

2022 - 2023 CATFISH

African sharptooth catfish are a source of high-quality proteins and omega-3 fatty acids. These qualities make the catfish extremely nutritious and tasty – perfect for a rapidly expanding global population.



Sinking feed



Floating feed



Semi-floating feed



Free from land animal protein



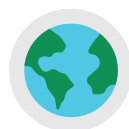
High digestibility



Omega-3 fatty acids



Designed for RAS



Sustainable fish feed



With astaxanthine



Low nitrogen and phosphorus emission



Improved resistance



AQUATE™

Innovative premix in all **Alltech Coppens'** feeds.

- + Optimizes growth
- + Supports immune response
- + Optimizes digestive function
- + Contributes to mucous barrier protection
- + Contributes to external barrier protection

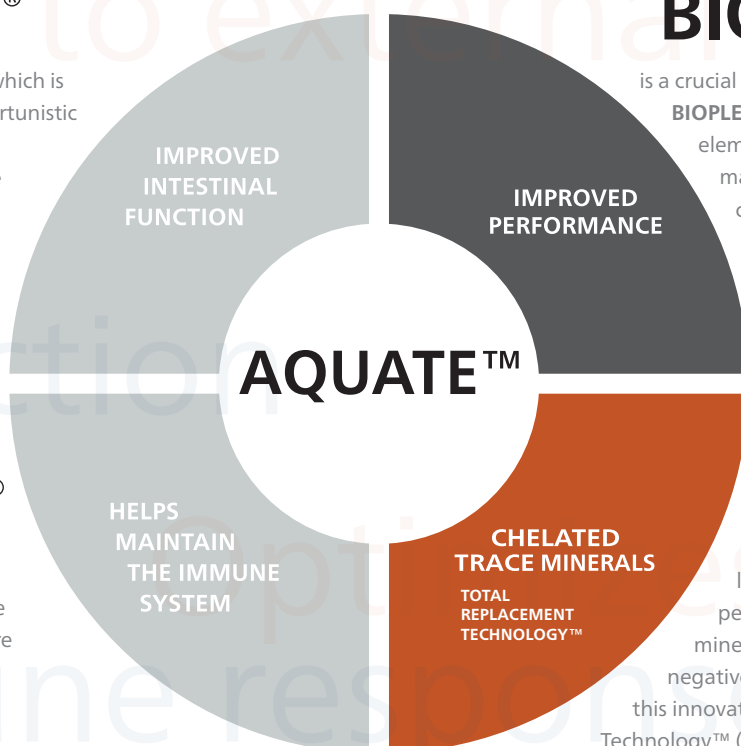


BIO-MOS®

is a mannan-oligosaccharide, which is known to bind and drain opportunistic bacteria. This can result in a significant improvement of the intestinal flora. Additionally, it can improve the structure and length of the microvilli in the gut through which the nutrient intake can increase. **BIO-MOS®** contributes to mucous barrier protection.

ACTIGEN®

is derived from yeast cell walls and supports the fish's immune response. **Actigen®** furthermore optimizes growth in fish.



