

Supplementary Table S1: Extruder parameters during the production of the experimental diets containing the different test ingredients. Extruder: Lab-Compounder KETSE 20/40 twin screw extruder (Brabender® GmbH & Co. KG, Disburg, Germany)

Extruder parameters	Control	PEK	AO	RO	RD
Throughput (kg/h)	3.6	3	3.8	3.8	3.8
Heat zone 1 (°C)	110	100	110	110	110
Heat zone 2 (°C)	120	120	130	120	130
Heat zone 3 (°C)	120	130	130	120	130
Heat zone 4 (°C)	110	120	110	110	115
Heat zone 5 (°C)	100	110	90	100	100
Pressure at the die head (bar)	37.1	29	32	43	34
Die diameter (mm)	2	2	2	2	2
Screw speed (rpm)	340	360	400	340	340
Specific Pellet Density (g/l)	414	470	470.5	446.5	486

Supplementary Table S2: Mortality of the fishes along with the tank number.

Tank number	Diet	Number of fishes that died
185	AO	1
186	Pekilo	3
187	RD	1
188	RO	1
189	Control	1
190	AO	0
191	Control	0
192	Pekilo	2
193	Control	3
194	RO	5
195	RD	5
196	Pekilo	1
197	AO	1
198	RO	4
199	RD	1