Title: Effect of Commercial Probiotics on Growth and Shelf Life of Nile Tilapia (*Oreochromis niloticus*) Raised in Aquaria

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I. Abstract

The effect of commercial probiotics on the growth and shelf life of Nile Tilapia (*Oreochromis niloticus*) was studied for 60 days. Probiotics were mixed at the rate of 0.5, 0.75, 1, 1.25 and 1.5 g/kg of commercial feed and the diets were named as D2, D3, D4, D5 and D6 respectively. Probiotics treated diet had significant ($P<0.05$) influence on the final weight, % weight gain, SGR (% per day) and FCR than the control diet. Diet 5 showed significantly ($P<0.05$) higher % weight gain, SGR (% per day) and FCR along with the VSI (%) and HSI (%). Effect on the shelf life was conducted with the experimental fish those reared with probiotic inclusion, to see the impact of probiotics in extending shelf life of tilapia (*Oreochromis niloticus*) under aquarium condition. T5 and T6 showed extended shelf life for 2 days in iced stored tilapia. No significant ($P<0.05$) variation was found for T1 (control), T2, T3 and T4 in the shelf life based on sensory evaluation. There were no significant ($P<0.05$) variations in biochemical and microbial parameters between control and probiotics treated fish samples. However, the probiotics of certain doses had significant effect in growth performance and shelf life of experimental fish. These results collectively suggests that commercial probiotics at the rate of 1.25 gkg-1 can be incorporated with the Nile Tilapia (*Oreochromis niloticus*) culture diet to enhance the growth, to improve feed utilization and ultimately higher production.

II. Image:





III. Reference:

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IV. Biography:

Nusrat Shahnewaz has completed her MS at the age of 23 years from Bangladesh Agricultural University, Bangladesh and Graduation from Patuakhali Science and Technology University, Bangladesh. Now she is engaged in two project work as a Researcher and also preparing for PHD study.

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