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AUTOLYZED YEAST AND WHOLE YEAST AS FEEDING STIMULANT IN EUROPEAN SEA BASS DIETS Dicentrarchus labrax

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Spray dried autolyzed yeast and whole yeast (Saccharomyces sp.) were evaluated as feeding stimulant in sea bass diets. Experimental trial was divided in two phases, and diets were marked with red and orange food colorants. Control diet showed yellow palid color. In a previous study it, was demonstrated that these colors do not affect self-selection of European sea bass. The semi-purified diets were formulated to be isoproteic (46% CP) and isoenergetic (4200 kcal/kg GE) plus supplementation of 2% and 5% of autolyzed yeast - AY (phase 1) and whole yeast - WY (phase 2) and diets were marked with orange and red colorant respectively. Fish from phase 1 were weighted (312.3 \pm 56.3 g) and stocked in four 75-L aquaria (3 fish/aquarium) with flow-trough recirculating system with artificial seawater. Aquaria were placed in isolated chambers with controlled temperature 23±1°C, photoperiod 12L:12 D (200 lx: total darkness), salinity 28 ± 2‰ and equipped with mechanical and biological filter. Adults were fed handly once a day (10:00-h) at 2.4% of total biomass (0.8% of each experimental diet). To phase 2 was utilized other group (107.9 \pm 19.7 g) in four 75-L aquaria at density of 4 fish/aquarium and kept at the same experimental conditions, during 10 days for each phase. Diets were weighted separately and before feeding were mixed and offered in each aquarium to give fish free choice to select diets. Water flow and aeration were turned off. Fifty minutes after feeding, uneaten pellets in each aquarium were siphoned out and counted. Feed intake was calculated by subtracting the total weight of fed pellets by dry weight of uneaten pellets that was estimated by multiplying the number of pellets by the average pellet dry weight and expressed as (g/kgBW/ day). Percentage of self-selection was measured by the relation between the numbers of eaten pellet and the number of suministred pellet (estimated by average dry weight). Average self-selection and feed intake were analyzed by Tukey's test. Control and 5% AY supplemented diet had superior selection (P < 0.05) when compared with 2% AY diet. Supplementation of whole yeast in sea bass diets affected self-selection and indicated significantly difference (P<0.05) between control and 5% WY supplemented diet. However, both autolyzed yeast and whole yeast did not affect feed intake. Supplementation of whole yeast was ineffective to stimulate feed responses. Autolyzed yeast showed a feeding stimulant potential to compound diets for European sea bass.

KEYWORDS: Sacharomyces sp., marine fish, palatability.