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WIRATCHADA PHAETHONG : STUDIES ON SALINITY AND NITRATE TO THE  
SEED GERMINATION AND SEEDLING GROWTH OF SEAGRASS *Enhalus acoroides*. THESIS  
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The purpose of this study is to investigate the suitability of salinity and nitrate amount for the seed germination and seedling growth of seagrass *Enhalus acoroides*. This experimental study researched 5 levels of salinity and 4 levels of nitrate amount. The experiment was planned by Factorial. Ten seeds were placed each in experimental unit. The units were placed in synthetic seawater using Umebayashi formula (1961) and in natural seawater. The seedlings cultured in natural seawater were used to compare with the seedlings from the experimental unit. The experiment took 4 weeks. The criteria for deciding suitable factor levels were seed germination rate, seedling survival rate and seedling size.

The result showed that the seed germination rate and seedling survival rate in each of the experimental units was 96-98% with no significant difference among them. The best seedling size was found at 20-30 ppt. salinity and 0.01 mg/l  $\text{NO}_3^-$ . Seedling cultured in 25 ppt. And 0.01 mg/l  $\text{NO}_3^-$  gave the largest seedling size, compared with seedlings cultured in natural seawater. The result was no significant difference between them. Then used the root data considered with, the result can make this study that suggest suitable factor levels to culture *Enhalus acoroides* seedling for transplant is 20-25 ppt. salinity and 0.01 mg/l  $\text{NO}_3^-$ .

The result of this study can be used as a guideline for seagrass meadow propagation or to renew destroyed seagrass meadow.