BIOPLEX®

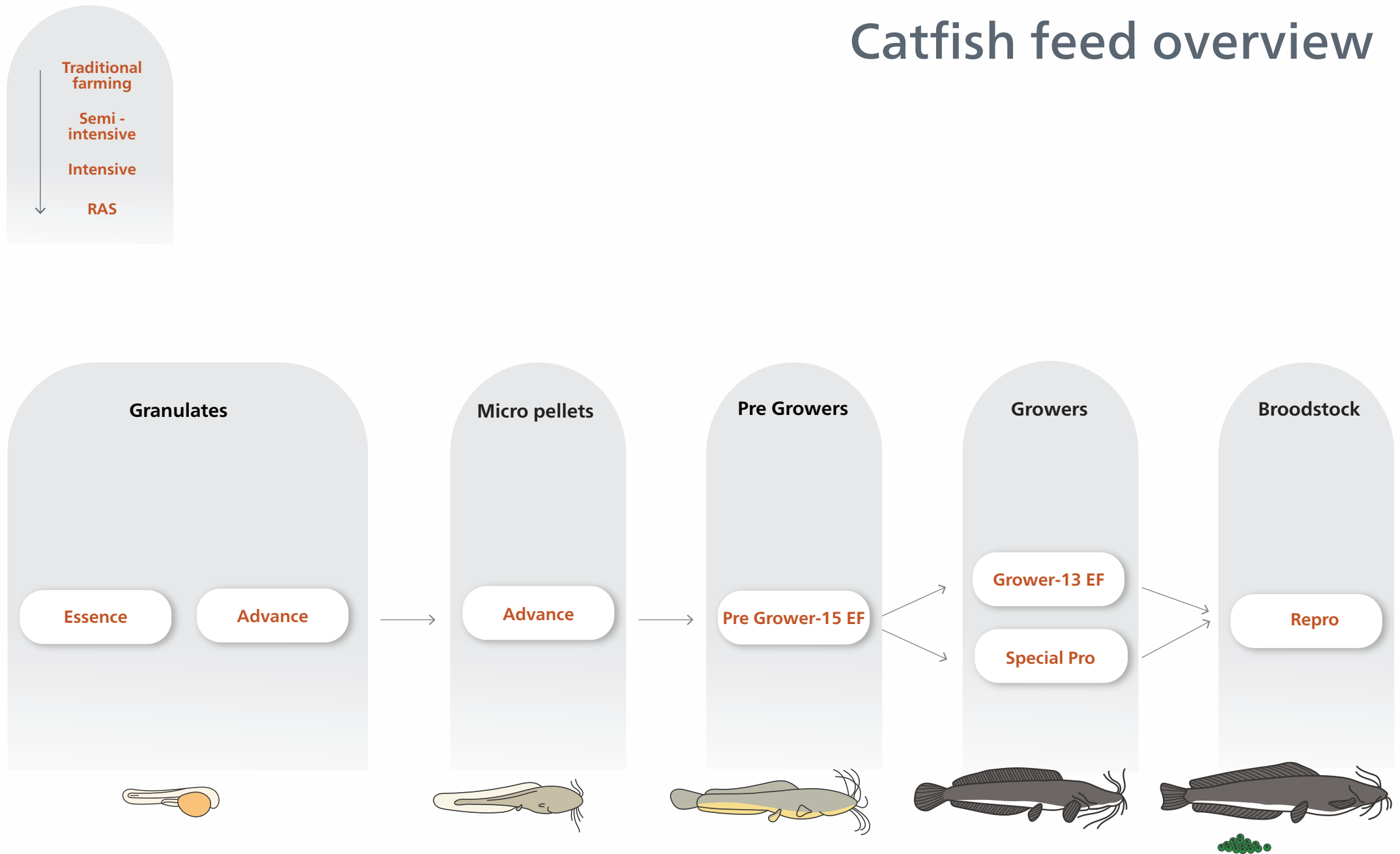
is a crucial element in our new premix. **BIOPLEX®** are organically bound trace elements such as zinc, copper, manganese & iron. With **BIOPLEX®** we can improve the health, growth & performance of the fish.

Break with tradition and feed your animals the modern way. Alltech has proven that chelated trace minerals in the form of Bioplex® and Sel-Plex® can be included at significantly lower levels while improving animal performance. This optimizes animal mineral requirements and reduces negative environmental impacts. We call this innovation Alltech's Total Replacement Technology™ (TRT).



Alltech® COPPENS

Catfish feed overview



Feeding table for Grow-out:

