

Table S1. Comparison of individual phenolic compounds in the husk of *Juglans regia* L. among three differently susceptible cultivars to walnut anthrachnose (mean ± SE, in mg/g dry weight)

Phenolics	'Franquette'			
	spot	around infected	around healthy	healthy
neochlorogenic acid (3-caffeylquinic acid)	0.52 ± 0.02 b	0.61 ± 0.02 b	0.56 ± 0.02 b	0.31 ± 0.04 a
procyanidin dimer 1	1.91 ± 0.07 a	2.73 ± 0.10 b	2.48 ± 0.06 b	2.08 ± 0.04 a
procyanidin dimer 2	5.98 ± 0.15 c	5.63 ± 0.03 c	4.17 ± 0.03 b	1.80 ± 0.05 a
3-p-coumaoylquinic acid	0.48 ± 0.01 c	0.48 ± 0.04 c	0.34 ± 0.02 b	0.18 ± 0.01 a
(+)-catechin	6.60 ± 0.27 c	4.94 ± 0.07 b	4.86 ± 0.09 b	3.89 ± 0.05 a
dihydroxytetralone hexoside	12.92 ± 0.15 c	12.54 ± 0.63 b	8.40 ± 0.06 b	4.21 ± 0.09 a
(-)epicatechin	0.70 ± 0.16 a	1.19 ± 0.19 ab	1.57 ± 0.16 b	0.89 ± 0.05 a
procyanidin dimer 3	2.59 ± 0.10 b	1.99 ± 0.08 a	2.89 ± 0.18 b	2.68 ± 0.13 b
hydrojuglone β-D-glucopyranoside	5.40 ± 0.22 b	3.93 ± 0.17 a	8.16 ± 0.20 c	10.34 ± 0.26 d
procyanidin dimer 4	1.58 ± 0.05 c	1.39 ± 0.11 bc	1.12 ± 0.11 b	0.39 ± 0.08 a
hydrojuglone derivative pentoside 1	1.62 ± 0.04 b	1.70 ± 0.20 b	1.58 ± 0.13 b	0.89 ± 0.09 a
hydrojuglone derivative pentoside 2	1.82 ± 0.09 a	2.01 ± 0.22 a	2.49 ± 0.27 a	2.28 ± 0.39 a
dihydroxytetralone galloyl hexoside	3.74 ± 0.12 a	4.03 ± 0.22 a	5.73 ± 0.21 b	6.34 ± 0.22 b
(epi)catechin derivative	1.87 ± 0.06 b	1.87 ± 0.08 b	1.99 ± 0.07 b	0.88 ± 0.08 a
quercetin-3-galactoside	0.40 ± 0.02 a	0.69 ± 0.04 b	1.58 ± 0.04 c	0.69 ± 0.10 b
trihydroxytetralone galloyl hexoside	0.91 ± 0.09 a	1.39 ± 0.11 b	3.51 ± 0.11 c	1.12 ± 0.08 ab
hydrojuglone derivative pentoside 3	13.22 ± 0.37 d	11.74 ± 0.26 c	8.82 ± 0.19 b	4.47 ± 0.13 a
quercetin-3-xyloside	0.03 ± 0.00 a	0.07 ± 0.01 b	0.16 ± 0.00 c	0.05 ± 0.00 b
quercetin-3-arabinopyranoside	0.03 ± 0.00 a	0.13 ± 0.01 b	0.45 ± 0.01 c	0.13 ± 0.01 b
gallic acid derivative	0.45 ± 0.03 a	0.51 ± 0.02 a	0.85 ± 0.03 b	0.86 ± 0.03 b
quercetin-3-arabinofuranoside	0.45 ± 0.00 a	0.17 ± 0.01 b	0.35 ± 0.02 c	0.18 ± 0.01 b
quercetin-3-rhamnoside	0.07 ± 0.00 a	0.17 ± 0.00 b	0.36 ± 0.01 c	0.18 ± 0.01 b
1,4-naphthoquinone	0.25 ± 0.01 a	0.27 ± 0.01 a	0.54 ± 0.04 c	0.39 ± 0.02 b
hydrojuglone	0.08 ± 0.00 a	0.10 ± 0.01 a	0.19 ± 0.01 b	0.16 ± 0.01 b
juglone (5-hydroxy-1,4-naphthoquinone)	6.12 ± 0.23 ab	5.45 ± 0.22 a	7.16 ± 0.33 b	5.19 ± 0.27 a
juglanin B	2.57 ± 0.12 c	1.10 ± 0.04 b	0.78 ± 0.07 ab	0.69 ± 0.09 a
Total naphthoquinones	48.65 ± 1.00 c	44.26 ± 0.71 b	47.36 ± 1.68 bc	36.08 ± 1.64 a
Total flavanols	21.23 ± 0.23 c	19.74 ± 0.30 b	19.07 ± 0.19 b	12.61 ± 0.36 a
Total flavonols	0.57 ± 0.00 a	1.23 ± 0.07 b	2.91 ± 0.08 c	1.22 ± 0.14 b
Total analyzed phenolic compounds	71.91 ± 0.51 c	66.84 ± 0.80 b	71.09 ± 0.91 bc	51.26 ± 1.43 a

