

ABSTRACT

The effluent (sludge) from biogas plant contained fertilizer with percentage of N, P, K are 2.85, 0.44 and 9.25 respectively could be used in the farm for culturing green algae, vegetable and crop. The cultured green algae, Chlorella spp. as complementary diet, flew into fish pond where Tilapia nilotica fed on natural food such as plankton and duckweed are kept. It was found that Tilapia nilotica fed on combined food (Chlorella spp. & sludge & natural food) gave high relative growth rate (4.31) to the natural food alone (2.35). The Kale plant treated with the digested sludge and fertilized by Chlorella algae from the fish pond gave the highest yield (10400 kg./rai) in comparison with other treatments. The yield in corn was obtained from the sludge fertilized and unfertilized are 2133, 1364 kg./rai respectively.

Key Words : Effluent, Biogas, Integrated Farming System (IFS)