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MODIFICATION OF NUTRITIONAL PROPERTIES OF MICROALGAE FOR ARTEMIA BREEDING

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Artemia (brine shrimp) is used as a live-feed stuff for seed fish in fish hatcheries and aquarium fisheries. Nutritional properties of Artemia are in close relationship with the nutritional facts of the microalgae it is fed by. In this study, 20 different microalgae and cyanobacteria (indigenous strains from *Dunaliella, Isochrysis, Phaeodactylum, Tetraselmis, Nannochloropsis, Spirulina, Synechocystis, Synechococcus, Chlamydomonas, Chlorella, and Scenedesmus* genus) were supplied to *A. franciscana* as food source and growth characteristics of *A. franciscana* and were followed during 10 days of growth. Seven microalgae strains were selected for Artemia breeding and dry weight, total protein, starch and lipid contents of microalgae and *A. franciscana* were recorded. Then, microalgae were exposed to N-, S-, P-deprivation and high salt stress for 5 days of incubation. Total lipid, protein and carbohydrate contents of those strains were recorded and 5-days stress exposed microalgae were supplied to *A. franciscana* as only food source. Lastly total lipid, protein and carbohydrate content of *A. franciscana* was followed during 10 days of growth. In most cases, feeding *A. franciscana* with D. tertiolecta was superior to other strains studied.

Biography

Zeynep Elibol Çakmak has completed her PhD in 2013 from Kırıkkale University. She has been working as an Academics Instructor in Bioengineering Department of İstanbul Medeniyet University, Istanbul, Turkey. She has published more than 15 papers in reputed journals. Her focus lies in the field of Microalgal Biotechnology. Nowadays, she has been working on a project regarding alteration of nutritional properties of microalgae for increased nutritional value of Artemia as fish food source.

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