

## Pengaruh Metil Jasmonat Terhadap Pertumbuhan dan Kandungan Antosianin Bunga Telang (*Clitoria ternatea* L.)

Nadia Izzatunnisa P.

NIM 14/368305/BI/09357

### INTISARI

Sudah sejak lama banyak masyarakat Indonesia yang mengkonsumsi obat tradisional yang berasal dari tumbuhan. Salah satu tanaman yang kini memiliki nilai komersial tinggi adalah tanaman Telang (*Clitoria ternatea* L.) Tanaman telang mengandung senyawa antosianin yang berfungsi sebagai antioksidan dan zat pewarna alami. Dengan meningkatnya minat masyarakat terhadap bunga telang, diperlukan penelitian lanjut untuk meningkatkan pertumbuhan dan senyawa antosianin tanaman telang. Metil jasmonat diketahui mengontrol pertumbuhan dan perkembangan tanaman serta mempengaruhi biosintesis pigmen. Penelitian ini dilakukan untuk mengetahui pengaruh metil jasmonat terhadap pertumbuhan serta kandungan antosianin pada bunga telang (*Clitoria ternatea* L.). Rancangan penelitian yaitu rancangan acak lengkap. Biji telang disemai dalam polybag yang berisi media campuran tanah : kompos (3:1) sampai berkecambah di dalam polybag. Saat tanaman berumur 4 minggu, larutan metil jasmonat sebanyak 10 ml diberikan di setiap tanaman dengan perbedaan konsentrasi 0 ppm, 12,5 ppm, 25 ppm, 37,5 ppm dan 50 ppm. Perlakuan diulang pada saat tanaman berumur 6 minggu. Pengamatan terhadap tinggi tanaman dan jumlah daun dilakukan di setiap minggu. Selanjutnya dilakukan pengukuran terhadap luas daun, kadar klorofil daun serta kadar antosianin pada bunga. Hasil penelitian menunjukkan bahwa metil jasmonat cenderung menurunkan pertumbuhan tanaman telang, baik pada tinggi tanaman, jumlah daun, luas daun dan klorofil daun. Namun demikian metil jasmonat mampu meningkatkan kandungan antosianin pada bunga telang dan optimum pada perlakuan 37, 5 ppm. Dari penelitian ini disimpulkan bahwa perlakuan metil jasmonat sampai 50 ppm menurunkan pertumbuhan vegetatif tanaman, namun dapat meningkatkan antosianin pada bunga telang (*Clitoria ternatea* L.).

**Kata Kunci :** *Clitoria ternatea* L., metil jasmonat, pertumbuhan, antosianin

## Effects of Methyl Jasmonate on Growth and Anthocyanin Content of Butterfly Pea (*Clitoria ternatea* L.) Flowers

Nadia Izzatunnisa P.

NIM 14/368305/BI/09357

### ABSTRACT

It has been a long time that many Indonesian people like to consumed traditional medicines derived from plants. One of the plants that now has a high commercial value is the *butterfly pea* (*Clitoria ternatea* L.). The *Butterfly pea* contains anthocyanin compounds that act as antioxidants and as source of natural dyes. There is increasing demand of *butterfly pea* flowers, thus a research is required to increase the growth and anthocyanin content of the *butterfly pea*. Methyl jasmonate is known to control plant growth and development of plants and affect pigment biosynthesis. This research was conducted to evaluate the effect of methyl jasmonate on growth and anthocyanin content in *butterfly pea* (*Clitoria ternatea* L.). The method used was completely randomized design. Seeds were sown in polybags containing a mixture of soil: compost (3:1) until they germinate in polybags. When the plant was 4 weeks old, 10 ml of methyl jasmonate was applied for each plant with concentrations of 0 ppm, 12.5 ppm, 25 ppm, 37.5 ppm or 50 ppm. The application was repeated when the plants were 6 weeks old. Observations were made on the growth of plant height and number of leaves. The leaf area and chlorophyll content was then measured. Flowers harvested and were measured for anthocyanin levels. The results showed that methyl jasmonate tends to reduce growth of the *butterfly pea*, both in plant height, number of leaves, leaf area and leaf chlorophyll content. However, Methyl Jasmonate was able to increase the anthocyanin content in the *butterfly pea* and was optimum at 37.5 ppm. It can be concluded that the treatment of methyl jasmonate up to 50 decreased vegetative growth, but it can increase anthocyanins in *butterfly pea* (*Clitoria ternatea* L.).

**Key Words :** *Clitoria ternatea* L., methyl jasmonate, growth, anthocyanin