Based on an optimal water quality and a water temperature of 26-28 °C

Feeding level for optimal FCR

Feeding days	Average weight (g)	Feed level (%BW/day)	Feed size (mm)
0	10	5.62	1.5
1	11	5.59	1.5 + 2.0
2	12	5.57	1.5 + 2.0
3	13	5.55	2.0
4	15	5.51	2.0
5	16	5.47	2.0
6	18	5.44	2.0
7	19	5.40	2.0
14	35	4.99	2.0
21	58	4.48	3.0
28	90	4.04	3.0
35	132	3.61	3.0
42	184	3.16	4.5
49	242	2.74	4.5
56	305	2.37	4.5
63	372	2.08	4.5
70	441	1.87	4.5 / 6.0
77	514	1.70	4.5 / 6.0
84	589	1.57	4.5 / 6.0
91	669	1.50	4.5 / 6.0
98	754	1.43	4.5 / 6.0
105	845	1.36	4.5 / 6.0
112	940	1.30	4.5 / 6.0
119	1040	1.24	4.5 / 6.0
126	1144	1.18	4.5 / 6.0
133	1251	1.12	4.5 / 6.0
140	1361	1.06	4.5 / 6.0
147	1473	1.02	4.5 / 6.0
154	1589	0.97	4.5 / 6.0
161	1706	0.92	4.5 / 6.0
168	1826	0.89	4.5 / 6.0
175	1948	0.86	4.5 / 6.0
178	2000	0.84	4.5 / 6.0

* This feeding protocol is only a guideline.

Feeding protocol for African catfish fry:

The fry are fed to near satiation ($\geq 5,5$ %BM/day)

This feeding advice is a guideline only based on optimal water quality and a water temperature of 27-28 °C

Feeding days	Average weight (g)	Feed size	Feed type
1	0.0025	Live feed	Artemia
2	0.005	Live feed	Artemia
3	0.009	90% artemia + 10% 0.2-0.3	Artemia + Essence
4	0.015	75% artemia + 25% 0.2-0.3	Artemia + Essence
5	0.022	50% artemia + 50% 0.2-0.3	Artemia + Essence
6	0.032	75% 0.2-0.3 + 25% artemia	Essence + Artemia
7	0.044	90% 0.2-0.3 + 10% artemia	Essence + Artemia
8	0.059	95% 0.2-0.3 + 5% artemia	Essence + Artemia
9	0.076	75% 0.2-0.3 + 25% 0.3-0.5	Essence + Advance
10	0.098	50% 0.2-0.3 + 50% 0.3-0.5	Essence + Advance
11	0.122	25% 0.2-0.3 + 75% 0.3-0.5	Essence + Advance
12	0.151	0.3-0.5	Advance
13	0.184	0.3-0.5	Advance
14	0.221	0.3-0.5	Advance
15	0.26	0.3-0.5	Advance
16	0.31	0.3-0.5	Advance
17	0.36	0.3-0.5	Advance
18	0.42	0.3-0.5	Advance
19	0.48	0.3-0.5	Advance
20	0.55	0.3-0.5	Advance
21	0.63	0.5-0.8	Advance
22	0.71	0.5-0.8	Advance
23	0.80	0.5-0.8	Advance
24	0.90	0.5-0.8	Advance
25	1.0	0.5-0.8	Advance
26	1.1	0.5-0.8	Advance
27	1.2	0.5-0.8	Advance
28	1.4	0.5-0.8	Advance
29	1.5	0.5-0.8	Advance
30	1.6	0.5-0.8	Advance
31	1.8	0.5-0.8	Advance
32	2.0	1.0	Advance
33	2.1	1.0	Advance
34	2.3	1.0	Advance
35	2.5	1.0	Advance
36	2.7	1.0	Advance
37	2.9	1.0	Advance
38	3.2	1.0	Advance
39	3.4	1.0	Advance
40	3.7	1.0	Advance
41	3.9	1.0	Advance
42	4.2	1.0	Advance
43	4.5	1.0	Advance
44	4.8	1.0	Advance
45	5.1	1.5	Advance
46	5.4	1.5	Advance
47	5.8	1.5	Advance
48	6.1	1.5	Advance
49	6.5	1.5	Advance
50	6.9	1.5	Advance
51	7.3	1.5	Advance
52	7.7	1.5	Advance
53	8.1	1.5	Advance
54	8.6	1.5	Advance
55	9.0	1.5	Advance
56	9.5	1.5	Advance
57	10.0	1.5	Advance

* The actual feed rate must be based on the appetite of the fry.

* The fry should ideally be fed 6 times per day e.g. 8.00 hr, 11.00 hr, 14.00 hr, 17.00 hr, 20.00 hr, 23.00 hr.

