Assessment on abundance and chemical composition of local feedstuffs used by Tilapia fish farmers in Tanzania

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Although there are many aqua-feeds producers in Tanzania but the quality of their feeds produced are not promising to aqua-farmers despite of their high price. Therefore our present study aimed to assess abundance and nutritive values of local feedstuffs used. A surveyed study was conducted in three regions, namely Mbeya, Ruvuma, Dar es Salaam and Zanzibar from January 25 through April 21, 2017 using a structure questionnaire form whereby 98 aqua-farmers were randomly selected and interviewed in three governorates. Along with, more than 30 feedstuffs samples of interest were collected and transported to Sokoine University of Agriculture for proximate and other nutritive value analysis. According to baseline survey conducted showed that about 80% of the interviewed aqua-farmers have started their aquaculture operations in two years ago whereby most cultured species were Oreochromis niloticus, Oreochromis urolepis hornorum and Clarias gariepinus. Meanwhile, about 100% of the surveyed farmers raised their fish semi-intensively. The average weight of fish harvested was 300g. Additionally, most used local feedstuffs in the surveyed sites were maize bran (28%), followed by rice polish (10%), and fish meal (10%). According to our proximate analysis study revealed that some of the sample like cock shrimp (Exhippolysmata oplophoroides), spent brewer’s yeast, soy bean fat, and soy bean contained high protein content of 48.05%CP, 71.74%CP, 34.12% CP, 40.36% CP and 41.35% CP, respectively while commercial feeds sold in the country were contained protein content of 53.62% CP (feed imports), 31.3%CP and 23.78% CP (local commercial fish feeds). The results of this study has provided a guidance for fish feed producers (factories/companies) and hatcheries operators, as well as aqua-farmers of both small and large scale operation systems.