

Add NatuRose® — for the health of it.

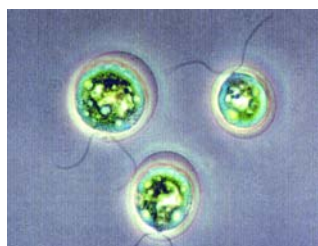
Nature's brilliant solution for vibrant coloration

NatuRose® Natural Astaxanthin is an algae meal produced from the algae, *Haematococcus pluvialis*. This pure microalgae meal, cultivated in a pristine environment using the tropical sunshine of Hawaii, can be added to your feeds to maintain the natural vibrant colors of your pets with nature's premier pigment, astaxanthin. Differentiate your feeds the natural way, with microalgae.

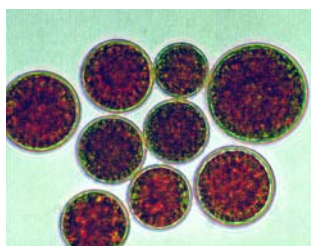
NatuRose® Natural Astaxanthin — pure, natural, nutritional — for the health of it

Astaxanthin is a red carotenoid that provides superb coloration to ornamental fish species, birds and reptiles because it is from nature. Not only does this carotenoid provide red pigmentation but animals can bind the molecule to proteins internally to form carotenoproteins and carotenolipoproteins. These compounds are capable of producing colors such as blue, yellow, brown and black to name just a few. It is used for pigmentation of flamingos in zoos as astaxanthin is the carotenoid responsible for their pigmentation.

Haematococcus pluvialis



Free-swimming chlorophyte



Encysted cells with high levels of astaxanthin

Astaxanthin is a carotenoid that must be ingested as animals and fish can not synthesize it themselves. A constant source of astaxanthin must be provided in the diet in order to maintain their color, as the pigment is not stored for long.

Unlike artificial colorants, this all-natural algae meal is not only high in astaxanthin, it contains other valuable nutrients as well. There is a carotenoid complex containing lutein, beta-carotene and canthaxanthin in small proportions (Fig.1). There are also fatty acids, minerals, vitamins and amino acids in the product to help improve the nutrition of your pets, while enhancing their pigmentation as well (Fig.2).

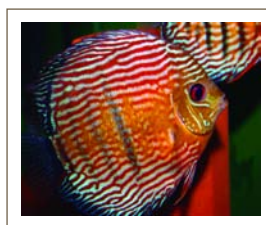


Photo: Marc Weiss

Benefits for ornamentals, birds and reptiles

NatuRose® achieves vibrant coloration in fresh and saltwater aquarium species, birds and reptiles, enhancing such colors as yellow, orange, red, purple, black and blue. It is an excellent addition to brood stock diets, increasing fecundity, egg and sperm quality, as well as the

health of the offspring produced. All species benefit from improved stress tolerance and immunity.

To date there are no studies on reproduction in birds or reptiles, however the reproduction data from other animal species such as minks and pigs shows improved breeding as well.

Specially formulated for feed manufacturers

NatuRose® is a dried powder standardized to 1.5% astaxanthin making it simple to use in feed applications. It is easily added to pelleted and extruded feeds by mixing with dry ingredients. The product can also be mixed with a vegetable oil and used to top-coat pellets or added into a frozen diet.

It is an excellent addition to broodstock diets with benefits in egg quality and quantity. NatuRose® is excellent for maintenance of coloration and is capable of returning fish to vibrant pigmentation in as little as one week.

The NatuRose® difference



World leader in microalgae technology

Cyanotech Corporation's production facility is located on the coast of Kailua-Kona, Hawaii. We cultivate high value microalgae species in an environmentally responsible (sustainable) manner. Nothing could be more pure and natural than nutrients from microalgae grown in these pristine conditions.

Differentiate your feeds

For more information or for a sample of product to try, contact us at (808) 334-9402 or go to www.naturrose.net.



NatuRose
Natural Astaxanthin

Testimonials from folks who have tried it! Some of the world's largest breeders of tropical fish are users of NatuRose® for both pigmentation and improved breeding. Here's what they have told us:

"Trials on **saltwater fish** to enhance the coloration of aquarium display fish were positive with many older fish showing increased coloration and a return of normal coloration, which is something synthetic astaxanthin is unable to achieve."

"Successful results for **koi** pigmentation, but keep levels at 20 ppm astaxanthin or below to avoid over-coloring."

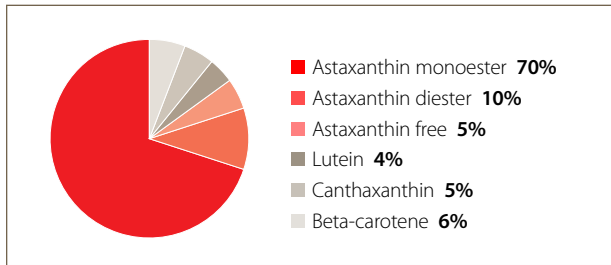
"Testing NatuRose® with **red/white platties, red swords, pineapple and neon swords, golden barb**s: trial was successful with all 6 species tested."

"Trials run on several species of **Rainbows** with a control group for each type. Trial was completed and showed improved growth, survival, and coloration with NatuRose-Spirulina mix."

Fish breeder of **Cichlids**: customer reported remarkable results and has recommended NatuRose® to many fellow breeders.

"Trials completed on **Discus species** (high value fish) NatuRose® proved superior to commercial color-enhancing food. NatuRose® brought out the silver, silver-blue, reds, golds, and greens unlike synthetic astaxanthin."

Fig. 1 Carotenoid complex of NatuRose®



Source: Cyanotech Corporation



Fig. 2 NatuRose® Typical Analysis per 100 grams algae meal

Astaxanthin	1.5%	Amino Acids, g/100 g	Fatty Acids, mg/100 g	Vitamins, mg/100 g
General Composition		Aspartic Acid	12:0 Lauric	Biotin
Carbohydrate	50.7%	Threonine	14:0 Myristic	Folic Acid
Protein	24.2%	Serine	15:0 Pentadecanoic	Niacin
Fat	11.5%	Glutamic Acid	16:0 Palmitic	Pantothenic Acid
Ash	8.6%	Proline	16:1 Palmitoleic	B1, Thiamine
Moisture	5.0%	Glycine	17:0 Heptadecanoic	B2, Riboflavin
		Alanine	17:1 Heptadecenoic	Pyridoxine
		Cystine	18:0 Stearic	C
		Valine	18:1T Elaidic	E, natural, IU/100 g
Fiber	18.5%	Methionine	18:1 Oleic	Betacarotene
		Isoleucine	18:2 Linoleic	A, from Betacarotene, IU/100g
		Leucine	18:3 Linolenic	
		Tyrosine	18:3G Gamma Linolenic	Minerals, mg/100 g
		Phenylalanine	20:0 Arachidic	Calcium
		Histidine	20:1 Eicosenioc	Copper
		Lysine	20:2 Eicosadienoic	Iron
		Arginine	20:3 Eicosatrienoic	Magnesium
		Tryptophan	20:5 Eicosapentaenoic	Manganese
			22:0 Behenic	Phosphorus
			22:6 Docosahexaenoic	Potassium
			24:0 Lignoceric	Sodium
			Omega 3	Zinc
			Omega 6	Arsenic
				Cadmium
				Lead
				Mercury