INTISARI

ISOLASI DAN IDENTIFIKASI JAMUR MIKORIZA ARBUSKULAR (JMA) PADA RHIZOSFER TANAMAN KARET (*Hevea Brasiliensis* Muell. Arg.)

INSOFA
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Tanaman karet (*Hevea brasiliensis* Muell. Arg.) adalah tanaman penghasil utama lateks alami. Jamur Mikoriza Arbuskular (JMA) merupakan jamur yang bersimbiosis mutualistik dengan tanaman karet yang memberikan pengaruh terhadap ketersediaan unsur hara tanaman. Penelitian ini bertujuan untuk mengisolasi, identifikasi dan mengetahui keragaman spora pada tanaman karet. Sumber isolasi JMA berasal dari rizosfer tanaman karet di Kalimantan Tengah dan Getas dengan tiga fase pertumbuhan yaitu fase pembibitan, tanaman belum manghasilkan (TBM) dan tanaman menghasilkan (TM). Isolasi JMA menggunakan teknik penyaringan basah bertingkat dan dihitung jumlahnya di bawah mikroskop kemudian dilakukan perbanyakan spora melalui kultur pot. Identifikasi morfologi dilakukan untuk mengetahui karakter dan jenis spora dengan pemberian larutan PVLG dan Melzer. Identifikasi molekuler dilakukan dengan metode *Nested PCR* menggunakan primer spesifik AML1 dan AML2. Hasil penelitian menunjukkan jumlah spora terbanyak pada fase TBM Kalimantan. Keragaman spora pada setiap fase tanaman berada pada kategori sedang yaitu 1,2-1,4. Hasil identifikasi morfologi diperoleh tiga famili, yaitu *Acaulosporaceae, Gigasporaceae dan Glomeraceae.* Berdasarkan urutan basa nitrogen 18S rDNA diperoleh spora *Scutella cerradensis* dan *Acaulospora mellea.*

Kata kunci : jamur mikoriza arbuskular (JMA), isolasi, identifikasi, rizosfer tanaman karet (*Hevea brasiliensis* Muell. Arg.).

ABSTRACT

ISOLATION AND IDENTIFICATION OF MYCORRHIZAL ARBUSCULAR FUNGI (AMF) FROM THE RIZOSPHERE OF RUBBER PLANTS (*Hevea brasiliensis* Muell. Arg.)

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Rubber plant (*Hevea brasiliensis* Muell. Arg.) is the main producing plant of natural latex. Arbuscular mycorrhizal fungi (JMA) are mutually symbiotic fungi with rubber plant that have an influence on the health and supply of plant nutrients. This study aims to isolate, identify and determine the diversity of spores in rubber plants. The rhizosphere soils of rubber plants from Central Kalimantan and Getas with three phases of growth, namely the nursery phase, non-producing plants (TBM) and producing plants (TM) were use as sources of isolation. The isolation JMA was carried out by multilevel wet filtration technique and observed under microscope. The obtained spores were multiplicated through pot culture method. Morphological identification was carried out to determine the character and type of spores by giving PVLG and Melzer solutions. Molecular identification was carried out using the Nested PCR method using specific primers AML1 and AML2. The results showed the highest number of spores in the Kalimantan TBM phase. The diversity of spores in each phase of the plant is in the medium category, with Shanon index were 1.2-1.4. Based on morphology characters three families, namely Acaulosporaceae, Gigasporaceae and Glomeraceae were observed in all samples. Based on the 18S rDNA sequence analysis showed that *Scutella cerradensis* and *Acaulospora mellea* spores were obtained in this study.

Keywords : arbuscular mycorrhiza fungi (AMF), isolation, identification, rubber tree (*Hevea brasiliensis* Muell. Arg.) rhizosphere.