

ABSTRACT

White turi seed have hard seed skin that are slow to germinate due to the difficulty of the imbibition process, this trait includes seed dormancy. Break dormancy can be done by using organic materials such as natural growth regulators (ZPT). The purpose of this study was to determine the response of several natural growth regulators (ZPT) and the length of soaking time to the germination of white turi seeds. Study used factorial completely randomized design (CRD) 4x4 factorial pattern consisting of two factors with three replications. The first factor is the provision of growth regulators (ZPT) with 4 levels of treatment, namely control, baby corn extract 75% concentration, water hyacinth root 75% concentration, tomato 75% concentration. The second factor is the length of soaking time with 4 levels, namely 0, 3, 6, 9 hours. The parameters observed were water content, wight of 1000 seeds, maximum growth potential, germination power, growth speed, simultaneous growth, vigor index, plant height, number of leaves. The results showed that there was no interaction between natural growth regulators (ZPT) and the length of soaking time for parameters on the germination of white turi seeds, a single treatment of natural growth regulators (ZPT) gave a real effect on the variables of germination, plant height on day 19, number of leaves on day 16 and 19. The best treatment of natural growth regulators (ZPT) is found in 75% water hyacinth root extract which can be seen in the speed of growth and seed vigor index. The length of soaking time has a significant effect on the variables of germination and uniformity of growth and a very significant effect on the variable of maximum growth potential, the best soaking time treatment is 6 hours which can be seen in the germination of seeds.

Keywords: baby corn, germination, soaking time, tomato, viabilitas, water hyacinth root.