

## IMPACT OF TRAINING COURSE ON KNOWLEDGE GAIN OF BIOFLOC TECHNOLOGY (BFT) TRAINEES OF MANIPUR, INDIA

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**ABSTRACT :** A three-day training course on biofloc technology (BFT) was given to a hundred trainees. The purpose of this study was to find out how much knowledge the trainees gained after the completion of training so that future training courses could be improved. The study revealed that 46%, 32%, 17% and 5% of trainees had received education up to senior secondary, graduation, post-graduation, and matric level, respectively. The majority of the participants attended the training session to pursue BFT as a profession or for their livelihood. In contrast, just 3% attended in order to create a link with the institution. Before training, trainees' knowledge scores on various BFT parameters on a pre-evaluation exam were poor. However, the knowledge scores of trainees improved significantly following training. The most significant increase in knowledge (100%) was seen in the areas of biofloc tank construction and biofloc inoculum preparation. More emphasis on practical sessions, the provision of a printed manual and broad exposure were some of the trainees' suggestions for improving the future training course. Therefore, it can be concluded from the present study that trainees' knowledge of BFT is low and training is an effective tool for improving trainees' knowledge and understanding of BFT.

**Key words :** Biofloc technology, training, knowledge gain, Manipur.

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### INTRODUCTION

Manipur has diversified water bodies with 56,461.05 ha suitable for fish farming (Singh *et al*, 2015). Only 18,600 ha or 32.94% of the total potential water areas are so far developed and used for fishery purposes (Dorothy *et al*, 2018). If these resources are judiciously explored and utilized, the state has the potential to produce around 53,000 to 64,000 metric tons of fish per annum (FishSite, 2016). Urbanization of many agricultural lands, as well as the filling of small water bodies, has led to the development of new technology like biofloc technology, raceway aquaculture system (RAS), etc. (Gaurav *et al*, 2021; Ngasotter *et al*, 2020). Biofloc technology (BFT) has been used in aquaculture with great success due to economic, environmental and marketing advantages over other conventional culture systems. It is considered the new "blue revolution" in aquaculture (Abakari *et al*, 2020). It is based on maintaining high levels of microbial bacterial floc in suspension by constant aeration and carbohydrate

addition to allow the aerobic breakdown of organic material (Avnimelech *et al*, 1986; Debbarma *et al*, 2021). Heterotrophic bacterial growth is aided by the addition of carbohydrates, while microbial protein production is aided by nitrogen uptake (Avnimelech, 1999; Khanjani and Sharifina, 2020). Water quality can be improved as well as the production of high-quality single-cell microbial protein by maintaining the C/N ratio in the aquaculture system through external carbon source addition or increased carbon content in the feed (Crab *et al*, 2012). In this context, the Central Agricultural University (CAU), Imphal, organized a training program for farmers, farm women and other youth on various features of biofloc technology fish farming. Three-day training programs for 100 farmers and youths were held during the year 2019-20. The present study was taken up to know the effect of these training programs on the acquire in the knowledge of the trainees.