

Table S1. Heneicosane (C 21). Data are expressed as mg/kg and are given as mean \pm SD ($n = 8$). Means and standard deviations were calculated on 8 replicates (4 replicates/year \times two harvest years), in the harvest years 2016-2017 and 2017-2018. Means values in a vertical column with different capital letters and means in a line with small letters were significantly different according to the Tukey test at 5% probability.

Cultivar	3 Oct.	18 Oct.	3 Nov.	17 Nov.	5 Dec.	19 Dec.	3 Jan.	<i>Sign.</i>
Cassanese	0.10 \pm 0.01 abB	0.07 \pm 0.01 bC	0.13 \pm 0.01 aC	0.09 \pm 0.02 bC	0.13 \pm 0.04 aC	0.10 \pm 0.01 bB	0.10 \pm 0.01 abC	0.000
Coratina	0.73 \pm 0.39 aB	0.33 \pm 0.02 bcBC	0.33 \pm 0.03 bcBC	0.47 \pm 0.01 abC	0.14 \pm 0.01 cC	--	--	0.000
Itrana	0.18 \pm 0.08 aB	0.10 \pm 0.01 bBC	0.11 \pm 0.01 abC	0.11 \pm 0.03 bB	0.07 \pm 0.00 bC	--	--	0.002
Leccino	0.50 \pm 0.25 aB	0.38 \pm 0.02 abBC	0.52 \pm 0.03 aBC	0.48 \pm 0.05 aC	0.23 \pm 0.01 bC	--	--	0.001
Nociara	0.29 \pm 0.07 abB	0.44 \pm 0.14 abBC	0.53 \pm 0.18 aBC	0.40 \pm 0.19 abC	0.25 \pm 0.16 bC	0.26 \pm 0.00 bB	--	0.009
Ottobratica	0.32 \pm 0.04 aB	0.31 \pm 0.07 aBC	0.26 \pm 0.03 abC	0.19 \pm 0.03 bC	0.29 \pm 0.05 abC	0.26 \pm 0.11 abB	0.20 \pm 0.01 bB	0.001
Pendolino	0.58 \pm 0.27 abB	0.65 \pm 0.45 aB	0.25 \pm 0.06 bcC	0.18 \pm 0.04 cC	0.22 \pm 0.14 bcC	0.15 \pm 0.01 cB	--	0.001
Picholine	0.33 \pm 0.03 dB	0.65 \pm 0.14 cB	0.91 \pm 0.29 bB	1.24 \pm 0.08 aB	1.09 \pm 0.02 abB	--	--	0.000
Sinopolese	3.84 \pm 0.97 bA	4.59 \pm 0.77 abA	5.85 \pm 0.93 abA	6.67 \pm 2.10 aA	6.05 \pm 2.02 abA	4.88 \pm 1.20 abA	3.90 \pm 0.04 bA	0.003
<i>Sign.</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Table S2. Docosane (C 22). Data are expressed as mg/kg and are given as mean \pm SD ($n = 8$). Means and standard deviations were calculated on 8 replicates (4 replicates/year \times two harvest years), in the harvest years 2016-2017 and 2017-2018. Means values in a vertical column with different capital letters and means in a line with small letters were significantly different according to the Tukey test at 5% probability.

Cultivar	3 Oct.	18 Oct.	3 Nov.	17 Nov.	5 Dec.	19 Dec.	3 Jan.	<i>Sign.</i>
Cassanese	0.24 \pm 0.01 abB	0.17 \pm 0.01 bcB	0.24 \pm 0.03 abC	0.16 \pm 0.02 cB	0.30 \pm 0.11 aB	0.23 \pm 0.01 bcB	0.17 \pm 0.01 bcC	0.000
Coratina	1.04 \pm 0.69 aB	0.35 \pm 0.03 bcB	0.43 \pm 0.09 bcC	0.77 \pm 0.01 abB	0.21 \pm 0.01 cB	--	--	0.001
Itrana	0.34 \pm 0.13 aB	0.23 \pm 0.01 bcB	0.25 \pm 0.02 abC	0.21 \pm 0.03 bcB	0.14 \pm 0.00 cB	--	--	0.000
Leccino	0.57 \pm 0.08 aB	0.48 \pm 0.10 abB	0.38 \pm 0.09 bcC	0.37 \pm 0.12 bcB	0.24 \pm 0.01 cB	--	--	0.000
Nociara	0.50 \pm 0.02 bcB	0.82 \pm 0.08 aB	0.93 \pm 0.13 aBC	0.75 \pm 0.22 abB	0.49 \pm 0.25 cB	0.50 \pm 0.01 bcB	--	0.000
Ottobratica	1.28 \pm 0.11 aB	0.99 \pm 0.20 aB	0.62 \pm 0.15 bC	0.36 \pm 0.02 bB	0.48 \pm 0.19 bB	0.49 \pm 0.31 bB	0.40 \pm 0.01 bB	0.000
Pendolino	0.35 \pm 0.03 aB	0.27 \pm 0.04 bB	0.24 \pm 0.03 bcC	0.22 \pm 0.02 cdB	0.19 \pm 0.01 deB	0.18 \pm 0.01 eB	--	0.000
Picholine	1.04 \pm 0.06 cB	1.31 \pm 0.17 bcB	1.67 \pm 0.46 abB	2.09 \pm 0.53 aB	1.69 \pm 0.02 abB	--	--	0.000
Sinopolese	13.35 \pm 2.51 abA	14.72 \pm 1.87 abA	15.33 \pm 1.26 aA	16.93 \pm 3.13 aA	16.83 \pm 5.13 aA	13.56 \pm 2.37 abA	10.33 \pm 0.04 bA	0.003
<i>Sign.</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Table S3. Tricosene (C 23:1). Data are expressed as mg/kg and are given as mean \pm SD ($n = 8$). Means and standard deviations were calculated on 8 replicates (4 replicates/year x two harvest years), in the harvest years 2016-2017 and 2017-2018. Means values in a vertical column with different capital letters and means in a line with small letters were significantly different according to the Tukey test at 5% probability.

Cultivar	3 Oct.	18 Oct.	3 Nov.	17 Nov.	5 Dec.	19 Dec.	3 Jan.	<i>Sign.</i>
Cassanese	0.03 \pm 0.01 cE	0.03 \pm 0.01 cB	0.05 \pm 0.01 aE	0.05 \pm 0.00 aC	0.03 \pm 0.01 bcD	0.05 \pm 0.01 abC	0.03 \pm 0.01 cC	0.000
Coratina	0.33 \pm 0.09 aD	0.21 \pm 0.08 abB	0.24 \pm 0.10 abD	0.15 \pm 0.00 bcC	0.09 \pm 0.01 cD	--	--	0.000
Itrana	0.04 \pm 0.01 abE	0.02 \pm 0.01 bB	0.06 \pm 0.02 aE	0.04 \pm 0.01 abC	0.05 \pm 0.00 aD	--	--	0.001
Leccino	0.06 \pm 0.02 bcE	0.06 \pm 0.01 bB	0.09 \pm 0.01 aDE	0.06 \pm 0.01 bcC	0.04 \pm 0.01 cD	--	--	0.000
Nociara	0.11 \pm 0.06 aE	0.09 \pm 0.06 aB	0.07 \pm 0.04 aE	0.10 \pm 0.07 aC	0.04 \pm 0.02 aD	0.03 \pm 0.00 aC	--	0.061
Ottobratica	0.91 \pm 0.20 aB	0.70 \pm 0.06 bA	0.44 \pm 0.07 cC	0.25 \pm 0.06 dBC	0.20 \pm 0.07 dC	0.23 \pm 0.07 dB	0.24 \pm 0.01 dB	0.000
Pendolino	0.10 \pm 0.03 aE	0.08 \pm 0.05 aB	0.02 \pm 0.01 bE	0.03 \pm 0.01 bC	0.03 \pm 0.02 bD	0.02 \pm 0.01 bC	--	0.000
Picholine	0.69 \pm 0.05 aC	0.78 \pm 0.16 aA	0.62 \pm 0.11 aB	0.44 \pm 0.08 bAB	0.44 \pm 0.02 bB	--	--	0.000
Sinopolese	1.24 \pm 0.06 aA	0.82 \pm 0.30 bA	0.84 \pm 0.20 bA	0.64 \pm 0.37 abA	0.64 \pm 0.10 abA	0.45 \pm 0.07 bA	0.58 \pm 0.04 abA	0.000
<i>Sign.</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Table S4. Tricosane (C 23). Data are expressed as mg/kg and are given as mean \pm SD ($n = 8$). Means and standard deviations were calculated on 8 replicates (4 replicates/year x two harvest years), in the harvest years 2016-2017 and 2017-2018. Means values in a vertical column with different capital letters and means in a line with small letters were significantly different according to the Tukey test at 5% probability.

