



Evaluation of *Sargassum fluitans* (Borgessen, 1914) As an Alternative Energy Source in the Production of Feeds for African Catfish (*Clarias gariepinus*, Burchell, 1822)

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ABSTRACT

The study investigated the possibility of utilizing seaweed (*Sargassum fluitans*), as an alternative source for maize in the diet of *Clarias gariepinus*. *Sargassum fluitans* were collected by handpicking during low tides from the shores of Suntan Sea Beach, Badagry, Lagos State, Nigeria. The seaweed was washed thoroughly with borehole water, rinsed with distilled water, and sun-dried for 1 week. The experimental diet consists of a control; ingredients including maize but no *Sargassum* meal at all as treatment 1, 5% maize meal replaced with *Sargassum* as treatment 2, 10% of maize meal replaced with *Sargassum* as treatment 3, 20% of maize meal replaced with *Sargassum* as treatment 4, *Sargassum* only, no maize at all, as treatment 5. A total of 180 fingerlings of *Clarias gariepinus* (20–25 g weight and 14–16 cm in length) were stocked in 1000-litre capacity tanks at the rate of twenty (20) fish per tank. The various proportions of sargassum replacing maize were allotted to the fish stocked in the tanks in replicate. The fish were reared for 3 months on the experimental diet. The results showed that fish fed with *Sargassum* only (no maize) had the highest ($43.14 \pm 9.57\%$) growth performance index, followed by the control diet ($38.15 \pm 8.76\%$). However, fish fed a 10 % *Sargassum* diet had the lowest ($34.86 \pm 7.66\%$) growth performance index. In conclusion, *Sargassum* is a potential alternative to maize in the diet of *C. gariepinus*. *Sargassum* is 100% free, and its processing is very cheap. Hence, catfish farmers can increase their income by reducing the cost of feed used for their fish.

Keywords: Maize replacement, *Sargassum*-based diet, *Clarias gariepinus*, growth performance

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