Supplementary Material

Article

High Dietary Supplementation of Procyanidin-Rich Grape Seed Powders Enhances the Growth Performance and Muscle Crispness of Crisped Grass Carp

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Table S1. The composition of the basal feed pellets "1038 Original Pond Particles".

Item	Content (%)
Protein	28–40
Crude fat	≥ 3
Crude fibre	≤ 10
Crude ash	≤ 12
Moisture	≤ 10
Total phosphorus	≥ 1.0
Lysine	≥ 1.65
Ca	0.5–2.0
NaCl	0.3–1.2

Table S2. The composition of the faba bean diet.

Item	Content (%)
Crude Protein	28.15
Crude fat	3.02
Crude fibre	30.14
Crude ash	4.31
Moisture	7.62
Lysine	2.48

Table S3. The rearing conditions during the acclimation and feeding periods.

Item	Concentration
Dissolved oxygen (DO)	8.2 ± 0.3 mg/L
pH	7.4 ± 0.2
Water hardness (expressed as $CaCO_3$)	34.8 ± 0.5 mg/L
Salinity	0.10 ± 0.03‰
Nitrate nitrogen (NO_3-N)	1.4 ± 0.1 mg/L
Temperature	25 ± 0.5℃

Table S4. The material composition of the prepared GSP.

Category	Index	Content
Bioactive constituents	Procyanidine (g/100 g)	10.40 ± 0.12
	Polyphenol (g/100 g)	25.80 ± 2.13
	Flavonoid (g/100 g)	3.56 ± 0.27
	Polysaccharide (g/100 g)	0.39 ± 0.02
Heavy metals	Pb (mg/kg)	0.12 ± 0.01
	Cd (mg/kg)	ND
	Hg (mg/kg)	ND
	As (mg/kg)	ND
Pesticide residues	DDT (mg/kg)	ND
	HCH (mg/kg)	ND
	PCNB (mg/kg)	ND
Microbial contents	Salmonella (25 g)	ND
	Staphylococcus aureus (25 g)	ND
	Aerobic bacterial count (CFU/g)	< 10
	Moulds and Yeasts (CFU/g)	< 10
	Coliforms (MPN/g)	< 0.3

Table S5. Muscle safety inspection of crisped grass carp.

Category	Items	CK	TL	TM	TH
Heavy metals	Pb (mg/kg)	< 0.2	< 0.2	< 0.2	< 0.2
	Cd (mg/kg)	< 0.05	< 0.05	< 0.05	< 0.05
	Hg (mg/kg)	< 0.05	< 0.05	< 0.05	< 0.05
	As (mg/kg)	< 0.1	< 0.1	< 0.1	< 0.1
Pesticide residues	DDT (mg/kg)	-	-	-	-
	HCH (mg/kg)	-	-	-	-
	PCNB (mg/kg)	-	-	-	-
Food pathogenic microbes	Salmonella (CFU/mL)	-	-	-	-
	Escherichia coli (CFU/mL)	-	-	-	-