

2019

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 Recirculating Aquaculture Systems (RAS)



Sustainable fishfeed



With astaxanthine



Low nitrogen and phosphorus emission



Improved resistance



Alltech® COPPENS

DEDICATED TO YOUR PERFORMANCE

AQUATE™

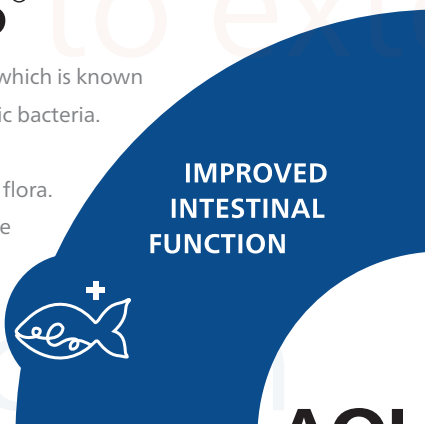
Innovative premix in all **Alltech Coppens'** feeds.

- + 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.



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.

ACTIGEN®

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



INCREASED
LEVEL OF
DHA

Ω-3



Alltech® COPPENS

Feeding table for fry:

Fry is fed to satiation ($\geq 6\%$ body weight/day)

Based on an optimal water quality and a water temperature of 27-30 °C

| Feeding days | Fish weight (g) | Feed size (mm) | Feeding advice |
|--------------|-----------------|---------------------------|------------------------------------|
| 1 | 0,005 | Live feed | Artemia |
| 2 | 0,009 | Live feed | Artemia |
| 3 | 0,015 | 90% artemia + 10% 0.2-0.3 | Artemia + Essence/Advance |
| 4 | 0,022 | 75% artemia + 25% 0.2-0.3 | Artemia + Essence/Advance |
| 5 | 0,03 | 50% artemia + 50% 0.2-0.3 | Artemia + Essence/Advance |
| 6 | 0,04 | 75% 0.2-0.3 + 25% artemia | Essence + Artemia |
| 7 | 0,06 | 90% 0.2-0.3 + 10% artemia | Essence + Artemia |
| 8 | 0,08 | 95% 0.2-0.3 + 5% artemia | Essence + Artemia |
| 9 | 0,10 | 75% 0.2-0.3 + 25% 0.3-0.5 | Advance/TOP |
| 10 | 0,12 | 50% 0.2-0.3 + 50% 0.3-0.5 | Advance/TOP |
| 11 | 0,15 | 25% 0.2-0.3 + 75% 0.3-0.5 | Advance/TOP |
| 12 | 0,18 | 0.3-0.5 | Advance/TOP |
| 13 | 0,22 | 0.3-0.5 | Advance/TOP |
| 14 | 0,26 | 0.3-0.5 | Advance/TOP |
| 15 | 0,31 | 0.3-0.5 | Advance/TOP |
| 16 | 0,36 | 0.3-0.5 | Advance/TOP |
| 17 | 0,42 | 0.3-0.5 | Advance/TOP |
| 18 | 0,48 | 0.3-0.5 | Advance/TOP |
| 19 | 0,55 | 0.3-0.5 | Advance/TOP |
| 20 | 0,63 | 0.3-0.5 | Advance/TOP |
| 21 | 0,71 | 0.5-0.8 | Noblesse/Advance/Top |
| 22 | 0,80 | 0.5-0.8 | Noblesse/Advance/Top |
| 23 | 0,90 | 0.5-0.8 | Noblesse/Advance/Top |
| 24 | 1,0 | 0.5-0.8 | Noblesse/Advance/Top |
| 25 | 1,1 | 0.5-0.8 | Noblesse/Advance/Top |
| 26 | 1,2 | 0.5-0.8 | Noblesse/Advance/Top |
| 27 | 1,4 | 0.5-0.8 | Noblesse/Advance/Top |
| 28 | 1,5 | 0.5-0.8 | Noblesse/Advance/Top |
| 29 | 1,6 | 0.5-0.8 | Noblesse/Advance/Top |
| 30 | 1,8 | 0.5-0.8 | Noblesse/Advance/Top |
| 31 | 2,0 | 0.8-1.2 | Noblesse/Advance/Top/Start Premium |
| 32 | 2,1 | 0.8-1.2 | Noblesse/Advance/Top/Start Premium |
| 33 | 2,3 | 0.8-1.2 | Noblesse/Advance/Top/Start Premium |
| 34 | 2,5 | 0.8-1.2 | Noblesse/Advance/Top/Start Premium |
| 35 | 2,7 | 0.8-1.2 | Noblesse/Advance/Top/Start Premium |
| 36 | 2,9 | 0.8-1.2 | Noblesse/Advance/Top/Start Premium |
| 37 | 3,2 | 0.8-1.2 | Noblesse/Advance/Top/Start Premium |
| 38 | 3,4 | 0.8-1.2 | Noblesse/Advance/Top/Start Premium |
| 39 | 3,7 | 0.8-1.2 | Noblesse/Advance/Top/Start Premium |
| 40 | 3,9 | 0.8-1.2 | Noblesse/Advance/Top/Start Premium |
| 41 | 4,2 | 1.2-1.5 | Advance/Top/Start Premium |
| 42 | 4,5 | 1.2-1.5 | Advance/Top/Start Premium |
| 43 | 4,8 | 1.2-1.5 | Advance/Top/Start Premium |
| 44 | 5,1 | 1.2-1.5 | Advance/Top/Start Premium |
| 45 | 5,4 | 1.2-1.5 | Advance/Top/Start Premium |
| 46 | 5,8 | 1.2-1.5 | Advance/Top/Start Premium |
| 47 | 6,1 | 1.2-1.5 | Advance/Top/Start Premium |
| 48 | 6,5 | 1.2-1.5 | Advance/Top/Start Premium |
| 49 | 6,9 | 1.2-1.5 | Advance/Top/Start Premium |
| 50 | 7,3 | 1.2-1.5 | Advance/Top/Start Premium |
| 51 | 7,7 | 1.5 | Start Premium |
| 52 | 8,1 | 1.5 | Start Premium |
| 53 | 8,6 | 1.5 | Start Premium |
| 54 | 9,0 | 1.5 | Start Premium |
| 55 | 9,5 | 1.5 | Start Premium |
| 56 | 10,0 | 1.5 | Start Premium |

