GROWTH AND YIELD RESPONSE OF PAGODA MUSTARD (*Brasicca narinosa* L.) TO THE CONCENTRATION OF AB MIX AND PLANTING MEDIA IN THE SUBSTRATE HYDROPONIC SYSTEM

By: Ketut Tantra

Supervised by: Oktavia Sarhesti Padmini and Tutut Wirawati

ABSTRACT

Pagoda Mustard is a type of vegetable from the genus Brasicca that can be cultivated using a hydroponic system. Things that need to be considered in the development of hydroponic technology include the selection of planting media (substrate) and setting the AB Mix concentration used. So it is necessary to strive to develop an efficient system of administration of AB Mix solutions taking into account the type of substrate and the concentration of AB Mix solution used. The purpose of this study was to determine whether there were interactions between the two treatments on the growth and yield of mustard greens and to determine the concentration of AB Mix solution and the appropriate growing media. The study was conducted on February 28 to April 25, 2019 on Tantular Street No.424, Condong Catur, Depok Sleman, Yogyakarta. Place height is 100 masl. The research method used was a field experiment compiled with a draft RAKL environment (Complete Complete Randomized Design) using the Split plot experimental design. Main plot is AB mix concentration, namely: K1 = 500 ppm, K2 = 1000 ppm, K3 = 1500 ppm and sub-plots are kinds of planting media, namely: M1 = husk charcoal, M2 = Poor sand: husk charcoal (1: 1), M3 = Poor sand: cocopeat (1: 1). Each treatment combination was repeated 3 times to obtain 27 experimental units. In 1 unit of experiment there were 8 plants. Obtained 8x27 = 216 experimental plants. The results showed that there was no interaction between the AB Mix concentration and the growing media. The concentration of AB Mix K2 solution (1000 ppm) gave the best results on root volume and plant dry weight. Media for husk charcoal planting: cocopeat (1: 1) gives the best results on root volume.

Keywords: substrate hydroponic, pagoda mustard, planting media, nutrition.