**Supplementary material**

**The phytochemical quality of *Camelina sativa* seed and oil**

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Table 1. List of spring and winter accessions of *Camelina* *sativa* used in this study

|  |  |  |  |
| --- | --- | --- | --- |
|  | Accession | Plant name | origin |
| **Spring biotypes** | | | |
| 1 | Ames 31219 | GE2011-02 | Georgia |
| 2 | Ames 31231 | GE2011-01 | Georgia |
| 3 | Ames 31232 | GE2011-05 | Georgia |
| 4 | PI 258366 | VNIIMK 17 | Former Soviet Union |
| 5 | PI 258367 | Voronezh349 | Former Soviet Union |
| 6 | PI 304268 | No. 401 | Sweden |
| 7 | PI 304269 | No.402 | Sweden |
| 8 | PI 304270 | No.403 | Sweden |
| 9 | PI 304271 | No. 406 | Sweden |
| 10 | PI 311735 | Borowska | Poland |
| 11 | PI 311736 | Przybrodzka | Poland |
| 12 | PI 597833 | 163-2073-72 | Denmark |
| 13 | PI 633192 | CR 476/65 | Germany |
| 14 | PI 633193 | CR 492/94a | Germany |
| 15 | PI 633194 | Giessen Nr. 3 | Germany |
| 16 | PI 650140 | Came | Germany |
| 17 | PI 650141 | NU 52279 | US, Minnesota |
| 18 | PI 650142 | CS -163-2073-72 | Denmark |
| 19 | PI 650143 | CS-CROO | Germany |
| 20 | PI 650145 | BRSCHW 28347 | Germany, Macklenburg-W.P. |
| 21 | PI 650146 | BRSCHW 30021 | Sweden |
| 22 | PI 650147 | Came | Sweden |
| 23 | PI 650148 | Giessen #3 | Germany, Macklenburg-W.P. |
| 24 | PI 650149 | Giessen #4 | Germany, Macklenburg-W.P. |
| 25 | PI 650150 | Hoga | Denmark |
| 26 | PI 650151 | Svalof | Sweden |
| 27 | PI 650152 | CPS-CAM23 | Germany |
| 28 | PI 650153 | CPS-CAM10 | Former Soviet Union |
| 29 | PI 650154 | CSS-CAM25 | Former Soviet Union |
| 30 | PI 650155 | CSS-CAM27 | Poland |
| 31 | PI 650156 | CSS-CAM29 | Former Soviet Union |
| 32 | PI 650157 | CSS-CAM30 | Former Soviet Union |
| 33 | PI 650158 | CSS-CAM31 | Poland |
| 34 | PI 650159 | CSS-CAM33 | Poland |
| 35 | PI 650160 | CSS-CAM34 | Former Soviet Union |
| 36 | PI 650161 | CSS- CAM35 | Former Soviet Union |
| 37 | PI 650162 | CSS-CAM36 | Poland |
| 38 | PI 650163 | CSS-CAM37 | Former Soviet Union |
| 39 | PI 650164 | CSS-CAM38 | Austria |
| 40 | PI 650165 | CSS-CAM7 | Former Soviet Union |
| 41 | PI 650166 | CSS-CAM8 | Former Soviet Union |
| 42 | PI 650167 | Index Seminum144 | Poland |
| 43 | PI 650168 | NE2006-1 | US, Nebraska |
| 44 | PI 652885 | 1 | Slovenia |
| 45 | PI 652886 | 4 | Slovenia |
| 46 |  | 30 | Poland |
| 47 |  | 1025 | Poland |
| 48 |  | 2 | Poland |
| 49 |  | 3 | Poland |
| 50 |  | 515 | Poland |
| 51 |  | 516 | Poland |
| 52 |  | 514 | Poland |
| 53 |  | 7 | Poland |
| 54 |  | 8III/2. | Poland |
| 55 |  | 44 | Poland |
| 56 |  | Omega | Poland |
| 57 |  | Borowska | Poland |
| 58 |  | 2.3 | Poland |
| 59 |  | Grodziska | Poland |
| 60 |  | Zarja Socializma | Ukraine |
| 61 |  | Zavolzskij | Ukraine |
| 62 |  | Kirgzkij | Ukraine |
| 63 |  | Sortandinskij | Ukraine |
| 64 |  | Urkajinskij | Ukraine |
| 65 |  | Omskij Mestnyj | Ukraine |
| 66 |  | GZPK | Switzerland |
| **Winter biotypes** | | | |
| 67 |  | Luna | Poland |
| 68 |  | Przybrodzka | Poland |
| 69 |  | Lenka | Poland |
| 70 |  | C5 | Poland |
| 71 |  | K 9/1 | Poland |
| 72 |  | K 10/1 | Poland |
| 73 |  | 14/2/2 | Poland |
| 74 |  | 14/2/3 | Poland |
| 75 |  | 15/2/2 | Poland |