* Feeding advice is expressed in % biomass/day.

* This feedingtable is a guideline only and based on optimal conditions.

Feeding table for Grow-out:

Based on an optimal water quality and a water temperature of 27-30 °C

| Feeding days | Fish weight (g) | Feed level (%BW/day) | Feed type |
|--------------|-----------------|----------------------|--------------------------------|
| 0 | 10 | 5,62 | Start premium 1.5 |
| 1 | 11 | 5,59 | Start premium + Pre grower 2.0 |
| 2 | 12 | 5,57 | Start premium + Pre grower 2.0 |
| 3 | 13 | 5,55 | Pre grower 2.0 |
| 4 | 15 | 5,51 | Pre grower 2.0 |
| 5 | 16 | 5,47 | Pre grower 2.0 |
| 6 | 18 | 5,44 | Pre grower 2.0 |
| 7 | 19 | 5,40 | Pre grower 2.0 |
| 14 | 35 | 4,99 | Pre grower 2.0 |
| 21 | 58 | 4,48 | Grower 3.0 |
| 28 | 90 | 4,04 | Grower 3.0 |
| 35 | 132 | 3,61 | Grower 3.0 |
| 42 | 184 | 3,16 | Grower 4.5 |
| 49 | 242 | 2,74 | Grower 4.5 |
| 56 | 305 | 2,37 | Grower 4.5 |
| 63 | 372 | 2,08 | Grower 4.5 |
| 70 | 441 | 1,87 | Grower 4.5/6.0 |
| 77 | 514 | 1,70 | Grower 4.5/6.0 |
| 84 | 589 | 1,57 | Grower 4.5/6.0 |
| 91 | 669 | 1,50 | Grower 4.5/6.0 |
| 98 | 754 | 1,43 | Grower 4.5/6.0 |
| 105 | 845 | 1,36 | Grower 4.5/6.0 |
| 112 | 940 | 1,30 | Grower 4.5/6.0 |
| 119 | 1040 | 1,24 | Grower 4.5/6.0 |
| 126 | 1144 | 1,18 | Grower 4.5/6.0 |
| 133 | 1251 | 1,12 | Grower 4.5/6.0 |
| 140 | 1361 | 1,06 | Grower 4.5/6.0 |
| 147 | 1473 | 1,02 | Grower 4.5/6.0 |
| 154 | 1589 | 0,97 | Grower 6.0/8.0 |
| 161 | 1706 | 0,92 | Grower 6.0/8.0 |
| 168 | 1826 | 0,89 | Grower 6.0/8.0 |
| 175 | 1948 | 0,86 | Grower 6.0/8.0 |
| 178 | 2000 | 0,84 | Grower 6.0/8.0 |

*Feeding advice is expressed in % biomass/day.

*This feedingtable is a guideline only and based on optimal conditions.

