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## Growth, Feed Utilisation and Condition Factor of *Clarias gariepinus* Fingerlings Fed *ad-libitum* in Different Hatcheries

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### Abstract

A farm adaptive research was carried out on the production of African catfish juveniles (*Clarias gariepinus*) within three weeks. *C. gariepinus* fingerlings of average weight  $0.84 \text{ g} \pm 0.55$  were raised under two different hatchery conditions (outdoor and indoor) and fed with three different commercial feeds namely; Le-Gouessant, Coppens and Multi-Feed. The commercial feeds were fed *ad-libitum* to the fingerlings. The feeds were accepted and utilised for growth. In the outdoor hatchery there were significant differences among the mean values of weight gain while percentage weight gain showed no significant difference ( $p > 0.05$ ). *C. gariepinus* fed Le-Gouessant diet had the best feed conversion ratio compared to those fed Coppens and multi-feed. For the indoor hatchery, there were no significant differences ( $p > 0.05$ ) among the values of weight, specific growth rate and percentage weight gain of *C. gariepinus*. There were no significant differences ( $p > 0.05$ ) among the mean values of feed conversion ratio of fish fed with the respective feeds in the indoor hatchery. This study, therefore, indicated that Le-Gouessant would be best converted in outdoor hatcheries while any of the feeds could be used in indoor hatcheries. The length-weight relationship and condition factor of fish fed in the respective hatcheries were also calculated,  $\text{Log } W = 0.0125 + 2.8460 \text{ log } L$  and  $\text{log } W = 0.0708 + 2.6147 \text{ log } L$  for Le-Gouessant;  $\text{Log } W = 0.0536 + 2.6023 \text{ log } L$  and  $\text{log } W = 0.0533 + 2.7933 \text{ log } L$  for Coppens; and  $\text{Log } W = 0.0744 + 2.510 \text{ log } L$  and  $\text{Log } W = 0.1031 + 2.5230 \text{ log } L$  for multi-feed. The fish exhibited negative allometric growth patterns when values of  $b$  were less than 3.

**Keywords:** Catfish, *Clarias gariepinus*, condition factor, feed utilisation, growth,