|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Supplemental Table 1. Nutritional information for juice and juice + pomace intervention products, per 0.473 L (16 oz)** | | | | |
|  | **OJ + P** | **OJ** | **AJ+P** | **AJ** |
| Calories (kcal) | 216 | 208 | 243.4 | 229.8 |
| Available Carbohydrates (g) | 48.6 | 49.0 | 58.4 | 56.0 |
| Sugar (g) | 38.4 | 42.0 | 50.2 | 51.4 |
| Total fiber (g) | 11.0 | <1.0 | 11.0 | 0.0 |
| Protein (g) | 4.4 | 3.0 | 1.6 | 1.6 |
| Fat (g) | 0.60 | 0.36 | 0.2 | 0.0 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Supplemental Table 2.** Primers and cycling conditions used for targeted qPCR | | | | | | |
| **Target** | **Forward Primer (5’🡪3’)** | **Reverse Primer (5’🡪3’)** | **Initial denaturing temp (ºC), time** | **No. of cycles** | **Denaturing temp (ºC), time** | **Annealing temp (ºC), time** |  |
| Universal | CCTACGGGAGGCAGCAGT | ATTACCGCGGCTGCTGG | 98, 2 min | 35 | 98, 5 sec | 59, 5 sec |  |
| *Blautia* spp. | *TCTGATGTGAAAGGCTGGGGCTTA* | *GGCTTAGCCACCCGACACCTA* | 98, 2 min | 40 | 98, 4 sec | 56, 4 sec |  |
| *C. hiranonis* | *AGTAAGCTCCTGATACTGTCT* | AGGGAAAGAGGAGATTAGTCC | 95, 3 min | 40 | 95, 30 sec | 59, 5 sec |  |
| *C. scindens* | *CTCCGCTGTTCGGTATGGA* | *GCATCGTCATATCCCAGGTCTT* | 95, 2 min | 40 | 95, 5 sec | 60, 5 sec |  |
| *Enterococcus* spp. | *CCCTTATTGTTAGTTGCCATCATT* | *ACTCGTTGTACTTCCCATTGT* | 98, 3 min | 40 | 98, 3 sec | 61, 3 sec |  |
| *E. coli* | *GTTAATACCTTTGCTCATTGA* | *ACCAGGGTATCTAATCCTGTT* | 98, 2 min | 40 | 98, 3 sec | 55, 3 sec |  |
| *Fusobacterium* spp. | *KGGGCTCAACMCMGTATTGCGT* | *TCGCGTTAGCTTGGGCGCTG* | 98, 2 min | 40 | 98, 4 sec | 50.5, 4 sec |  |
| *Lactobacillus* spp. | *AGCAGTAGGGAATCTTCCA* | *CACCGCTACACATGGAG* | 95, 2 min | 40 | 95, 5 sec | 58, 10 sec |  |
| *Streptococcus* spp. | *TTATTTGAAAGGGGCAATTGCT* | *GTGAACTTTCCACTCTCACAC* | 95, 2 min | 40 | 95, 5 sec | 54, 10 sec |  |
| *Turicibacter* spp. | *CAGACGGGGACAACGATTGGA* | *TACGCATCGTCGCCTTGGTA* | 98, 2 min | 40 | 98, 3 sec | 57, 3 sec |  |
|  | | | | | | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Supplemental Table 3.** Dietary intakes for the mITT population pre- and post-intervention, excluding study products1 | | | | | | |
|  |  | **OJ** | |  | **OJ + P** | | |
|  |  | **Pre** | **Post** |  | **Pre** | **Post** | |
| Total calories (kcal) |  | 1783.67 (661.55) | 1744.06 (668.88) |  | 1796.82 (651.40) | 1660.47 (534.54) | |
| Carbohydrate (g) |  | 174.30 (68.43) | 175.21 (84.90) |  | 177.94 (73.05) | 166.50 (69.65) | |
| Carbohydrate (% kcal) |  | 39.58 (9.39) | 39.72 (9.77) |  | 39.92 (10.03) | 39.99 (9.55) | |
| Total dietary fiber (g)2 |  | 15.50 (6.67) | 16.07 (9.71) |  | 15.75 (6.99) | 14.65 (7.03) | |
