

ABSTRACT

Rice is the staple food for most of the Indonesian population, but in 2013 Indonesian rice productivity of 51.52 quintals / hectare decreased in 2014 to 51.35 quintals / hectare. One of the factor that decrease rice production was pickereel weed. Therefore, it is necessary to conduct a study aimed at finding out the physio-morphological character of the pickereel weed in various soil moisture levels, obtaining soil moisture content that can suppress the growth of weed authority and knowing the effect of various soil moisture content on the physio-morphology of rice plants. The study was conducted with a single factor experimental method that was compiled in a Completely Randomized Design (CRD). The treatment was soil moisture content consisting of four levels i.e field capacity, macak-macak soil conditions, 2 cm flooding soil conditions and 5 cm flooding soil. In addition, there is a follow-up treatment, i.e the condition of rice cultivation according to the Good Agricultural Practice. The result of the experiment showed planting media on field capacity and macak-macak can suppress weed height, number of weed leaves, plant growth rate, root length, canopy dry weight and pickereel weed root, while at 2 cm flooding and 5 cm flooding can increase pickereel weed growth which is shown by the height of the pickereel weed, the number of leaves, leaf area, specific leaf area, weed growth rate, root length, fresh weight and canopy and root dry weight. Planting media on field capacity and macak-macak did not reduce rice height, the number of rice leaves, leaf area, leaf area index and root length which did not differ greatly from the flooding moisture content, whereas at flooding of 2 cm and 5 cm can increase rice growth shown in the height of rice, the number of rice leaves and leaf area of rice.

Keywords: physio-morphological, soil moisture, paddy, pickereel weed.