

## ***ABSTRACT***

The agricultural sector in Indonesia is very important, especially the tropical weather that is owned makes the land in the country of Indonesia very fertile. One vegetable crop that is becoming a concern in Indonesian society is chili. However, at present, very little land is used for planting plants due to the large number of settlement developments or public facilities. Therefore, innovation is needed to find new ways to grow plants without using open land. The solution to this problem is to use artificial energy from light bulbs for the process of plant growth. This study aims to determine the effect of differences in the intensity of light received by chili plants in the room.

This research was conducted in 4 nurseries with an intensity of 5 lux, 17 lux, 43 lux, 71 lux using red LED lights. Observations included plant stem height, and plant leaf length. The results showed that the greater the intensity that was given, the higher the stem of the plant with the optimal intensity that could be used ie 71 lux produced a maximum plant height of 4.3 cm in 21 days.

**Keywords :** *Light intensity, Humidity, Chili*