

## ABSTRACT

### THE EFFECT OF *Spirulina* sp. SUPPLEMENTATION TO THE COLOUR OF COMET (*Carassius auratus*)

By

Tri Agusaputra

Comet fish (*Carassius auratus*) is one of freshwater fish commodity that has bright colour and attractive shaped. One of the effort to increase brightness of the comet fish is by adding a source of carotenoid in the feed. The research aim is to increase intensity of comet fish colour by adding a source of carotenoid such as *Spirulina* sp. flour into the feed. Completely Randomized Design (CRD) was used in this research, with different addition of powdered *Spirulina* sp. (0%, 0.3%, 0.6%, 0.9%, and 1.2%) in the feed as a treatment. All treatments were replicated three times. The parameter that were analyzed include increased colour brightness fish, absolute weight and length growth and cell observation kromatofor. The increase of brightness of comet fish was measured using (modified Toca Colour Finder) and observation kromatofor cells (descriptive analysis). ANOVA results indicated that the addition of *Spirulina* sp. powder in feed influence the increase in colour brightness and absolute weight and length growth. The addition of 1.2% powdered *Spirulina* sp. give the best results with the average increase of 7.52 in the colour of the fish, the growth in the absolute weight of 8.75 grams and 4.66 cm long growth. Water quality condition during the study was still in optimum condition, the temperature range 27 to 28 °C, pH ranged from 6.12 to 6.22 and DO ranges from 5.70 to 6.37 ppm.

Keywords: *comet fish, Spirulina* sp. *flour, Color intensity, water quality*