

Mery Nasrika. (190311100030). Performance of Growth and Yield of 7 Genotypes of Peanut Plant (*Arachis hypogaea* L.) in Dry Land of Madura. Supervised By : Ir. Achmad Djunaedy, M.P And Dr. Ir. Hj. Siti Fatimah, M.Si.

ABSTRACT

Peanut (*Arachis hypogaea* L.) is one of the palawija crops that produces seeds as a source of protein and vegetable oil which has great economic value. The type of genotype affects the level of peanut production. This study aims to determine the growth performance and yield of 7 genotypes of groundnut (*arachis hypogaea* L.) in the dry land of Madura. This research was conducted at the Experimental Field of Agroecotechnology Study Program, Faculty of Agriculture, University of Trunojoyo Madura in January - May 2023. The research design used was a Randomized Block Design (RBD) with 4 local Madura cultivars and 3 loose varieties (elephant, zebra and kidang varieties. The quantitative data obtained were tested using the Analysis Of Variance (ANOVA) at 5% level and further tested using DMRT at 5% level. Qualitative data were tested using the NTSYS version of the program. 2.1. Based on observations of morphological characters it is known that the 7 varieties of peanut have varying diversity. In 25 morphological characters of peanut, there are 9 characters that have similarities and those that have differences are 19 morphological characters. Based on the results of research on quantitative characters it shows that all treatments have a significant effect on the parameters of plant height, number of branches, number of leaves, number of pods per plant, pod weight per plant, number of pods more than one, number of seeds per plant, seed weight per plant, pod wet weight, pod dry weight, and dry weight of 100 seeds. The kinship between the 7 peanut genotypes has a similarity of above 55%.

Keywords: peanut, genotype, morphological characters