CONCLUSIONS (credits)

1. As a method of waste water treatment, high rate aerobic pond is far superior to activated sludge process, or trickling filter in certain respects as it purifies at one stroke and to a very high degree, removes both organic and inorganic substrates, produces huge quantities of algal protein which can be used as animal feed and the effluent does not cause eutrophication in receiving waters.

2. A method for quantitative evaluation of integrated "algal-bacterial symbiosis" taking place in high rate aerobic ponds has been devised for the first time making use of the two most indispensable parameters, COD and algal biomass.

3. These studies have also provided some basic principles which can be used for prediction of operational performance of new or existing ponds. From the determined COD values of a waste water it is possible to predict the quantity of algae that can be produced from them and thus how much of photosynthetic oxygen can be made available for bio-oxidation of organic matter in organic waste.

4. The mechanisms of purification in high-rate ponds has been explained in detail. It is not a case of "total oxidation" de jure but it is a case of "extended aeration" with certain differences.

5. Measurement of catalase activity is a rapid test which can be employed at any time for evaluating the efficiency of any waste water treatment process. The estimation of catalase activity will considerably help in reducing the work load in determining the important parameters - COD, BOD_5 and turbidity - in any waste water testing laboratory.