| Protein (g) |  | 86.97 (44.69) | 82.41 (32.79) |  | 84.20 (40.04) | 78.58 (28.90) | |
| Protein (% kcal) |  | 19.63 (5.53) | 19.72 (6.32) |  | 19.17 (5.72) | 19.37 (5.37) | |
| Fat (g) |  | 82.06 (39.82) | 79.06 (38.16) |  | 82.91 (38.91) | 75.03 (30.10) | |
| Fat (% kcal) |  | 41.01 (8.54) | 40.46 (7.99) |  | 40.89 (8.07) | 40.35 (8.21) | |
| Saturated fat (g) |  | 26.56 (14.27) | 25.25 (10.86) |  | 27.06 (15.09) | 24.29 (11.09) | |
| Trans fat (g) |  | 0.83 (0.82) | 0.70 (0.51) |  | 0.81 (0.96) | 0.75 (0.69) | |
| Cholesterol (mg) |  | 340.83 (216.32) | 309.28 (185.18) |  | 326.09 (216.08) | 318.24 (188.09) | |
| Sodium (mg) |  | 2877.20 (1223.61) | 2809.48 (1249.25) |  | 3002.58 (1905.77) | 2711.82 (1067.77) | |
| Potassium (mg) |  | 2018.32 (876.42) | 1951.37 (890.73) |  | 2036.00 (937.89) | 1884.05 (856.73) | |
| Vitamin C (mg) |  | 57.97 (52.24) | 57.39 (43.44) |  | 73.31 (146.42) | 54.66 (52.66) | |
| 1Data are expressed as mean (SD), n=84-89. mITT: modified intent to treat.  2Total dietary fiber intake was analyzed between groups using a linear mixed model, and a final model was selected with the backwards elimination method where test group was required to be retained in the model.  OJ: orange juice, OJ+P orange juice + orange pomace | | | | | | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Supplemental Table 4.** Dietary intakes for the mITT population pre- and post-intervention, excluding study products1 | | | | | | |
|  |  | **AJ** | |  | **AJ + P** | | |
|  |  | **Pre** | **Post** |  | **Pre** | **Post** | |
| Total calories (kcal) |  | 1731.29 (549.82) | 1657.03 (487.14) |  | 1733.11 (553.41) | 1654.66 (614.07) | |
| Carbohydrate (g) |  | 170.62 (71.29) | 160.52 (58.93) |  | 181.62 (73.68) | 163.82 (66.85) | |
| Carbohydrate (% kcal) |  | 39.18 (9.47) | 39.18 (10.02) |  | 41.66 (9.66) | 40.14 (9.11) | |
| Total dietary fiber (g)2 |  | 14.47 (6.03) | 13.19 (5.80) |  | 14.76 (5.77) | 13.19 (5.63) | |
| Protein (g) |  | 80.12 (27.05) | 79.21 (26.93) |  | 78.79 (26.26) | 76.03 (32.47) | |
| Protein (% kcal) |  | 19.07 (4.99) | 19.36 (4.78) |  | 18.70 (4.70) | 18.46 (4.39) | |
| Fat (g) |  | 80.19 (29.90) | 77.14 (30.74) |  | 76.31 (29.32) | 76.96 (36.32) | |
| Fat (% kcal) |  | 41.55 (7.78) | 41.33 (8.66) |  | 39.51 (7.75) | 41.15 (7.60) | |
| Saturated fat (g) |  | 25.93 (11.17) | 25.37 (11.89) |  | 25.44 (11.42) | 24.76 (12.69) | |
| Trans fat (g) |  | 0.82 (0.82) | 0.80 (0.71) |  | 0.82 (0.65) | 0.78 (0.78) | |
| Cholesterol (mg) |  | 336.28 (199.89) | 324.72 (198.04) |  | 288.49 (158.12) | 313.16 (186.52) | |
| Sodium (mg) |  | 2907.98 (1051.02) | 2711.83 (958.76) |  | 2728.72 (1017.19) | 2673.18 (1150.89) | |
| Potassium (mg) |  | 1979.31 (825.30) | 1829.83 (737.74) |  | 1985.89 (785.98) | 1850.08 (825.63) | |