- Artemia replacer
- High survival
- Supports bone development
- Good and steady growth



COMPOSITION:

Analyses (%)

Protein	45
Fat	11
Crude fibre	1.0
Ash	7.3
Total P	2.12

Sizes

0.2-0.3 mm
0.3-0.5 mm
0.5-0.8 mm

Vitamins added

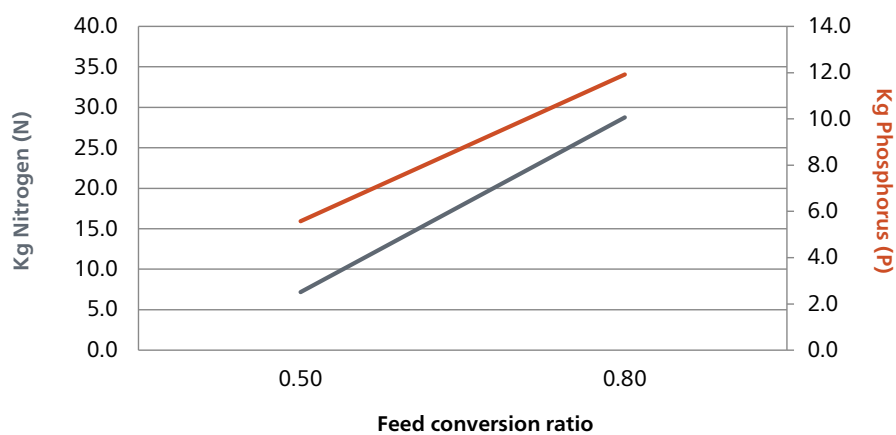
Vitamin A (IE/kg)	16667
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Energy (MJ/kg)

Gross Energy	19.8
Digestible Energy	17.8

ECOLOGICAL FIGURES:

Discharge per 1000 kg production



The values of the nutrients and vitamins are from the time of writing.

These values can vary due to natural variation in the ingredients. We reserve the right to change our recipe.

For the exact values we refer to the label.

- For semi-intensive farming
- High performance
- High survival
- Medium energy starter diet



COMPOSITION:

Analyses (%)	0.2-0.3 mm	0.3-0.5 mm	0.5-0.8 mm	1.0 mm	1.5 mm
Protein	56	56	56	54	54
Fat	15	15	15	15	15
Crude fibre	0.3	0.3	0.3	0.3	0.3
Ash	11.3	11.3	11.3	10.6	10.6
Total P	1.77	1.77	1.77	1.72	1.72

Vitamins added

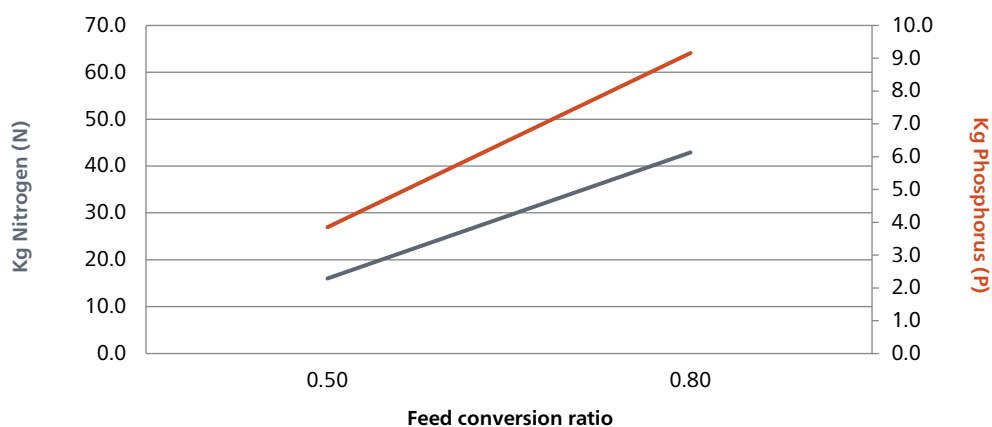
Vitamin A (IE/kg)	16667	16667	16667	13333	13333
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Energy (MJ/kg)

