**Supplementary Table 2.** Descriptive statistics summary of the different traits recorded on the whole apricot germplasm collection along three harvesting seasons (2017, 2018 and 2019). *CIS*, cis-aconitate content; *CIT*, citrate content; *FUM*, fumarate content; *GAL*, galacturonate content; *MAL*, malate content; *MAL/CIT*, ratio; *OX*, oxalate content; *QUI*, quinate content; *SHIK*, shikimate content; *SUC*, succinate content; *TA*, titratable acidity; *Total OAs*, total content of OAs detected in each apricot accession; *n.d* non-detected.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Year** | **Number of obs.** | **Trait** | **Fruit tissue** | **Unit of measure** | **Minimum value** | **Accession** | **Mean** | **Maximum value** | **Accession** | **Shapiro-Wilk's statistics (*p-value*)** |
| 2017 | 55 | CIS | flesh | ng µL-1 | 0 | BO03614029', 'BO04639389', 'Harlayne' | 2 | 5 | Trivini' | 9.30E-04 |
| 2017 | 60 | CIS | skin | ng µL-1 | 0 | > 20 accessions | 5 | 16 | Trivini' | 8.55E-11 |
| 2017 | 55 | CIT | flesh | mg mL-1 | 0.74 | BO99601019' | 5.74 | 12.59 | Gilgat' | 0.25 |
| 2017 | 60 | CIT | skin | mg mL-1 | 0.32 | BO99601019' | 6.51 | 45.56 | BO04639027' | 3.31E-11 |
| 2017 | 55 | FUM | flesh | ng µL-1 | 0 | BO96621021' | 9 | 18 | Ninfa' | 0.41 |
| 2017 | 60 | FUM | skin | ng µL-1 | 1 | Estrella' | 5 | 20 | Pricia' | 1.96E-08 |
| 2017 | 55 | GAL | flesh | ng µL-1 | 0 | > 20 accessions | 49 | 299 | BO92637005' | 1.31E-05 |
| 2017 | 60 | GAL | skin | ng µL-1 | 0 | Big Red', 'BO03614029', 'BO04635015', 'BO04639027', 'Emma', 'Estrella', 'Harlayne', 'Pricia', 'Toni', 'Yamagata' | 161 | 743 | Jennycot' | 1.88E-07 |
| 2017 | 55 | MAL | flesh | mg mL-1 | 1.86 | Gilgat' | 7 | 24.49 | Bora' | 1.43E-06 |
| 2017 | 60 | MAL | skin | mg mL-1 | 1.02 | BO04635015' | 5.83 | 23.85 | Bora' | 1.22E-06 |
| 2017 | 55 | MAL/CIT | flesh | -- | 0.15 | Gilgat' | 2.4 | 27.5 | Bora' | 1.04E-12 |
| 2017 | 60 | MAL/CIT | skin | -- | 0.13 | Gilgat' | 3.21 | 38.61 | Bora' | 3.83E-13 |
| 2017 | 55 | OX | flesh | ng µL-1 | n.d. | n.d. | n.d. | n.d. | n.d. | n.d. |
| 2017 | 60 | OX | skin | ng µL-1 | 0 | > 20 accessions | 53 | 246 | Portici' | 8.78E-16 |
| 2017 | 55 | QUI | flesh | ng µL-1 | 0 | > 20 accessions | 79 | 467 | Gilgat' | 5.98E-08 |
| 2017 | 60 | QUI | skin | ng µL-1 | 0 | > 20 accessions | 219 | 925 | BO05637010' | 3.23E-11 |
| 2017 | 55 | SHIK | flesh | ng µL-1 | 0 | > 20 accessions | 3 | 17 | Murciana' | 1.33E-07 |
| 2017 | 60 | SHIK | skin | ng µL-1 | 0 | BO04639027', 'BO87603101', 'Gemma', 'Tsunami' | 7 | 25 | BO07605043' | 1.99E-06 |
| 2017 | 55 | SUC | flesh | mg mL-1 | 0 | Tsunami' | 0.44 | 2.59 | Yamagata' | 1.43E-08 |
| 2017 | 60 | SUC | skin | mg mL-1 | 0 | BO05634124', 'Congat' | 0.3 | 6.49 | BO04639027' | 9.14E-16 |
| 2017 | 63 | TA | flesh | g L-1 | 6.84 | Murciana' | 13.5 | 21.33 | Bora' | 0.02 |
| 2017 | 59 | TA | skin | g L-1 | 7.91 | Murciana' | 16.09 | 26.33 | BO05634124' | 0.09 |