Cultivar	3 Oct.	18 Oct.	3 Nov.	17 Nov.	5 Dec.	19 Dec.	3 Jan.	<i>Sign.</i>
Cassanese	1.05 \pm 0.03 aE	0.79 \pm 0.05 abcE	0.73 \pm 0.08 abcG	0.55 \pm 0.08 bcD	0.88 \pm 0.54 abC	0.48 \pm 0.03 cD	0.42 \pm 0.02 cC	0.000
Coratina	6.19 \pm 1.73 aCDE	4.69 \pm 1.18 aDE	4.68 \pm 0.77 aE	2.62 \pm 0.01 bCD	1.80 \pm 0.01 bC	--	--	0.000
Itrana	3.65 \pm 1.68 aCDE	1.83 \pm 0.15 bDE	1.62 \pm 0.55 bFG	0.84 \pm 0.10 bD	0.82 \pm 0.00 bC	--	--	0.000
Leccino	9.71 \pm 2.62 aC	6.99 \pm 3.42 abD	3.62 \pm 0.88 bcEF	3.33 \pm 1.19 cCD	2.79 \pm 0.01 cC	--	--	0.000
Nociara	8.71 \pm 0.45 bcCD	12.71 \pm 1.93 aC	12.04 \pm 2.82 abC	9.38 \pm 2.98 abC	5.40 \pm 3.07 cC	5.40 \pm 0.01 cB	--	0.000
Ottobratica	21.03 \pm 3.01 aB	15.81 \pm 2.41 bBC	7.91 \pm 1.66 cD	4.05 \pm 0.29 dCD	3.80 \pm 0.48 dC	3.32 \pm 2.03 dC	3.16 \pm 0.01 dB	0.000
Pendolino	2.99 \pm 0.16 aDE	2.54 \pm 0.35 bDE	1.76 \pm 0.20 cFG	1.41 \pm 0.03 dD	1.13 \pm 0.17 deC	0.90 \pm 0.01 eD	--	0.000
Picholine	19.79 \pm 1.44 aB	20.04 \pm 1.34 aB	18.93 \pm 1.64 abB	19.62 \pm 1.06 aB	17.05 \pm 0.03 bB	--	--	0.002
Sinopolese	85.94 \pm 9.06 aA	87.98 \pm 6.75 aA	90.48 \pm 1.27 aA	87.05 \pm 12.16 aA	86.26 \pm 13.71 aA	65.28 \pm 0.54 bA	60.03 \pm 0.08 bA	0.000
<i>Sign.</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Table S5. Tetracosene (C 24:1). Data are expressed as mg/kg and are given as mean \pm SD ($n = 8$). Means and standard deviations were calculated on 8 replicates (4 replicates/year x two harvest years), in the harvest years 2016-2017 and 2017-2018. Means values in a vertical column with different capital letters and means in a line with small letters were significantly different according to the Tukey test at 5% probability.

Cultivar	3 Oct.	18 Oct.	3 Nov.	17 Nov.	5 Dec.	19 Dec.	3 Jan.	<i>Sign.</i>
Cassanese	0.03 \pm 0.01 abD	0.02 \pm 0.01 bB	0.04 \pm 0.01 aC	0.01 \pm 0.00 bD	0.02 \pm 0.01 bD	0.02 \pm 0.00 bC	0.02 \pm 0.01 abC	0.000
Coratina	0.25 \pm 0.09 aC	0.16 \pm 0.05 abB	0.19 \pm 0.08 aC	0.16 \pm 0.01 abCD	0.07 \pm 0.01 bD	--	--	0.000
Itrana	0.02 \pm 0.00 aD	0.01 \pm 0.01 abB	0.02 \pm 0.00 abC	0.01 \pm 0.00 bD	0.00 \pm 0.00 cD	--	--	0.000
Leccino	0.02 \pm 0.01 aD	0.02 \pm 0.01 aB	0.02 \pm 0.00 aC	0.02 \pm 0.00 aD	0.01 \pm 0.00 aD	--	--	0.249
Nociara	0.09 \pm 0.01 aD	0.07 \pm 0.02 abB	0.06 \pm 0.01 bcC	0.05 \pm 0.01 bcdD	0.03 \pm 0.02 cD	0.04 \pm 0.00 cdC	--	0.000
Ottobratica	1.05 \pm 0.14 aA	0.84 \pm 0.04 bA	0.49 \pm 0.03 cB	0.27 \pm 0.06 dBC	0.19 \pm 0.07 dC	0.24 \pm 0.10 dB	0.24 \pm 0.01 dB	0.000
Pendolino	0.02 \pm 0.01 aD	0.02 \pm 0.01 aB	0.02 \pm 0.01 aC	0.02 \pm 0.01 aD	0.02 \pm 0.01 aD	0.01 \pm 0.00 aC	--	0.296
Picholine	0.79 \pm 0.08 aB	0.79 \pm 0.08 aA	0.62 \pm 0.09 bB	0.48 \pm 0.08 cAB	0.44 \pm 0.02 cB	--	--	0.000
Sinopolese	1.17 \pm 0.10 aA	0.78 \pm 0.28 bcA	0.98 \pm 0.35 abA	0.58 \pm 0.33 cA	0.65 \pm 0.11 bcA	0.43 \pm 0.06 cA	0.51 \pm 0.03 cA	0.000
<i>Sign.</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Table S6. Tetracosane (C 24). Data are expressed as mg/kg and are given as mean \pm SD ($n = 8$). Means and standard deviations were calculated on 8 replicates (4 replicates/year x two harvest years), in the harvest years 2016-2017 and 2017-2018. Means values in a vertical column with different capital letters and means in a line with small letters were significantly different according to the Tukey test at 5% probability.

Cultivar	3 Oct.	18 Oct.	3 Nov.	17 Nov.	5 Dec.	19 Dec.	3 Jan.	<i>Sign.</i>
Cassanese	1.53 \pm 0.19 aE	1.05 \pm 0.06 bF	0.88 \pm 0.10 bcF	0.60 \pm 0.09 dF	0.71 \pm 0.26 cdD	0.60 \pm 0.04 dC	0.47 \pm 0.03 dC	0.000
Coratina	4.98 \pm 1.42 aDE	3.65 \pm 0.73 abEF	3.72 \pm 0.83 abD	2.59 \pm 0.02 bcDE	1.75 \pm 0.01 cCD	--	--	0.000
Itrana	3.44 \pm 1.27 aDE	1.93 \pm 0.16 bF	1.68 \pm 0.65 bcEF	0.84 \pm 0.10 cF	0.91 \pm 0.01 bcD	--	--	0.000
Leccino	11.41 \pm 2.57 aC	7.88 \pm 4.88 aDE	3.20 \pm 0.89 bDE	2.73 \pm 1.41 bDE	2.86 \pm 0.01 bCD	--	--	0.000
Nociara	7.27 \pm 0.62 aCD	9.03 \pm 1.44 aCD	8.17 \pm 1.62 aC	6.70 \pm 1.72 aC	4.11 \pm 1.90 bC	4.13 \pm 0.01 bB	--	0.000
Ottobratica	16.40 \pm 1.88 aB	12.84 \pm 1.43 bBC	7.14 \pm 1.41 cC	3.97 \pm 0.33 dD	3.23 \pm 0.02 dCD	3.16 \pm 1.94 dB	2.77 \pm 0.01 dB	0.000
Pendolino	2.88 \pm 0.13 aE	2.15 \pm 0.09 bF	1.64 \pm 0.10 cEF	1.37 \pm 0.04 dEF	1.09 \pm 0.13 eCD	0.94 \pm 0.01 eC	--	0.000
Picholine	17.22 \pm 1.07 aB	16.24 \pm 0.57 aB	14.37 \pm 0.4 4 bB	13.94 \pm 0.74 bB	11.83 \pm 0.02 cB	--	--	0.000
Sinopolese	54.09 \pm 5.59 aA	53.10 \pm 4.91 abA	47.07 \pm 1.37 bcA	44.76 \pm 0.86 cA	45.87 \pm 4.49 cA	36.56 \pm 1.89 dA	33.05 \pm 0.04 dA	0.000
<i>Sign.</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Table S7. Pentacosene (C 25:1). Data are expressed as mg/kg and are given as mean \pm SD ($n = 8$). Means and standard deviations were calculated on 8 replicates (4 replicates/year \times two harvest years), in the harvest years 2016-2017 and 2017-2018. Means values in a vertical column with different capital letters and means in a line with small letters were significantly different according to the Tukey test at 5% probability.

