

## Supporting Information

**Table 1S:** Concentrations of minor anthocyanins in the fruit skin of plum varieties and clones.  
mg/100 g fresh weight (FW); mean of 3 replicates ± standard deviation

	antho 6	antho 16	antho 17	antho 18	antho 26
<b>Cac. Fruchtbare</b>	0.7 ± 0.3	nd	nd	nd	2.0 ± 1.1
<b>G. G. Reneklode</b>	nd	nd	nd	nd	nd
<b>Hoh 6087</b>	0.6 ± 0.3	0.1 ± 0.2	nd	0.6 ± 0.3	0.3 ± 0.3
<b>Jojo</b>	nd	0.4 ± 0.1	nd	0.6 ± 0.2	0.7 ± 0.4
<b>Katinka</b>	nd	nd	nd	nd	1.2 ± 0.1
<b>Krichele D.</b>	0.4 ± 0.1	0.4 ± 0.1	0.3	1.0 ± 0.4	1.3 ± 0.5
<b>Miragrande</b>	nd	nd	nd	nd	0.2 ± 0.3
<b>Ortenauer</b>	nd	nd	nd	nd	0.7 ± 0.6
<b>Pogauner</b>	nd	nd	nd	nd	nd
<b>President</b>	nd	nd	0.5 ± 0.1	1.7 ± 0.7	1.1 ± 0.4
<b>Topper</b>	nd	nd	nd	nd	nd
<b>Toptaste</b>	0.8 ± 0.3	nd	nd	1.3 ± 0.1	1.9 ± 1.1
<b>Sp. Myrobalane</b>	nd	nd	nd	nd	nd
<b>Tatjana</b>	0.9 ± 1.2	nd	nd	nd	0.5 ± 0.9
<b>Haferschlehe</b>	0.7 ± 0.3	0.9 ± 0.5	nd	1.4 ± 0.1	8.0 ± 0.7
<b>Songold</b>	nd	nd	nd	nd	nd
<b>Wei 252</b>	nd	nd	nd	nd	0.4 ± 0.1
<b>Wei 261</b>	10.9 ± 1.3	0.3 ± 0.1	nd	0.5 ± 0.2	0.6 ± 0.3
<b>Wei 256</b>	0.5 ± 0.3	nd	nd	nd	nd
<b>Wei 266</b>	7.6 ± 0.9	1.1 ± 0.6	0.1 ± 0.1	0.3	1.7 ± 0.2
<b>Wei 267</b>	6.4 ± 0.7	0.4 ± 0.1	nd	2.4	2.6 ± 0.3
<b>Wei 238</b>	nd	0.4 ± 0.1	nd	1.6 ± 0.3	2.7 ± 0.8
<b>Wei 243</b>	nd	0.2 ± 0.1	nd	nd	1.2 ± 0.4
<b>Wei 244</b>	nd	nd	nd	nd	nd
<b>Wei 247</b>	0.4 ± 0.3	0.3 ± 0.1	nd	0.5 ± 0.3	nd
<b>Wei 1660</b>	52.9 ± 6.9	23.3 ± 8.0	0.2 ± 0.1	1.9 ± 0.2	2.2 ± 0.6
<b>Pr. Frut.</b>	nd	0.7 ± 0.2	nd	3.3 ± 0.7	9.8 ± 2.6
<b>Aprimira</b>	nd	nd	nd	nd	nd

**Table 2S:** Concentrations of minor flavonols in the fruit skin of plum varieties and clones.  
mg/100g fresh weight (FW); mean of 3 replicates ± standard deviation

