*Supplementary Materials*

**Table S1**. Recovery rate of different flavonoids in lyophilized lingonberries

| Compound | $C_{sample}$ [1] (mg/100g) | $C_{added}$ (mg/100g) | $C_{found}$ [1] (mg/100g) | Recovery [2] (%) | Average (%) |
|---|---|---|---|---|---|
| Pr B1 | 63.2±1.1 | 64.9 | 126.9±0.7 | 98.2±2.8 | 97.1 |
| | | 32.6 | 94.5±1.2 | 96.0±7.1 | |
| (+)-Ca | 156.2±5.3 | 152.9 | 301.1±1.9 | 94.8±4.7 | 89.6 |
| | | 77.7 | 221.7±0.6 | 84.3±7.6 | |
| (-)-Epi | 35.4±1.7 | 33.2 | 68.3±0.5 | 99.1±6.6 | 93.2 |
| | | 16.5 | 49.8±0.4 | 87.3±12.7 | |
| Pr A2 | 55.7±1.8 | 52.8 | 105.9±0.2 | 95.1±3.8 | 92.7 |
| | | 26.4 | 79.5±1.2 | 90.2±11.4 | |
| Qu-gal | 35.9±1.5 | 38.3 | 75.2±2.2 | 102.6±9.7 | 97.5 |
| | | 19.6 | 54.0±0.6 | 92.3±10.7 | |
| Qu-rha | 37.0±1.3 | 40 | 77.1±0.5 | 100.3±4.5 | 96.3 |
| | | 20.4 | 55.8±0.8 | 92.2±10.3 | |
| Cy-gal | 315.8±5.5 | 282.3 | 597.9±5.8 | 99.9±4.0 | 95.6 |
| | | 139.1 | 442.8±6.9 | 91.3±7.5 | |
| Cy-glu | 22.4±0.4 | 26.6 | 48.4±0.2 | 97.7±2.3 | 94 |
| | | 13.3 | 34.4±0.0 | 90.2±3.0 | |
| Cy-ara | 78.1±2.2 | 73.7 | 149.2±2.7 | 96.5±6.6 | 93.9 |
| | | 36.3 | 111.2±1.5 | 91.2±10.2 | |

[1] Values shown are mean ± SD ($n$ = 2). $C$ refers to concentration. Abbreviations and full names of compounds are presented in Table 1; [2] Calculated as: Recovery (%) = $(C_{found}-C_{sample})\times 100/C_{added}$, see section 2.5 in the main text.

