

Veer Narmad South Gujarat University, Surat
Department of Aquatic Biology
(Aquatic Biology)
Certificate Course in Live feed culture for Fin Fish/Shell fish

AQB- 101: Miona and Artemia Culture

Unit-I: **Hrs. 05**

Moina

Identification, classification of economically important micro zooplankton Moina, Distribution, morphology, reproduction, life cycle, growth physiology, Importance and nutritional value of *Moina*

Unit-2

Hrs. 05

Culturing of Moina

Requirements of home setup for culturing Moina, maintaining culture parameters, culture, feeding ,maintaining the culture, harvesting, Tips for household culture, Mass culture of Moina with the help of different organic manures, viz., groundnut oilcake, coconut oilcake, maize oilcake, cotton seed oil cake, gram cake, gram and maize cake, raw cattle dung, mustard oilcake, sesame oil cake and alsi oilcake .

Unit-3

Artemia

Hrs.05

Identification, classification of economically important micro zooplankton Artemia, Distribution, morphology, reproduction, life cycle, growth physiology, Importance and nutritional value of *Artemia*

Unit -4

Artemia Culturing

Hrs.09

Requirements of setup for culturing, procedure, Steps in culture-hydration of cysts, decapsulation of cysts, hatching of decapsulated cysts, harvesting of nauplii, stocking of nauplii, calculations of hatching rate, precautions during culture.

Biomass culturing, Artemia culture in Race Way, Culture medium, Feed and feed preparation, feeding, water quality maintenance, pH of system, monitoring growth, culture duration, harvesting the biomass, rate of production

References:

- Lewis Hansard Tiffany (1968): *Algae the Grass of many waters*. Blackwell scientific publications Ltd., Oxford.
- Mathew, L. (1992): *Introduction to Aquaculture*, John Wiley and Sons, INC, New York
- Pillay, T.V.R. and Kutty, M.N. (2005): *Aquaculture – Principles and Practices*, Black Well Sciences, U.K.
- Round, F.E. (1981): *The Ecology of the Algae*, Cambridge University Press.
- *Recent Advances in Micro algal Biotechnology (2016)* Editor: Dr. Henri Gerken | Dr. Jin Liu | Dr. Zheng Sun | ISBN 978-1-63278-066-
- Brendan C. Delbos, Research Specialist, Virginia Seafood Agricultural Research and Extension Center; Michael H. Schwarz, Extension Aquaculture Specialist, Virginia Seafood Agricultural Research and Extension Center
- *Tetraselmis suecica* cultured in different nutrient concentrations varies in nutritional value to *Artemia* by J Fábregas , A. Otero, E. Morales, B. Cordero¹ and M. Patiño-1996
- Benijts, F., E. 1976 Van Voorden, and P. Sorgeloos, Changes in the biochemical composition between the first larval stages of the brine shrimp, *Artemia salina* L.: 1–9. In Proc. 10th European Symposium on Marine Biology, Ostend, Belgium, Sept. 17–23, 1975. Ed. Persoone, G.; E. Jaspers. Vol. 1. Research in mariculture at laboratory and pilot scale. Universa Press, Wetteren, Belgium: 620p.
- Bruggeman, E., 1977 *et al.*, Improvements in the decapsulation of *Artemia* cysts. Proceedings of the Conference of Aquaculture “Cultivation of Fish Fry and its Live Food”, Szymbark, Poland, Sept. 23–28, 1977: (in press)ren, Belgium: 620p