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Mass production of water flea (*Moina micrura*) in fresh water ornamental fish culture

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In ornamental fish culture, live organism feed may increase the growth and survival rate of juveniles for many species of fish. The water flea (*Moina micrura*) is an excellent natural food for nursing economic fish and type of food observed were composed mainly of bacteria, small protozoa, *Chlorella* sp. and decomposed organic matter. Laboratory and field experiment for development techniques for mass production of water flea were carried out with different media such as freshly cultured unicellular algae, *Chlorella* and organic manure.

The production trial was carried out in the round fibre glass tanks (600 liter capacity) which were enriched with inorganic fertilizers with *Chlorella* and organic cow manure alone. Water temperature and pH were measured daily. Initial stocking of 2000-3000 individuals of *Moina* culture with inorganic fertilizers and *Chlorella* produced 6.5±0.14 number/ml on the sixth day of culture period which was significantly higher than resulted of 3.05±0.07 number/ml with the loading of cow manure as organic fertilizer. Surface water temperature ranged between 27.5 - 29.0 C^0 and 27.13 - 28.13 C^0 and water pH varied between 7.25 – 8.45 and 7.30 – 8.10 found to be conductive for optimum growth of *Moina* culture with *Chlorella* and organic manure respectively. Water pH of all tanks were declined towards the end of the culture period.

In comparison, the results of propagation and growth of water flea – *Moina* observed in this study was remarkably higher loading of inorganic fertilizers with inoculation of *Chlorella* than loading with cow manure as organic fertilizer. The quantity of *Moina* sp. produced using the *Chlorella* is more suitable for commercial production.

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