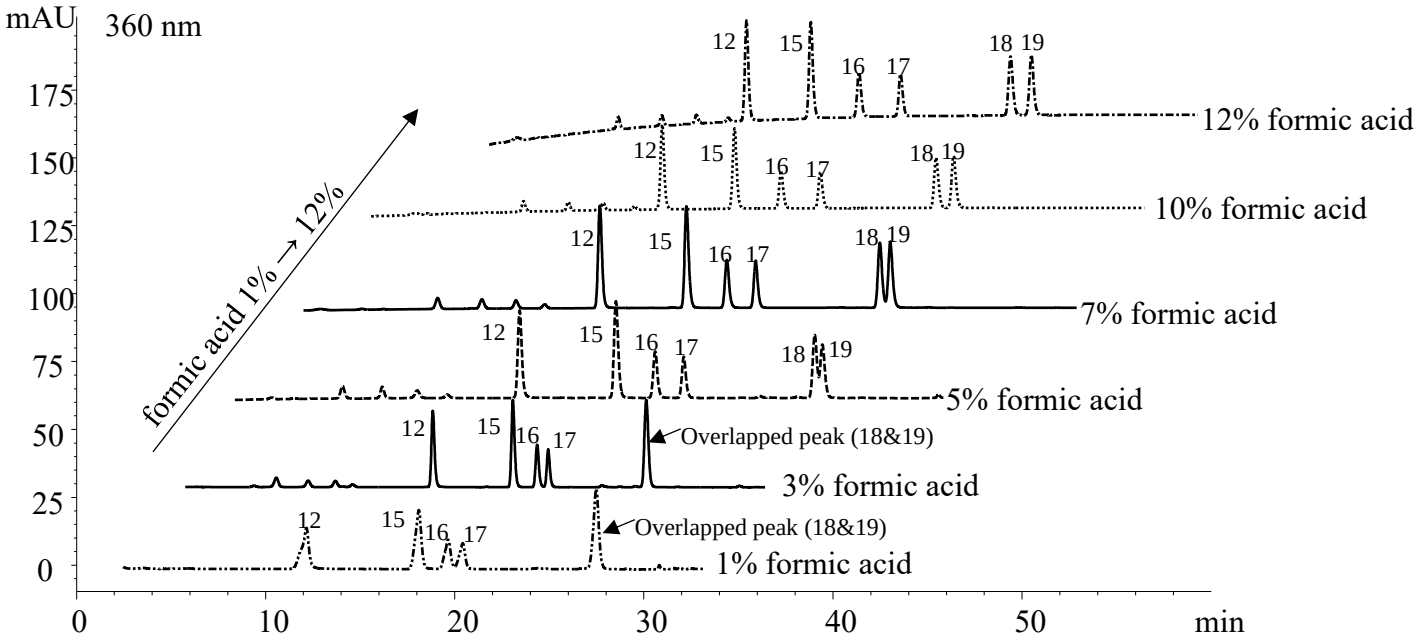


**Figure S1**. Effect of formic acid concentration (1–12%) on separation of flavonoids (5 μg/mL) at 360 nm. HPLC conditions and peak number as described in section 2.4 and Table 1, respectively. The last peak in the lower panel is for compounds 18 and 19, which were separated in the chromatograms displayed in the upper panels.

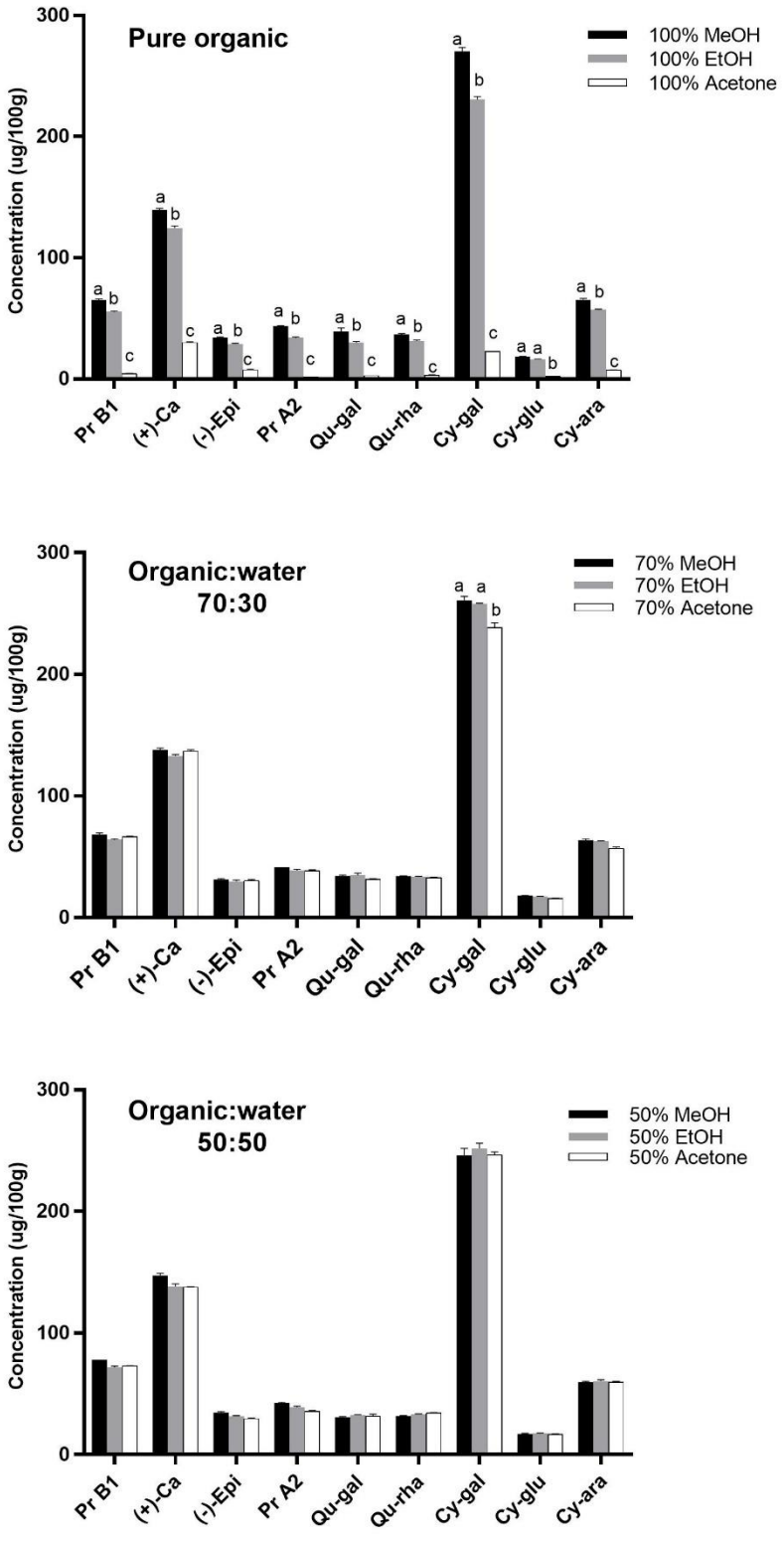


**Figure S2.** Effect of solvent on extraction yield. In each panel, different letters above columns representing the same compound indicate significant difference ($p < 0.05$). Columns represent means of duplicate analysis. Abbreviations refer to Table 1.