- High performance
- High survival



COMPOSITION:

Analyses (%)

| | | Sizes |
|-------------|------|------------|
| Protein | 56 | 0.2-0.3 mm |
| Fat | 15 | 0.3-0.5 mm |
| Crude fibre | 0,1 | 0.5-0.8 mm |
| Ash | 12,0 | 0.8-1.2 mm |
| Total P | 1,99 | 1.2-1.5 mm |

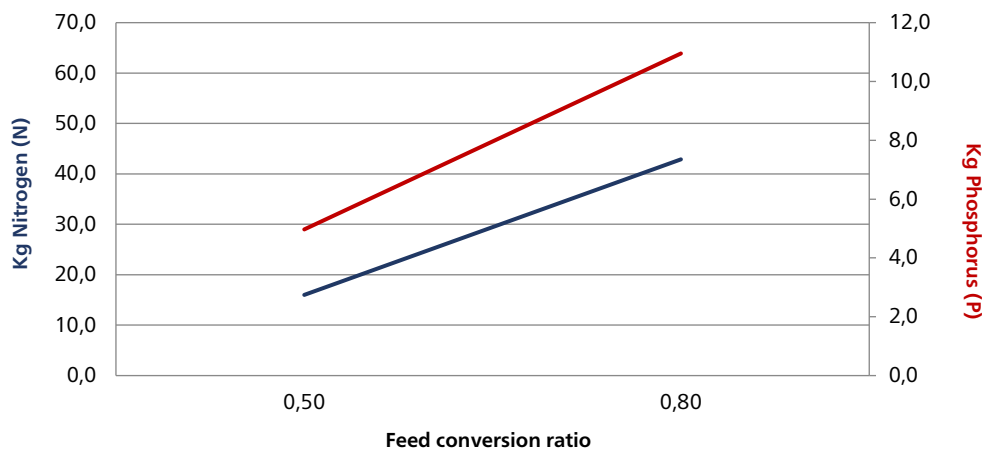
Vitamins added

| | |
|----------------------------|-------|
| Vitamin A (IE/kg) | 14000 |
| Vitamin E (mg/kg) | 280 |
| Vitamin C (stable) (mg/kg) | 700 |

Energy (MJ/kg)

| | |
|-------------------|------|
| Gross Energy | 21,0 |
| Digestible Energy | 19,4 |

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.

- Low fat granulate
- Semi-intensive farming
- High survival
- Good performance



COMPOSITION:

| Analyses (%) | 0.2-0.3 mm | 0.3-0.5 mm | 0.5-0.8 mm | 0.8-1.2 mm | 1.2-1.5 mm |
|--------------|------------|------------|------------|------------|------------|
| Protein | 47 | 47 | 46 | 46 | 46 |
| Fat | 9 | 9 | 10 | 10 | 10 |
| Crude fibre | 1,2 | 1,2 | 1,1 | 1,1 | 1,1 |
| Ash | 10,8 | 10,8 | 10,6 | 10,6 | 10,6 |
| Total P | 1,80 | 1,80 | 1,78 | 1,78 | 1,78 |

Vitamins added

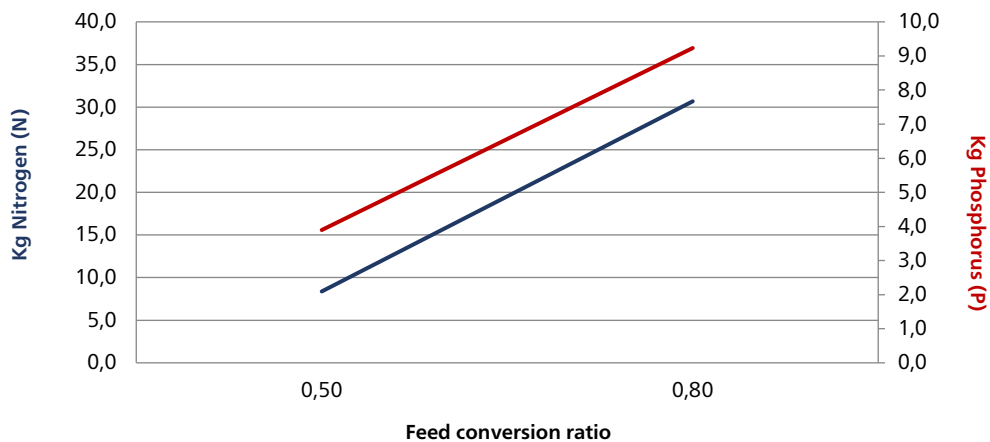
| | | | | | |
|----------------------------|-------|-------|-------|-------|-------|
| Vitamin A (IE/kg) | 14000 | 14000 | 14000 | 14000 | 14000 |
| Vitamin E (mg/kg) | 280 | 280 | 280 | 280 | 280 |
| Vitamin C (stable) (mg/kg) | 700 | 700 | 700 | 700 | 700 |

Energy (MJ/kg)

| | | | | | |
|-------------------|------|------|------|------|------|
| Gross Energy | 19,3 | 19,3 | 19,5 | 19,5 | 19,5 |
| Digestible Energy | 17,0 | 17,0 | 17,2 | 17,2 | 17,2 |

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.

