Analisis Gejala Daun Hevea brasiliensis (Willd. ex A.Juss) Müll.Arg. Klon IRR 112 dan PB 260 yang Terinfeksi Fungi Pestalotiopsis = Symptom Analysis of Pestalotiopsis Infected Leaf of Pestalotiopsis (Willd. ex A.Juss) Müll.Arg. IRR 112 and PB 260 Clones

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Abstrak

Penyakit Gugur Daun Pestalotiopsis (PGDP) adalah penyakit yang menyerang perkebunan karet Indonesia sejak akhir 2017. PGDP disebabkan oleh infeksi kelompok fungi Pestalotiopsis. PGDP mampu menyebabkan gugur daun hingga mencakup 75-90% kanopi dan penurunan produksi lateks hingga 45%. PGDP mampu menyerang semua jenis klon Hevea brasiliensis. Klon-klon tersebut antara lain adalah klon dengan resitensi moderat seperti IRR 112 dan klon rentan seperti PB 260. Analisis morfologi gejala penyakit belum pernah dilakukan sejak PGDP pertama kali terdeteksi dan diidentifikasi. Analisis morfologi gejala penyakit dilakukan guna mengetahui respons daun terhadap infeksi fungi Pestalotiopsis dan mengetahu pola persebaran miselia fungi Pestalotiopsis pada permukaan daun Hevea brasiliensis. Sebanyak 3 helai anak daun dari 3 individu Hevea brasiliensis klon IRR 112 dan PB 260 dipotong dan diinokulasi isolat fungi Pestalotiopsis secara ex planta. Inokulasi dilakukan di 3 titik pada permukaan anak daun daun dan diamati hingga 7 hari setelah inokulasi (hsi). Sediaan morfologi yang mewakili perkembangan gejala pada 3, 5, dan 7 hari setelah inokulasi juga dibuat dan diamati di bawah mikroskop cahaya. Respons yang ditunjukkan anak daun Hevea brasiliensis klon IRR 112 dan PB 260 adalah nekrosis dan klorosis. Selain itu terdapat 2 tipe lesi, yakni lesi tipe I yang diduga berasal dari kontaminasi fungi Colletotrichum sp. dan lesi tipe II yang merupakan ciri khas lesi hasil infeksi fungi Pestalotiopsis. Kedua lesi muncul berdampingan dalam kompleks lesi Pestalotiopsis-Colletotrichum. Hasil pengamatan mikromorfologi menunjukkan bawha kompleks miselia Pestalotiopsis-Colletotrichum cenderung tersebar pada dan/atau di sekitar pertulangan daun.

.....Pestalotiopsis Leaf Fall Disease (PLFD) is a disease affecting Indonesia’s rubber plantation since 2017. PLFD is caused by Pestalotiopsis fungi. PLFD is capable in defoliating up to 75-90% of tree canopy and decreasing latex production up to 45%. PLFD is capable in affecting every clone of Hevea brasiliensis. Some clones of which affected by the disease are moderately resistant clone such as IRR 112 and susceptible clone such as PB 260. Disease morphology is yet to be analyzed since the first reported case and identification. Disease morphology analysis is conducted to determine various responses of Pestalotiopsis infected leaf and reveal Pestalotiopsis mycellial distribution pattern on the surface of Hevea brasiliensis leaf. Three leaflets from 3 individuals of Hevea brasiliensis IRR 112 and PB 260 clones were cut and inoculated with Pestalotiopsis isolate following ex planta procedure. Inoculation was performed at 3 points on the leaflets surface and was observed until 7 days post inoculation (dpi). Samples for micromorphological observation were also made, each one representing disease development on 3, 5, and 7 dpi and were observed under the microscope. The responses shown by the leaflets of Hevea brasiliensis IRR 112 and PB 260 clones were necrosis and chlorosis. Accordingly, 2 types of lession were observed: type I of which suspected as Colletotrichum sp. contamination and type II of which similar to distinctive lession of Pestalotiospis fungi. Both types occured simultaneously in the Pestalotiopsis-Colletotrichum lession

complex. Micromorphological observation has shown that Pestalotiopsis-Colletotrichum mycellial complex was distributed at the vicinity of leaf veins.