	'M10'			
	spot	around infected	around healthy	healthy
neochlorogenic acid (3-caffeylquinic acid)	1.32 ± 0.01 b	1.65 ± 0.08 c	1.25 ± 0.02 b	1.01 ± 0.01 a
procyanidin dimer 1	3.57 ± 0.08 a	5.92 ± 0.24 c	5.06 ± 0.05 b	4.82 ± 0.15 b
procyanidin dimer 2	13.75 ± 0.19 b	14.24 ± 0.97 b	5.48 ± 0.25 a	4.86 ± 0.10 a
3-p-coumaoylquinic acid	0.89 ± 0.01 c	0.92 ± 0.05 c	0.57 ± 0.01 b	0.44 ± 0.02 a
(+)-catechin	8.95 ± 0.16 a	17.63 ± 0.92 c	13.05 ± 0.16 b	12.17 ± 0.27 b
dihydroxytetralone hexoside	23.61 ± 0.23 b	25.24 ± 1.43 b	10.39 ± 0.32 a	7.39 ± 0.32 a
(-)epicatechin	1.30 ± 0.09 a	2.25 ± 0.16 b	1.18 ± 0.08 a	1.09 ± 0.10 a
procyanidin dimer 3	5.54 ± 0.09 b	7.45 ± 0.22 c	2.48 ± 0.24 a	2.96 ± 0.31 a
hydrojuglone β-D-glucopyranoside	9.43 ± 0.14 b	12.88 ± 1.06 c	4.62 ± 0.16 a	8.62 ± 0.41 b

