SUPER INTENSIVE PRODUCTION OF ROTIFER BRACHIONUS Plicatilis USING PHYTOPLACTON PRODUCED BY SOLAR PHOTOBIOREACTOR AS A MAIN SOURCE OF FEEDING

This research refers to nine experiments for the culture of rotifer Brachionus plicatilis using mainly high concentration of phytoplacton which came from solar photobioreactor. The initial concentration of rotifers was small from 14-50 individuals/ml in 800 l tanks with different methods of feeding. In the first two experiments during the last days before the collection, rotifers were fed with culture selco®. In the last two experiments after the 6th day of culture the 20% of the volume of phytoplacton, which was estimated for the feeding, was replaced by yeast. The outcome of this research was the production of high concentrations of rotifers/ml (up to 1547 rotifers/ml) in particular for the last two experiments with good quality of rotifers (good movement and up to 4 eggs/rotifer). Additionally for the production of good quality of rotifers, which are fed only with phytoplacton, the minimum concentration of the remaining phytoplacton before the next feeding must be over 18*10^6 cells/ml. Also the daily phytoplacton consumption rate for each rotifer was calculated and found to be 345.000(±63.000) cells/rotifer. The duration of the culture for each experiment in any case was no more 15 days with an average of 8 days. The results can be used for quick restoration of culture after breakdown, and for mass production when classical batch culture is no longer effective.