

ABSTRACT

In overcoming the limitations of agricultural land and climate in the future, forcing humans to find solutions. One solution that can be offered is to use hydroponics in an enclosed space with an LED light source. This study aims to determine the various types of lamp colors that are conducive to the growth of pakcoy plants using the axis system hydroponic method in a closed room. The seedling produced an average stem height of 7.8 cm and the number of leaves was seven. In an enclosed space, designed using red LEDs, blue LEDs and white LEDs. Data collection can only be done up to 12 days, because the next day the plants die. The dependent variable was the addition of stem height and number of leaves. The results obtained showed that the pakcoy plants irradiated with white LEDs had a stem height of two cm and the number of leaves three, blue LEDs with a stem height of 1.1 cm with two leaves, and an LED with a stem height of 0.8 cm. with two leaves. The control room is coated with aluminum foil, for the red LEDs are 0.3 cm tall with one leaf, the blue LEDs are 0.6 cm high with two leaves, and the white LEDs are 1.1 cm high with four leaves. sheet. While in open space, the height of the stem is 1.7 cm with seven leaves.

Keywords: quasi-experimental, pakcoy, axis system,