Gross Energy	21.2	21.2	21.2	21.0	21.0
Digestible Energy	19.2	19.2	19.2	19.3	19.3

ECOLOGICAL FIGURES:

Discharge per 1000 kg production



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- High performance
- Very palatable
- Optical feeding control



COMPOSITION:

Analyses (%)

Protein	50
Fat	15
Crude fibre	0.5
Ash	6.7
Total P	0.98

Sizes

2.0 mm

Vitamins added

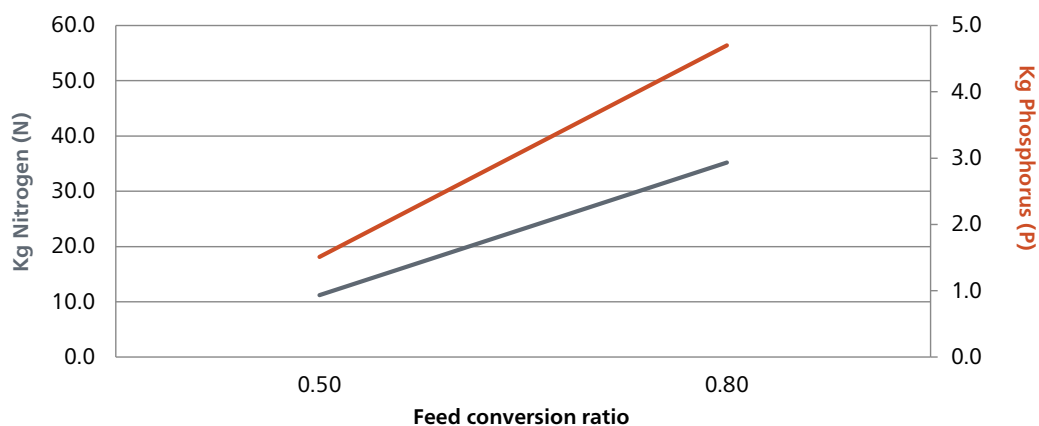
Vitamin A (IE/kg)	11667
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Energy (MJ/kg)

Gross Energy	21.4
Digestible Energy	19.5

ECOLOGICAL FIGURES:

Discharge per 1000 kg production



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- Semi-intensive farming
- Good performance
- Very palatable
- Optical feeding control



COMPOSITION:

Analyses (%)

		Sizes
Protein	42	3.0 mm
Fat	13	4.5 mm
Crude fibre	2.8	6.0 mm
Ash	6.4	
Total P	0.82	

Vitamins added

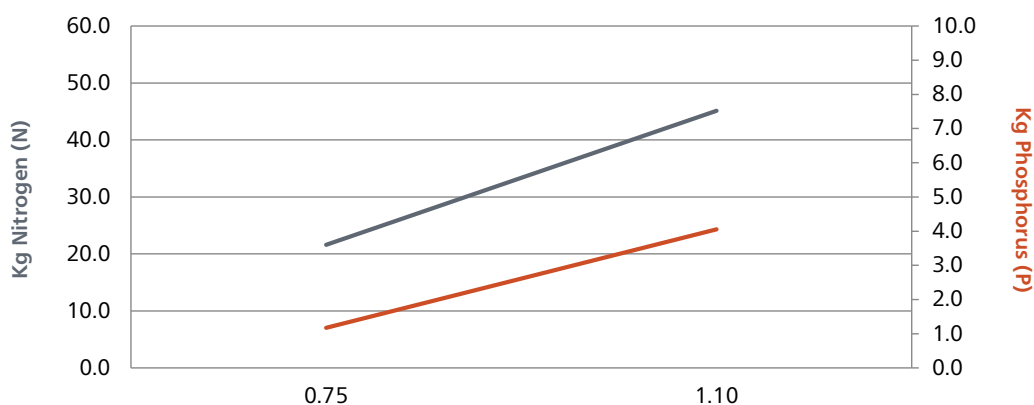
Vitamin A (IE/kg)	10000
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Energy (MJ/kg)

Gross Energy	20.5
Digestible Energy	17.0

ECOLOGICAL FIGURES:

Discharge per 1000 kg production



Feed conversion ratio

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For the exact values we refer to the label.

