

ABSTRACT

THE EFFECT OF AERATION ON BABY KAILAN (*Brassica oleraceae* var. Achejala) GROWTH IN FLOATING SYSTEM OF HYDROPONIC TECHNOLOGY INSIDE AND OUTSIDE THE GREENHOUSE

By

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This research is aimed to find out the effects of aeration on baby kailan (*Brassica oleraceae* var. Achejala) in floating system hidroponic technology inside and outside the greenhouse. This research used a factorial in a split plot design with 2 factors, namely factor I (inside and outside greenhouse) and Factor II (aeration). The first factor had two levels, inside (N0) and outside (N1) greenhouse. The second factor consisted of 3 levels; mechanical aeration (A1), hanging styrofoam (A2) and floating styrofoam (A3); resulting in six treatment combinations with three replications. The data was analyzed using ANOVA (analysis of variance) at 5 % significant level and folowed by LSD. The results showed that the inside and otsoutside greenhouse significantly affected growth and yield. The use of aeration outside the greenhouse had the most maximal production. The hanging styrofoam system (A2) inside the greenhouse showed the lowest production cost (fertilizer and electricity. None of the environment and nutrition parameters (EC, DO and pH) was significantly different during the research, implying that the environment and nutrition solution were hogeneous and did not affect the plant growth.

Keywords: aeration, baby kailan, greenhouse, floathing system, production