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Opinion

Role of Feeding Regime to Improve the Fish Production

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The feeding regime has a great rule in success of aquaculture projects. The optimum level of feeding rate (FR) with the optimum feeding frequencies (FF) at the optimum feeding time (FT) result in saving the feed offered, reducing the feed uneaten, preventing the health problems of overfeeding and maintaining the water quality as long as possible hence reducing the water exchange and saving the energy of water pumps. Therefore, feeding regime contributes significantly in decreasing the production costs and increasing the net profit. Optimal FR provides fish with their requirements of all the feed components such as essential amino acids, fatty acids, minerals, vitamins. Moreover, optimal FR reduces the fish competition for the feed offered therefore the aggressive behavior between individuals and crowding could be decreased coursing better conditions for growth [1]. Many factors affect the optimum FR such as water temperature, fish size, dietary protein and energy, feed ingredients. Whereas it was found that diet content of fishmeal and fish oil influences the fish appetite and their requirements of the nutritional components. Additionally, both FF and FT are considered vital factors had a big effect in determining optimal FR, optimal FF and FT can regulate the operating's digestion and absorption and increase the feed utilization efficiency through feeding fish with a small amount more than once/day exposing feed to sufficient time for stomach and intestinal enzymes, this conductive to increase of feed conversion ratio and decrease of feces and the excreted ammonia hence water quality does not quickly deteriorate. Furthermore, optimal FF decreased the individual variations in growth because it allows the same chance of feeding for all individuals [2,3]. The optimum FF depends on feeding behavior, fish size, and the intervals between the meals and choosing the optimum time for feeding which was achieves a high proportion of feed consumed. Feeding regime not only improves the growth rate, feed utilization, fish healthy and maintaining water quality but also improves the taste of flesh. Generally, determining the optimum feeding regime of fish cultured needs a lot of studies on all the factors that affect it.

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