

Thesis                    The study of saline soil blue green algae in  
                             northeast of Thailand, case study : Nakhon  
                             Ratchasima province.

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Date of Graduation    14 June B.E. 2533 (1990)

#### Abstract

29 species in 49 strains of blue green algae were collected from saline soils of Nakhon Ratchasima province and the relation between blue green algae distribution and soil properties presented that the soil reaction (pH) was significantly correlated with BGA population and the BGA occurrence were high in available phosphorus of soils at 7.26 ppm, soil electro-conductivity at 3.72 mmhos/cm. and in fine texture soils.

These blue green were tested for their salt-tolerance to select the high salt-tolerance blue green algae that utilized for study their charecteristic. The study of blue green characteristics were presented by growth constant, salt tolerance which is exhibited by median lethal concentration ( $Lc_{50}$ ) and nitrogen

fixation activity in liquid media and saline soils in control condition. The result presented that mixed culture of BGA is suitable for cultivation in saline soils and showed higher salt tolerance and nitrogen fixation activity than the unialgae culture.