- Micro pellet
- High survival
- High performance
- Supports a high water quality
- With nucleotides



COMPOSITION:

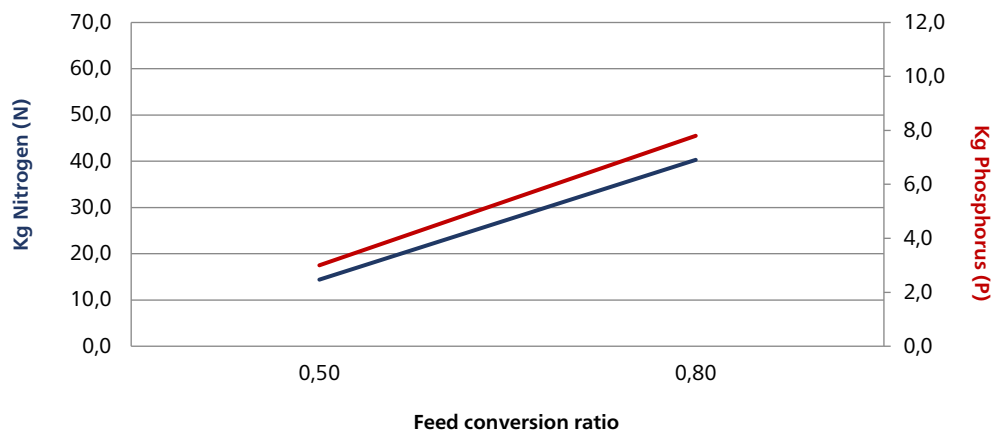
| Analyses (%) | 0.5 mm | 0.8 mm |
|--------------|--------|--------|
| Protein | 55 | 54 |
| Fat | 16 | 18 |
| Crude fibre | 1,0 | 1,0 |
| Ash | 13,0 | 12,0 |
| Total P | 2,00 | 2,00 |

| Vitamins added | 0.5 mm | 0.8 mm |
|----------------------------|--------|--------|
| Vitamin A (IE/kg) | 25000 | 25000 |
| Vitamin E (mg/kg) | 400 | 400 |
| Vitamin C (stable) (mg/kg) | 1000 | 1000 |

| Energy (MJ/kg) | 0.5 mm | 0.8 mm |
|-------------------|--------|--------|
| Gross Energy | 21,0 | 21,4 |
| Digestible Energy | 19,1 | 19,5 |

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.

- Mini pellet
- High protein level
- High performance



COMPOSITION:

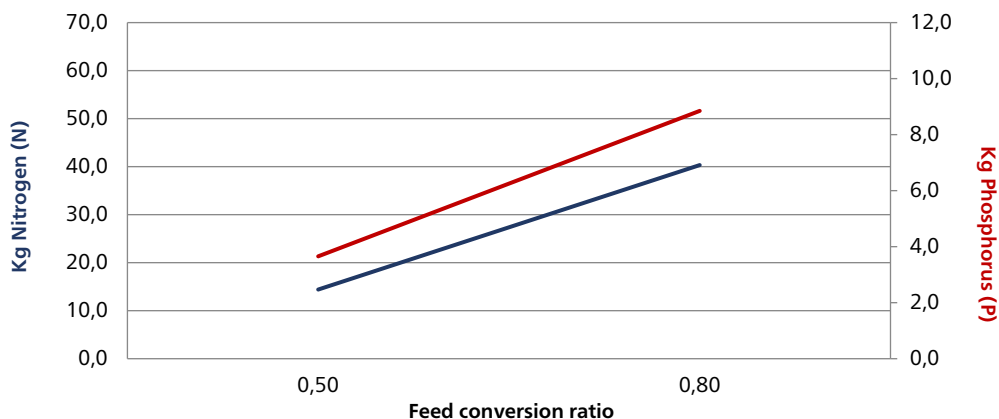
| Analyses (%) | | Sizes |
|--------------|------|--------|
| Protein | 54 | 1.0 mm |
| Fat | 15 | 1.5 mm |
| Crude fibre | 0,3 | |
| Ash | 10,3 | |
| Total P | 1,73 | |

| Vitamins added | |
|----------------------------|-------|
| Vitamin A (IE/kg) | 12000 |
| Vitamin E (mg/kg) | 240 |
| Vitamin C (stable) (mg/kg) | 600 |

| Energy (MJ/kg) | |
|-------------------|------|
| Gross Energy | 20,7 |
| Digestible Energy | 18,2 |

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.

