

# **PENGARUH VARIASI METODE TANAM DALAM SISTEM HIDROPONIK TERHADAP KUALITAS PERTUMBUHAN *BABY KAILAN* (*BRASSICA OLERACEA VAR. ALBOGLABRA*) DAN PERFORMANSI KEUNTUNGAN BISNIS**

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## **ABSTRACT**

As the era of hydroponics develops, many innovations occur, starting from variations in planting media, variations in organic fertilizer, types of plants, to variations in installation methods. The development and progress of this cultivation system includes the Wicks technique, Deep Flow Technique (DFT), and Nutrient Film Technique (NFT) which are often used for farming. The aim of this research is to find out how various planting methods in a hydroponic system affect the growth quality of Baby Kailan (*Brassica Oleracea* Var. *Alboglabra*) and business profit performance. By varying the Wicks planting method, Deep Flow Technique (DFT), and Nutrient Film Technique (NFT) as independent variables and using plant types and nutrients as control variables. This research used the Completely Randomized Design (CRD) method. Treatments included various planting methods with 27 repetitions of plants from each treatment and were observed every 3 days for 24 days. The parameters observed in this research include agronomic parameters and technical data analysis. The method of installing hydroponics has a significant effect on plant height, number of leaves, widest leaf diameter and wet weight of baby kailan plants. The axis method has the greatest influence on plant height parameters. The NFT method has the highest influence on the number of leaves, the DFT method has the highest influence on the test parameters for widest leaf diameter and wet weight of baby kailan plants. Qualitatively, the plants produced using the DFT method are superior to the other 2 methods. Qualitative parameters are leaf color and shape, stem shape, and root shape. This is also in line with the research results that the highest wet weight using the DFT method was 30.63 grams. The hydroponic installation method has a significant effect on the profitable performance of the baby kailan cultivation business. The highest profit amount was IDR 3,286,000 using the DFT method with a B/C Ratio of 1.57 and an R/C Ratio of 2.57. The DFT installation method is the most superior method in the hydroponic business of baby kailan plants in this research in terms of plant quality and business profit performance compared to the NFT and Wicks methods.

**Keywords:** *Hydroponics, Cost Analysis, Agribusiness, Planting Methods*