

PIGMENTECH



PROPERTIES

- PIGMENTECH is a concentrated plant extract which provides a very **stable source** of metabolisable pigments for shrimps and fishes.
- PIGMENTECH is a well **balanced source of proteins and essential PUFAs (ω_3 ω_6)**, 100% natural, GMO free.
- PIGMENTECH promotes growth, FCR and enhances the health status of shrimp and fish.
- PIGMENTECH has similar effects as **spirulina sp** but at a lower cost.

XANTHOPHYLLS
β-CAROTENE

- Pigment coloration, xanthophylls and carotenoids that fish and shrimp metabolize to make their own natural coloration.

Vitamin E, Choline
 ω_3 and ω_6

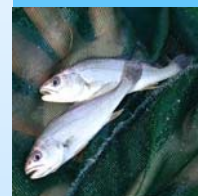
- Improves growth performances and health status in both fish and shrimp. Hepatoprotection.

COMPOSITION (per kg of product)

Crude Protein: 52-55 %	Xanthophylls :	1250 mg	Vitamin A :	800 000 UI
Lipids: 10.4 %	<i>Lutein and Zeaxanthin</i> :	850 mg	Vitamin E :	500 000 UI
PUFAS: 5.5 %	β Carotene:	500 mg	Choline :	1100 mg

USE AND PRESENTATION

- PIGMENTECH is presented in granular form (1000µm) and in powder form (500µm and 250µm)
- Recommended inclusion rate in aquaculture diets: 4% to 8%.
- We recommend a daily use of PIGMENTECH at least 3 weeks before harvest.
- Store in a cool dry place .



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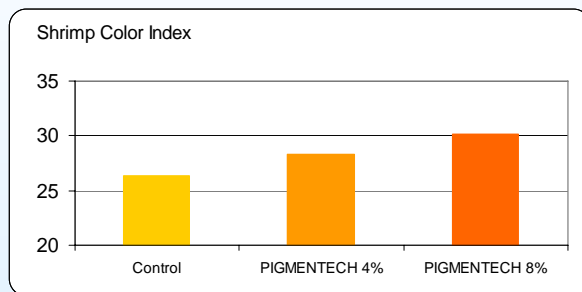


Results obtained with *Penaeus stylirostris* fed with PIGMENTECH diets :

- PIGMENTECH improved shell coloration of cooked shrimp, after 3 weeks of continuous feeding
- Growth rates significantly increased when PIGMENTECH was included in shrimp feed diet

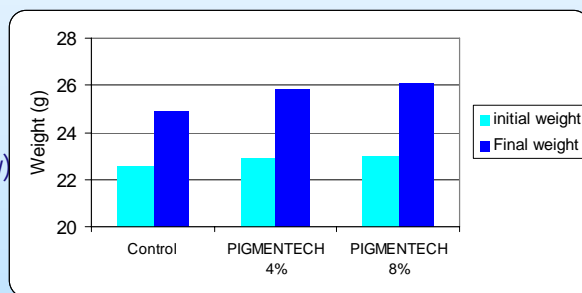
Shrimp shell pigmentation

(Tested by Ifremer, Aquacop, Tahiti)



Shrimp weight gain

(Tested by Ifremer, Aquacop Tahiti)

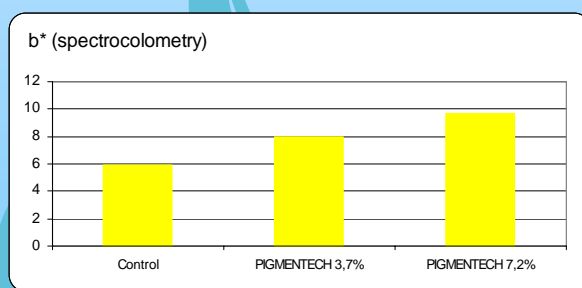


Results obtained with *Sparus aurata* fed with PIGMENTECH diet:

- PIGMENTECH brings up Gold-orange coloration of seabream operculum and skin.
- PIGMENTECH significantly decreased (-8%) seabream liver in volume indicating a better fish health status

