

PERFOSTIM

AQU003



Growth and digestive flora balance of shrimp and fish

PROPERTIES

- **PERFOSTIM** can be used directly by the farmer for the benefit of the farm
- **PERFOSTIM** is a proved essential supplement blend designed to improve feed quality and rearing efficiency
- **PERFOSTIM** is an original feed additive composed of tested and registered bacteria (*Pediococcus acidilactici* MA18 /5 M) and essential elements:

Bacteria

Pediococcus acidilactici
MA18/5M
and other strains

- Colonization of the digestive tract
- Balance of digestive flora
- Higher survival rates (see attached results)
- Other strains: *Bacillus* spp., *Lactobacillus* spp., *Rodhobacter* spp., *Nitrosomonas* spp and *Aspergillus oryzae*

Vitamin E

Vitamin C

- Stimulation of immune responses.
- Increased stress resistance (see attached results).

Prebiotic vegetable

Substratum

- Growth of the suitable intestinal flora to reduce the opportunities for the pathogenic agent entrance

Selenium

- Antioxidant properties: limits the effect of free radicals.
- Enzymatic activity stimulation.

- **PERFOSTIM** could be used during all the steps of the production with the following objectives and benefits :

Hatchery:

- ✓ Growth stimulating factors

Nursery

- ✓ Reinforcement of animals before transfer in pond

On growing

- ✓ Nutritional effects, stimulating effects on growth rate
- ✓ Stabilisation of gut bacterial flora in shrimp and fish during rearing phases
- ✓ Improvement of survival rate and of health status
- ✓ Optimization of the breeding practices
- ✓ Resistance against vibriosis

Broodstock

- ✓ Nutritional, improvement of reproduction.

USE AND PRESENTATION

- **PERFOSTIM** is presented in powder form
- Recommended incorporation rate: **5 kg PERFOSTIM per ton of feed:**
- **PERFOSTIM** must be applied on the pellets by coating.
- We recommend a daily use of **PERFOSTIM** during one week, every month or during any critical rearing phase
- Store in a cool dry place



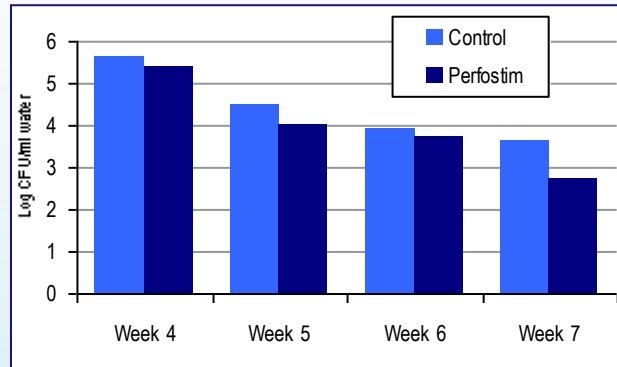
PERFOSTIM S/F: Benefits for shrimp

(Lallemand courtesy)

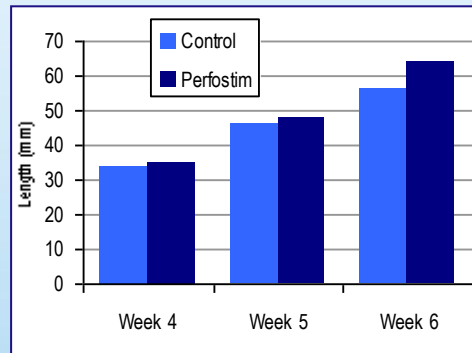


- Effect of administration of *Pediococcus acidilactici* MA18/5M via formulated feed on juvenile shrimp *Penaeus monodon*.
- *Pediococcus acidilactici* MA18/5M improve feeding activity, is found in digestive tract of shrimp after 8 weeks of continuous feeding and total vibrio in water and in shrimp gut is lower. The growth rate is significantly increased.

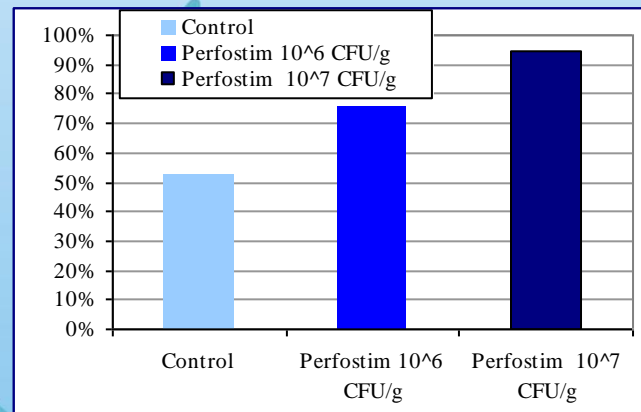
Total Vibrio population



Growth rate



Survival rate after 30 days in tanks in presence of the *Vibrio penaeicida*



- **Fish trial** (Lallemand courtesy) : On Tilapia juvenile (*O. mossambicus* * *O. niloticus*), similar results were obtained:

Weight gain and mortality rate during sex-reversal phase