procyanidin dimer 4	3.76 ± 0.05 c	4.02 ± 0.27 c	1.49 ± 0.10 b	0.69 ± 0.13 a
hydrojuglone derivative pentoside 1	4.05 ± 0.13 c	4.53 ± 0.29 c	2.47 ± 0.12 b	1.53 ± 0.13 a
hydrojuglone derivative pentoside 2	4.35 ± 0.09 c	5.32 ± 0.31 d	3.19 ± 0.13 b	2.27 ± 0.20 a
dihydroxytetralone galloyl hexoside	6.18 ± 0.16 ab	8.64 ± 0.55 c	6.53 ± 0.07 b	5.01 ± 0.18 a
(epi)catechin derivative	3.65 ± 0.16 c	4.10 ± 0.33 c	2.72 ± 0.07 b	1.45 ± 0.16 a
quercetin-3-galactoside	0.74 ± 0.01 a	1.33 ± 0.07 c	0.99 ± 0.01 b	0.86 ± 0.05 ab
trihydroxytetralone galloyl hexoside	2.12 ± 0.02 ab	2.63 ± 0.16 b	2.02 ± 0.14 a	1.63 ± 0.10 a
hydrojuglone derivative pentoside 3	23.59 ± 0.51 b	30.75 ± 1.95 c	18.87 ± 0.11 b	11.13 ± 0.59 a
quercetin-3-xyloside	0.05 ± 0.00 a	0.10 ± 0.01 a	0.74 ± 0.06 b	0.08 ± 0.01 a
quercetin-3-arabinopyranoside	0.06 ± 0.00 a	0.19 ± 0.01 a	1.76 ± 0.12 b	0.21 ± 0.01 a
gallic acid derivative	0.39 ± 0.01 c	0.44 ± 0.02 c	0.29 ± 0.01 b	0.21 ± 0.02 a
quercetin-3-arabinofuranoside	0.09 ± 0.00 a	0.28 ± 0.03 a	1.81 ± 0.10 b	0.33 ± 0.02 a
quercetin-3-rhamnoside	0.13 ± 0.00 a	0.33 ± 0.03 a	2.13 ± 0.12 b	0.34 ± 0.02 a
1,4-naphthoquinone	1.91 ± 0.16 b	2.87 ± 0.10 c	2.41 ± 0.08 bc	0.72 ± 0.11 a
hydrojuglone	0.61 ± 0.05 b	0.95 ± 0.03 c	0.71 ± 0.02 b	0.29 ± 0.04 a
juglone (5-hydroxy-1,4-naphthoquinone)	13.14 ± 0.53 ab	17.68 ± 0.67 c	15.30 ± 0.32 b	13.03 ± 0.33 a
juglanin B	2.51 ± 0.12 b	1.73 ± 0.16 a	1.65 ± 0.01 a	1.41 ± 0.05 a
Total naphthoquinones	91.49 ± 1.90 b	113.21 ± 6.47 c	68.16 ± 1.43 a	53.03 ± 2.23 a
Total flavanols	40.51 ± 0.48 b	55.62 ± 3.01 c	31.46 ± 0.94 a	28.05 ± 1.20 a
Total flavonols	1.07 ± 0.01 a	2.23 ± 0.14 b	7.43 ± 0.37 c	1.82 ± 0.09 ab
Total analyzed phenolic compounds	135.68 ± 2.41 c	174.07 ± 9.71 d	109.16 ± 2.16 b	84.6 ± 3.54 a

'M10-37'