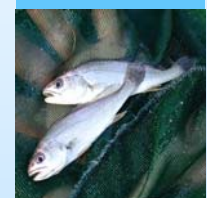
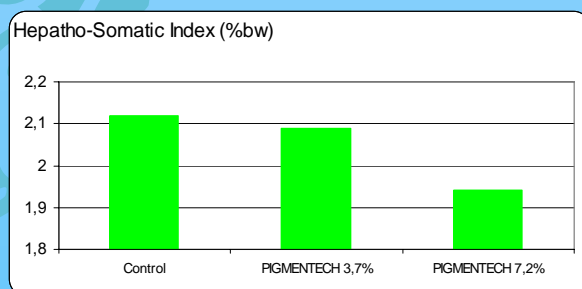
Seabream operculum coloration

(Tested at the Institute of Marine Biology, Creete)

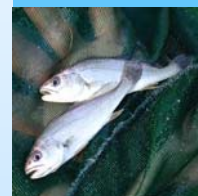
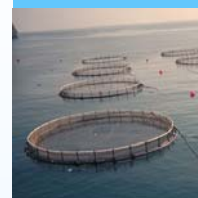


Seabream liver size

Tested at the Institute of Marine Biology, Creete)



Physical properties	Spirulina	Pigmentech
composition		plant extract
color	dark blue-green	dark green
Odor and taste	mild like seaweed	
Proxymate analysis		
Crude Protein	65%	52-55%
Lipids	6-8%	10.4%-11%
Minerals	7-13%	14%
Crude Fiber		2.7%
Carbohydrate (by difference)	15-25%	8-12%
Protein		
Amino acids	65% protein basis	52% protein basis
-cysteine	0.65%	0.47%
hystidine	0.81%	1.25%
-leucine	5.66%	4.58%
Phenylalanine	2.92%	2.11%
Threonine	3.38%	2.55%
Valine	4.23%	2.96%
Arginine	4.49%	3.12%
Glutamic acid	9.49%	5.46%
Proline	2.8%	2.34%
-Methionine	1.5%	1.14%
Isoleucine	3.64%	2.55%
-Lysine	3.06%	3.38%
Tyrosine	3.12%	2.34%
Tryptophan	0.98%	1.04%
Alanine	4.94%	3.02%
-Aspartic acid	6.37%	5.04%
Glycine	3.38%	2.65%
Serine	3.38%	2.34%
Loss in Hydrolysis	0.2%	2.86%
Fatty acids		
palmitic acid		1.6%
Linoleic acid (w6)		1.6%
Linolenic acid (w3)	1.3%	4%
other	4.7%	3.2%
Coloration pigments		
Chlorophyll (green)	10 000 ppm	35 000 ppm
Phycocyanin (Blue)	1 400 000 ppm	0
carotenes	2 500 ppm	525 ppm
beta carotenes	1 400 ppm	500 ppm
other carotenes	1 100 ppm	25 ppm
Xanthophylls (yellow)	2 200 ppm	1 250 ppm
lutein		800
violaxanthin		60
zeaxanthin	800	50
neoxanthin		250
myxoxanthophyll	300	
Cryptoxanthin	100	
Echinenone	100	
other Xanthophylls	300	90



Vitamins		
As Vitamin A	2 300 000 IU/kg	800 000 IU/kg
Beta Carotene	1400 ppm	500 ppm
Vitamin K	20 ppm	100 ppm
Riboflavin (B2)	40 ppm	5 ppm
Choline (B4)		1100 ppm
Vitamin E	100 ppm	500 ppm
Thiamin (B1)	35 ppm	3 ppm
Pyrodoxyne (B6)	8 ppm	90 ppm
Biotin (B8)	0.05 ppm	0.2 ppm
Vitamin C		
Vitamin D	1200 IU	
Inositol	6.4 mg	
Niacin	1.4 mg	
Folate (Folic acid)	0.1 ppm	
Cyanocobalimine (B12)	2.0 ppm	
Panthothemic Acid	1.0 ppm	
Minerals		
Calcium	0.7%	4.1%
Potassium	1.4%	0.9%
Sodium	0.9%	0.03%
Cobalt		1 ppm
Iodine		0.3 ppm
Manganese	50 ppm	75 ppm
Zinc	30 ppm	18 ppm
Phosphorus	0.8%	0.9%
Magnesium	0.4%	0.17%
Chlorine		0.2%
Chloride		
Copper	12 ppm	11ppm
Iron	1500 ppm	1100 ppm
Selenium	1 ppm	0.1 ppm
Germanium	6 ppm	
Boron		
Chromium	2.5 ppm	
Molybdenum		
Other		
moisture	3-7%	9%

