# COMPARISON OF GROWTH RATE OF PLANKTONS IN WATER FERTILIZED WITH BIO-GAS SLUDGE AND DUCK LITTER.

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The level of base fertilizing and the time taken for optimum plankton growth are important criteria in determining the day of stocking of fish.

Either air dried bio-gas sludge (dairy) or duch litter was applied randomly at 10,000 kg/ha to eight cement pounds of 0.25 $m^2$. Four cement ponds were kept as the control without fertilizing. Physico-chemical parameters and plankton numbers were monitored every other day during the first 18 days after fertilizing, without introducing fish into the tanks. Analysis of variance with Turkey's procedure was used for statistical calculations.

Morning water temperature, total alkalinity, total hardness, DO concentration, pH and phytoplankton numbers showed significant variation ($p<0.05$) in the fertilized ponds when compared with the control ponds. However, maximum phytoplankton numbers were reached on day 4 - 5 in ponds with dairy bio-gas sludge, while those with duck litter reached the peak only after day 13.

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