



# Investigation of Farm Pond Based Integrated Floating Cage Aquageoponic System under Scarce Rainfall Situation in Andhra Pradesh

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**Abstract:** The efficiency of farm pond technology used for supplemental irrigations in dry land area can be improved by growing vegetables and fish in the farm ponds by 'Integrated Cage Floating Aqua-geoponic System' (IFCAS) at college farm, College of Agricultural Engineering, Madakasira during March-June, 2018. The main aim of the research was to determine the size of IFCAS structure for floatation on water, growth and productivity of ridge gourd, bitter gourd and fishes. The study indicated that for proper floating of IFCAS structure in the farm pond, the optimum size of IFCAS structure was 6.75 m<sup>2</sup> (2.7 x 2.5 m) with 125 kg weight. The bitter gourd crop resulted in higher fruit yield and economic returns as compared to ridge gourd. Further, growing fish (*Oreochromis niloticus*) in IFCAS structure resulted an income of Rs.600 per structure in three months period. The economic analysis of IFCAS indicated a B:C ratio of 2.2.

**Keywords:** Farm pond, IFCAS, Agriculture, Fish production

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