| Vitamin C (mg) |  | 56.68 (46.98) | 54.31 (53.99) |  | 61.18 (66.74) | 47.59 (36.79) | |
| 1Data are expressed as mean (SD), n=87-90. mITT: modified intent to treat.  2Total dietary fiber intake was analyzed between groups using a linear mixed model, and a final model was selected with the backwards elimination method where test group was required to be retained in the model.  AJ: apple juice, AJ+P: apple juice + apple pomace | | | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Supplemental Table 5.** Stool consistency during intervention periods1 | | | | |
|  | **OJ**  **(n=89)** | **OJ + P**  **(n=84)** | **AJ**  **(n=85-86)** | **AJ + P**  **(n=78-79)** |
| Week 0 | 3.59 (0.88) | 3.63 (1.02) | 3.59 (0.72) | 3.60 (0.84) |
| Week 1 | 3.61 (0.96) | 3.67 (1.04) | 3.51 (0.91) | 3.61 (0.97) |
| Week 2 | 3.54 (0.89) | 3.66 (0.99) | 3.49 (0.99) | 3.55 (0.94) |
| Week 3 | 3.64 (0.88) | 3.71 (0.99) | 3.63 (0.99) | 3.55 (0.93) |
| Week 4 | 3.61 (0.95) | 3.66 (0.96) | 3.59 (0.99) | 3.60 (0.98) |
| *P-values*, Prod\*Time | 0.90 | | 0.31 | |
| 1Data are expressed as mean (SD) and were analyzed using a linear mixed model, and a final model was selected with the backwards elimination method where test group was required to be retained in the model. Stool consistency was reported by participants using the Bristol stool scale, ranging from 1 (small hard lumps) to 7 (entirely liquid).  OJ: orange juice, OJ+P orange juice + orange pomace, AJ: apple juice, AJ+P: apple juice + apple pomace | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Supplemental Table 6.** Ease of stool passage during intervention periods1 | | | | |
|  | **OJ**  **(n=89)** | **OJ + P**  **(n=84)** | **AJ**  **(n=85-86)** | **AJ + P**  **(n=78-79)** |
| Week 0 | 2.21 (0.77) | 2.17 (0.82) | 2.18 (0.67) | 2.31 (0.78) |
| Week 1 | 2.08 (0.74) | 2.12 (0.70) | 2.17 (0.72) | 2.12 (0.72) |
| Week 2 | 2.18 (0.75) | 2.15 (0.74) | 2.13 (0.72) | 2.20 (0.74) |
| Week 3 | 2.16 (0.74) | 2.17 (0.71) | 2.19 (0.72) | 2.16 (0.72) |
| Week 4 | 2.13 (0.78) | 2.16 (0.72) | 2.13 (0.69) | 2.12 (0.71) |
| *P-values*, Prod\*Time | 0.63 | | 0.07 | |
| 1Data are expressed as mean (SD) and were analyzed using a linear mixed model, and a final model was selected with the backwards elimination method where test group was required to be retained in the model. Ease of passage was reported by participants using the Bristol stool scale, ranging from 1 (hard to pass) to 5 (easy to pass).  OJ: orange juice, OJ+P orange juice + orange pomace, AJ: apple juice, AJ+P: apple juice + apple pomace | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Supplemental Table 7.** Number of days with or without bowel movements (BM) during intervention periods1 | | | | | |