Cultivar	3 Oct.	18 Oct.	3 Nov.	17 Nov.	5 Dec.	19 Dec.	3 Jan.	<i>Sign.</i>
Cassanese	0.13 \pm 0.03 aDE	0.08 \pm 0.03 bcD	0.09 \pm 0.01 bcC	0.07 \pm 0.01 cBC	0.07 \pm 0.03 cCD	0.11 \pm 0.01 abcB	0.11 \pm 0.01 abC	0.000
Coratina	0.45 \pm 0.11 abC	0.39 \pm 0.15 abC	0.60 \pm 0.38 aB	0.28 \pm 0.02 abB	0.19 \pm 0.01 bC	--	--	0.010
Itrana	0.04 \pm 0.01 bE	0.04 \pm 0.02 bD	0.09 \pm 0.01 aC	0.05 \pm 0.01 bBC	0.07 \pm 0.00 aCD	--	--	0.000
Leccino	0.05 \pm 0.02 abDE	0.06 \pm 0.01 aD	0.05 \pm 0.03 abC	0.04 \pm 0.01 abC	0.02 \pm 0.00 bD	--	--	0.009
Nociara	0.13 \pm 0.06 abDE	0.14 \pm 0.02 aD	0.06 \pm 0.01 bcC	0.09 \pm 0.03 abcBC	0.07 \pm 0.06 bcCD	0.05 \pm 0.00 cB	--	0.001
Ottobratica	1.47 \pm 0.19 aA	1.31 \pm 0.04 aA	0.96 \pm 0.11 bA	0.57 \pm 0.08 cA	0.50 \pm 0.17 cB	0.58 \pm 0.13 cA	0.60 \pm 0.01 cB	0.000
Pendolino	0.27 \pm 0.25 aCD	0.11 \pm 0.09 abD	0.03 \pm 0.02 bC	0.03 \pm 0.01 bC	0.01 \pm 0.01 bD	0.02 \pm 0.01 bB	--	0.003
Picholine	1.03 \pm 0.06 abB	1.11 \pm 0.16 aAB	0.92 \pm 0.13 bcA	0.73 \pm 0.08 dA	0.79 \pm 0.02 cdA	--	--	0.000
Sinopolese	1.31 \pm 0.08 aA	0.94 \pm 0.22 bcB	1.00 \pm 0.28 abA	0.70 \pm 0.36 bcdA	0.74 \pm 0.11 bcdA	0.54 \pm 0.08 dA	0.62 \pm 0.02 cdA	0.000
<i>Sign.</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Table S8. Pentacosane (C 25). Data are expressed as mg/kg and are given as mean \pm SD ($n = 8$). Means and standard deviations were calculated on 8 replicates (4 replicates/year x two harvest years), in the harvest years 2016-2017 and 2017-2018. Means values in a vertical column with different capital letters and means in a line with small letters were significantly different according to the Tukey test at 5% probability.

Cultivar	3 Oct.	18 Oct.	3 Nov.	17 Nov.	5 Dec.	19 Dec.	3 Jan.	<i>Sign.</i>
Cassanese	7.00 \pm 1.42 aE	4.80 \pm 0.45 bD	3.78 \pm 0.41 bcG	2.71 \pm 0.37 cdH	2.40 \pm 0.30 dE	2.92 \pm 0.21 cdC	2.43 \pm 0.16 dC	0.000
Coratina	11.10 \pm 1.17 aE	9.69 \pm 0.78 aCD	10.09 \pm 1.82 aDE	6.94 \pm 0.02 bE	6.61 \pm 0.01 bD	--	--	0.000
Itrana	7.20 \pm 0.70 aE	5.30 \pm 0.02 bD	4.79 \pm 0.91 bFG	2.92 \pm 0.17 cGH	3.16 \pm 0.01 cE	--	--	0.000
Leccino	17.70 \pm 3.40 aD	13.15 \pm 6.03 aC	7.05 \pm 0.86 bEF	6.43 \pm 1.55 bEF	6.45 \pm 0.01 bD	--	--	0.000
Nociara	11.46 \pm 0.85 aE	12.63 \pm 1.56 aC	11.23 \pm 1.87 aD	9.94 \pm 1.82 abD	7.15 \pm 2.31 bD	7.61 \pm 0.01 bBC	--	0.000
Ottobratica	34.15 \pm 3.43 aB	29.34 \pm 2.65 bB	19.90 \pm 3.03 cC	13.17 \pm 0.33 dC	11.99 \pm 1.05 dC	11.20 \pm 4.51 dB	11.40 \pm 0.02 dB	0.000
Pendolino	9.26 \pm 0.15 aE	7.32 \pm 0.44 bCD	5.69 \pm 0.72 cFG	4.73 \pm 0.23 dFG	4.01 \pm 0.34 eE	3.51 \pm 0.01 eC	--	0.000
Picholine	27.95 \pm 2.11 aC	29.09 \pm 0.60 bB	23.31 \pm 0.37 cB	22.55 \pm 0.36 cdB	21.05 \pm 0.02 dB	--	--	0.000
Sinopolese	91.35 \pm 6.78 aA	86.50 \pm 8.46 aA	73.68 \pm 2.53 bA	68.79 \pm 2.01 bcA	72.31 \pm 1.54 bA	61.24 \pm 6.25 cdA	59.63 \pm 0.05 dA	0.000
<i>Sign.</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Table S9. Hexacosane (C 26). Data are expressed as mg/kg and are given as mean \pm SD ($n = 8$). Means and standard deviations were calculated on 8 replicates (4 replicates/year x two harvest years), in the harvest years 2016-2017 and 2017-2018. Means values in a vertical column with different capital letters and means in a line with small letters were significantly different according to the Tukey test at 5% probability.

<i>Cultivar</i>	3 Oct.	18 Oct.	3 Nov.	17 Nov.	5 Dec.	19 Dec.	3 Jan.	<i>Sign.</i>
Cassanese	2.14 \pm 0.35 aDE	1.57 \pm 0.19 bcd	1.29 \pm 0.14 bcF	1.05 \pm 0.10 cdC	0.88 \pm 0.11 dG	1.11 \pm 0.09 cdC	0.91 \pm 0.07 dC	0.000
Coratina	3.18 \pm 0.99 aC	2.20 \pm 0.04 bcC	2.23 \pm 0.34 bcD	2.63 \pm 0.02 abB	1.67 \pm 0.01 cD	--	--	0.000
Itrana	1.55 \pm 0.11 aE	1.39 \pm 0.11 bD	1.28 \pm 0.01 bF	1.06 \pm 0.02 cC	0.97 \pm 0.01 cG	--	--	0.000
Leccino	2.94 \pm 0.50 aC	2.25 \pm 0.93 abC	1.43 \pm 0.04 bcF	1.26 \pm 0.24 cC	1.35 \pm 0.01 cEF	--	--	0.000
Nociara	1.85 \pm 0.03 aE	1.74 \pm 0.06 aCD	1.55 \pm 0.10 bEF	1.43 \pm 0.09 bcC	1.24 \pm 0.13 dF	1.33 \pm 0.00 cdC	--	0.000
Ottobratica	4.32 \pm 0.25 aB	3.71 \pm 0.17 abB	3.27 \pm 0.24 bcB	2.74 \pm 0.12 cdB	2.71 \pm 0.21 cdB	2.74 \pm 0.80 cdB	2.53 \pm 0.01 dB	0.000
Pendolino	2.77 \pm 0.08 aCD	2.29 \pm 0.23 bC	1.82 \pm 0.10 cE	1.66 \pm 0.05 cdC	1.50 \pm 0.09 dDE	1.48 \pm 0.01 dC	--	0.000
Picholine	3.30 \pm 0.08 aC	3.08 \pm 0.14 abB	2.82 \pm 0.23 bcC	2.73 \pm 0.32 cdB	2.44 \pm 0.02 dC	--	--	0.000
Sinopolese	8.75 \pm 0.33 aA	7.51 \pm 0.57 bA	5.85 \pm 0.14 cA	5.38 \pm 0.92 cA	5.83 \pm 0.27 cA	5.23 \pm 0.74 cA	5.15 \pm 0.04 cA	0.000
<i>Sign.</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Table S10. Eptacosane (C 27). Data are expressed as mg/kg and are given as mean \pm SD ($n = 8$). Means and standard deviations were calculated on 8 replicates (4 replicates/year x two harvest years), in the harvest years 2016-2017 and 2017-2018. Means values in a vertical column with different capital letters and means in a line with small letters were significantly different according to the Tukey test at 5% probability.