	<b>avicularin</b>	<b>flavonol 6</b>	<b>flavonol 8</b>
<b>Cac. Fruchtbare</b>	nd	nd	4.2 ± 1.5
<b>G. G. Reneklode</b>	nd	nd	nd
<b>Hoh 6087</b>	nd	nd	2.5 ± 1.6
<b>Jojo</b>	nd	nd	1.9 ± 0.1
<b>Katinka</b>	2.4 ± 0.2	nd	1.4 ± 0.5
<b>Krichele D.</b>	7.1 ± 2.0	2.1 ± 0.5	nd
<b>Miragrande</b>	5.4 ± 3.4	nd	nd
<b>Ortenauer</b>	4.9 ± 2.6	nd	0.7 ± 0.2
<b>Pogauner</b>	2.3 ± 0.9	nd	nd
<b>President</b>	nd	nd	nd
<b>Topper</b>	nd	nd	0.7 ± 0.8
<b>Toptaste</b>	nd	nd	nd
<b>Sp. Myrobalane</b>	nd	0.9 ± 0.2	0.9 ± 0.2
<b>Tatjana</b>	nd	8.9 ± 4.2	nd
<b>Haferschlehe</b>	nd	1.0 ± 0.2	0.7 ± 0.1
<b>Songold</b>	nd	38.2 ± 13.4	nd
<b>Wei 252</b>	nd	1.6 ± 0.3	3.1 ± 0.2
<b>Wei 261</b>	nd	0.8 ± 0.1	nd
<b>Wei 256</b>	nd	0.9 ± 0.3	nd
<b>Wei 266</b>	nd	1.8 ± 0.4	0.5 ± 0.2
<b>Wei 267</b>	nd	nd	1.8 ± 0.2
<b>Wei 238</b>	nd	7.2 ± 1.1	6.4 ± 1.1
<b>Wei 243</b>	nd	2.6 ± 0.2	nd
<b>Wei 244</b>	nd	2.8 ± 1.3	2.8 ± 1.2
<b>Wei 247</b>	nd	8.0 ± 2.9	19.0 ± 6.5
<b>Wei 1660</b>	nd	1.1 ± 0.2	1.6 ± 0.2
<b>Pr. Frut.</b>	8.7 ± 2.3	15.8 ± 4.2	6.4 ± 1.6
<b>Aprimira</b>	nd	nd	0.7 ± 0.4

**Table 3S:** Concentrations of minor hydroxycinnamic acids in the fruit skin of plum varieties and clones. mg/100 g fresh weight (FW); mean of 3 replicates ± standard deviation;