|  | **Category** | **OJ2**  **(n=89)** | **OJ + P**  **(n=84)** | **AJ**  **(n=85-86)** | **AJ + P**  **(n=78-79)** |
| Week 0 | 0 days no BM | 51 (57.3%) | 54 (62.8%) | 52 (60.5%) | 48 (60.0%) |
|  | >0 days no BM | 38 (42.7%) | 32 (37.2%) | 34 (39.5%) | 32 (40.0%) |
| Week 1 | 0 days no BM | 40 (44.9%) | 51 (60.7%) | 40 (46.5%) | 34 (43.0%) |
|  | >0 days no BM | 49 (55.1%) | 33 (39.3%) | 46 (53.5%) | 45 (57.0%) |
| Week 2 | 0 days no BM | 63 (70.8%) | 62 (73.8%) | 66 (76.7%) | 56 (70.9%) |
|  | >0 days no BM | 26 (29.2%) | 22 (26.2%) | 20 (23.3%) | 23 (29.1%) |
| Week 3 | 0 days no BM | 61 (68.5%) | 61 (72.6%) | 65 (75.6%) | 61 (77.2%) |
|  | >0 days no BM | 28 (31.5%) | 23 (27.4%) | 21 (24.4%) | 18 (22.8%) |
| Week 4 | 0 days no BM | 56 (62.9%) | 58 (69.0%) | 58 (67.4%) | 50 (64.1%) |
|  | >0 days no BM | 33 (37.1%) | 26 (31.0%) | 28 (32.6%) | 28 (35.9%) |
| *P-values*, Prod\*Time3 | | 0.40 | | 0.59 | |
| 1Data are expressed as n (%) and were analyzed using a linear mixed model, and a final model was selected with the backwards elimination method where test group was required to be retained in the model.  2An overall effect of product (p=0.004) was observed, the OJ group exhibited a greater proportion of subjects that had least one day with no BM per week, independent of time.  3Reported p-values are derived from analysis of >0 days no BM data.  OJ: orange juice, OJ+P orange juice + orange pomace, AJ: apple juice, AJ+P: apple juice + apple pomace | | | | | |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Supplemental Table 8.** Gastrointestinal (GI) tolerance questionnaire composite and component dichotomized scores for the mITT population during week 3 of the intervention period1 | | | | | | | | | |
|  |  |  |  | **Week 3** | |  | **Week 3** | |
| **Outcome** |  | **Score**2 |  | **OJ** | **OJ + P** |  | **AJ** | **AJ + P** |
| Composite Score |  | < 1 |  | 54 (63.5%) | 45 (54.2%) |  | 51 (60.7%) | 45 (58.4%) |
|  |  | ≥ 1 |  | 31 (36.5%)x | 38 (45.8%)y |  | 33 (39.3%) | 32 (41.6%) |
| Cramping**3** |  | < 1 |  | 84 (98.8%) | 82 (98.8%) |  | 84 (100.0%) | 76 (98.7%) |
|  |  | ≥ 1 |  | 1 (1.2%) | 1 (1.2%) |  | 0 (0.0%) | 1 (1.3%) |
| Bloating**3** |  | < 1 |  | 82 (96.5%) | 79 (95.2%) |  | 81 (96.4%) | 74 (96.1%) |
|  |  | ≥ 1 |  | 3 (3.5%) | 4 (4.8%) |  | 3 (3.6%) | 3 (3.9%) |
| Burping |  | < 1 |  | 74 (87.1%) | 71 (85.5%) |  | 77 (91.7%) | 67 (87.0%) |
|  |  | ≥ 1 |  | 11 (12.9%) | 12 (14.5%) |  | 7 (8.3%) | 10 (13.0%) |
| Flatulence |  | < 1 |  | 60 (70.6%) | 54 (65.1%) |  | 61 (72.6%) | 53 (68.8%) |
|  |  | ≥ 1 |  | 25 (29.4%) | 29 (34.9%) |  | 23 (27.4%) | 24 (31.2%) |
| Nausea**3** |  | < 1 |  | 84 (98.8%) | 82 (98.8%) |  | 82 (97.6%) | 76 (98.7%) |
