

**Modifikasi Media Murashige And Skoog dan Konsentrasi Sukrosa pada Kultur In Vitro Tunas Aksilar Planlet Melon (*Cucumis melo L.*) Modifications of MS Medias And Sucrose Concentration On The Growth of Melon's Plantlet Axillary Sprout In The In Vitro Culture, supervised by Netty Ermawati, SP. Ph.D and Titien Suhermatien, MP.**

**Gian Zella Ekowulan W.**

Program Studi Teknik Produksi Benih, Jurusan Produksi Pertanian

**ABSTRACT**

*The production seed of Melon in Indonesia is insufficient, therefore to fulfill the market demand need to import seed. One effective way to reduce the importing seed is by using that the techniques propagation through the invitro culture. The results of previous study in micropropagation melon showed that the media MS+30 grams/L of sucrose without any additional hormons, provided the best result on the growth of melon in the invitro culture. The aims of this study is to determine the strength of MS media and the optimum concentration of sucrose to optimize the growth of melon planlet invitro. This research was conducted at Central Laboratory for Biosains State Polytechnic Of Jember. This research was designed using a Completely Randomized Design with two factors: the first factor was the strength of MS media (MS full, 1/2 MS, 1/4 MS) and the second factor was the concentration of the sucrose (30 g, 20 g, 15 g). Each treatment was repeated 5 times. Parameters consisted of amount of total shoots, amount of total roots, total segment and total of leaf, as well as additional parameters that root growth speed and shoots emerging speed. Furthermore, the data obtained were then analyzed using ANOVA, if treatment showed significant effect on the observed variables, then tested using DMRT (Duncan's Multiple Range Test). Based on the results of the discussion that has been done, it can be concluded that the media 1/4 MS showed significant effect on the parameter of shoot emerging speed. Concentration of 15 grams of sucrose showed significant effect on the number of leaves and number of segments. Interaction strength media MS and sucrose concentration significantly affected the speed of shoots growth and the number of roots. The best result in this research was shown in the treatment of M3S2 that consists 1/4 MS media + 20 grams/L of sucrose.*

**Keywords:** Growth, *Cucumis melo L.*, MS, Sucrose