- Fast and efficient growth
- Very palatable
- High water quality
- Optical feeding control



COMPOSITION:

Analyses (%)	3.0 mm	4.5 mm
Protein	48	42
Fat	13	13
Crude fibre	1.4	1.7
Ash	8.3	6.7
Total P	1.16	0.98

Vitamins added

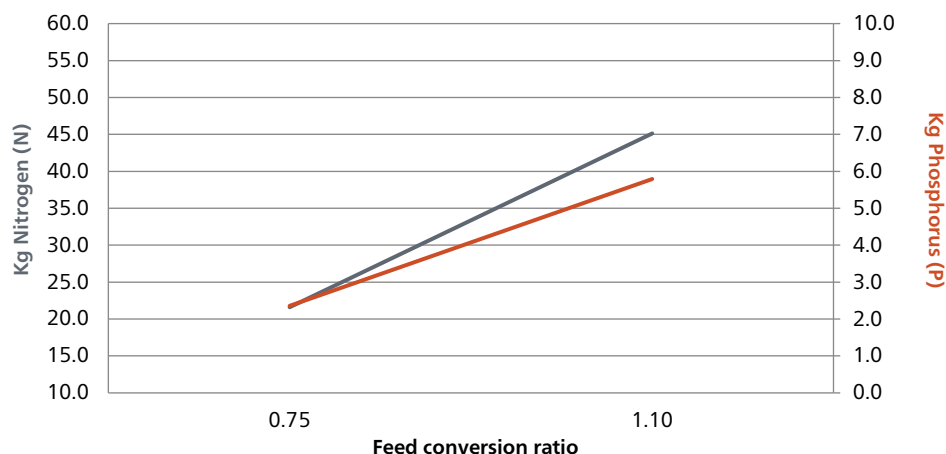
Vitamin A (IE/kg)	10000	10000
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Energy (MJ/kg)

Gross Energy	20.0	19.9
Digestible Energy	17.9	17.4

ECOLOGICAL FIGURES:

Discharge per 1000 kg production



The values of the nutrients and vitamins are from the time of writing.

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- Broodstock diet
- Optimal egg development
- High egg quality and fry survival



COMPOSITION:

Analyses (%)

Protein	48	Sizes	6.0 mm
Fat	15		9.0 mm
Crude fibre	1.2		
Ash	10.2		
Total P	1.68		
Astaxanthin (mg/kg)	40.0		

Vitamins added

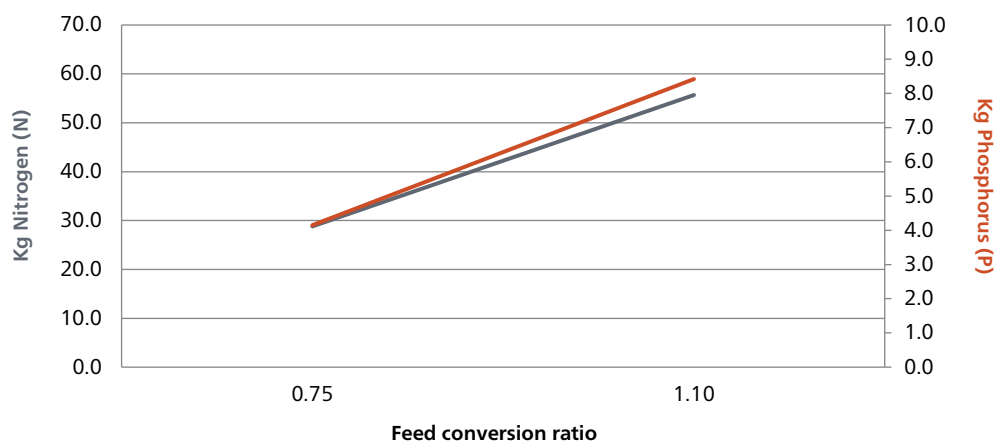
Vitamin A (IE/kg)	25000
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Energy (MJ/kg)

Gross Energy	20.1
Digestible Energy	17.9

ECOLOGICAL FIGURES:

Discharge per 1000 kg production



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