

**MUTU FISIK DAN FISIOLOGIS BENIH DARI TIGA TIPE INDUK CENDANA  
(*Santalum album* Linn.) DI DESA PETIR, KECAMATAN RONGKOP,  
KABUPATEN GUNUNGKIDUL**

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**Abstrak**

Cendana merupakan salah satu komoditas legendaris dari kepulauan Nusa Tenggara dengan nilai jual yang tinggi. Namun dewasa ini populasi cendana di alam sedang mengalami penurunan. Untuk itu dibutuhkan benih-benih cendana yang bermutu untuk pengembangan cendana berikutnya. Upaya peningkatan produktivitas cendana memerlukan informasi dasar terkait hasil reproduksinya. Cendana di Desa Petir, Kecamatan Rongkop, Kabupaten Gunungkidul, memiliki berbagai macam tipe induk. Tiga tipe induk cendana meliputi induk soliter, induk klon, dan induk kelompok generatif tidak berkerabat. Ketiga tipe induk tersebut memiliki karakter fisik dan fisiologis benih yang berbeda. Oleh karena itu perlu dilakukan penelitian mengenai mutu benih dari tiga tipe induk cendana di Desa Petir untuk mengetahui hasil reproduksi terbaik guna memenuhi kebutuhan bahan pertanaman.

Penelitian ini dilakukan pada bulan Desember 2018 hingga Maret 2019 menggunakan metode sensus 100% dalam penentuan pohon sampel. Pengujian mutu fisik dan fisiologis benih meliputi pengukuran panjang dan lebar benih, penghitungan jumlah benih, dan pengujian viabilitas benih.

Hasil penelitian menunjukkan bahwa rata-rata mutu fisik dan fisiologis benih dari induk kelompok generatif tidak berkerabat lebih baik dibandingkan benih dari induk soliter. Hasil mutu fisik dan fisiologis benih dari induk kelompok generatif tidak berkerabat: jumlah benih 1424 butir, panjang benih 8,75mm dan lebar benih 7,19 mm, dan viabilitas benih 35,07%.

Kata Kunci : mutu fisik dan fisiologis benih, cendana, tipe induk

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***THE PHYSICAL AND PHYSIOLOGICAL SEED QUALITY OF  
THREE PARENT TYPES OF SANDALWOOD (*Santalum album* Linn.)  
IN PETIR, RONGKOP, GUNUNGKIDUL***

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***Abstract***

*Sandalwood is one of the valuable and legendary commodity of Nusa Tenggara islands. Recently the sandalwood population undergo degradation. Therefore, the sufficient supply of high-quality seeds is needed to support the continuous development of sandalwood. Efforts on increasing the sandalwood productivity requires basic information regarding to the seed quality. Sandalwood in Petir, Rongkop, Gunungkidul has at least three parent types i.e. solitary, clones, and generatively propagated (unrelated) parents. Previous study showed that each parent types had different genetic diversity and performed different mating systems. Therefore, it is predicted that the three parent types will produce different quality of seeds. This study aimed to determine the physical and physiological quality of seeds derived from three parent types of sandalwood, in order to find out the best reproductive output on fulfilling the needs of planting materials.*

*This study was conducted in December 2018 to March 2019 by 100% census methods in determining the sample trees. The physical and physiological tests on seeds include measurement on seed length and width, number of seeds, and viability test.*

*Result showed that the physical and physiological quality of seeds derived from generatively propagated (unrelated) parents is better than those derived from solitary parents. The generatively propagated (unrelated) parents produce 1424 seeds, 8,75mm length and 7,19 mm width, 35,07% of seed viability.*

*Keywords: the physical and physiological seed quality, sandalwood, parent types*

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