|  |  | ≥ 1 |  | 1 (1.2%) | 1 (1.2%) |  | 2 (2.4%) | 1 (1.3%) |
| Reflux**3** |  | < 1 |  | 83 (97.6%) | 78 (94.0%) |  | 81 (96.4%) | 75 (97.4%) |
|  |  | ≥ 1 |  | 2 (2.4%) | 5 (6.0%) |  | 3 (3.6%) | 2 (2.6%) |
| Rumbling**3** |  | < 1 |  | 79 (92.9%) | 77 (92.8%) |  | 78 (92.9%) | 75 (97.4%) |
|  |  | ≥ 1 |  | 6 (7.1%) | 6 (7.2%) |  | 6 (7.1%) | 2 (2.6%) |
| Vomiting**3** |  | < 1 |  | 85 (100.0%) | 83 (100.0%) |  | 83 (98.8%) | 77 (100.0%) |
|  |  | ≥ 1 |  | 0 (0.0%) | 0 (0.0%) |  | 1 (1.2%) | 0 (0.0%) |
| 1Data are from end of period calculation (i.e., average of the last 3 days in Weeks 3 and 4) expressed as n (%), n=77-85. Data were analyzed with a generalized linear mixed model fit to a binary distribution with a logit link, and a final model was selected with the backwards elimination method where test group was required to be retained in the model. Values with different superscripts (x,y) tended to be different from one another (p<0.10). mITT: modified intent to treat.  2Score ≥1 represents at least mild issue and scores <1 represent less than mild issue.  3Due to the small number (≤ 6) of subjects reporting at least mild intensity for most components, statistical analysis was only performed for composite score, flatulence, and burping.  OJ: orange juice, OJ+P orange juice + orange pomace | | | | | | | | | |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Supplemental Table 9.** Abundances of microbial taxa pre- and post-interventionas analyzed by targeted qPCR1 | | | | | | | | | | |
|  |  | **OJ** | | |  | **OJ + P** | |  | ***P-values*** |
| **Taxa** |  | **Pre** | **Post** |  | | **Pre** | **Post** |  | **Prod\*Time** |
| Universal |  | 11.19 ± 0.070 | 11.20 ± 0.070 |  | | 11.19 ± 0.070 | 11.25 ± 0.070 |  | 0.27 |
| *Blautia* |  | 10.26 ± 0.150 | 10.31 ± 0.150 |  | | 10.29 ± 0.150 | 10.33 ± 0.150 |  | 0.94 |
| *C. hiranonis*2 |  | 11 (22.4) | 5 (10.2) |  | | 13 (26.5) | 5 (10.2) |  | 0.88 |
| *C. scindens* |  | 1.62 ± 0.196 | 1.74 ± 0.197 |  | | 1.92 ± 0.196 | 1.74 ± 0.196 |  | 0.16 |
| *Enterococcus* |  | 2.27 ± 0.171 | 2.25 ± 0.171 |  | | 2.32 ± 0.171 | 2.36 ± 0.171 |  | 0.83 |
| *E.coli* |  | 4.61 ± 0.198 | 4.29 ± 0.198 |  | | 4.66 ± 0.198 | 4.86 ± 0.198 |  | 0.19 |
| *Fusobacterium* |  | 7.11 ± 0.094 | 7.07 ± 0.094 |  | | 7.06 ± 0.094 | 7.12 ± 0.094 |  | 0.33 |
| *Lactobacillus* |  | 3.93 ± 0.124 | 3.91 ± 0.124 |  | | 4.02 ± 0.124 | 3.84 ± 0.124 |  | 0.53 |
| *Streptococcus* |  | 5.93 ± 0.186 | 5.95 ± 0.186 |  | | 6.03 ± 0.186 | 6.00 ± 0.186 |  | 0.94 |
| *Turicibacter* |  | 5.92 ± 0.080 | 5.85 ± 0.080 |  | | 5.92 ± 0.080 | 5.88 ± 0.080 |  | 0.81 |