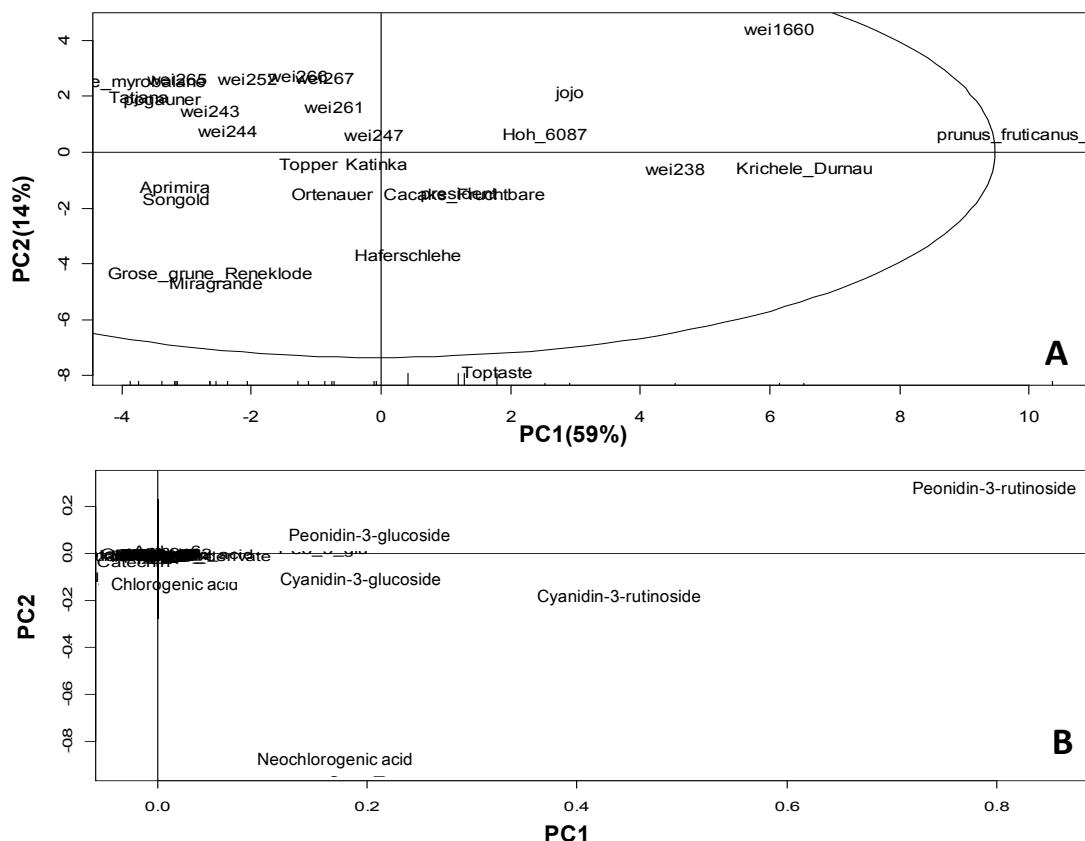
	HCA 1b	HCA 6	HCA 7	HCA 9	HCA 10	HCA 11	HCA 12
<b>Cac. Fruchtbare</b>	2.6 ± 0.9	1.6 ± 0.6	3.8 ± 1.3	nd	1.9 ± 0.5	2.5 ± 1.1	1.8 ± 0.9
<b>G. G. Reneklode</b>	7.9 ± 0.9	3.4 ± 0.6	7.2 ± 1.8	1.8 ± 0.4	1.2 ± 0.3	1.9 ± 0.2	nd
<b>Hoh 6087</b>	2.0 ± 0.6	0.6 ± 0.2	1.6 ± 1.0	0.7 ± 0.2	1.2 ± 0.4	1.8 ± 0.7	nd
<b>Jojo</b>	nd	1.0 ± 0.3	6.6 ± 0.2	nd	1.4 ± 0.3	5.3 ± 0.8	2.3 ± 1.1
<b>Katinka</b>	1.9 ± 0.4	nd	nd	1.0 ± 0.1	nd	2.6 ± 0.6	nd
<b>Krichele D.</b>	nd	3.5 ± 1.2	5.2 ± 1.1	nd	1.5 ± 0.4	4.8 ± 1.2	2.1 ± 0.9
<b>Miragrande</b>	7.1 ± 1.7	4.3 ± 1.3	6.0 ± 1.9	2.4 ± 1.1	2.3 ± 0.4	4.9 ± 0.1	nd
<b>Ortenauer</b>	2.5 ± 0.5	1.9 ± 0.3	7.7 ± 0.7	1.4 ± 0.3	1.2 ± 0.2	3.2 ± 0.5	nd
<b>Pogauner</b>	0.6 ± 0.5	0.7 ± 0.7	4.6 ± 2.2	6.6 ± 0.5	nd	4.6 ± 2.9	1.8 ± 1.9
<b>President</b>	1.2 ± 0.2	2.4 ± 0.8	4.5 ± 0.8	0.9 ± 0.5	1.3 ± 0.4	4.7 ± 1.8	1.7 ± 0.6
<b>Topper</b>	2.7 ± 0.9	1.6 ± 0.7	2.1 ± 0.3	0.7 ± 0.3	0.5 ± 0.1	nd	nd
<b>Toptaste</b>	9.9 ± 2.4	9.7 ± 0.5	7.1 ± 0.4	3.6 ± 1.8	3.7 ± 1.2	9.9 ± 3.0	9.2 ± 2.6