- Semi-intensive farming
- High survival
- Good performance
- Very palatable



COMPOSITION:

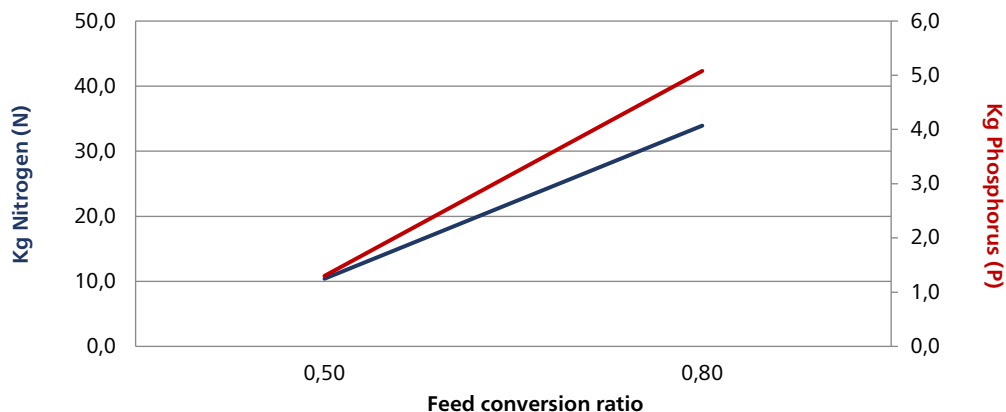
| Analyses (%) | | Sizes |
|--------------|------|--------|
| Protein | 49 | 1.5 mm |
| Fat | 13 | |
| Crude fibre | 1,4 | |
| Ash | 8,1 | |
| Total P | 1,26 | |

| Vitamins added | |
|----------------------------|-------|
| Vitamin A (IE/kg) | 12000 |
| Vitamin E (mg/kg) | 240 |
| Vitamin C (stable) (mg/kg) | 300 |

| Energy (MJ/kg) | |
|-------------------|------|
| Gross Energy | 20,3 |
| Digestible Energy | 16,7 |

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.

- High performance diet
- Very palatable
- Optical feeding control



COMPOSITION:

Analyses (%)

| Analyses (%) | | Sizes |
|--------------|------|--------|
| Protein | 50 | 2.0 mm |
| Fat | 15 | |
| Crude fibre | 0,7 | |
| Ash | 8,8 | |
| Total P | 1,31 | |

Vitamins added

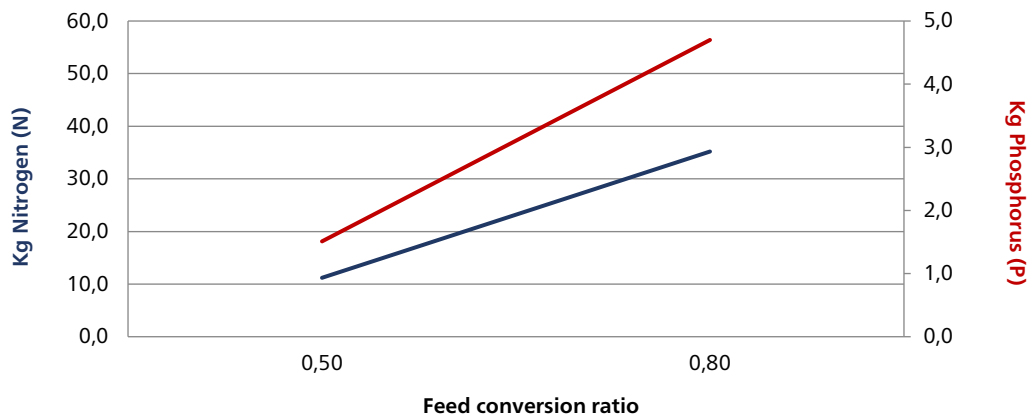
| | |
|----------------------------|-------|
| Vitamin A (IE/kg) | 12000 |
| Vitamin E (mg/kg) | 240 |
| Vitamin C (stable) (mg/kg) | 300 |

Energy (MJ/kg)

| | |
|-------------------|------|
| Gross Energy | 21,1 |
| Digestible Energy | 18,3 |

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 systems
- Very good performance
- Optical feeding control



COMPOSITION:

Analyses (%)

| Analyses (%) | | Sizes |
|--------------|------|--------|
| Protein | 42 | 2.0 mm |
| Fat | 13 | |
| Crude fibre | 2,3 | |
| Ash | 6,4 | |
| Total P | 0,87 | |

Vitamins added

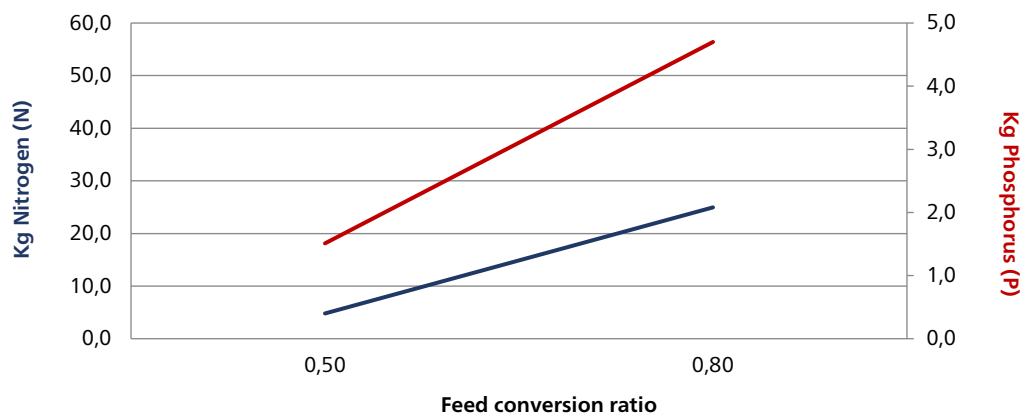
| | |
|----------------------------|-------|
| Vitamin A (IE/kg) | 12000 |
| Vitamin E (mg/kg) | 240 |
| Vitamin C (stable) (mg/kg) | 300 |