| 1*P-*values for product\*time interaction were determined using a generalized linear mixed model fit to a normal distribution with total dietary fiber intake as a fixed effect, data are expressed as the log amount of targeted bacterial DNA/10 ng isolated total DNA and are represented as LS means ± SEM, n=49.  2Data is represented as the n (%) of samples with any detectable *C. hiranonis*, the model was fit to a binary distribution with a logit link.  OJ: orange juice, OJ+P orange juice + orange pomace | | | | | | | | | | |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Supplemental Table 10.** Abundances of microbial taxa pre- and post-interventionas analyzed by targeted qPCR1 | | | | | | | | | | |
|  |  | **AJ** | | |  | **AJ + P** | |  | ***P-values*** |
| **Taxa** |  | **Pre** | **Post** |  | | **Pre** | **Post** |  | **Prod\*Time** |
| Universal |  | 11.06 ± 0.028 | 11.04 ± 0.028 |  | | 11.04 ± 0.028 | 11.06 ± 0.028 |  | 0.43 |
| *Blautia* |  | 10.16 ± 0.074 | 10.12 ± 0.074 |  | | 10.06 ± 0.074 | 10.13 ± 0.074 |  | 0.56 |
| *C. hiranonis*2 |  | 3 (7.3) | 9 (22.0) |  | | 4 (9.8) | 9 (22.0) |  | 0.73 |
| *C. scindens* |  | 1.79 ± 0.170 | 1.74 ± 0.170 |  | | 1.76 ± 0.170 | 1.66 ± 0.170 |  | 0.88 |
| *Enterococcus* |  | 2.11 ± 0.236 | 2.36 ± 0.236 |  | | 2.39 ± 0.236 | 2.54 ± 0.236 |  | 0.76 |
| *E.coli* |  | 4.41 ± 0.316 | 4.20 ± 0.316 |  | | 4.23 ± 0.316 | 4.36 ± 0.316 |  | 0.47 |
| *Fusobacterium* |  | 7.00 ± 0.067 | 7.04 ± 0.067 |  | | 7.00 ± 0.067 | 7.05 ± 0.067 |  | 0.86 |
| *Lactobacillus* |  | 3.81 ± 0.151 | 3.87 ± 0.152 |  | | 3.95 ± 0.151 | 3.91 ± 0.151 |  | 0.72 |
| *Streptococcus* |  | 5.88 ± 0.154 | 5.90 ± 0.154 |  | | 5.97 ± 0.154 | 5.89 ± 0.154 |  | 0.69 |
| *Turicibacter* |  | 5.72 ± 0.076 | 5.75 ± 0.076 |  | | 5.68 ± 0.076 | 5.77 ± 0.076 |  | 0.70 |
| 1*P-*values for product\*time interaction were determined using a generalized linear mixed model fit to a normal distribution with total dietary fiber intake as a fixed effect, data are expressed as the log amount of targeted bacterial DNA/10 ng isolated total DNA and are represented as LS means ± SEM, n=41.  2Data is represented as the n (%) of samples with any detectable *C. hiranonis*, the model was fit to a binary distribution with a logit link.  AJ: apple juice, AJ+P apple juice + apple pomace | | | | | | | | | | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Supplemental Table 11.** Raw concentrations of fecal bile acid (BA) species and groups pre- and post-intervention1 | | | | | | | | | | | | | |
|  |  | | **OJ** | |  | **OJ + P** | |  | **AJ** | |  | **AJ + P** | |
| **BA/Group** |  | **Pre (mmol/g)** | | **Post (mmol/g)** |  | **Pre (mmol/g)** | **Post (mmol/g)** | **Pre (mmol/g)** | | **Post (mmol/g)** |  | **Pre (mmol/g)** | **Post (mmol/g)** |
