Respon Kalus Dari Anther Beberapa Varietas Padi (*Oryza Sativa* L.) Terhadap Penambahan Putresine. *Callus Response Derived From Anther Of Several Rice Varieties (Oryza sativa* L.*) By Additional Of Putresine.*
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ABSTRACT

Rice (Oryza sativa L.) is the main food source and an important crop in Indonesia. Improvement of rice cultivars through several techniques continue to be persued, including through anther culture. Anther culture can produce haploid and double haploid plants, that are able to release the formation of pure lines. Constraint of this technique is the low precentage of green planlets. The purpose of this study is to increase the production of green planlets by addition of polyamine compound i.e. putrescine. The study was conducted by using randomized block design with two factors. The first factor was several rice varieties consisting of V1 (TN1 Varieties), V2 (Gorontalo Varieties), and V3 (Varieties MSP 9). The second factor consisted of four concentration levels i.e P1 (50 ppm), P2 (100 ppm), P3 (150 ppm), P4 (200 ppm). The results showed that variety has significantly effect on callus weight, percentage of browning callus, shoots emerging rate, and number of green shoots. The MSP variety was produce the higest in increasing callus weight by 5,49 mg and 20 – 30 % percentage of callus browning. The fastest shoot emerging rate was shown in TN1 variety by 79 days after regeneration (DAR). While the higest green shoot was produced by Gorontalo variety with 13 green shoot. Putresine has significant effect on callus weight, percentage of browning callus, number of green shoot, and shoot emerging rate. Addition of putresine at a concentration of 150 ppm gives an effect on the increase of callus weight, shoot emerging rate and number of shoot. While the addition of putresine at a concentration of 200 ppm resulted in lowest percentage of browning callus i.e 30 – 40%.

Keywords*: Anther culture, Callus induction, Callus regeneration, Putresine, Rice.*