| 2017 | 55 | Total Oas | flesh | mg mL-1 | 7.46 | Murciana' | 13.24 | 26.5 | Bora' | 5.52E-03 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Year** | **Number of obs.** | **Trait** | **Fruit tissue** | **Unit of measure** | **Minimum value** | **Accession** | **Mean** | **Maximum value** | **Accession** | **Shapiro-Wilk's statistics (*p-value*)** |
| 2017 | 60 | Total Oas | skin | mg mL-1 | 5.13 | Faralia' | 13.04 | 69.17 | BO04639027' | 3.07E-12 |
| 2017 | 55 | TRT | flesh | ng µL-1 | 0 | > 20 accessions | 20 | 35 | BO03605116' | 3.20E-16 |
| 2017 | 60 | TRT | skin | ng µL-1 | 0 | > 20 accessions | 96 | 523 | Yamagata' | 4.84E-11 |
| 2018 | 110 | CIS | flesh | ng µL-1 | 0 | BO04635015', 'BO04639076', 'BO04639405', 'Congat' | 2 | 6 | Ouardi' | 7.00E-04 |
| 2018 | 108 | CIS | skin | ng µL-1 | 0 | > 20 accessions | 2 | 6 | BO06603111' | 5.93E-12 |
| 2018 | 110 | CIT | flesh | mg mL-1 | 0.79 | Bergeval' | 7.83 | 21.79 | BO06628081' | 0.01 |
| 2018 | 108 | CIT | skin | mg mL-1 | 0.17 | BO99601019 | 7.48 | 22.91 | BO03614029' | 3.40E-04 |
| 2018 | 110 | FUM | flesh | ng µL-1 | 12 | Gilgat' | 27 | 58 | Autumn Royal' | 1.80E-04 |
| 2018 | 108 | FUM | skin | ng µL-1 | 1 | Gilgat' | 12 | 30 | Autumn Royal' | 0.06 |
| 2018 | 110 | GAL | flesh | ng µL-1 | 0 | > 20 accessions | 34 | 141 | Bebecou' | 4.47E-16 |
| 2018 | 108 | GAL | skin | ng µL-1 | 0 | > 10 accessions | 161 | 1183 | Autumn Royal' | 8.53E-12 |
| 2018 | 110 | MAL | flesh | mg mL-1 | 1.55 | Gilgat' | 5.93 | 16.37 | BO99601019 | 4.57E-07 |
| 2018 | 108 | MAL | skin | mg mL-1 | 1.17 | Ouardi' | 4.97 | 17.93 | BO92636042' | 9.16E-09 |
| 2018 | 110 | MAL/CIT | flesh | -- | 0.09 | Gilgat' | 1.44 | 16.93 | BO99601019' | 2.20E-16 |
| 2018 | 108 | MAL/CIT | skin | -- | 0.11 | Gilgat' | 1.6 | 30.44 | BO99601019' | 2.20E-16 |
| 2018 | 110 | OX | flesh | ng µL-1 | < 1 | > 10 accessions | 31 | 447 | Congat' | 1.07E-07 |
| 2018 | 108 | OX | skin | ng µL-1 | 0 | 107 accessions | n.d. | 2 | NJA23 | 2.20E-16 |
| 2018 | 110 | QUI | flesh | mg mL-1 | 0 | BO09628001', 'O92639019', 'BO92639028', 'Farfia', 'Frisson' | 0.2 | 2.05 | BO92618086' | 9.85E-14 |
| 2018 | 108 | QUI | skin | mg mL-1 | 0 | > 10 accessions | 0.12 | 1.49 | BO07605043' | 1.89E-15 |
| 2018 | 110 | SHIK | flesh | ng µL-1 | 0 | > 10 accessions | 7 | 413 | BO92618086' | 2.20E-16 |
| 2018 | 108 | SHIK | skin | ng µL-1 | 0 | Spring Blush' | 10 | 240 | BO92618086' | 2.20E-16 |
| 2018 | 110 | SUC | flesh | mg mL-1 | 0 | BO03605044', 'Congat', 'Pelecchiella' | 0.48 | 1.93 | Nirosa1' | 2.23E-15 |
| 2018 | 108 | SUC | skin | mg mL-1 | 0 | > 20 accessions | 0.11 | 0.81 | BO05634124' | 5.93E-13 |
| 2018 | 111 | TA | flesh | g L-1 | 3.69 | BO06603111 | 12.83 | 27.29 | BO06628081 | 0.03 |
| 2018 | 107 | TA | skin | g L-1 | 3.79 | BO06603111 | 13.15 | 30.23 | BO03614029 | 0.01 |
| 2018 | 110 | Total Oas | flesh | mg mL-1 | 5.93 | BO03605044' | 14.51 | 28.96 | BO06628081' | 1.94E-03 |