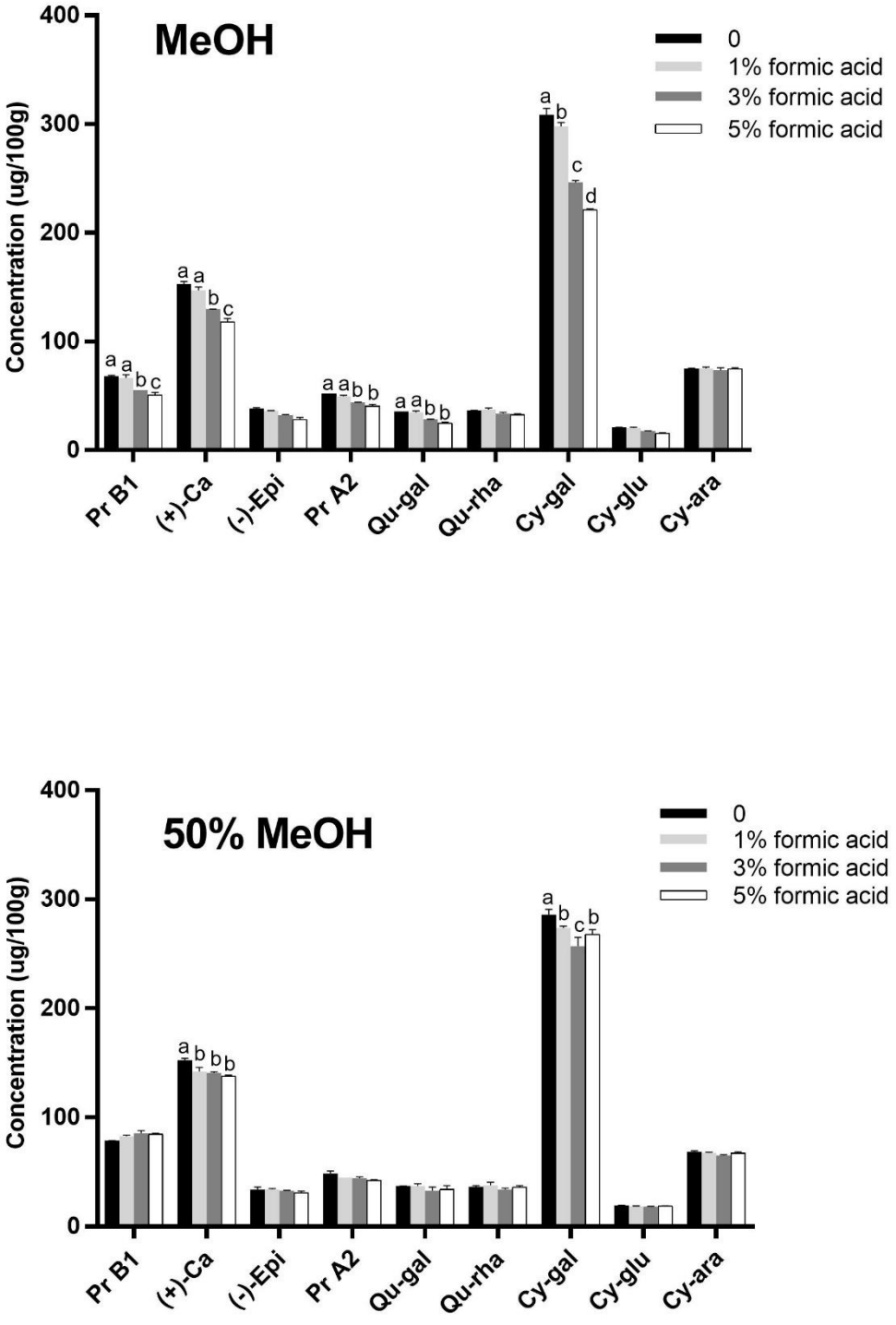


**Figure S3.** Effect of formic acid concentration in solvent on extraction yield. In each panel, different letters above columns representing the same compound indicate significant difference ($p < 0.05$). Columns represent means of duplicate analysis. Abbreviations refer to Table 1.

**Table S2**. Moisture content [1] in the 16 berry varieties analyzed.

| Berry Species | Variety/Sample Code | Moisture Content (%) |
|---|---|---|
| Lingonberry | L1 | 80.3 |
| | L2 | 81.1 |
| Raspberry | Kweli | 82.6 |
| | Versalle | 82.7 |
| | Glenampel | 84.9 |
| Blueberry | Legacy | 81.1 |
| | Bluecrop | 81.7 |
| | Duke | 84.0 |
| | Camelia | 80.1 |
| Strawberry | Evie | 84.9 |
| | Favori | 80.4 |
| | Sonata | 83.2 |
| | Faith | 83.1 |
| | Malwina | 81.9 |
| | Salsa | 87.3 |
| | Rumba | 87.5 |

[1] Moisture content (MC) calculated as: MC = (FW−DW)/FW, where FW is fresh weight, and DW is dry weight after freeze drying.