| CA |  | 68.25 ± 23.15 | | 56.23 ± 22.83 |  | 59.95 ± 26.50 | 104.60 ± 41.06 | 49.71 ± 20.27 | | 30.68 ± 13.40 |  | 42.70 ± 16.26 | 33.63 ± 14.31 |
| GCA |  | 9.86 ± 7.43 | | 4.24 ± 2.05 |  | 1.38 ± 0.52 | 4.18 ± 2.64 | 1.83 ± 0.87 | | 0.76 ± 0.19 |  | 15.27 ± 13.35 | 2.27 ± 1.08 |
| TCA |  | 3.45 ± 2.30 | | 1.53 ± 0.79 |  | 0.58 ± 0.26 | 3.32 ± 1.96 | 0.75 ± 0.49 | | 0.23 ± 0.07 |  | 5.08 ± 4.78 | 0.47 ± 0.13 |
| CDCA |  | 37.70 ± 14.37 | | 36.97 ± 15.13 |  | 28.20 ± 11.41 | 60.07 ± 23.86 | 32.11 ± 11.42 | | 27.55 ± 10.91 |  | 27.14 ± 11.39 | 22.56 ± 7.30 |
| GCDCA |  | 6.24 ± 3.89 | | 4.91 ± 2.18 |  | 2.12 ± 1.26 | 3.30 ± 1.85 | 1.67 ± 0.67 | | 0.87 ± 0.24 |  | 11.50 ± 10.26 | 2.43 ± 0.85 |
| TCDCA |  | 2.62 ± 1.37 | | 2.14 ± 1.07 |  | 0.90 ± 0.44 | 1.63 ± 1.09 | 0.76 ± 0.45 | | 0.30 ± 0.07 |  | 2.48 ± 2.17 | 0.70 ± 0.16 |
| DCA |  | 377.67 ± 44.61 | | 344.19 ± 37.39 |  | 347.70 ± 46.56 | 360.68 ± 45.86 | 353.65 ± 50.58 | | 350.13 ± 35.07 |  | 303.65 ± 37.46 | 291.96 ± 28.48 |
| GDCA |  | 3.67 ± 2.23 | | 0.73 ± 0.15 |  | 0.66 ± 0.12 | 2.84 ± 1.73 | 1.28 ± 0.32 | | 0.85 ± 0.16 |  | 5.67 ± 4.46 | 1.55 ± 0.48 |
| TDCA |  | 1.03 ± 0.52 | | 0.52 ± 0.26 |  | 0.38 ± 0.16 | 1.05 ± 0.48 | 0.41 ± 0.11 | | 0.32 ± 0.07 |  | 1.14 ± 0.78 | 0.62 ± 0.20 |
| LCA |  | 157.33 ± 17.73 | | 155.03 ± 16.33 |  | 156.79 ± 22.51 | 140.06 ± 16.64 | 184.57 ± 23.76 | | 219.49 ± 23.36 |  | 166.92 ± 22.51 | 153.06 ± 17.56 |
| GLCA |  | 0.031 ± 0.006 | | 0.032 ± 0.004 |  | 0.026 ± 0.005 | 0.021 ± 0.003 | 0.049 ± 0.007 | | 0.049 ± 0.007 |  | 0.0048 ± 0.007 | 0.041 ± 0.006 |
| TLCA |  | 0.074 ± 0.036 | | 0.068 ± 0.033 |  | 0.075 ± 0.036 | 0.035 ± 0.011 | 0.085 ± 0.030 | | 0.080 ± 0.035 |  | 0.077 ± 0.047 | 0.120 ± 0.047 |
| UDCA |  | 11.92 ± 3.93 | | 16.09 ± 6.01 |  | 22.53 ± 9.00 | 29.43 ± 10.99 | 19.50 ± 9.22 | | 15.35 ± 6.18 |  | 19.28 ± 9.06 | 7.00 ± 2.23 |
| GUDCA |  | 0.57 ± 0.27 | | 0.98 ± 0.60 |  | 0.19 ± 0.07 | 0.55 ± 0.36 | 0.48 ± 0.28 | | 0.16 ± 0.06 |  | 0.49 ± 0.26 | 0.33 ± 0.11 |
| TUDCA |  | 0.19 ± 0.11 | | 0.33 ± 0.22 |  | 0.10 ± 0.06 | 0.25 ± 0.17 | 0.09 ± 0.05 | | 0.05 ± 0.02 |  | 0.04 ± 0.02 | 0.06 ± 0.02 |
| Total BA2 |  | 680.60 ± 69.45 | | 623.98 ± 57.19 |  | 621.58 ± 73.60 | 712.01 ± 106.61 | 646.95 ± 84.11 | | 646.86 ± 61.86 |  | 601.79 ± 72.70 | 516.79 ± 46.01 |
| 1Data are expressed as mean ± SEM, n=48-49 and n=40 for orange and apple interventions, respectively.  2For total BA, P-values Prod\*Time for orange and apple pomace interventions were p=0.80 and p=0.72, respectively.  CA: cholic acid, CDCA: chenodeoxycholic acid, DCA: deoxycholic acid, G: glyco, LCA: lithocholic acid, OJ: orange juice, OJ+P orange juice + orange pomace, T: tauro, UDCA: ursodeoxycholic acid. | | | | | | | | | | | | | |