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SARIN TANTIPUKNONT : GROWTH AND SURVIVAL RATE OF THREE MANGROVE SEEDLINGS ON THE ABANDONED SHRIMP POND, CHANGWAT SAMUT SONGKRAM.

THESIS ADVISOR : ASSO. PROF. NITTHARATANA PAPHAVASIT,

THESIS CO-ADVISOR : PROF. SANIT AKSORNKOAE, Ph.D., 170 PP.

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The survival rate and growth of three mangrove seedlings planted on the abandoned shrimp pond, Changwat Samut Songkram were investigated. LATIN SQUARE 3 x 3 was the experimental design for plantation. Each mangrove species were cultivated at 1 x 1 meter spacing. The size of each subplot was 9 x 9 meters with 100 seedlings. The survival rate and growth was investigated every two months while the soil parameters were sampled at the beginning of plantation and every four months. After 1 year old plantation, *R. apiculata* had the highest survival rate and growth at 66.67 percent and 45.73 centimeters respectively. *B. gymnorrhiza* had the median survival rate and growth at 41.33 percent and 44.87 centimeters respectively. As for *C. tagal*, they had the lowest height growth at 11.22 centimeters. After ten months plantation, they all died out. As for the soil parameters in this abandoned shrimp pond, the concentration of inorganic nitrogen group were lower than in the natural mangrove. The ammonia, nitrite and nitrate concentrations were 0.488-2.392, 0.001 - 0.044 and 0.039 - 0.355 ppm. while in the natural mangrove were 8.36 - 27.11, 0.07 - 0.13 and 0.94 - 1.34 respectively. Soil pH (6.8 - 7.5), phosphate (1.539 - 7.9 ppm.) and calcium (3607.20 - 8216.40 ppm.) concentrations were higher than the natural mangrove (5.8 - 6.5, 0.16 - 0.26 and 510.4-1033.1 respectively). While potassium, magnesium and sodium concentrations at 71.072 - 1746.07, 1337.05 - 8786.60 and 5091.88 - 11029.13 ppm. were similar to the natural mangrove (435 - 2050, 1870 - 2775.4 and 4125 - 10890 ppm.). The soil moisture content was 54.17 - 63.51 percent. Soil texture were silty clay loam and clay loam. This investigated shrimp pond was not at all a wasteland. The suitable mangrove species that could survive and thrive were *R. apiculata* and *B. gymnorrhiza*.

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ลายมือชื่อผู้ผลิต *Sarin Tantipuknont*

ลายมือชื่ออาจารย์ที่ปรึกษา *Nittharatana Paphavasit*

ลายมือชื่ออาจารย์ที่ปรึกษาร่วม *Sanit Aksornkoae*