Analisis Viabilitas Polen pada Beberapa Spesies Asteraceae di Lingkungan Kampus Universitas Indonesia = Pollen Viability Analysis of some Asteraceae Species from University of Indonesia Campus, Depok, Indonesia

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Abstrak

Asteraceae adalah famili tumbuhan dengan 1.900 genus dan 32.000 spesies. Asteraceae mudah tumbuh di berbagai habitat seperti tanah lapang, taman, dan sisi jalan raya. Pemetaan jenis Asteraceae di Kampus Universitas Indonesia telah dilakukan oleh Oktarina & Salamah (2017:243), dan morfologi polen beberapa Asteraceae di lingkungan kampus juga telah diteliti (Salamah dkk. 2019:154). Sementara itu, struktur komunitas beberapa Asteraceae di kampus sudah dikaji oleh Agassi (2017), tetapi viabilitas polen Asteraceae di lingkungan Kampus Universitas Indonesia belum diteliti. Studi ini bertujuan untuk mengevaluasi viabilitas polen beberapa spesies Asteraceae di Kampus Universitas Indonesia. Delapan spesies Asteraceae dari 6 tribes diamati melalui metode in vitro dengan tiga tipe medium dan pewarnaan menggunakan pewarna safranin 2%. Hasil viabilitas metode germinasi in vitro menunjukkan bahwa Synedrella nodiflora, Spaghneticola trilobata, dan Youngia japonica memiliki viabilitas polen tertinggi pada ketiga tipe medium, sementara Tridax procumbens dan Mikania micrantha memiliki viabilitas polen terendah. Selain itu, tidak terdapat perbedaan signifikan pada viabilitas polen masing-masing spesies dengan ketiga tipe medium, tetapi terdapat perbedaan signifikan pada viabilitas polen masing-masing spesies di setiap medium. Metode pewarnaan menunjukkan hasil yang berbeda dengan metode germinasi in vitro, namun sejalan dengan studi struktur komunitas Asteraceae yang telah dilakukan.
.....Asteraceae is a diverse plant family comprising 1,900 genera and 32,000 species, well adapted to various habitats, including open fields, gardens, and roadside areas. Mapping of Asteraceae species on the University of Indonesia campus has been conducted Oktarina & Salamah (2017:243). Salamah et al. (2019:154) explored the pollen morphology of several Asteraceae species within the same environment. Meanwhile, Agassi (2017) studied the community structure of various Asteraceae species on the campus. Research on the pollen viability of Asteraceae in the same setting has not been explored. This study aim to determine the pollen viability of several Asteraceae species in the University of Indonesia campus environment. The pollen viability of eight Asteraceae species from six tribes was observed using in vitro germination method with three types of medium and staining method with safranin 2%. The results of the in vitro germination method showed that Synedrella nodiflora, Spaghneticola trilobata, and Youngia japonica had the highest pollen viability on all three types of medium, while Tridax procumbens and Mikania micrantha had the lowest pollen viability. Moreover, there were no significant differences in the pollen viability of each species among the three types of medium, but there were significant differences in the pollen viability of each species within each medium. The staining method yielded different results compared to the in vitro germination method, but was consistent with the community structure study of Asteraceae.