Thesis Title	A study of the correlation between type and size of ponds and fish yield
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Date of Gradution	April ,1, B.E. 2537 (1994)

ABSTRACT

Fish yield in natural partially rehabilitated and constructed ponds differ. It has been widely discussed physical characteristics of ponds have some effects on fish yield. This study therefore aims at finding the correlation between type and size of ponds and fish yield.Ponds are categorized into 3 type : natural, partially rehabilitated and construction; and Data from 27 ponds in 12 provinces have been collected for three years (1988-90) and analysed.

The results are as follows:

(1.) Water qualities.

- Temperature,conductivity,transparency, pH,dissolved oxygen, CO_2 and nitrate are significantly correlated with types of ponds at 0.05 proability level.

- Transparency,conductivity,alkalinity,hardness,CO_2 nitrate and salinity are significantly correlated with sizes of ponds at 0.05 probability level.

2. Primary productivity (Chlorophyll A)

There is no significant correlation betaween types and sizes of ponds and chlorophyll A. However partially rehabilitated ponds have significant correlation with chloropyll A.

3. Fish yield

IT was found that only pratiallty rehabilitated ponds of 2-10 rais showed significant relation with fish yield at 0.05 probability level.

In conclustion there are four common factors : transparency,conductivity, CO_2 and which are significantly correlated with both types and sizes of ponds.

The results also indicated that in developing fish ponds,more attention should be paid patterns of pond rehabilition. Especially,for the size of 2-10 rai, the ponds should not be to excavated so that physical effects from turbidily are reduced.