Cultivar	3 Oct.	18 Oct.	3 Nov.	17 Nov.	5 Dec.	19 Dec.	3 Jan.	<i>Sign.</i>
Cassanese	6.71 \pm 1.09 aDE	5.05 \pm 0.32 bE	4.36 \pm 0.38 bcC	3.62 \pm 0.69 cE	3.42 \pm 0.36 cE	4.68 \pm 0.34 bD	4.82 \pm 0.32 bC	0.000
Coratina	10.12 \pm 0.02 aCD	9.81 \pm 0.09 aC	9.92 \pm 2.07 aB	7.77 \pm 0.01 bC	6.64 \pm 0.00 bC	--	--	0.000
Itrana	5.43 \pm 1.34 aE	5.40 \pm 0.60 aE	4.99 \pm 1.22 abC	4.64 \pm 0.96 abDE	3.66 \pm 0.01 bE	--	--	0.022
Leccino	11.85 \pm 3.62 aC	7.84 \pm 1.19 bD	6.23 \pm 0.81 bC	6.45 \pm 0.98 bCD	5.53 \pm 0.01 bCD	--	--	0.000
Nociara	6.92 \pm 0.34 aDE	5.49 \pm 0.06 bE	4.95 \pm 0.16 cC	4.60 \pm 0.09 dDE	4.57 \pm 0.24 dDE	4.79 \pm 0.01 cdD	--	0.000
Ottobratica	17.14 \pm 1.76 aB	13.60 \pm 0.8 9 cdB	15.05 \pm 0.03 abcA	14.50 \pm 1.98 abcdA	16.36 \pm 1.8 1 abA	12.00 \pm 2.14 dB	13.78 \pm 0.02 bcdB	0.000
Pendolino	17.33 \pm 0.14 aB	14.37 \pm 1.6 5 bB	11.42 \pm 1.57 cB	10.20 \pm 0.22 cdB	8.84 \pm 0.56 dB	8.96 \pm 0.01 dC	--	0.000
Picholine	6.94 \pm 0.91 aDE	6.59 \pm 1.06 aDE	6.60 \pm 2.13 aC	6.26 \pm 1.81 aCD	5.13 \pm 0.02 aD	--	--	0.233
Sinopolese	24.46 \pm 3.21 aA	19.11 \pm 0.1 8 bA	17.22 \pm 2.09 bcA	15.39 \pm 1.83 cA	17.36 \pm 0.5 1 bcA	18.61 \pm 0.53 bA	19.98 \pm 0.03 bA	0.000
<i>Sign.</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Table S11. Octacosane (C 28). Data are expressed as mg/kg and are given as mean \pm SD ($n = 8$). Means and standard deviations were calculated on 8 replicates (4 replicates/year x two harvest years), in the harvest years 2016-2017 and 2017-2018. Means values in a vertical column with different capital letters and means in a line with small letters were significantly different according to the Tukey test at 5% probability.

Cultivar	3 Oct.	18 Oct.	3 Nov.	17 Nov.	5 Dec.	19 Dec.	3 Jan.	<i>Sign.</i>
Cassanese	1.54 \pm 0.18 aC	1.03 \pm 0.18 bD	0.86 \pm 0.08 bcD	0.70 \pm 0.09 cdC	0.60 \pm 0.09 dD	0.83 \pm 0.07 bcB	0.74 \pm 0.06 cdC	0.000
Coratina	2.96 \pm 0.91 aB	2.04 \pm 0.09 bC	1.94 \pm 0.55 bcC	2.49 \pm 0.01 abA	1.20 \pm 0.01 cC	--	--	0.000
Itrana	0.71 \pm 0.03 aD	0.84 \pm 0.11 aD	0.82 \pm 0.14 aD	0.74 \pm 0.14 aC	0.53 \pm 0.00 bD	--	-	0.000
Leccino	1.76 \pm 0.36 aC	1.22 \pm 0.35 bD	0.93 \pm 0.06 bD	0.91 \pm 0.07 bC	0.94 \pm 0.01 bCD	--	--	0.000
Nociara	1.67 \pm 0.12 aC	1.19 \pm 0.14 bD	1.07 \pm 0.06 bcD	0.98 \pm 0.03 cC	0.96 \pm 0.04 cCD	1.00 \pm 0.00 cB	--	0.000
Ottobratica	3.59 \pm 0.43 aAB	2.70 \pm 0.22 bB	2.65 \pm 0.13 bA	2.64 \pm 0.29 bA	2.66 \pm 0.37 bA	2.39 \pm 0.77 bA	2.34 \pm 0.02 bA	0.000
Pendolino	4.05 \pm 0.23 aA	3.36 \pm 0.51 bA	2.60 \pm 0.03 cAB	2.44 \pm 0.05 cA	2.17 \pm 0.24 cB	2.39 \pm 0.01 cA	--	0.000
Picholine	1.10 \pm 0.13 aCD	0.95 \pm 0.10 abD	0.89 \pm 0.16 abcD	0.81 \pm 0.24 bcC	0.65 \pm 0.02 cD	--	--	0.000
Sinopolese	3.95 \pm 0.65 aA	2.81 \pm 0.09 bB	2.25 \pm 0.05 bcBC	1.84 \pm 0.55 cB	2.03 \pm 0.60 bcB	1.95 \pm 0.63 cA	2.21 \pm 0.03 bcB	0.000
<i>Sign.</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Table S12. Nonacosane (C 29). Data are expressed as mg/kg and are given as mean \pm SD ($n = 8$). Means and standard deviations were calculated on 8 replicates (4 replicates/year x two harvest years), in the harvest years 2016-2017 and 2017-2018. Means values in a vertical column with different capital letters and means in a line with small letters were significantly different according to the Tukey test at 5% probability.

