

ABSTRACT

One of the effects of long-term use of chemical nutrients on the cultivation of hydroponic systems is not absorbed all these nutrient elements by plants. Therefore, there needs to be efforts to replace these chemical nutrients with natural types of nutrients. In this study has been made the potential of natural nutrients for chili plants with hydroponic systems, which is the natural nutrients made from pork bean leaves and golden snail eggs. Control is carried out on pH and TDS levels where the setpoint has been adjusted to the pH and TDS levels of hydroponic chili plants. From the calibration results obtained the accuracy of the pH sensor by 99.8% and the TDS sensor by 89.04%. As for the results of observations of the growth and development of hydroponic chili plants until the 57th day, for those who use natural proteins obtained a plant height of 29 cm, leaf width 6.5 cm, and leaf length 12.23 cm, which uses chemical nutrient AB-Mix obtained plant height 15.5 cm, leaf width 4.95 cm, and leaf length 9 cm, and plants that grow using soil media where the height of the plant is 4.25 cm, the width of the leaves is 1,625 cm, and the length of the leaves is 2.6 cm.

Keywords: Golden Snails Eggs, Hydroponics, Pork Bean Leaves.