

PENGARUH ASAM SALISILAT TERHADAP PERTUMBUHAN DAN PEMBUNGAAN BUNGA TELANG (*Clitoria ternatea* L.)

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ABSTRAK

Tanaman Telang (*Clitoria ternatea* L.) merupakan tanaman dari famili fabaceae yang dapat tumbuh subur dan banyak dikultivasi di Indonesia. Bagian-bagian tanaman telang dapat dimanfaatkan sebagai pakan ternak, bahan obat, bahan pewarna alami, untuk makanan dan minuman. Kandungan fitokimia bunga telang memiliki manfaat sebagai antioksidan, antibakterial, antidiabetik, dsb. Asam salisilat (SA) merupakan salah satu turunan fenol yang dapat bekerja sebagai zat pengatur pertumbuhan. Asam salisilat mampu meningkatkan laju pertumbuhan serta pembungaan tanaman. Penelitian ini dilakukan untuk mengevaluasi efek pemberian asam salisilat dalam konsentrasi yang berbeda yaitu 25 ppm, 50 ppm, 75 ppm, dan 100 ppm terhadap pertumbuhan, pembungaan, dan kualitas bunga telang. Penelitian dilakukan dengan menyemaikan biji sampai penanaman dalam polibag selama 8 minggu. Aplikasi SA dilakukan saat tanaman berumur 6 minggu setelah tanam. Pertumbuhan tanaman diamati dengan parameter pertumbuhan, morfologi, anatomi, dan biokimianya. Pengamatan pertumbuhan dilakukan pada stasiun penelitian Sawitsari dan analisis parameter dilakukan di laboratorium fisiologi tumbuhan fakultas biologi Universitas Gadjah Mada. Selama penelitian didapatkan bahwa asam salisilat dalam konsentrasi 75ppm menghasilkan tanaman telang dengan tinggi batang, jumlah tangkai daun majemuk, kadar klorofil, dan kadar antosianin terbesar dan perlakuan konsentrasi 100ppm menghasilkan nilai tertinggi pada jumlah bunga dan jumlah buah. Namun, untuk densitas stomata pada daun terpengaruh secara negatif dengan penurunan jumlahnya selama perlakuan dan aplikasi asam salisilat sampai 100ppm tidak terlalu berpengaruh pada luas daun telang.

Kata Kunci: *Clitoria ternatea*, Asam Salisilat, Pertumbuhan, Pembungaan

GROWTH AND FLOWERING OF ASIAN PIGEONWING (*Clitoria ternatea* L.) TREATED WITH SALICYLIC ACID

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ABSTRACT

Asian Pigeonwing (*Clitoria ternatea* L.) is a plant from the Fabaceae family that can grow well and is widely cultivated in Indonesia. The parts of this plant can be used as animal feed, medicinal ingredients, natural dyes, food and drinks ingredient. The phytochemical content of the flower has potency as an antioxidant, antibacterial, antidiabetic, etc. Salicylic acid (SA) is a phenol derivative that can act as a growth regulator. Salicylic acid is able to increase the rate of growth and flowering of several plants. This study was conducted to evaluate the effect of salicylic acid application in different concentrations namely 25 ppm, 50 ppm, 75 ppm, or 100 ppm as well the control on the growth, flowering, and quality of asian pigeonwing flower. The research was conducted by germinating the seeds, then the sprouts were planted in polybags for 8 weeks. SA application was carried out when the plants were 6 weeks after planting. Plant growth was observed with parameters such as its growth, morphological characteristic, anatomical structure, and biochemical content. The flower cultivation and growth observation were conducted in Sawitsari research station while the parameter analysis was carried out in the plant physiology laboratory, Faculty of Biology, Gadjah Mada University. During the research, it was found that SA in 75ppm concentration produced the highest stem height, number of compound leaf stalks, chlorophyll content, and anthocyanin levels and 100ppm concentration of SA treatment produced the highest value on the number of flowers and the number of fruits in Asian Pigeonwing. However, the density of stomata on leaves was negatively affected with a decrease in their number during the treatment and the application of SA up to 100ppm did not significantly affect the leaf area of Asian Pigeonwing.

Keyword: *Clitoria ternatea*, Salicylic Acid, Plant Growth, Flowering