<b>Sp. Myrobalane</b>	nd	nd	0.3	nd	nd	nd	nd
<b>Tatjana</b>	nd	nd	nd	nd	1.9 ± 0.3	1.4 ± 0.2	1.3 ± 0.3
<b>Haferschlehe</b>	2.8 ± 0.6	nd	3.8 ± 0.8	nd	nd	2.2 ± 0.6	nd
<b>Songold</b>	4.2 ± 0.3	2.6 ± 0.4	7.2 ± 0.5	nd	nd	12.3 ± 3.3	nd
<b>Wei 252</b>	nd	0.4 ± 0.3	2.9 ± 0.6	1.0 ± 0.2	0.6	2.1 ± 0.3	0.5 ± 0.3
<b>Wei 261</b>	nd	nd	1.7 ± 0.5	nd	0.6 ± 0.2	2.4 ± 0.4	nd
<b>Wei 256</b>	nd	nd	1.6 ± 0.3	nd	nd	0.9 ± 0.4	nd
<b>Wei 266</b>	nd	nd	1.8 ± 0.4	0.2	nd	nd	nd
<b>Wei 267</b>	nd	nd	2.8 ± 0.5	0.5 ± 0.1	nd	0.6 ± 0.2	nd
<b>Wei 238</b>	0.6 ± 0.2	2.5 ± 0.5	16.7 ± 2.6	1.5 ± 0.7	3.0 ± 1.7	10.5 ± 2.0	2.4 ± 0.1
<b>Wei 243</b>	nd	nd	10.2 ± 1.9	2.6 ± 0.7	1.8 ± 0.1	5.2 ± 0.1	1.3 ± 0.3
<b>Wei 244</b>	nd	1.0 ± 0.6	8.5 ± 2.7	1.3 ± 0.3	3.0 ± 1.2	9.8 ± 4.1	1.0 ± 0.4
<b>Wei 247</b>	4.6 ± 1.6	1.6 ± 0.9	15.2 ± 4.4	2.3 ± 0.5	5.6 ± 1.9	18.2 ± 5.8	6.6 ± 3.1
<b>Wei 1660</b>	nd	0.4 ± 0.1	1.6 ± 0.3	nd	nd	nd	nd
<b>Pr. Frut.</b>	0.4 ± 0.1	0.4 ± 0.1	5.2 ± 0.9	42.4 ± 8.0	nd	0.3 ± 0.1	0.9 ± 0.2
<b>Aprimira</b>	4.7 ± 1.5	1.6 ± 0.5	6.6 ± 1.0	2.9 ± 0.4	1.5 ± 0.8	3.2 ± 1.2	0.8 ± 0.1