Energy (MJ/kg)

| | |
|-------------------|------|
| Gross Energy | 20,4 |
| Digestible Energy | 16,6 |

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.

- Semi-intensive systems
- Very good performance
- Optical feeding control



COMPOSITION:

Analyses (%)

| | | | |
|-------------|------|-------|--------|
| Protein | 37 | Sizes | 2.0 mm |
| Fat | 10 | | |
| Crude fibre | 1,6 | | |
| Ash | 6,5 | | |
| Total P | 1,09 | | |

Vitamins added

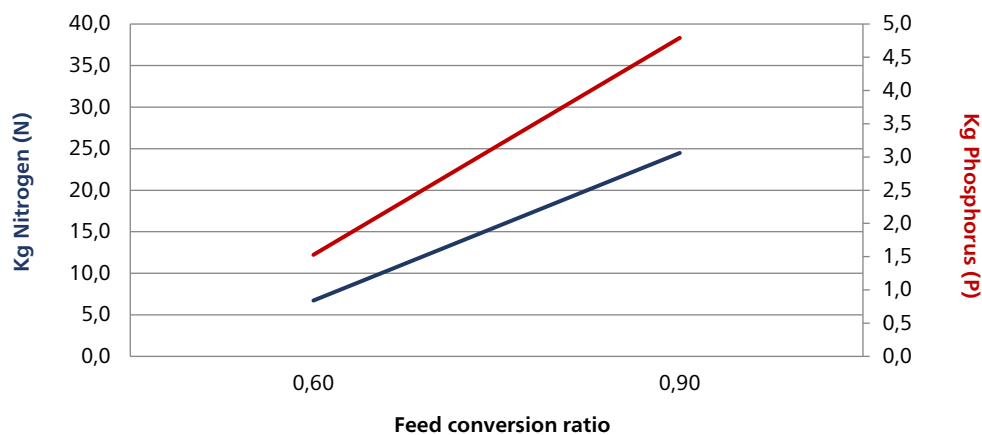
| | |
|----------------------------|-------|
| Vitamin A (IE/kg) | 12000 |
| Vitamin E (mg/kg) | 240 |
| Vitamin C (stable) (mg/kg) | 300 |

Energy (MJ/kg)

| | |
|-------------------|------|
| Gross Energy | 19,3 |
| Digestible Energy | 16,7 |

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.

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



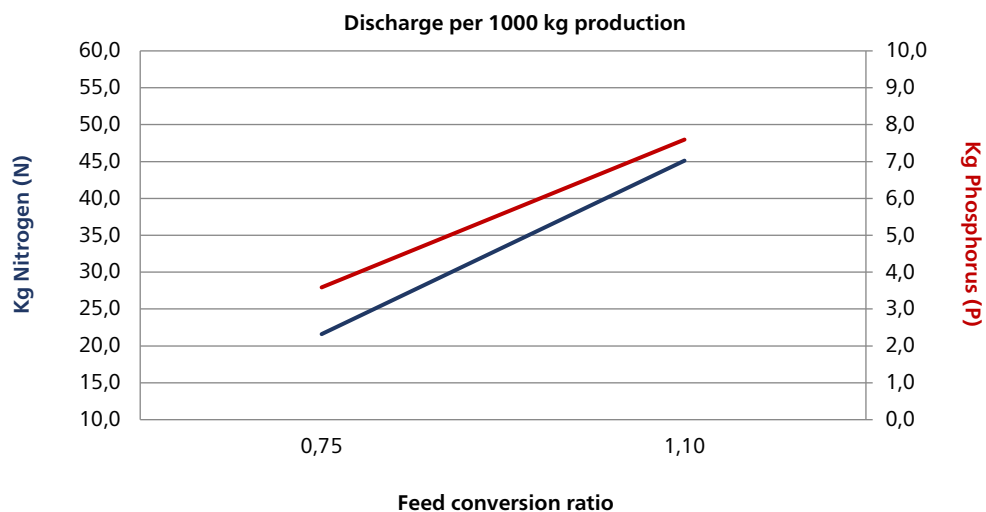
COMPOSITION:

