

**DISTRIBUSI *Canna yellow mottle virus* (CaYMV)
PADA JARINGAN TANAMAN CANNA LILY (*Canna x generalis*)**

Carreista Ashila Shafa

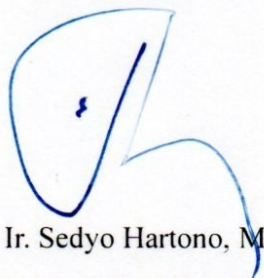
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INTISARI

Canna Lily merupakan tanaman dari famili *Cannaceae* yang banyak dibudidayakan karena tampilannya yang menarik. Tanaman ini umumnya diperbanyak secara vegetatif menggunakan rimpang yang berpotensi meningkatkan penularan virus dan telah dilaporkan dapat terinfeksi oleh *Canna yellow mottle virus* (CaYMV) di Indonesia. Penelitian ini bertujuan untuk mengetahui distribusi *Canna yellow mottle virus* pada jaringan tanaman *Canna Lily* dan adanya kemungkinan infeksi ganda dengan *Cucumber mosaic virus* (CMV). Deteksi virus dilakukan menggunakan metode PCR dengan pasangan primer CaYMV-3 dan CaYMV-4 untuk mendeteksi CaYMV, serta pasangan primer CMV RNA3F dan CMV RNA3R untuk mendeteksi CMV. Hasil menunjukkan bahwa tanaman *Canna Lily* terdeteksi CaYMV namun tidak terdeteksi CMV. Analisis distribusi virus menunjukkan bahwa CaYMV terdapat pada seluruh jaringan tanaman meliputi rimpang, batang, daun, bunga, serta biji dan mengindikasikan bahwa virus ini telah menyebar merata di dalam jaringan tanaman. Hasil uji *growing on test* juga mengindikasikan bahwa virus ini dapat tertular melalui benih. Analisis sekuens menunjukkan bahwa tingkat kemiripan yang dimiliki tinggi terhadap berbagai isolat CaYMV dari GeneBank. Berdasarkan hasil tersebut, dapat disimpulkan bahwa CaYMV merupakan virus yang menginfeksi *Canna Lily* dan terdistribusi merata pada berbagai jaringan tanaman.

Kata kunci: *Canna yellow mottle virus*, *Canna lily*, molekuler, visualisasi

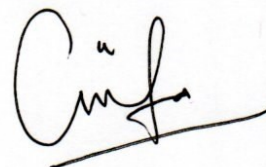
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**DISTRIBUTION OF *Canna yellow mottle virus* (CaYMV)
IN CANNA LILY (*Canna x generalis*) PLANT TISSUE**

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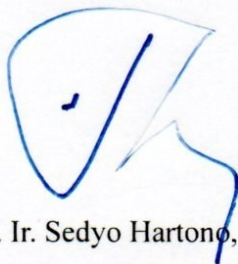
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ABSTRACT

Canna Lily is a plant from the Cannaceae family that is widely cultivated due to its attractive appearance. This plant is generally propagated vegetatively using rhizomes, which can increase the potential for virus transmission and has been reported to be infected by *Canna yellow mottle virus* (CaYMV) in Indonesia. This study aimed to determine the distribution of CaYMV in Canna Lily plant tissues and the possible occurrence of mixed infection with *Cucumber mosaic virus* (CMV). Virus detection was carried out using the PCR method with primer pairs CaYMV-3 and CaYMV-4 to detect CaYMV, and CMV RNA3F and CMV RNA3R to detect CMV. The results showed that Canna Lily plants were infected with CaYMV but not with CMV. Virus distribution analysis indicated that CaYMV was present in all plant tissues, including rhizomes, stems, leaves, flowers, and seeds, suggesting that the virus had spread systemically throughout the plant. The results of the growing-on test also indicated that the virus could be transmitted through seeds. Sequence analysis showed a high level of similarity with various CaYMV isolates from GenBank. Based on these findings, it can be concluded that CaYMV infects Canna Lily and is evenly distributed across various plant tissues.

Key words: *Canna yellow mottle virus*, Canna lily, molecular, visualization

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