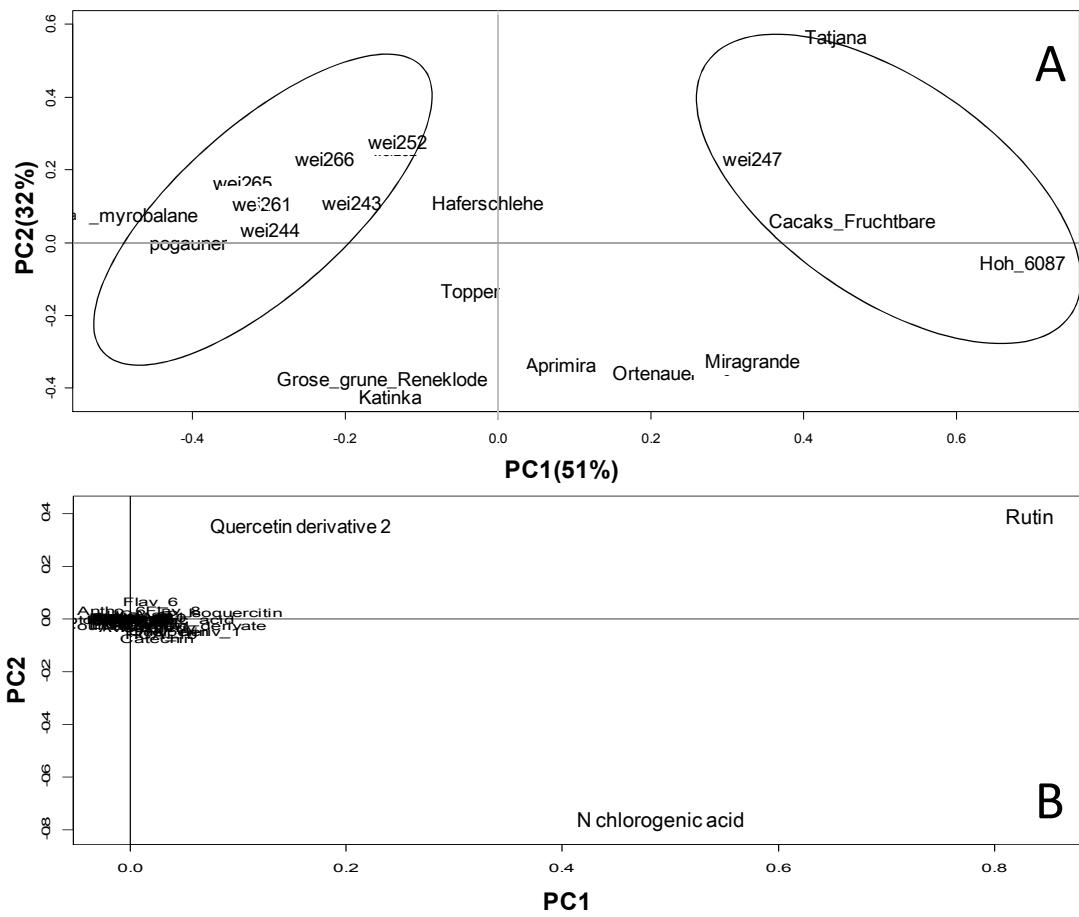
**Table 4S:** Concentrations of tentatively classified flavones in the fruit skin of plum varieties and clones. mg/100 g fresh weight (FW); mean of 3 replicates  $\pm$  standard deviation

