

Table S1. Percent fatty acids composition of not-digested NT and treated fillets from seabass fed the different diets. Data are expressed as mol/100 mol FAMES and are means \pm SD of 3 biological replicates. Statistical analysis was the one-way ANOVA using Tukey's as post-hoc test. Different letters in the same row indicate statistical significance (at least $p < 0.05$). NT = not treated.

| Standard feed | | | | | |
|----------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|---------|
| | NT | Brining | PEF | Brining + PEF | p value |
| 14:0 | 3.31 \pm 0.07 ^a | 2.64 \pm 0.24 ^b | 3.21 \pm 0.36 ^{ab} | 3.46 \pm 0.35 ^a | 0.0322 |
| 16:0 | 19.78 \pm 0.44 ^a | 21.04 \pm 0.86 ^a | 19.97 \pm 0.48 ^a | 20.16 \pm 0.38 ^a | 0.1052 |
| 16:1 n-7 | 3.98 \pm 0.28 ^a | 3.71 \pm 0.26 ^a | 3.99 \pm 0.21 ^a | 4.75 \pm 0.35 ^b | 0.0096 |
| 18:0 | 4.15 \pm 0.26 ^a | 5.15 \pm 0.06 ^b | 4.25 \pm 0.28 ^a | 4.23 \pm 0.35 ^a | 0.0047 |
| 18:1 n-9 | 25.82 \pm 0.78 ^a | 24.25 \pm 0.91 ^a | 26.14 \pm 1.51 ^a | 26.04 \pm 1.18 ^a | 0.2180 |
| 18:2 n-6 | 9.69 \pm 0.05 ^a | 8.42 \pm 0.10 ^b | 9.63 \pm 0.26 ^a | 9.74 \pm 0.57 ^a | 0.0025 |
| 18:3 n-3 | 2.40 \pm 0.10 ^a | 2.07 \pm 0.04 ^b | 2.52 \pm 0.13 ^a | 2.48 \pm 0.12 ^a | 0.0027 |
| 20:1 n-9 | 5.69 \pm 0.13 ^a | 4.89 \pm 0.58 ^a | 5.34 \pm 0.81 ^a | 5.97 \pm 0.25 ^a | 0.1401 |
| 20:4 n-6 | 0.98 \pm 0.01 ^a | 1.19 \pm 0.11 ^b | 1.05 \pm 0.02 ^{ab} | 0.97 \pm 0.09 ^a | 0.0194 |
| 20:5 n-3 | 6.78 \pm 0.47 ^a | 6.78 \pm 0.39 ^a | 6.71 \pm 0.14 ^a | 6.29 \pm 0.30 ^a | 0.3170 |
| 22:5 n-3 | 1.49 \pm 0.04 ^a | 1.42 \pm 0.07 ^a | 1.46 \pm 0.02 ^a | 1.40 \pm 0.04 ^a | 0.1547 |
| 22:6 n-3 | 15.92 \pm 0.73 ^a | 18.43 \pm 2.11 ^a | 15.72 \pm 0.37 ^a | 14.52 \pm 1.72 ^a | 0.0517 |
| New formulated feed | | | | | |
| | NT | Brining | PEF | Brining + PEF | p value |
| 14:0 | 3.12 \pm 0.12 ^a | 2.84 \pm 0.20 ^a | 2.88 \pm 0.34 ^a | 2.89 \pm 0.27 ^a | 0.5303 |
| 16:0 | 20.37 \pm 0.21 ^a | 20.36 \pm 0.85 ^a | 20.10 \pm 0.64 ^a | 20.54 \pm 0.32 ^a | 0.7287 |
| 16:1 n-7 | 4.42 \pm 0.10 ^a | 4.11 \pm 0.14 ^a | 4.30 \pm 0.26 ^a | 4.22 \pm 0.09 ^a | 0.2005 |
| 18:0 | 4.47 \pm 0.15 ^a | 5.00 \pm 0.19 ^a | 4.61 \pm 0.55 ^a | 4.90 \pm 0.25 ^a | 0.2385 |
| 18:1 n-9 | 30.14 \pm 0.37 ^a | 28.48 \pm 0.47 ^a | 29.03 \pm 1.03 ^a | 29.10 \pm 0.46 ^a | 0.0681 |
| 18:2 n-6 | 9.88 \pm 0.24 ^a | 9.63 \pm 0.28 ^a | 9.64 \pm 0.41 ^a | 9.57 \pm 0.30 ^a | 0.6500 |
| 18:3 n-3 | 2.44 \pm 0.06 ^a | 2.43 \pm 0.09 ^a | 2.42 \pm 0.11 ^a | 2.48 \pm 0.14 ^a | 0.8994 |
| 20:1 n-9 | 4.85 \pm 0.19 ^a | 4.69 \pm 0.34 ^a | 4.65 \pm 0.22 ^a | 4.86 \pm 0.04 ^a | 0.5803 |
| 20:4 n-6 | 0.91 \pm 0.03 ^a | 1.04 \pm 0.05 ^b | 1.01 \pm 0.06 ^{ab} | 1.01 \pm 0.02 ^{ab} | 0.0273 |
| 20:5 n-3 | 5.69 \pm 0.03 ^a | 6.22 \pm 0.51 ^a | 6.18 \pm 0.48 ^a | 5.85 \pm 0.11 ^a | 0.3320 |
| 22:5 n-3 | 1.35 \pm 0.04 ^a | 1.30 \pm 0.04 ^a | 1.36 \pm 0.09 ^a | 1.31 \pm 0.02 ^a | 0.4872 |
| 22:6 n-3 | 12.36 \pm 0.50 ^a | 13.90 \pm 1.10 ^a | 13.83 \pm 1.34 ^a | 13.27 \pm 0.02 ^a | 0.2182 |