

2nd Global Summit on

Aquaculture & Fisheries

July 11-13, 2016 Kuala Lumpur, Malaysia

Species independent efficacy of a specific composition of monoglycerides of short and medium chain fatty acids in preventing EMS and controlling *Vibrio parahaemolyticus*, *Aeromonas* spp., *Streptococcus uberis*, *Flavobacterium* spp., *Yersinia Ruckery*, *Pseudomonas* spp. and *Bacillus Cereus* affecting shrimps and other aquatic species

Manuela Parini
SILO SPA, Italy

A specific compositions of 1-Monoglycerides of short and medium chain fatty acids (from C2 to C12), available on the market under the commercial name SILO health 108, proved to exert a selective antibacterial action against pathogenic bacteria independently from the environmental pH, being antibacterial also at pH 7-8, that is in the conditions of the organs of aquatic species like gut, liver, hepatopancreas and other biological apparatuses. The MIC of the monoglycerides composition at buffered pH 7-8 against *Vibrio parahaemolyticus*, *Vibrio mimicus*, *Bacillus cereus*, *Aeromonas hydrophila*, *Yersinia ruckeri* resulted to be 0.1%, against flavobacterium and pseudomonas spp. 0.01% while lactobacillus was not inhibited by the monoglycerides composition. The composition has been tested in experimental conditions by the Public Animal Health Institute Bruno Ubertini (Italy) in juvenile sturgeon infected with 11,000,000 CFU of *Aeromonas hydrophila*: in the group treated with the composition the mortality was reduced by 80% ($p < 0.001$) and the SGR was increased by 13% ($p < 0.01$) compared to the control group. Applications in field proved that the composition is able to exert its actions independently from the specie. *Penaeus Vannameis* stocked in 3 ponds of 2mu each (210 shrimps per square meter) in Zanzjiang-China showed typical clinical signs of EMS: hepatopancreas, gut and faecal matter whitening. *Vibrio parahemolyticus* was isolated. The administration of the composition for 5 days decreased the mortality by 80% and restored normal growth. Above effects are repeatable independently from species, being active in shellfish, freshwater and marine fish.

Biography

Manuela Parini has a degree in Languages and Marketing. In 2000, she became member of the R&D Department of SILO SpA (Italy). From 2004 to 2007, she participated at the EU-project "Feeding Fat Safety" aimed at improving the safety level of fatty by-products and derivatives to be used in commercial feeds. She published and participated as co-author in more than 10 studies and was invited as speaker at several conferences. In October 2015, she held a scientific speech at the conference of European Aquaculture Society in Rotterdam.

manuela.parini@gmail.com

Notes: