

## ORL-AAQ-07

### Moina Culture Fed with Different Diets

Patcharee Kaeoprakan\*, Jutharat Khaojaturat, Yoshita Thaeptom, Vicheka Ros, S. Netthip, and Ram C. Bhujel

Aquaculture and Aquatic Resources Management  
 Department of Food, Agriculture and Bio-resources  
 School of Environment, Resources and Development  
 Asian Institute of Technology (AIT), Thailand  
 nongmarine5@gmail.com

*Moina (Moina siamensis)* is considered as one of the most successful Cladoceran species for the mass culture as live feed used in aquaculture especially for hatchlings of different species such as Pangasius, hybrid catfish, Sea bass and ornamental fishes. Attempts have also been made to use in larval culture of crustaceans such as *Macrobrachium* sp. and Penaeid shrimps. Normally *Moina* are cultured feeding *Chlorella* sp; however, its culture is difficult if pure culture of *Chlorella* is not available and it often gets contaminated with other zooplanktons e.g. daphnia, rotifers etc. The objective of this study was to explore an alternative feed for *Moina* and compare three different diets on the biography, population growth and density of *Moina*. An experiment was conducted in plastic cups (50 mL) individually fed with three types of feed as treatments, namely, *Chlorella* (control), yeast, and commercial feed. Seven adult *Moina* as replications per treatment were stocked and monitored. The experiment was continued until all the adult *Moina* were dead. They were fed with the concentration of  $6 \times 10^6$  mL<sup>-1</sup> of *Chlorella*, yeast and commercial feed each.

The result showed that average day of maturation, newly born per day, newly born per crop, and number of crops from different diets were similar ( $P > 0.05$ ). However, the life span of *Moina* nourished with *Chlorella* sp. showed the longest life span ( $9.0 \pm 1.29$  days). The shortest life span was with commercial feed ( $6.43 \pm 0.56$  days) but it had highest final population growth rate. The lowest growth was with the yeast (Figure 1). Therefore, in terms of mass culture, the commercial feed was the best which is affordable and easy to use as an alternative to *Chlorella* sp. Use commercial feed requires less space and avoid contamination usually occurs when cultured with *Chlorella*.

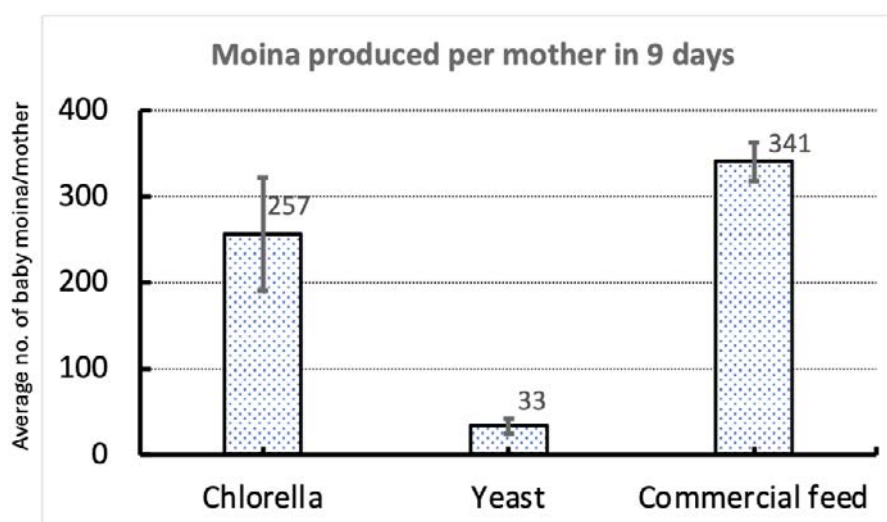


Figure: Final population of *Moina* fed with different diets after 9 days.