

ABSTRACT

Efficiency Use of PGR NAA and BAP On The Growth of Young Leaf Explants and Petiole Iles iles (*Amorphopallus muelleri. Blume*)

Zulkarnain Wahib, Ir. Djenal, MP. Ir. Bambang Sugiyanto, MP. Seed Production Technology, Department of Agricultural, State Polytechnic of Jember.
15 Agustus 2014.

Iles iles a family type of taro plants. These plants produce tubers of flour glukomannan potential to be used as raw material for various industrial needs such as food industry, pharmaceuticals, cosmetics, textiles, plastics, synthetic leather, paints, paper etc. Therefore iles iles need to be cultivated and developed intensively. The problem today is the availability of quality seeds of plants iles iles for large scale cultivation. Seeds of this plant is quite difficult to obtain in large quantities in a short time, especially if it is done in the conventional seed supply. Therefore, tissue culture techniques are needed to solve this problem. Tissue culture techniques have been shown to produce several types of plant seeds including iles iles. Selection of explants and culture media are indispensable to the success of culture iles iles, therefore this study was conducted to obtain explants and culture media that can provide the most optimal growth effect. This study used a factorial completely randomized design, which uses two factors, namely the type of explants (P) in the form of a young leaf explants (P1) and petiole explants (P2). The second factor is the composition of the culture medium (V) consists of ms0 (V0), MS + 2ppm BAP (V1) and MS + 2ppm BAP + NAA 0.2ppm (V2). The combination of these two factors, namely the treatment done P1V0, P1V1, P1V2, P2V0, P2V1, P2V2. and each treatment was repeated eight times replications. The results showed that the treatment gives significant effect on the speed of callus formed, percentage callus formed, speed and number of shoots sprout, but had no significant effect on the speed of root growth. The best treatment for callus speed is P1V0 (8.75 days), percentage callus using P2V2 (87.5%), speed rooted using P2V0 (20.75 days), the speed of shoots formed P1V0 (33.13 days) and the number of shoots P2V2 (2.13 buds). From the research also showed that the use of the petiole explants (P2) give better effect to the growth of culture iles iles though not quickly formed callus. And the best growth medium using MS0 + 2ppm BAP + NAA 0.2ppm (V2) though this medium speed less than the maximum for the formation of callus.

Keywords : Iles iles, Callus, Explant, BAP, NAA