| 2018 | 108 | Total Oas | skin | mg mL-1 | 5.11 | BO06603087' | 12.87 | 31.36 | BO03614029' | 1.08E-04 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Year** | **Number of obs.** | **Trait** | **Fruit tissue** | **Unit of measure** | **Minimum value** | **Accession** | **Mean** | **Maximum value** | **Accession** | **Shapiro-Wilk's statistics (*p-value*)** |
| 2018 | 110 | TRT | flesh | ng µL-1 | 0 | > 10 accessions | 7 | 72 | BO04639405 | 5.64E-14 |
| 2018 | 108 | TRT | skin | ng µL-1 | 0 | > 10 accessions | 21 | 176 | Silvane' | 8.24E-15 |
| 2019 | 111 | CIS | flesh | ng µL-1 | 0 | Congat', 'Harlayne', 'Zebra' | 1 | 5 | Portici' | 1.40E-05 |
| 2019 | 107 | CIS | skin | ng µL-1 | 0 | > 20 accessions | 1 | 3 | BO99619054' | 2.20E-16 |
| 2019 | 111 | CIT | flesh | mg mL-1 | 0.55 | Amabile Vecchioni' | 5.81 | 15.63 | Gilgat' | 0.01 |
| 2019 | 107 | CIT | skin | mg mL-1 | 0.61 | Amabile Vecchioni' | 6.75 | 20.38 | BO92639019' | 4.25E-05 |
| 2019 | 111 | FUM | flesh | ng µL-1 | 4 | Amabile Vecchioni' | 21 | 43 | BO03605095' | 2.20E-03 |
| 2019 | 107 | FUM | skin | ng µL-1 | 2 | Gilgat' | 11 | 28 | Ouardi' | 2.40E-02 |
| 2019 | 111 | GAL | flesh | ng µL-1 | 0 | > 20 accessions | 50 | 697 | Tondina di Tossignano' | 1.24E-13 |
| 2019 | 107 | GAL | skin | mg mL-1 | 0 | Goldrich', 'Pelecchiella', 'Pricia', 'San Castrese', 'Tondina di Costigliole', 'Toni', 'Zebra' | 0.35 | 2.38 | BO92618086' | 2.27E-11 |
| 2019 | 111 | MAL | flesh | mg mL-1 | 1.29 | Mirlo Naranja' | 4.93 | 21.04 | Bora' | 9.48E-12 |
| 2019 | 107 | MAL | skin | mg mL-1 | 0.96 | Portici' | 4.9 | 16.63 | Bora' | 1.27E-09 |
| 2019 | 111 | MAL/CIT | flesh | -- | 0.09 | Gilgat' | 1.93 | 25.75 | Bora' | 2.20E-16 |
| 2019 | 107 | MAL/CIT | skin | -- | 0.1 | Tondina di Costigliole' | 1.9 | 25.3 | Bora' | 2.20E-16 |
| 2019 | 111 | OX | flesh | ng µL-1 | 0 | > 20 accessions | 0.3 | 3 | Cegledi Bibor' | 2.20E-16 |
| 2019 | 107 | OX | skin | ng µL-1 | 0 | 104 accessions | 1 | 1 | BO04628009', 'Magyar Kaiszii' | 2.20E-16 |
| 2019 | 111 | QUI | flesh | ng µL-1 | 0 | > 20 accessions | 119 | 910 | BO92618086' | 2.31E-12 |
| 2019 | 107 | QUI | skin | ng µL-1 | 0 | > 20 accessions | 58 | 449 | BO96621030' | 2.20E-16 |
| 2019 | 111 | SHIK | flesh | ng µL-1 | 0 | > 20 accessions | 4 | 20 | BO92636042' | 1.13E-11 |
| 2019 | 107 | SHIK | skin | ng µL-1 | 0 | BO05634124', 'Nirosa1' | 11 | 41 | Congat' | 3.00E-05 |
| 2019 | 111 | SUC | flesh | mg mL-1 | 0 | Congat' | 0.41 | 1.27 | BO99601019' | 1.79E-06 |
| 2019 | 107 | SUC | skin | mg mL-1 | 0 | Congat', 'Zebra' | 0.21 | 0.97 | BO05634124' | 1.67E-08 |
| 2019 | 112 | TA | flesh | g L-1 | 3.71 | BO06603111' | 10.78 | 21.89 | Goldrich' | 2.00E-03 |
| 2019 | 107 | TA | skin | g L-1 | 4.41 | Sarritzu1' | 11.63 | 27.16 | Pricia' | 4.20E-04 |
| 2019 | 111 | Total Oas | flesh | mg mL-1 | 4.2 | BO06625023' | 11.27 | 22.86 | Bora' | 5.91E-04 |
| 2019 | 107 | Total Oas | skin | mg mL-1 | 4.52 | BO06603087' | 12.27 | 25.14 | Pricia' | 4.78E-04 |
| 2019 | 111 | TRT | flesh | ng µL-1 | 0 | > 20 accessions | 4 | 84 | Pieve' | 2.20E-16 |
| 2019 | 107 | TRT | skin | ng µL-1 | 0 | > 10 accessions | 24 | 363 | Congat' | 4.02E-16 |