Table 2. A correlation analysis for all examined objects

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Apigenin | Katechin | Kempferol | Luteolin | Naringenin | Quercetin | Rutin | Vitexin | 4-hydroxybenzoic | Caffeic | Chlorogenic | Ferulic | Gallic | p-Cumaric | Protocatechuic | Sinapic | Syringic | t-Cinnamic | Vanilic | Vanilin |
| Apigenin | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Katechin | 0,1909 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Kempferol | 0,4141 | 0,2518 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Luteolin | -0,0543 | -0,1700 | -0,2000 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Naringenin | 0,4672 | 0,0052 | 0,2271 | 0,2549 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Quercetin | 0,3092 | -0,0643 | 0,1844 | 0,3516 | 0,7156 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Rutin | 0,2111 | 0,0767 | -0,0438 | 0,1616 | 0,5657 | 0,2101 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vitexin | 0,1848 | 0,1211 | 0,4783 | -0,2506 | 0,2631 | 0,1494 | 0,0396 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 4-hydroxybenzoic | -0,1134 | -0,2348 | -0,1765 | 0,5692 | 0,4568 | 0,5547 | 0,2559 | -0,0385 | 1 |  |  |  |  |  |  |  |  |  |  |  |
| Caffeic | -0,1740 | 0,0484 | -0,2198 | 0,0477 | -0,0803 | -0,1317 | 0,4313 | -0,0923 | 0,0907 | 1 |  |  |  |  |  |  |  |  |  |  |
| Chlorogenic | 0,1710 | 0,0412 | 0,2570 | -0,1395 | 0,0537 | 0,1970 | -0,0583 | 0,2755 | -0,0359 | 0,0544 | 1 |  |  |  |  |  |  |  |  |  |
| Ferulic | 0,1235 | -0,1663 | -0,0117 | 0,4498 | 0,5560 | 0,7578 | 0,2008 | 0,2180 | 0,6037 | -0,0527 | 0,2404 | 1 |  |  |  |  |  |  |  |  |
| Gallic | -0,1785 | -0,1985 | -0,1515 | -0,0950 | -0,0774 | 0,0225 | 0,0752 | 0,1141 | 0,1254 | 0,2850 | 0,2939 | 0,2429 | 1 |  |  |  |  |  |  |  |
| p-Cumaric | -0,0196 | 0,2649 | 0,3436 | -0,4162 | -0,2730 | -0,2660 | -0,1079 | 0,1951 | -0,3994 | 0,1372 | 0,2161 | -0,1718 | 0,3074 | 1 |  |  |  |  |  |  |
| Protocatechuic | -0,0309 | -0,1287 | -0,0589 | 0,2505 | 0,2401 | 0,0201 | 0,3617 | -0,0077 | 0,4746 | -0,0096 | -0,1942 | 0,0987 | 0,1044 | -0,2470 | 1 |  |  |  |  |  |
| Sinapic | 0,2113 | 0,1297 | -0,1040 | 0,0765 | 0,2917 | 0,0817 | 0,5106 | -0,0464 | 0,3069 | 0,3334 | -0,0563 | 0,0270 | -0,1692 | -0,3254 | 0,5203 | 1 |  |  |  |  |
| Syringic | -0,0809 | 0,0179 | 0,0143 | 0,0681 | 0,1082 | -0,2394 | 0,3226 | 0,0842 | -0,0061 | 0,2793 | -0,1202 | -0,1403 | 0,2677 | 0,2355 | 0,3574 | 0,0628 | 1 | 1 |  |  |
| t-Cinnamic | 0,1017 | -0,0357 | 0,1060 | 0,2811 | 0,5281 | 0,6571 | 0,3323 | 0,1744 | 0,5753 | 0,0958 | 0,2435 | 0,6592 | 0,1288 | -0,1250 | 0,0613 | 0,0103 | -0,0880 | 1,0000 |  |  |
| Vanilic | 0,2181 | 0,2554 | 0,1928 | 0,0957 | 0,1444 | 0,1211 | 0,2333 | -0,0645 | 0,0394 | 0,1761 | 0,3125 | 0,1310 | 0,0514 | 0,1721 | 0,0209 | 0,1903 | -0,0633 | 0,1963 | 1 |  |
| Vanilin | 0,0900 | -0,1098 | -0,1782 | 0,4040 | 0,5158 | 0,4098 | 0,5528 | -0,0005 | 0,7399 | 0,2441 | -0,0765 | 0,4985 | 0,0923 | -0,3771 | 0,5827 | 0,5391 | 0,1449 | 0,4701 | 0,1112 | 1 |