

Supplementation of spirulina (*Arthrospira platensis*) improves physical activeness level of the catfish (*Clarias gariepinus*)

ABSTRACT

This study determines the effects of spirulina supplementation on the physical activeness level in cultured catfish. Five experimental diets containing different percent of spirulina (0% (control), 1%, 3%, 5% and 7%) were fed daily to a total of 30 catfish fry/cage (in triplicate) at 5% body weight, for a period of 105 days. The level of physical activeness was determined by giving a score during daily feeding for 90 consecutive days, fortnight handling for total body weight and length measurement, and feeding during *Aeromonas hydrophila* challenge experiments. At daily feeding and handling for body weight and length measurement, groups of catfish supplemented with spirulina scored very active level of physical activeness, while the control group catfish score was normal. The physical activeness level during *A. hydrophila* challenge showed that the catfish with spirulina supplementation scored better physical activeness compared to catfish with control diet. This study concludes that supplementation of spirulina as low as 1% in feed will improve physical activeness level of the catfish. Moreover, spirulina helps in the motivation for feeding during non-infection and infection by bacterial pathogen.

Keyword: Spirulina; *Arthrospira platensis*; *Clarias gariepinus*; Physical activeness; *Aeromonas hydrophila*