Cultivar	3 Oct.	18 Oct.	3 Nov.	17 Nov.	5 Dec.	19 Dec.	3 Jan.	<i>Sign.</i>
Cassanese	7.28 \pm 1.66 aC	4.51 \pm 0.90 bF	3.45 \pm 0.39 bcdC	2.79 \pm 0.30 cdE	2.35 \pm 0.49 dE	3.70 \pm 0.28 bcdB	3.96 \pm 0.26 bcC	0.000
Coratina	12.38 \pm 1.30 abB	13.43 \pm 1.13 aC	13.28 \pm 5.23 aB	8.46 \pm 0.02 bcC	6.28 \pm 0.01 cC	--	--	0.000
Itrana	4.95 \pm 0.67 aC	4.96 \pm 0.17 aF	4.30 \pm 0.85 abC	3.71 \pm 0.45 bcDE	3.31 \pm 0.01 cDE	--	--	0.000
Leccino	10.72 \pm 1.58 aB	7.55 \pm 0.42 bDE	5.89 \pm 0.29 cC	5.99 \pm 0.35 cD	5.19 \pm 0.01 cCD	--	--	0.000
Nociara	11.71 \pm 2.03 aB	8.15 \pm 1.66 bD	6.55 \pm 1.03 bcC	6.05 \pm 0.94 bcD	5.81 \pm 0.49 cCD	6.10 \pm 0.01 bcB	--	0.000
Ottobratica	23.99 \pm 1.80 aA	17.19 \pm 0.19 bB	18.23 \pm 0.55 bA	16.32 \pm 2.03 bA	17.87 \pm 2.88 bA	11.69 \pm 2.32 cA	12.59 \pm 0.02 cA	0.000
Pendolino	25.15 \pm 0.55 aA	20.24 \pm 3.14 bA	15.35 \pm 2.01 cAB	12.98 \pm 0.35 cdB	11.49 \pm 1.24 dB	11.85 \pm 0.01 dA	--	0.000
Picholine	6.86 \pm 1.06 aC	5.15 \pm 0.48 bEF	4.52 \pm 1.18 bcC	3.92 \pm 1.23 bcDE	3.27 \pm 0.02 cDE	--	--	0.000
Sinopolese	24.45 \pm 3.33 aA	16.38 \pm 0.59 bB	13.91 \pm 1.77 bcB	9.92 \pm 2.63 cC	9.84 \pm 2.52 cB	9.78 \pm 3.32 cA	12.05 \pm 0.04 cB	0.000
<i>Sign.</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Table S13. Triacontane (C 30). Data are expressed as mg/kg and are given as mean \pm SD ($n = 8$). Means and standard deviations were calculated on 8 replicates (4 replicates/year x two harvest years), in the harvest years 2016-2017 and 2017-2018. Means values in a vertical column with different capital letters and means in a line with small letters were significantly different according to the Tukey test at 5% probability.

Cultivar	3 Oct.	18 Oct.	3 Nov.	17 Nov.	5 Dec.	19 Dec.	3 Jan.	<i>Sign.</i>
Cassanese	1.02 \pm 0.12 aCD	0.58 \pm 0.12 bEF	0.50 \pm 0.05 bcB	0.39 \pm 0.03 cdD	0.33 \pm 0.07 dC	0.51 \pm 0.03 bcB	0.54 \pm 0.04 bC	0.000
Coratina	2.61 \pm 0.65 aAB	1.89 \pm 0.24 abAB	1.74 \pm 0.73 bA	2.14 \pm 0.01 abA	0.82 \pm 0.01 cB	--	--	0.000
Itrana	0.38 \pm 0.01 aE	0.36 \pm 0.01 abF	0.33 \pm 0.04 bcB	0.30 \pm 0.00 cD	0.25 \pm 0.00 dC	--	--	0.000
Leccino	1.30 \pm 0.18 aC	0.95 \pm 0.02 bDEF	0.81 \pm 0.12 bcB	0.77 \pm 0.05 cC	0.69 \pm 0.01 cB	--	--	0.000
Nociara	1.44 \pm 0.26 aC	1.04 \pm 0.33 abCDE	0.92 \pm 0.29 bB	0.84 \pm 0.24 bC	0.70 \pm 0.16 bB	0.79 \pm 0.01 bB	--	0.000
Ottobratica	2.24 \pm 0.16 aB	1.66 \pm 0.07 bcBC	1.78 \pm 0.04 abA	1.69 \pm 0.14 bcB	1.72 \pm 0.28 bA	1.44 \pm 0.61 bcA	1.22 \pm 0.01 cA	0.000
Pendolino	2.88 \pm 0.51 aA	2.48 \pm 0.84 aA	1.64 \pm 0.07 bA	1.48 \pm 0.13 bB	1.44 \pm 0.42 bA	1.50 \pm 0.01 bA	--	0.000
Picholine	0.71 \pm 0.03 aDE	0.53 \pm 0.03 bEF	0.46 \pm 0.04 bcB	0.40 \pm 0.09 cdD	0.33 \pm 0.02 dC	--	--	0.000
Sinopolese	2.05 \pm 0.11 aB	1.46 \pm 0.26 abBCD	1.76 \pm 0.79 aA	0.89 \pm 0.18 bcC	0.81 \pm 0.15 cB	0.80 \pm 0.24 cB	0.98 \pm 0.07 bcB	0.000
<i>Sign.</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Table S14. Entriacontane (C 31). Data are expressed as mg/kg and are given as mean \pm SD ($n = 8$). Means and standard deviations were calculated on 8 replicates (4 replicates/year x two harvest years), in the harvest years 2016-2017 and 2017-2018. Means values in a vertical column with different capital letters and means in a line with small letters were significantly different according to the Tukey test at 5% probability.

Cultivar	3 Oct.	18 Oct.	3 Nov.	17 Nov.	5 Dec.	19 Dec.	3 Jan.	<i>Sign.</i>
Cassanese	3.93 \pm 1.12 aDE	1.96 \pm 0.65 bcE	1.34 \pm 0.19 cdC	1.17 \pm 0.24 cdEF	0.88 \pm 0.26 dF	1.70 \pm 0.12 cdB	2.78 \pm 0.18 bC	0.000
Coratina	6.39 \pm 0.40 abBC	7.14 \pm 1.38 abA	7.71 \pm 3.70 aA	4.52 \pm 0.02 bcB	3.07 \pm 0.01 cBC	--	--	0.001
Itrana	1.67 \pm 0.03 aF	1.41 \pm 0.11 bE	1.14 \pm 0.08 cC	1.02 \pm 0.19 cF	1.33 \pm 0.00 bDEF	--	--	0.000
Leccino	4.97 \pm 0.32 aCD	3.58 \pm 0.37 bCD	2.85 \pm 0.39 cBC	3.08 \pm 0.62 bcC	2.46 \pm 0.01 cCD	--	--	0.000
Nociara	4.36 \pm 1.02 aDE	2.74 \pm 0.56 bDE	2.09 \pm 0.37 bC	1.96 \pm 0.34 bDE	1.86 \pm 0.33 bDEF	2.10 \pm 0.00 bB	--	0.000
Ottobratica	8.65 \pm 0.79 aA	5.70 \pm 0.13 bAB	6.35 \pm 0.29 bA	5.68 \pm 0.65 bA	6.54 \pm 1.49 bA	3.93 \pm 1.31 cA	3.96 \pm 0.01 cA	0.000
Pendolino	9.63 \pm 2.20 aA	6.66 \pm 1.91 bA	5.16 \pm 0.55 bcAB	3.94 \pm 0.79 cB	3.81 \pm 0.90 cB	4.05 \pm 0.01 cA	--	0.000
Picholine	2.57 \pm 0.21 aEF	1.92 \pm 0.05 bE	1.55 \pm 0.09 cC	1.31 \pm 0.28 cdEF	1.27 \pm 0.01 dEF	--	--	0.000
Sinopolese	7.95 \pm 1.42 aAB	4.64 \pm 0.14 bcBC	5.30 \pm 2.30 bAB	2.77 \pm 0.41 cdCD	2.35 \pm 0.31 dCDE	2.60 \pm 0.78 dB	3.21 \pm 0.04 cdB	0.000
<i>Sign.</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Table S15. Dotriacontane (C 32). Data are expressed as mg/kg and are given as mean \pm SD ($n = 8$). Means and standard deviations were calculated on 8 replicates (4 replicates/year x two harvest years), in the harvest years 2016-2017 and 2017-2018. Means values in a vertical column with different capital letters and means in a line with small letters were significantly different according to the Tukey test at 5% probability.

