## **ABSTRACT**

A research Males flowers substitution concentration study with 2, 4 D plant growth regulator application and appropriate time on the pondoh sallaca (Salacca edulis Reinw). This research aimes to study and obtained the auxin concentation and appropriate time to pondoh sallaca. This research conducted on April until July 2016 in Laboratory of Kultur in vitro and Pambregan village, Turi, Sleman, Yogyakarta.

The research used experimental method the single factor that organized Randomized Complete Block Design (RCBD) of 3 replications. The examined factors were auxin concentration consist of Three levels are 50 ppm, 100 ppm and 150 ppm when the sheath bunches opened about 25%, 50% and 75%. There were obtained nine combination of treatments with a conventional pollination as comparing. Variables observed in this research were amount per cluster, weight per cluster, volume per cluster, volume per fruit, amount per fruit, weigh per fruit, seed amount per fruit and seed weigh per fruit.

The resulted of this research revealed that 2, 4 D could substitute males flowers on pondoh sallaca and the best concentation around of 2, 4 D is 150 ppm and appropriate time to pondoh pollination is 75%.

Keywords: pondoh Sallaca, Substitution, auxin, concentration, time of application