Integrated profiling of fatty acids, sterols and phenolic compounds in tree and herbaceous peony seed oils: Marker screening for new resources of vegetable oil

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Supplementary information

Table S1. Oil content and relative fatty acid composition (%) of ten *Paeonia* seed oil samples [1].

Cultivar/Species	*P. ostii*								*P. rockii*		TuoPanXianBao	LianTai
Region	SXWN	SXSL	SDHZ	HNLY	AHTL	AHBZ	JSSY	HBWH	GSDX	GSLZ	SDHZ	SDHZ
Oil yield (%)	33.64±0.19[a]	32.96±0.26[b]	30.65±0.10[e]	31.83±0.10[c]	34.00±0.26[a]	30.67±0.32[e]	27.70±0.58[g]	31.06±0.49[de]	31.70±0.45[cd]	29.39±0.53[f]	32.17±0.16[c]	26.86±0.12[h]
C14:0	0.0554±0.0001[f]	0.0613±0.0001[a]	0.0547±0.0001[g]	0.0453±0.0001[k]	0.0549±0.0002[g]	0.0528±0.0001[h]	0.0602±0.0001[c]	0.0602±0.0001[c]	0.0606±0.0001[b]	0.0568±0.0001[e]	0.0577±0.0001[d]	0.0479±0.0002[j]
C15:0	0.0353±0.0001[b]	0.0339±0.0001[d]	0.0332±0.0001[e]	0.0338±0.0001[d]	0.0345±0.0001[c]	0.0335±0.0003[e]	0.0309±0.0003[f]	0.0307±0.0002[f]	0.0361±0.0001[a]	0.0256±0.0001[h]	0.0302±0.0002[g]	0.0241±0.0001[j]
C16:0	5.7978±0.0029[c]	5.8844±0.0026[a]	5.5320±0.0049[h]	5.3379±0.0031[j]	5.7301±0.0011[d]	5.5478±0.0047[g]	5.6982±0.0024[e]	5.6905±0.0011[f]	5.8195±0.0007[b]	4.9419±0.0010[k]	5.4958±0.0019[i]	3.8477±0.0030[l]
C16:1	0.1001±0.0004[d]	0.0922±0.0002[i]	0.0968±0.0002[f]	0.0896±0.0003[j]	0.0954±0.0001[g]	0.0934±0.0010[h]	0.1041±0.0004[b]	0.1038±0.0005[b]	0.1028±0.0004[c]	0.1049±0.0001[a]	0.0984±0.0003[e]	0.0660±0.0001[k]
C17:0	0.1313±0.0005[b]	0.1142±0.0002[d]	0.1113±0.0003[f]	0.1112±0.0004[f]	0.1121±0.0001[e]	0.1209±0.0003[c]	0.1002±0.0006[h]	0.0997±0.0009[h]	0.1320±0.0006[b]	0.1378±0.0001[a]	0.1012±0.0005[g]	0.0696±0.0001[i]
C17:1	0.0929±0.0001[d]	0.0705±0.0005[j]	0.0830±0.0002[f]	0.0819±0.0003[g]	0.0793±0.0001[i]	0.0909±0.0007[e]	0.0809±0.0007[h]	0.0806±0.0005[h]	0.0971±0.0005[c]	0.1333±0.0001[b]	0.0790±0.0001[i]	0.1388±0.0006[a]
C18:0	1.9725±0.0016[b]	2.2607±0.0014[a]	1.7420±0.0009[i]	1.7767±0.0011[g]	1.8121±0.0024[f]	1.7507±0.0005[h]	1.8610±0.0009[d]	1.8511±0.0020[e]	1.8695±0.0009[c]	1.6481±0.0012[j]	1.8716±0.0004[c]	0.8142±0.0012[k]
C18:1n9	21.7568±0.0055[h]	21.4387±0.0005[i]	21.8905±0.0139[g]	20.6338±0.0085[l]	22.0926±0.0061[f]	21.0147±0.0069[k]	23.8147±0.0031[d]	23.7933±0.0016[e]	21.3418±0.0044[j]	26.7798±0.0011[b]	23.8279±0.0055[c]	31.3515±0.0101[a]
C18:1n11	0.3355±0.0018[d]	0.3280±0.0012[ef]	0.3478±0.0028[bc]	0.3247±0.0034[f]	0.3313±0.0027[de]	0.3170±0.0069[g]	0.3523±0.0006[b]	0.3522±0.0023[b]	0.3265±0.0022[ef]	0.2994±0.0019[h]	0.3458±0.0015[c]	0.4127±0.0069[a]
C18:2n6	24.6044±0.0029[h]	23.9758±0.0011[i]	25.7201±0.0029[e]	27.7490±0.0095[c]	29.9448±0.0029[b]	27.6882±0.0046[d]	25.0237±0.0008[g]	25.0396±0.0191[f]	23.2454±0.0139[k]	16.9078±0.0139[l]	23.6166±0.0014[j]	30.7427±0.0054[a]

| α--C18:3 n3 | 0.2089± 0.0024de | 0.2192± 0.0014b | 0.2261± 0.0048a | 0.2191± 0.0006b | 0.1939± 0.0021g | 0.2115± 0.0002cd | 0.2077± 0.0009ef | 0.2047± 0.0014f | 0.2147± 0.0014c | 0.1930± 0.0007g | 0.2077± 0.0016ef | 0.1617± 0.0009h |

[1] Values are means ± standard deviations, n=3. Different superscript letters within the same row indicate significant differences (one-way ANOVA and Duncan test, $p \leq 0.05$).

SFA, saturated fatty acids; MUFA, monounsaturated fatty acids; PUFA, polyunsaturated fatty acids; UFA, unsaturated fatty acids.