An Excellent Angelfish Protocol Is Improved in Germany with MICROBE-LIFT® Technology

Location: **Germany**

Background:

Stephan is a well known high end breeder of freshwater Angelfish, Pterophyllum scalare, in Germany with over 35 years experience.

Over the years Stephan had modified and adapted his aquatic aquarium systems to achieve a breeding process and grow out program he believed second to none. His breeding and growth process resulted in extremely beautiful high-end healthy fish that where ready for sale to his customers in 18 months.

His breeding and growth process produced high-end saleable fish with only 5-10% mortality during the breeding period. The first color development was seen at 4 to 6 months. During color stage the fish body grew but fins were retarded due to energy expenditure for color set. Full development of color, body, and spawning was complete by 14 months for sale at 18 months.

Objective:

With his many years of experience, Stephan was not open to the suggestions presented to him by Oliver Schultheiss of ARKA Biotechnologie GmBH, a key distributor of MICROBE-LIFT® technology. Oliver was providing ways of improving water quality, achieving rapid cycling, controlling ammonia and nitrite, even reducing nitrate. Oliver explained the elimination of nitrate by MICROBE-LIFT®/Special Blend's denitrifying capabilities. This was simply "not possible" according to Stephan's long-term experience.

To prove his point, Stephan decided to set up an aquarium system for a new set of Angelfish Babies following the suggestions made by Oliver for use of MICROBE-LIFT® /**Special Blend** and MICROBE-LIFT®/**Nite Out II** and an additional product MICROBE-LIFT®/**TheraP.**

He followed the MICROBE-LIFT® program exactly according to instructions, first setting up a new aquarium system, then placement of the babies, and addition of MICROBE-LIFT®/**Special Blend** and MICROBE-LIFT®/**Nite Out II**. He followed instructions for the initial dosage followed by four weeks of a lowered dosage rate, then the suggested maintenance dose every other week.

At this point, the fifth week in the treatment program MICROBE-LIFT®/**TheraP** was added, using the same treatment rate as MICROBE-LIFT®/**Special Blend** alternating the two products every other week and then MICROBE-LIFT®/**TheraP** the next week. This was done for improved reduction of organic waste and to improve the overall aquatic environment of the aquarium's ecosystem.

Stephen was confident that this was a waste of time and resources.

Results Achieved: What Stephen saw can be described as follows:

1. From the very start of the process the new babies were very active with movement like little bumble bees, as described by Stephen, rather than slow movement that is normally seen in his existing breeding program.
2. During these early weeks he would normally lose from 5-10 of the little fish. Using this new treatment no fish were lost (not a single fish) and all fish seemed healthy.
3. Color started to appear at 8 to 9 weeks rather than the expected 4 to 6 months.
4. During the color set the body and fins grew at the same rate with no noticeable difference in body to fin growth.
5. Fish maturity, color, and spawning were seen at 6½ to 7 months and the fish were ready for sale at 7 to 7½ months

Stephen wanted to know how these benefits were possible. Oliver explained:

- Everything starts with water quality. One component of organics in the water is the food we feed the fish. We assume the selection and use of the best fish food is ideal for the fish and the aquarium environment. But consider, most large aquaria add protein skimmers to eliminate the excessive protein. Consider that fat is only 10% biodegradable resulting in the slow steady build-up of fatty acids and food fiber. These constituents slowly build up as pollutants with in the aquarium water and filter system steadily increasing the level of pollution. MICROBE-LIFT® /**Special Blend** is the only microbial consortium that offers the capability to rapidly degrade these slow

to degrade compounds thereby reducing pollution toxicity to marine life. These biological agents even improve the ability of the fish to metabolize the food.

- Reduction of toxic nitrogenous compounds through nitrification and denitrification. Ammonia produced by the breakdown of protein is quickly oxidized to nitrite and then nitrate. The nitrate is then removed by denitrification capability of MICROBE-LIFT® technology. Through denitrification nitrate is converted to non-toxic nitrogen gas that is harmlessly bubbled to the atmosphere.

The combined capabilities in MICROBE-LIFT® technology improve and enhance water quality eliminating difficult to degrade pollutants and reducing toxic nitrogenous compounds. No other technology on the market can match these benefits.

Based on the results seen with the use of MICROBE-LIFT® technology Stephen completely revised his aquatic practices using MICROBE-LIFT® in all of his aquarium systems. MICROBE-LIFT® technology is used to start and maintain every aquarium system within his shop and is highly recommended to all of his customers.

For more information on MICROBE-LIFT® Technology contact
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