	spot	around infected	around healthy	healthy
neochlorogenic acid (3-caffeylquinic acid)	1.63 ± 0.09 b	2.03 ± 0.07 c	1.69 ± 0.06 b	0.79 ± 0.01 a
procyanidin dimer 1	2.60 ± 0.18 a	3.55 ± 0.03 c	3.28 ± 0.08 bc	2.83 ± 0.04 ab
procyanidin dimer 2	17.47 ± 0.63 d	15.28 ± 0.50 c	10.25 ± 0.52 b	4.48 ± 0.07 a
3-p-coumaoylquinic acid	1.01 ± 0.05 c	1.01 ± 0.06 c	0.63 ± 0.03 b	0.33 ± 0.00 a
(+)-catechin	10.38 ± 0.79 b	15.65 ± 0.25 c	14.37 ± 0.47 c	7.94 ± 0.10 a
dihydroxytetralone hexoside	28.24 ± 1.40 d	24.61 ± 0.38 c	14.81 ± 0.12 b	7.90 ± 0.27 a
(-)-epicatechin	0.78 ± 0.04 a	1.26 ± 0.11 b	1.63 ± 0.03 c	0.97 ± 0.04 ab
procyanidin dimer 3	8.93 ± 1.04 c	9.56 ± 0.30 c	6.38 ± 0.25 b	3.31 ± 0.11 a
hydrojuglone β-D-glucopyranoside	21.94 ± 1.41 b	28.03 ± 0.45 c	19.03 ± 0.48 b	9.45 ± 0.20 a
procyanidin dimer 4	3.33 ± 0.20 bc	3.56 ± 0.22 c	2.58 ± 0.26 b	0.76 ± 0.06 a
hydrojuglone derivative pentoside 1	3.57 ± 0.33 b	4.62 ± 0.26 b	3.89 ± 0.25 b	1.57 ± 0.04 a
hydrojuglone derivative pentoside 2	3.15 ± 0.42 b	3.96 ± 0.19 b	5.80 ± 0.09 b	1.78 ± 0.08 a
dihydroxytetralone galloyl hexoside	5.95 ± 0.54 ab	8.57 ± 0.30 c	7.81 ± 0.57 bc	4.56 ± 0.02 a
(epi)catechin derivative	2.82 ± 0.18 b	3.54 ± 0.17 c	2.91 ± 0.10 b	1.12 ± 0.03 a
quercetin-3-galactoside	0.75 ± 0.06 a	1.15 ± 0.04 b	1.32 ± 0.04 b	0.91 ± 0.01 a
trihydroxytetralone galloyl hexoside	1.46 ± 0.08 a	2.43 ± 0.10 b	2.74 ± 0.08 b	1.68 ± 0.05 a
hydrojuglone derivative pentoside 3	20.69 ± 1.43 b	31.09 ± 0.60 d	24.73 ± 0.57 c	9.77 ± 0.16 a
quercetin-3-xyloside	0.05 ± 0.00 a	0.05 ± 0.00 a	0.08 ± 0.00 b	0.08 ± 0.00 b
quercetin-3-arabinopyranoside	0.03 ± 0.00 a	0.04 ± 0.01 a	0.16 ± 0.01 b	0.17 ± 0.01 b
gallic acid derivative	0.68 ± 0.05 ab	1.01 ± 0.02 c	0.91 ± 0.10 bc	0.59 ± 0.02 a
quercetin-3-arabinofuranoside	0.07 ± 0.01 a	0.09 ± 0.00 a	0.22 ± 0.01 b	0.21 ± 0.01 b
quercetin-3-rhamnoside	0.13 ± 0.01 a	0.16 ± 0.01 a	0.28 ± 0.01 b	0.26 ± 0.01 b
1,4-naphthoquinone	1.52 ± 0.40 a	3.80 ± 0.13 b	1.67 ± 0.19 a	1.59 ± 0.07 a

hydrojuglone	0.49 ± 0.15 a	1.23 ± 0.04 b	0.54 ± 0.03 a	0.60 ± 0.05 a
juglone (5-hydroxy-1,4-naphthoquinone)	10.36 ± 0.68 a	12.89 ± 0.28 b	13.78 ± 0.76 b	9.36 ± 0.22 a
juglanin B	3.35 ± 0.15 c	2.18 ± 0.09 b	1.77 ± 0.16 b	1.15 ± 0.07 a
Total naphthoquinones	100.74 ± 6.47 b	123.42 ± 2.28 c	94.57 ± 3.02 b	49.42 ± 0.62 a
Total flavanols	46.32 ± 2.95 bc	52.41 ± 1.43 c	41.42 ± 1.60 b	21.42 ± 0.37 a
Total flavonols	1.03 ± 0.09 a	1.49 ± 0.05 b	2.05 ± 0.03 c	1.63 ± 0.04 b
<u>Total analyzed phenolic compounds</u>	<u>151.40 ± 9.65 b</u>	<u>181.37 ± 3.76 c</u>	<u>141.26 ± 4.77 b</u>	<u>74.19 ± 1.01 a</u>

Data are means \pm standard error

Means followed by different letters across the variety (within columns) are significantly different ($p < 0.05$).

Spot: inner spot of infected tissue, around infected: outer margin of infected tissue, around healthy: healthy tissue surrounding the infection, healthy: healthy tissue