

ANALISIS RAPD KECIPIR POLONG PANJANG Psophocarpus tetragonolobus (L.) DC HASIL MUTASI IRADIASI SINAR GAMMA

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Abstract	<p>Winged bean [Psophocarpus tetragonolobus (L.) DC] is a tropical plant that has some benefits and is very suitable to be cultivated in Indonesia. Study about diversity of winged bean is very important to support the future development of winged bean. Increased genetic diversity can be done through mutation. Gamma ray is often used for inducing mutations. One of way to observe genetic diversity resulted by molecular mutation is using RAPD method. The purpose of this study was to identify the genetic diversity of winged bean resulted by gamma ray irradiation. The method used in this study was an experiment by using RAPD technique. Samples used were plant leaves that had been induced by gamma ray with a wavelength of 20 Gy, 25 Gy, and control plants that were not induced by gamma ray. RAPD were done by ten primers that were OPA 9, OPA 10, OPA 13, OPA 18, OPB 2, 3 OPB, OPB 6, 7 OPB, OPB 10, and OPB 11. Data were analyzed using GenAlex 6.1 Program. The percentage of polymorphic loci of winged bean population control was 47,54%, while in the 20 and 25 Gy treatment were 62,30% and 54,10%, respectively. The values of genetic variation based on the calculation of allele frequencies were 0,236; 0,202 and 0,194 for treatment of 20 Gy, 25 Gy and for control plants, respectively. Meanwhile, the value of genetic distance ranged from 0.08 to 0.32.</p>
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