**Supplemental Table 1.** Fatty acid composition (g/kg) in palm oil and the ether extract of the experimental starter diet (0-8 days of age) formulated with palm oil

|  |  |  |
| --- | --- | --- |
| Fatty acida | Palm oil | Dietb |
|
| C14:0 | 10.1 | 4.7 |
| C16:0 | 429.0 | 306.0 |
| C18:0 | 45.7 | 37.2 |
| C18:1 (ω-9) | 401.6 | 339.3 |
| C18:2 (ω-6) | 102.1 | 289.4 |
| C18:3 (ω-3) | 3.8 | 11.3 |
| Total unsaturated fatty acids | 507.5 | 643.8 |
| Total saturated fatty acids | 492.4 | 356.2 |
| Ratio unsaturated/saturated | 1.03 | 1.81 |

a Fatty acids present at levels below 5 g/kg in all samples are not listed.

b Values represent the mean of the three experimental diets with standard error of the means of 0.1, 0.1, 0.4, 2.3, 1.6 and 0.2 g/kg for C14:0, C16:0, C18:0, C18:1, C18:2 and C18:3, respectively.

**Supplemental Table 2.** Phospho- and lysophospholipid contents1 (g/kg) of soybean lecithin and lysolecithin

|  |  |  |
| --- | --- | --- |
| (Lyso)phospholipid | Soybean lecithin | Soybean lysolecithin |
| Phosphatidylcholine | 125.3 | 90.4 |
| Lysophosphatidylcholine | 7.8 | 39.2 |
| Phosphatidylinositol | 88.0 | 81.9 |
| Lysophosphatidylinositol | ND | 13.0 |
| Phosphatidylethanolamine | 97.2 | 33.6 |
| Lysophosphatidylethanolamine | 3.3 | 40.4 |
| Phosphatidic acid | 72.2 | 13.8 |
| Lysophosphatidic acid | 3.0 | 26.2 |
| Total phospholipids | 382.7 | 219.7 |
| Total lysophospholipids | 14.1 | 118.8 |

1 Contents of non-phospholipid compounds such as triglycerides, glycolipids, water and minerals are not presented.

**Supplemental Table 3.** Levels of moisture, impurities and unsaponifiables, and free fatty acids, U:S ratio, and predicted AME values for broilers <21 days in commercial oil samples used to make experimental diets (Experiment 3)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Oil Type | MIU, % | FFA, % | U:S ratio | AME, MJ/kg, <21 days | AME, MJ/kg, >21 days |
| Lecithin | 3.70 | 24.8 | 3.7 | 32.30 | 34.31 |
| Lecithin | 3.60 | 24.6 | 4.1 | 32.72 | 34.56 |
| Lecithin | 3.50 | 18.7 | 3.7 | 32.89 | 34.73 |
| Soybean | 0.70 | 1.9 | 4.8 | 36.57 | 37.40 |
| Soybean | --1 | 1.9 | 4.7 | 36.57 | 37.66 |

1Below limit of detection