

PENILAIAN STATUS KESEHATAN TEGAKAN *HYBRID Eucalyptus pellita* x *E. urophylla* DI PETAK 18 HUTAN PENDIDIKAN WANAGAMA I

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INTISARI

Eucalyptus merupakan tanaman kehutanan yang memiliki berbagai potensi kayu dan non-kayu. Namun di sisi lain, jenis ini juga rentan terserang berbagai tipe kerusakan yang disebabkan oleh hama maupun patogen. Persilangan *hybrid Eucalyptus pellita* x *E. urophylla* dilakukan untuk menghasilkan keturunan yang baik secara kualitas kayu, dan tahan terhadap serangan hama dan patogen. Budidaya *Eucalyptus hybrid* ini juga dilakukan di petak 18 Hutan Pendidikan Wanagama. Penelitian terkait kesehatan tanaman *hybrid Eucalyptus pellita* x *E. urophylla* ini belum pernah dilakukan. Penelitian ini bertujuan untuk menilai kondisi kesehatan pada tanaman *hybrid Eucalyptus pellita* x *E. urophylla*. Pengamatan tegakan *hybrid* dilakukan dengan metode sensus menggunakan parameter sebagai berikut; kerusakan tanaman yang diukur berdasarkan tingkat keparahan kerusakan dominan tanaman pada setiap individu. Kondisi tajuk dinilai berdasarkan lebar tajuk, rasio tajuk hidup, persentase *dieback*, transparansi dan kerapatan tajuk. Produktivitas tanaman dinilai dengan mengukur diameter setinggi dada (DBH). Ketiga parameter kemudian dibandingkan pada setiap familinya, kemudian dilakukan analisis uji korelasi antara tingkat kerusakan dengan produktivitas tanaman dan kondisi tajuk dengan produktivitas tanaman. Kanker batang, kerusakan oleh rayap, benalu, dan bercak daun merupakan tipe-tipe kerusakan dominan yang ditemukan pada pertanaman ini, yang mana bercak daun merupakan kerusakan yang paling sering ditemukan di pertanaman ini. Pada penelitian ini diperoleh hasil bahwa famili P18U1 merupakan famili terbaik pada aspek kesehatan, famili P17U1 merupakan famili terbaik pada aspek kondisi tajuk, dan famili P14U2 merupakan famili terbaik pada aspek produktivitas tanaman. Penelitian ini juga menunjukkan hasil adanya variasi respon antar maupun inter famili kerusakan tanaman.

Kata kunci: *Eucalyptus hybrid*, kesehatan tanaman, kondisi tajuk, produktivitas

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***Eucalyptus pellita* x *E. urophylla* HYBRID HEALTH ASSESSMENT AT PLOT 18 OF WANAGAMA EDUCATIONAL FOREST I**

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ABSTRACT

Eucalyptus is a forestry plant that has various wood and non-timber potentials. But on the other hand, this species is also susceptible to various types of damage caused by pests and pathogens. *Eucalyptus pellita* x *E. urophylla* hybrid crosses were carried out to produce offspring that has good wood quality and were resistant to pests and pathogens. This hybrid *Eucalyptus* cultivation is also carried out in plot 18 of the Wanagama Educational Forest. Research related to the health of the *Eucalyptus pellita* x *E. urophylla* hybrid plant has never been carried out. This study aimed to assess the health condition of the hybrid *Eucalyptus pellita* x *E. urophylla*. Observation of hybrid stands was carried out using the census method using the following parameters; plant damage measured based on the severity of the dominant damage to each individual plant. The condition of the crown was assessed based on the width of the crown, the ratio of the live crown, the percentage of dieback, the transparency, and the density of the canopy. Crop productivity was assessed by measuring diameter at breast height (DBH). The three parameters were then compared in each family, then analyzed the correlation test between the level of damage and plant productivity and canopy condition with plant productivity. Stem canker, damage by termites, mistletoe, and leaf spot were the dominant types of damage found in this crop, with leaf spot being the most common damage found in this crop. In this study, the results showed that the P18U1 family was the best family in terms of health, the P17U1 family was the best family in terms of canopy conditions, and the P14U2 family was the best family in terms of plant productivity. This study also shows the results of variations in responses between and between families of plant damage.

Keywords: *Eucalyptus hybrid*, *Eucalyptus pellita*, *Eucalyptus urophylla*, health assessment, Visual Crown Rating, Productivity

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