Enrichment of Microalgae with Vitamins for Aquaculture and Food Industries Using Nannochloropsis, Tetraselmis and Isochrysis Species (A Review)

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***Abstract*- Microalgae play an important role as a source of nutrient in aquaculture and food industries due to their high content of protein, vitamins, carbohydrate and lipid. They also have therapeutic uses owing to their antitumoral, antiviral, antifungal and antibacterial activities. Tetraselmis species are ellipsoidal, brightly green and spore forming algal massively cultivated on guillard media best known for its cytotoxic properties due to high concentration of omega 3 fatty acid. It is an important alga commonly used as live food in aquaculture. Nannochloropsis species were found to have supplements in lying hen's diet for the production of enriched egg and meat with Omega 3 fatty acid. Isochroysis species cells lost their capacity to divide and became enlarged, with a reduction in the content of photosynthetic pigment and photosynthetic capacity when grown in batch culture for a prolonged period. In order to produce a microalgae enriched with high vitamin content, supply of nutritionally balanced mixture of nutrients must be sufficient, production cost must be reduce, as well as the response to different environmental factors.**

Key words: **Microalgae, aquaculture, enrichment**

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