4	1.62 ± 0.36 ^{ab}	0.46 ± 0.14
	2 × 1	0.26 ± 0.31 ^{ef}	0.05 ± 0.06
	2 × 2	0.42 ± 0.24 ^e	0.08 ± 0.04
	2 × 3	0.91 ± 0.25 ^d	0.24 ± 0.09
	2 × 4	1.24 ± 0.22 ^{cd}	0.47 ± 0.09
	3 × 1	0.30 ± 0.33 ^{ef}	0.07 ± 0.08
	3 × 2	0.44 ± 0.40 ^e	0.07 ± 0.05
	3 × 3	1.31 ± 0.77 ^{bc}	0.28 ± 0.15
3 × 4	1.73 ± 0.51 ^a	0.54 ± 0.14	
A × C	1 × 1	0.48 ± 0.55 ^c	0.14 ± 0.16 ^c
	1 × 2	1.02 ± 0.82 ^b	0.21 ± 0.22 ^b
	2 × 1	0.56 ± 0.51 ^c	0.15 ± 0.16 ^c
	2 × 2	0.86 ± 0.38 ^b	0.27 ± 0.19 ^b
	3 × 1	0.50 ± 0.54 ^c	0.15 ± 0.18 ^c
	3 × 2	1.40 ± 0.74 ^a	0.33 ± 0.23 ^a
B × C	1 × 1	0.00 ± 0.00 ^d	0.00 ± 0.00 ^f
	1 × 2	0.42 ± 0.24 ^c	0.09 ± 0.05 ^{de}
	2 × 1	0.14 ± 0.09 ^d	0.03 ± 0.01 ^{ef}
	2 × 2	0.63 ± 0.21 ^c	0.10 ± 0.03 ^{de}
	3 × 1	0.64 ± 0.15 ^c	0.16 ± 0.03 ^d
	3 × 2	1.54 ± 0.51 ^a	0.32 ± 0.09 ^c
	4 × 1	1.27 ± 0.14 ^b	0.40 ± 0.06 ^b
	4 × 2	1.79 ± 0.45 ^a	0.57 ± 0.11 ^a

^[1] in mg/100 g FW. ^[2] in mg/kg FW. Values with different letters within all harvest stages, both harvest years and compound denote statistically significant differences (Tukey's test, $p < 0.05$). ns, *, **, ***: not significant or significant at $p < 0.05$, 0.01, 0.001, respectively.