| Analyses (%) | 3.0 mm | 4.5 mm |
|--------------|--------|--------|
| Protein | 48 | 42 |
| Fat | 13 | 13 |
| Crude fibre | 1,4 | 1,5 |
| Ash | 9,6 | 7,9 |
| Total P | 1,39 | 1,15 |

| Vitamins added | 3.0 mm | 4.5 mm |
|----------------------------|--------|--------|
| Vitamin A (IE/kg) | 10000 | 10000 |
| Vitamin E (mg/kg) | 200 | 200 |
| Vitamin C (stable) (mg/kg) | 250 | 250 |

| Energy (MJ/kg) | 3.0 mm | 4.5 mm |
|-------------------|--------|--------|
| Gross Energy | 20,3 | 20,2 |
| Digestible Energy | 17,0 | 17,1 |

ECOLOGICAL FIGURES:



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.

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



COMPOSITION:

Analyses (%)

| | | Sizes |
|-------------|------|--------|
| Protein | 42 | 3.0 mm |
| Fat | 13 | 4.5 mm |
| Crude fibre | 2,6 | 6.0 mm |
| Ash | 6,7 | |
| Total P | 0,88 | |

Vitamins added

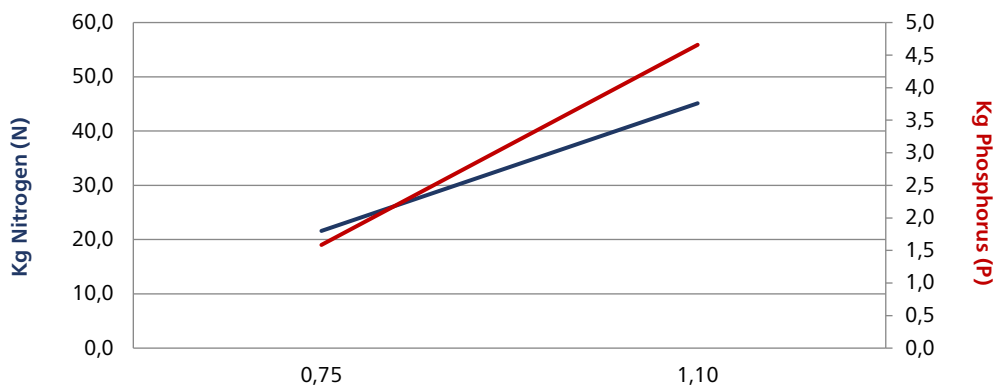
| | |
|----------------------------|-------|
| Vitamin A (IE/kg) | 10000 |
| Vitamin E (mg/kg) | 200 |
| Vitamin C (stable) (mg/kg) | 250 |

Energy (MJ/kg)

| | |
|-------------------|------|
| Gross Energy | 20,3 |
| Digestible Energy | 16,1 |

ECOLOGICAL FIGURES:

Discharge per 1000 kg production



Feed conversion ratio

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.

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



COMPOSITION:

Analyses (%)

| | | | |
|-------------|------|-------|--------|
| Protein | 42 | Sizes | 4.5 mm |
| Fat | 13 | | |
| Crude fibre | 2,0 | | |
| Ash | 7,2 | | |
| Total P | 1,01 | | |

Vitamins added

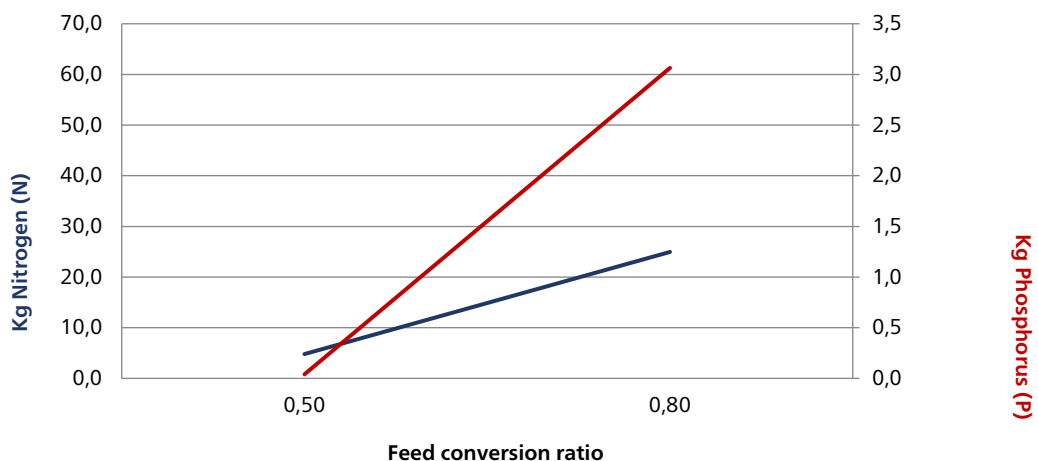
| | |
|----------------------------|-------|
| Vitamin A (IE/kg) | 10000 |
| Vitamin E (mg/kg) | 200 |
| Vitamin C (stable) (mg/kg) | 250 |

Energy (MJ/kg)

| | |
|-------------------|------|
| Gross Energy | 20,3 |
| Digestible Energy | 17,0 |

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.