Cultivar	3 Oct.	18 Oct.	3 Nov.	17 Nov.	5 Dec.	19 Dec.	3 Jan.	<i>Sign.</i>
Cassanese	0.45 \pm 0.02 aC	0.21 \pm 0.06 cdDE	0.18 \pm 0.02 cdeB	0.16 \pm 0.04 deE	0.12 \pm 0.02 eD	0.22 \pm 0.02 cB	0.37 \pm 0.03 bA	0.000
Coratina	0.41 \pm 0.05 bcCD	0.53 \pm 0.11 bA	0.60 \pm 0.27 bA	1.27 \pm 0.02 aA	0.29 \pm 0.00 cABC	--	--	0.000
Itrana	0.14 \pm 0.01 aE	0.11 \pm 0.01 bcE	0.11 \pm 0.01 cB	0.09 \pm 0.02 dF	0.12 \pm 0.00 bD	--	--	0.000
Leccino	0.38 \pm 0.07 aCD	0.24 \pm 0.03 bDE	0.23 \pm 0.03 bB	0.24 \pm 0.05 bD	0.27 \pm 0.01 bBCD	--	--	0.000
Nociara	0.37 \pm 0.02 aCD	0.21 \pm 0.05 bDE	0.16 \pm 0.01 cB	0.14 \pm 0.01 cEF	0.16 \pm 0.04 cCD	0.16 \pm 0.00 cB	--	0.000
Ottobratica	0.49 \pm 0.09 aBC	0.32 \pm 0.02 aCD	0.38 \pm 0.03 aAB	0.41 \pm 0.01 aB	0.43 \pm 0.08 aA	0.51 \pm 0.36 aA	0.27 \pm 0.01 aB	0.055
Pendolino	0.68 \pm 0.19 aA	0.46 \pm 0.15 abAB	0.37 \pm 0.02 bAB	0.33 \pm 0.03 bC	0.41 \pm 0.21 bAB	0.31 \pm 0.01 bAB	--	0.001
Picholine	0.25 \pm 0.03 aDE	0.19 \pm 0.03 bDE	0.18 \pm 0.03 bB	0.14 \pm 0.03 cEF	0.14 \pm 0.01 cCD	--	--	0.000
Sinopolese	0.63 \pm 0.14 aAB	0.38 \pm 0.05 abBC	0.63 \pm 0.43 aA	0.23 \pm 0.03 bD	0.23 \pm 0.06 bCD	0.22 \pm 0.05 bB	0.27 \pm 0.04 bB	0.000
<i>Sign.</i>	0.000	0.000	0.000	0.000	0.000	0.009	0.000	

Table S16. Trtriacontane (C 33). Data are expressed as mg/kg and are given as mean \pm SD ($n = 8$). Means and standard deviations were calculated on 8 replicates (4 replicates/year x two harvest years), in the harvest years 2016-2017 and 2017-2018. Means values in a vertical column with different capital letters and means in a line with small letters were significantly different according to the Tukey test at 5% probability.

Cultivar	3 Oct.	18 Oct.	3 Nov.	17 Nov.	5 Dec.	19 Dec.	3 Jan.	<i>Sign.</i>
Cassanese	1.44 \pm 0.37 aBCD	0.68 \pm 0.22 bE	0.43 \pm 0.03 bcD	0.48 \pm 0.16 bcCDE	0.35 \pm 0.08 cD	0.73 \pm 0.05 bABC	1.67 \pm 0.11 aA	0.000
Coratina	1.89 \pm 0.77 aBC	1.58 \pm 0.22 abAB	1.96 \pm 0.86 aAB	1.53 \pm 0.01 abA	0.86 \pm 0.01 bB	--	--	0.010
Itrana	0.56 \pm 0.01 aD	0.43 \pm 0.01 bE	0.30 \pm 0.04 cD	0.32 \pm 0.12 cE	0.44 \pm 0.00 bCD	--	--	0.000
Leccino	1.16 \pm 0.02 aCD	0.66 \pm 0.02 bE	0.54 \pm 0.09 bCD	0.63 \pm 0.21 bCD	0.59 \pm 0.01 bBCD	--	--	0.000
Nociara	1.25 \pm 0.22 aCD	0.76 \pm 0.09 bDE	0.47 \pm 0.05 cD	0.44 \pm 0.02 cDE	0.48 \pm 0.07 cCD	0.51 \pm 0.01 cC	--	0.000
Ottobratica	1.86 \pm 0.43 aBC	1.09 \pm 0.07 bCD	1.51 \pm 0.03 abABC	1.53 \pm 0.03 abA	1.81 \pm 0.39 aA	1.13 \pm 0.62 bA	0.99 \pm 0.02 bC	0.000
Pendolino	2.38 \pm 1.10 aAB	1.20 \pm 0.52 bBC	1.13 \pm 0.34 bBCD	0.70 \pm 0.16 bC	0.70 \pm 0.19 bBC	0.57 \pm 0.01 bBC	--	0.000
Picholine	0.74 \pm 0.13 aD	0.46 \pm 0.07 bE	0.49 \pm 0.13 bCD	0.27 \pm 0.04 cE	0.30 \pm 0.02 cD	--	--	0.000
Sinopolese	3.02 \pm 0.51 aA	1.72 \pm 0.05 bcA	2.39 \pm 1.35 abA	1.11 \pm 0.13 cB	0.85 \pm 0.12 cB	1.03 \pm 0.13 cAB	1.14 \pm 0.05 cB	0.000
<i>Sign.</i>	0.000	0.000	0.000	0.000	0.000	0.002	0.000	

Table S17. Tetratriacontane (C 34). Data are expressed as mg/kg and are given as mean \pm SD ($n = 8$). Means and standard deviations were calculated on 8 replicates (4 replicates/year x two harvest years), in the harvest years 2016-2017 and 2017-2018. Means values in a vertical column with different capital letters and means in a line with small letters were significantly different according to the Tukey test at 5% probability.

Cultivar	3 Oct.	18 Oct.	3 Nov.	17 Nov.	5 Dec.	19 Dec.	3 Jan.	<i>Sign.</i>
Cassanese	0.18 \pm 0.06 aABC	0.06 \pm 0.02 bCD	0.05 \pm 0.01 bB	0.06 \pm 0.02 bBC	0.05 \pm 0.01 bCD	0.10 \pm 0.01 bAB	0.21 \pm 0.02 aA	0.000
Coratina	0.20 \pm 0.10 aAB	0.12 \pm 0.01 bAB	0.15 \pm 0.05 abB	0.07 \pm 0.01 bBC	0.09 \pm 0.00 bBCD	--	--	0.001
Itrana	0.05 \pm 0.01 aE	0.04 \pm 0.00 abD	0.03 \pm 0.00 bcB	0.03 \pm 0.01 cC	0.05 \pm 0.00 aCD	--	--	0.000
Leccino	0.08 \pm 0.01 bCDE	0.05 \pm 0.01 cCD	0.05 \pm 0.01 cB	0.06 \pm 0.01 cBC	0.12 \pm 0.01 aABC	--	--	0.000
Nociara	0.12 \pm 0.03 aBCDE	0.06 \pm 0.01 bCD	0.05 \pm 0.01 bB	0.04 \pm 0.01 bC	0.05 \pm 0.02 bCD	0.06 \pm 0.00 bB	--	0.000
Ottobratica	0.16 \pm 0.05 abABCD	0.10 \pm 0.02 bAB	0.14 \pm 0.02 abB	0.15 \pm 0.04 abA	0.17 \pm 0.02 abA	0.27 \pm 0.23 aA	0.08 \pm 0.01 bC	0.030
Pendolino	0.16 \pm 0.07 aABCD	0.09 \pm 0.03 abBC	0.09 \pm 0.02 abB	0.08 \pm 0.01 abBC	0.15 \pm 0.11 aAB	0.04 \pm 0.01 bB	--	0.010
Picholine	0.06 \pm 0.02 aDE	0.05 \pm 0.01 aCD	0.05 \pm 0.01 aB	0.04 \pm 0.01 aC	0.03 \pm 0.01 aD	--	--	0.021
Sinopolese	0.25 \pm 0.06 abA	0.13 \pm 0.04 bA	0.35 \pm 0.28 aA	0.10 \pm 0.07 bAB	0.12 \pm 0.05 bABC	0.08 \pm 0.04 bB	0.11 \pm 0.03 bB	0.003
<i>Sign.</i>	0.000	0.000	0.000	0.000	0.000	0.006	0.000	

Table S18. Pentatriacontane (C 35). Data are expressed as mg/kg and are given as mean \pm SD ($n = 8$). Means and standard deviations were calculated on 8 replicates (4 replicates/year \times two harvest years), in the harvest years 2016-2017 and 2017-2018. Means values in a vertical column with different capital letters and means in a line with small letters were significantly different according to the Tukey test at 5% probability.