**Table 5S:** Concentrations of tentatively identified acylated flavonoids in the fruit skin of plum varieties and clones. mg/100 g fresh weight (FW); mean of 3 replicates ± standard deviation

	acyl 3	acyl 4	acyl 5	acyl 6	acyl 9	acyl 13	acyl 14	acyl 18	acyl 19
<b>Cac. Fruchtbare</b>	nd	nd	nd	0.6 ± 0.1	1.1 ± 0.6	0.9 ± 0.3	3.0 ± 1.7	nd	nd
<b>G. G. Reneklode</b>	nd	nd	nd	nd	nd	0.1 ± 0	0.3 ± 0.2	nd	nd
<b>Hoh 6087</b>	nd	nd	0.2 ± 0.1	0.1 ± 0	nd	0.2 ± 0.1	0.1 ± 0.1	nd	nd
<b>Jojo</b>	nd	0.4	nd	0.1	0.1	0.1 ± 0.1	0.5 ± 0.3	0.1	0.2 ± 0.1
<b>Katinka</b>	nd	0.4 ± 0.3	1.0 ± 0.2	0.5 ± 0.1	0.5 ± 0.1	0.5 ± 0	1.1 ± 0.1	0.2 ± 0	0.4 ± 0.1
<b>Krichele D</b>	nd	nd	nd	0.2 ± 0.1	0.2 ± 0.1	0.2 ± 0.1	0.7 ± 0.3	0.3 ± 0.1	0.2 ± 0.1
<b>Miragrande</b>	0.8 ± 0.3	0.7 ± 0.6	0.7 ± 0.4	nd	nd	0.9 ± 0.5	4.2 ± 1.2	nd	nd
<b>Ortenauer</b>	0.2	0.8 ± 0.1	1.1 ± 0.7	0.9 ± 0.3	0.1	0.5 ± 0.1	2.5 ± 0.3	0.3 ± 0.1	1.0 ± 0.1
<b>Pogauner</b>	0.3 ± 0.1	0.5 ± 0.2	0.4 ± 0.2	0.3 ± 0.2	0.2	0.3 ± 0.1	1.6 ± 0.3	0.4 ± 0.1	0.5 ± 0.1
<b>President</b>	0.9 ± 0.2	0.8 ± 0.3	1.0 ± 0.2	1.2 ± 0.8	0.5 ± 0.2	0.5 ± 0.4	2.5 ± 0.8	0.5 ± 0	0.5 ± 0.2
<b>Topper</b>	0.5 ± 0.2	nd	0.4 ± 0.2	0.5 ± 0.2	0.7 ± 0.3	0.3 ± 0.1	0.6 ± 0.3	1.1 ± 0.4	nd
<b>Toptaste</b>	nd	0.7 ± 0.1	1.2 ± 0.4	1.3 ± 0.6	1.0 ± 0.6	2.9 ± 0.5	3.1 ± 1.1	5.3 ± 2.1	2.0 ± 0.5
<b>Sp. Myrobalane</b>	nd								
<b>Tatjana</b>	nd	nd	nd	nd	nd	0.6 ± 0.1	0.8 ± 0.1	0.2	nd
<b>Haferschlehe</b>	nd	nd	0.6	0.8	0.6	0.2	1.3	1.1 ± 0.1	0.2
<b>Songold</b>	nd	nd	nd	nd	nd	0.2 ± 0.1	2.2 ± 1.6	nd	nd
<b>Wei 252</b>	0.9 ± 0.1	0.5 ± 0.2	nd	0.5 ± 0.4	0.3 ± 0.1	0.5 ± 0.1	1.0 ± 0.3	0.1 ± 0.1	nd
<b>Wei 261</b>	0.5 ± 0.4	1.6 ± 0.4	nd	0.2 ± 0.1	0.2 ± 0.1	0.2 ± 0	0.9 ± 0.2	0.2 ± 0.1	nd
<b>Wei 256</b>	0.1 ± 0.1	1.5 ± 0.3	nd	0.5 ± 0.1	nd	nd	1.1 ± 0.2	nd	nd
<b>Wei 266</b>	nd	0.3	nd	nd	nd	0.1	0.2 ± 0.1	nd	nd
<b>Wei 267</b>	0.1 ± 0.1	0.4	nd	0.1	0.1	0	0.1	0.1 ± 0.1	0.2 ± 0.1
<b>Wei 238</b>	0.9 ± 0.8	2.6 ± 0.3	1.6 ± 0.4	1.4 ± 0.2	1.5 ± 0.2	1.5 ± 0.2	3.6 ± 0.4	1.2 ± 0.1	2.1 ± 0.3
<b>Wei 243</b>	1.2 ± 0.1	1.0 ± 0.2	0.6 ± 0.4	0.8 ± 0.3	0.4	0.5 ± 0.1	1.8 ± 0.3	0.3 ± 0.1	0.4 ± 0.1
<b>Wei 244</b>	0.8 ± 0.2	0.7 ± 0.3	0.2 ± 0.2	1.4 ± 1.3	0.7 ± 0.1	0.6 ± 0.2	1.1 ± 0.3	0.3 ± 0.1	0.3 ± 0.1
<b>Wei 247</b>	0.4 ± 0.1	1.8 ± 0.5	nd	0.4 ± 0.2	0.8 ± 0.3	0.3 ± 0.1	0.6 ± 0.2	0.2 ± 0.1	0.1
<b>Wei 1660</b>	nd	nd	nd	0.2 ± 0.1	nd	nd	0.2 ± 0.1	0.2 ± 0.1	0.1
<b>Pr. Frut.</b>	nd	nd	nd	nd	nd	nd	0.1	nd	0.1
<b>Aprimira</b>	nd	nd	0.3 ± 0.2	0.3	nd	0.1	0.4 ± 0.1	0.5 ± 0.2	nd

**Figure 1S:** PC1/PC2 scores plot of 28 plum samples based on its phenolic profile (50 variables) as the analytical data (A). Loading plot for PC1 & PC2 components (B): Group discrimination in samples is related to quantitative differences in neochlorogenic acid, cyanidin and peonidin glycosidic conjugates.





**Fig. 2S:** PC1/PC2 scores plot of 20 plum samples with cyanidin rutinoside, peonidin rutinoside, cyanidin glucoside & peonidin glucoside excluded from analysis. (A) Score Plot of PC1 and PC2 scores. Loading plot for PC1 & PC2 components (B). Group discrimination in samples is related to qualitative and quantitative differences in flavonol glycosides i.e rutin pattern.