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



COMPOSITION:

Analyses (%)

| | | Sizes |
|-------------|------|--------|
| Protein | 37 | 3.0 mm |
| Fat | 10 | 4.5 mm |
| Crude fibre | 2,4 | |
| Ash | 7,1 | |
| Total P | 1,10 | |

Vitamins added

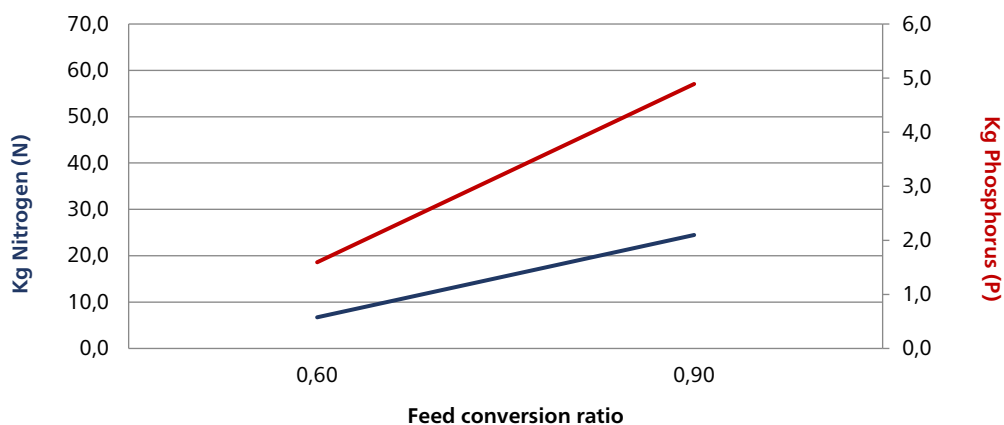
| | |
|----------------------------|-------|
| Vitamin A (IE/kg) | 10000 |
| Vitamin E (mg/kg) | 200 |
| Vitamin C (stable) (mg/kg) | 250 |

Energy (MJ/kg)

| | |
|-------------------|------|
| Gross Energy | 19,5 |
| Digestible Energy | 16,5 |

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.

- Broodstock diet
- Optimal egg development
- Increased level of vitamin c (stable vitamin c)
- High egg quality and fry survival



COMPOSITION:

Analyses (%)

| | | Sizes |
|---------------------|------|--------|
| Protein | 48 | 9.0 mm |
| Fat | 15 | |
| Crude fibre | 1,2 | |
| Ash | 9,4 | |
| Total P | 1,46 | |
| Astaxanthin (mg/kg) | 40,0 | |

Vitamins added

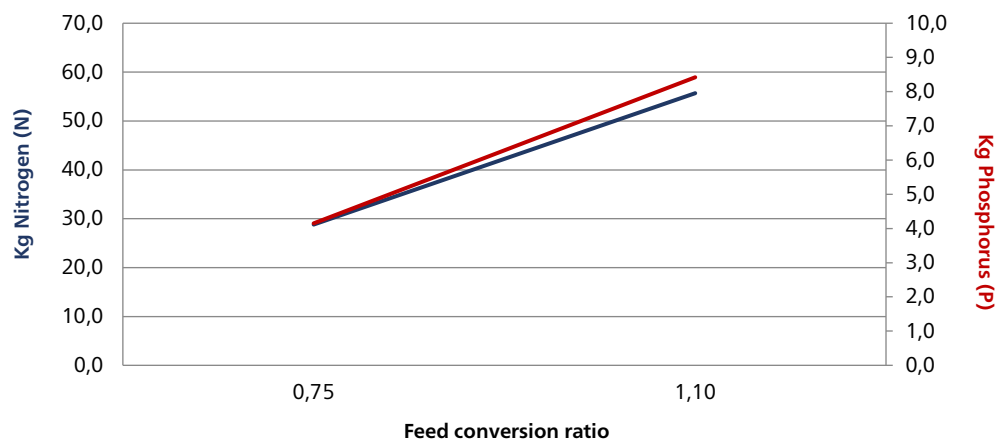
| | |
|----------------------------|-------|
| Vitamin A (IE/kg) | 21000 |
| Vitamin E (mg/kg) | 430 |
| Vitamin C (stable) (mg/kg) | 1000 |

Energy (MJ/kg)

| | |
|-------------------|------|
| Gross Energy | 20,5 |
| Digestible Energy | 17,4 |

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.