



ไบโอสตา BIO-ASTA

Natural Astaxanthin, Carotenoids and Chelated Minerals, which are antioxidants, reduces stress and increases the color within 7-14 days



Before : 22



After 7 Days : 24



After 14 Days : 26

» Increase the color with Bio-Asta up to 3-4 numbers «

Benefits

1. **Bio-Asta** activate pigment gene and receptor to enhance/increase the color in Shrimp and Fish.
2. **Bio-Asta** has a good bioavailability, digestion and absorption that is good for pigment accumulation and high performance to present the color.
3. Enhance fitting shell and reduce loose shell after molting. Reduce stress and increase survival rate
4. Increase color in both of live shrimp and cooking shrimp.

Usage:

Mixing Bio-Asta 5-10 g/kg of feed. 7-14 days before harvesting.



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Factors of Pigmentation to Enhance

01

Shrimps Health

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Healthy shrimp with no stress and no disease can maximize their color performance in each of all breeds.

02

Age

Age

Shrimps aging of 2 months old has lighter color than the 4 months oldshrimp. This because the older shrimp accumulate more pigment in shell and skin color. Shrimps will naturally get larger colour segments and brighter colours as they age.

03

Salinity & Mineral

Level of salinity and mineral in the water

Sea water (high salinity) contain a lot of minerals more than fresh water or low salinity water. Example Cu, Zn, Se, Fe²⁺, K, PO₄³⁻ These minerals are the key of pigmentation to enhancer color in the animals.

04

Plankton Water color

Types of pond (PE or Earth pond), water color, type of plankton and sediment

When the water in the pond is in their optimal ranges it allows the shrimp to display optimal colors. Shrimp also appear brighter and colour up better on a contrasting background.

05

Feed

Feed

Protein from plant (soybean, wheat, corn) have negative effect on shrimp's color especially smell and taste when comparing with protein from fish meal. Therefore, the additional of Astaxanthin **Panafred-AX / Bio-Asta** with chelated minerals (Cu, Zn, Se, Fe²⁺, K, PO₄³⁻) are needed to compensate the absent of fish meal.

06

Type of Astaxanthin

Type & Amount of Astaxanthin

Concentrate, amount and types of Astaxanthin has an effect on shrimp, fish and crab. ** **Panafred-AX / Bio-Asta** is a natural astaxanthin which has a good bioavailable, digestion and absorption. Panafred-AX / Bio-Asta have many type of carotenoid pigments (red, pink, yellow etc.)



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