

Probiotic administration of *Litopenaeus vannamei*: is there any negative effect on the fatty acid profile of the meat?

ABSTRACT

It has been found that appropriate probiotic applications increased growth performance and disease resistance in shrimp. *Bacillus subtilis* has been suggested as a potent probiotic in improving growth performance and enhancing immune response in white shrimp, *Litopenaeus vannamei*. The aim of this work was to evaluate the possible effect of *B. subtilis* administration on the meat fatty acid profile of white shrimp, *L. vannamei*. Two groups of shrimps received *B. subtilis* strains L10 and G1 from the *B. subtilis*-supplemented feed (105 and 108 CFU g⁻¹) while two other groups received it from the rearing water (105 and 108 CFU ml⁻¹). One group received no *B. subtilis* and served as control. According to the results, there was no significant difference between the muscle fatty acid profiles of shrimps administrated by probiotic and control group. This study showed that *B. subtilis* administration, in either diets or water, did not have any negative effect on fatty acid profiles of *L. vannamei* meat.

Keyword: Probiotic; Fatty acid; *Litopenaeus vannamei*; Nutrition