Cultivar	3 Oct.	18 Oct.	3 Nov.	17 Nov.	5 Dec.	19 Dec.	3 Jan.	<i>Sign.</i>
Cassanese	0.33 \pm 0.03 bcd	0.18 \pm 0.04 dDEF	0.11 \pm 0.01 dC	0.16 \pm 0.07 dBCD	0.12 \pm 0.03 dCD	0.25 \pm 0.02 cAB	0.60 \pm 0.04 aA	0.000
Coratina	0.30 \pm 0.06 aCDEF	0.28 \pm 0.01 aBC	0.18 \pm 0.14 abBC	0.15 \pm 0.01 bCD	0.23 \pm 0.01 abBC	--	--	0.004
Itrana	0.14 \pm 0.05 aEF	0.09 \pm 0.01 bF	0.09 \pm 0.02 bC	0.09 \pm 0.04 bDE	0.12 \pm 0.00 abCD	--	--	0.015
Leccino	0.32 \pm 0.02 aCDE	0.15 \pm 0.03 cEF	0.14 \pm 0.01 cBC	0.15 \pm 0.04 cCD	0.22 \pm 0.00 bBC	--	--	0.000
Nociara	0.26 \pm 0.03 aDEF	0.20 \pm 0.02 bcDE	0.11 \pm 0.01 cC	0.10 \pm 0.01 cCDE	0.13 \pm 0.01 cCD	0.12 \pm 0.00 cB	--	0.000
Ottobratica	0.47 \pm 0.09 abBC	0.29 \pm 0.02 bcB	0.44 \pm 0.03 abAB	0.51 \pm 0.07 aA	0.54 \pm 0.06 aA	0.42 \pm 0.25 abA	0.22 \pm 0.01 cB	0.000
Pendolino	0.54 \pm 0.25 aAB	0.24 \pm 0.10 bBCD	0.27 \pm 0.13 bBC	0.17 \pm 0.04 bBC	0.30 \pm 0.16 abB	0.10 \pm 0.01 bB	--	0.000
Picholine	0.12 \pm 0.02 aF	0.10 \pm 0.02 abF	0.07 \pm 0.02 bcC	0.05 \pm 0.02 cE	0.06 \pm 0.02 cD	--	--	0.000
Sinopolese	0.69 \pm 0.06 aA	0.44 \pm 0.08 abcA	0.62 \pm 0.46 abA	0.24 \pm 0.03 cB	0.23 \pm 0.05 cBC	0.29 \pm 0.07 bcAB	0.25 \pm 0.03 cB	0.000
<i>Sign.</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Table S19. Total alkanes. Data are expressed as mg/kg and are given as mean \pm SD ($n = 8$). Means and standard deviations were calculated on 8 replicates (4 replicates/year \times two harvest years), in the harvest years 2016-2017 and 2017-2018. Means values in a vertical column with different capital letters and means in a line with small letters were significantly different according to the Tukey test at 5% probability.

Cultivar	3 Oct.	18 Oct.	3 Nov.	17 Nov.	5 Dec.	19 Dec.	3 Jan.	<i>Sign.</i>
Cassanese	34.97 \pm 6.46 aF	22.71 \pm 3.02 bE	18.32 \pm 1.89 bcE	14.70 \pm 1.46 cE	13.54 \pm 1.36 cE	18.16 \pm 1.34 bcD	20.17 \pm 1.34 bC	0.000
Coratina	64.47 \pm 7.93 aDE	57.73 \pm 5.75 abD	58.97 \pm 16.97 abC	44.41 \pm 0.03 bcC	31.65 \pm 0.03 cCD	--	--	0.000
Itrana	30.40 \pm 1.63 aF	24.42 \pm 0.52 bE	21.84 \pm 0.02 cDE	16.90 \pm 1.09 dE	15.87 \pm 0.01 dDE	--	--	0.000
Leccino	75.37 \pm 14.75 aCDE	53.36 \pm 16.96 bD	33.85 \pm 1.07 cD	32.88 \pm 2.21 cD	29.92 \pm 0.01 cCDE	--	--	0.000
Nociara	58.18 \pm 5.91 aE	57.21 \pm 8.13 aD	50.81 \pm 8.70 abC	43.76 \pm 8.66 bcC	33.36 \pm 9.21 cC	34.88 \pm 0.01 cC	--	0.000
Ottobratica	136.08 \pm 14.26 aB	105.66 \pm 6.14 bB	85.61 \pm 7.32 cB	67.91 \pm 4.19 cdB	70.60 \pm 7.90 cdB	54.95 \pm 18.32 dB	55.92 \pm 0.03 dB	0.000
Pendolino	81.61 \pm 5.20 aCD	64.30 \pm 10.26 bCD	49.43 \pm 4.97 cC	41.92 \pm 1.08 cdCD	37.44 \pm 4.89 dC	36.94 \pm 0.02 dC	--	0.000
Picholine	88.99 \pm 2.55 aC	83.34 \pm 4.76 abC	76.83 \pm 6.90 bB	75.36 \pm 6.80 bB	66.33 \pm 0.05 cB	--	--	0.000
Sinopolese	324.76 \pm 15.83 aA	301.46 \pm 24.43 abA	282.67 \pm 6.32 bcA	262.08 \pm 9.91 cA	266.98 \pm 22.76 cA	222.11 \pm 10.51 dA	212.28 \pm 0.07 dA	0.000
<i>Sign.</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Table S20. Total alkenes. Data are expressed as mg/kg and are given as mean \pm SD ($n = 8$). Means and standard deviations were calculated on 8 replicates (4 replicates/year x two harvest years), in the harvest years 2016-2017 and 2017-2018. Means values in a vertical column with different capital letters and means in a line with small letters were significantly different according to the Tukey test at 5% probability.

Cultivar	3 Oct.	18 Oct.	3 Nov.	17 Nov.	5 Dec.	19 Dec.	3 Jan.	<i>Sign.</i>
Cassanese	0.19 \pm 0.03 aD	0.13 \pm 0.04 bC	0.18 \pm 0.03 abD	0.14 \pm 0.02 bD	0.12 \pm 0.03 bDE	0.17 \pm 0.03 abC	0.16 \pm 0.02 abC	0.002
Coratina	1.03 \pm 0.29 aC	0.77 \pm 0.27 bcB	1.03 \pm 0.56 aC	0.59 \pm 0.03 bcCD	0.35 \pm 0.03 cD	--	--	0.003
Itrana	0.10 \pm 0.02 dD	0.08 \pm 0.03 dC	0.16 \pm 0.02 aD	0.10 \pm 0.01 dD	0.13 \pm 0.01 bDE	--	--	0.000
Leccino	0.13 \pm 0.04 aD	0.14 \pm 0.01 aC	0.16 \pm 0.03 aD	0.12 \pm 0.02 aD	0.08 \pm 0.01 bE	--	--	0.000
Nociara	0.32 \pm 0.12 aD	0.29 \pm 0.09 abBC	0.19 \pm 0.06 abcD	0.24 \pm 0.10 abcD	0.14 \pm 0.10 bcDE	0.12 \pm 0.01 cC		0.002
Ottobratica	3.42 \pm 0.53 aA	2.84 \pm 0.13 bA	1.89 \pm 0.20 cB	1.09 \pm 0.20 dBC	0.90 \pm 0.32 dC	1.05 \pm 0.3 dB	1.08 \pm 0.03 dB	0.000
Pendolino	0.39 \pm 0.28 aD	0.20 \pm 0.15 abBC	0.07 \pm 0.04 bD	0.08 \pm 0.02 bD	0.06 \pm 0.04 bE	0.06 \pm 0.02 bC	--	0.001
Picholine	2.51 \pm 0.20 abB	2.68 \pm 0.39 aA	2.17 \pm 0.34 bB	1.64 \pm 0.24 cAB	1.67 \pm 0.05 cB	--	--	0.000
Sinopolese	3.74 \pm 0.10 aA	2.54 \pm 0.78 bcA	2.83 \pm 0.82 abA	1.92 \pm 1.05 bcdA	2.03 \pm 0.27 bcdA	1.42 \pm 0.15 dA	1.71 \pm 0.07 cdA	0.000
<i>Sign.</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Table S21. Alkanes/Alkenes ratio. Data are given as mean \pm SD ($n = 8$). Means and standard deviations were calculated on 8 replicates (4 replicates/year \times two harvest years), in the harvest years 2016-2017 and 2017-2018. Means values in a vertical column with different capital letters and means in a line with small letters were significantly different according to the Tukey test at 5% probability.

Cultivar	3 Oct.	18 Oct.	3 Nov.	17 Nov.	5 Dec.	19 Dec.	3 Jan.	<i>Sign.</i>
Cassanese	181.28 \pm 14.57 aBC	188.86 \pm 42.66 aBC	108.95 \pm 30.12 bB	107.69 \pm 6.92 bCDE	112.19 \pm 24.87 bB	107.89 \pm 8.57 bC	126.83 \pm 10.12 bA	0.000
Coratina	65.12 \pm 10.39 bD	81.70 \pm 21.49 abBC	65.83 \pm 19.28 bB	75.32 \pm 3.48 abDE	90.15 \pm 6.72 aB	--	--	0.023
Itrana	309.74 \pm 37.97 aB	353.41 \pm 132.55 aAB	136.76 \pm 13.59 bB	169.66 \pm 17.56 bBCD	121.72 \pm 6.19 bB	--	--	0.000
Leccino	602.90 \pm 157.11 aA	368.42 \pm 96.27 bcAB	220.75 \pm 33.61 cB	279.35 \pm 61.20 bcB	395.99 \pm 34.37 bB	--	--	0.000
Nociara	199.31 \pm 55.66 bBC	204.05 \pm 32.49 abBC	282.11 \pm 48.44 abB	198.51 \pm 49.22 bBC	366.52 \pm 207.81 aB	285.84 \pm 12.87 abB	--	0.021
Ottobratica	40.01 \pm 2.09 cD	37.27 \pm 3.73 cC	46.12 \pm 8.75 cB	63.52 \pm 7.66 bDE	84.69 \pm 21.25 aB	52.02 \pm 2.69 bcC	51.78 \pm 1.37 bcB	0.000
Pendolino	360.24 \pm 270.21 aB	579.06 \pm 449.51 aA	926.37 \pm 630.51 aA	564.43 \pm 144.97 aA	950.96 \pm 568.29 aA	693.34 \pm 193.62 aA	--	0.148
Picholine	35.58 \pm 1.92 abD	31.92 \pm 6.44 bC	36.64 \pm 8.92 abB	47.18 \pm 10.87 aE	39.81 \pm 1.35 abB	--	--	0.012
Sinopolese	86.91 \pm 3.48 bD	126.34 \pm 29.46 abBC	106.73 \pm 28.09 abB	178.36 \pm 93.40 aBCD	132.61 \pm 9.53 abB	158.38 \pm 23.28 abBC	124.12 \pm 5.05 abA	0.008
<i>Sign.</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Table S22. Total odd-chain alkanes. Data are expressed as mg/kg and are given as mean \pm SD ($n = 8$), Means and standard deviations were calculated on 8 replicates (4 replicates/year x two harvest years), in the harvest years 2016-2017 and 2017-2018. Means values in a vertical column with different capital letters and means in a line with small letters were significantly different according to the Tukey test at 5% probability.

Cultivar	3 Oct.	18 Oct.	3 Nov.	17 Nov.	5 Dec.	19 Dec.	3 Jan.	<i>Sign.</i>
Cassanese	27.86 \pm 5.69 aE	18.04 \pm 2.44 bE	14.32 \pm 1.47 bcG	11.58 \pm 1.18 cE	10.55 \pm 1.06 cE	14.56 \pm 1.07 bcD	16.77 \pm 1.09 bC	0.000
Coratina	49.09 \pm 3.22 aD	46.95 \pm 4.59 aCD	48.16 \pm 14.30 aCD	32.45 \pm 0.01 bcd	25.63 \pm 0.02 bC	--	--	0.000
Itrana	23.78 \pm 0.38 aE	19.52 \pm 0.47 bE	17.34 \pm 0.45 cFG	13.63 \pm 1.02 dE	12.90 \pm 0.00 dDE	--	--	0.000
Leccino	56.92 \pm 11.16 aCD	40.29 \pm 10.75 bD	26.83 \pm 0.15 cEF	26.54 \pm 0.48 cD	23.46 \pm 0.01 cCD	--	--	0.000
Nociara	44.97 \pm 4.97 aD	43.12 \pm 6.02 aD	37.97 \pm 6.50 abDE	32.87 \pm 6.37 bcCD	25.65 \pm 6.68 cC	26.91 \pm 0.04 cC		0.000
Ottobratica	107.60 \pm 11.3 3 aB	83.34 \pm 4.50 bB	69.64 \pm 5.61 bcB	55.96 \pm 4.02 cdeB	59.19 \pm 7.15 cdB	43.95 \pm 13.28 eB	46.31 \pm 0.01 deB	0.000
Pendolino	67.86 \pm 4.25 aC	53.21 \pm 8.55 bcd	41.02 \pm 5.06 cD	34.33 \pm 0.96 cdC	30.50 \pm 3.70 dC	30.09 \pm 0.04 dC	--	0.000
Picholine	65.31 \pm 1.52 aC	60.99 \pm 3.76 abC	56.38 \pm 5.59 bC	55.21 \pm 4.87 bcB	49.22 \pm 0.08 cB	--	--	0.000
Sinopolese	241.70 \pm 8.32 aA	221.35 \pm 16.8 2 bA	209.44 \pm 5.09 bcA	191.94 \pm 7.54 cA	195.25 \pm 14.09 cA	163.71 \pm 9.35 dA	160.18 \pm 0.08 dA	0.000
<i>Sign.</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Table S23. Total even-chain alkanes. Data are expressed as mg/kg and are given as mean \pm SD ($n = 8$), Means and standard deviations were calculated on 8 replicates (4 replicates/year \times two harvest years), in the harvest years 2016-2017 and 2017-2018. Means values in a vertical column with different capital letters and means in a line with small letters were significantly different according to the Tukey test at 5% probability.

Cultivar	3 Oct.	18 Oct.	3 Nov.	17 Nov.	5 Dec.	19 Dec.	3 Jan.	<i>Sign.</i>
Cassanese	7.12 \pm 0.78 aEF	4.67 \pm 0.58 bD	4.00 \pm 0.42 bcH	3.12 \pm 0.28 dE	2.99 \pm 0.34 dD	3.60 \pm 0.27 cdD	3.41 \pm 0.25 cdC	0.000
Coratina	15.38 \pm 4.71 aD	10.79 \pm 1.16 bCD	10.81 \pm 2.67 bDE	11.96 \pm 0.03 abC	6.02 \pm 0.01 cCD	--	--	0.000
Itrana	6.62 \pm 1.25 aF	4.90 \pm 0.05 bD	4.49 \pm 0.44 bGH	3.26 \pm 0.08 cE	2.97 \pm 0.01 cD	--	--	0.000
Leccino	18.44 \pm 3.59 aCD	13.07 \pm 6.21 aC	7.01 \pm 0.92 bFG	6.34 \pm 1.73 bD	6.47 \pm 0.02 bCD	--	--	0.000
Nociara	13.21 \pm 0.94 aDE	14.09 \pm 2.11 aC	12.84 \pm 2.20 aD	10.89 \pm 2.29 abC	7.71 \pm 2.53 bCD	7.97 \pm 0.04 bBC		0.000
Ottobratica	28.47 \pm 2.94 aB	22.32 \pm 1.64 bB	15.97 \pm 1.72 cC	11.94 \pm 0.17 cdC	11.41 \pm 0.75 dBC	11.00 \pm 5.03 dB	9.61 \pm 0.03 dB	0.000
Pendolino	13.75 \pm 0.96 aD	11.09 \pm 1.71 bCD	8.41 \pm 0.12 cEF	7.60 \pm 0.13 cD	6.94 \pm 1.19 cCD	6.85 \pm 0.02 cCD	--	0.000
Picholine	23.68 \pm 1.04 aBC	22.34 \pm 1.01 abB	20.46 \pm 1.31 bcB	20.15 \pm 1.94 cB	17.11 \pm 0.03 dB	--	--	0.000
Sinopolese	83.06 \pm 7.51 aA	80.11 \pm 7.61 abA	73.23 \pm 1.23 bcA	70.13 \pm 2.39 cA	71.73 \pm 8.68 bcA	58.41 \pm 1.18 dA	52.10 \pm 0.15 dA	0.000
<i>Sign.</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	