

**POTENSI ASAM SALISILAT DALAM MENGGANGGU PERTUMBUHAN DAN
PERKEMBANGAN KUTU PUTIH PEPAYA, *Paracoccus marginatus*
(HEMIPTERA:PSEUDOCOCCIDAE)**

**Liza Octriana
15/388599/PPN/3994**

INTISARI

Kajian dampak asam salisilat pada preferensi makan, fekunditas, masa perkembangan nimfa, masa preoviposisi, masa oviposisi, dan masa hidup imago kutu putih pepaya, *Paracoccus marginatus* telah dilakukan di laboratorium. Hasil kajian menunjukkan bahwa aplikasi asam salisilat menyebabkan penurunan preferensi makan dan fekunditas kutu putih. Asam salisilat cenderung mengganggu pertumbuhan nimfa, walaupun tidak menunjukkan perbedaan signifikan antar semua perlakuan. Sementara itu, aplikasi asam salisilat memperpanjang masa pre oviposisi dan masa hidup imago. Hasil penelitian juga menunjukkan bahwa aplikasi asam salisilat meningkatkan kadar fenol total daun pepaya. Penambahan konsentrasi asam salisilat mempunyai hubungan korelasi positif dengan kadar fenol, dengan nilai koefisien (r) 0,57. Kadar fenol menunjukkan hubungan regresi kuadratik dengan masa total nimfa, masa hidup imago dan fekunditas. Cara aplikasi asam salisilat dengan penyemprotan ataupun penyiraman tidak berpengaruh nyata terhadap masa pertumbuhan nimfa, masa preoviposisi, masa oviposisi, masa hidup imago dan fekunditas kutu *P. marginatus*. Asam salisilat konsentrasi 50 mg/L berpotensi meningkatkan laju pertumbuhan tanaman. Hasil penelitian ini menunjukkan bahwa aplikasi senyawa asam salisilat konsentrasi 50 mg/L pada tanaman pepaya berpotensi menurunkan pertumbuhan dan perkembangan kutu putih *P. marginatus* melalui penekanan preferensi makan, masa hidup nimfa dan fekunditas. Disamping itu juga dapat meningkatkan laju pertumbuhan tanaman. Hasil penelitian ini diharapkan dapat menjadi salah satu dari komponen teknologi dalam pengelolaan hama terpadu.

Kata kunci: asam salisilat, kutu putih pepaya, *Paracoccus marginatus*

**IMPACT OF SALICYLIC ACID TO DISRUPT GROWTH AND DEVELOPMENT OF
PAPAYA MEALYBUG, *PARACOCCLUS MARGINATUS*
(HEMIPTERA:PSEUDOCOCCIDAE)**

Liza Octriana
15/388599/PPN/3994

ABSTRACT

Study on the impacts of salicylic acid on feeding preference, fecundity, oviposition period, and life time of papaya whitefly, *Paracoccus marginatus* have been performed in the laboratory. The results showed that the application of salicylic acid causes a decrease in the feeding preference and fecundity of mealybug. Salicylic acid tends to disrupt the growth of nymph, although it does not show significant differences between all treatments. Meanwhile, salicylic acid causes pre-oviposition period and imago life period more longer. The application of salicylic acid increased the total phenol content of papaya leaf. The addition of salicylic acid concentration seemed to be positively correlated with total phenol content, with a coefficient (r) value of 0.57. Phenol levels show a quadratic regression relationship with the total duration of nymph, imago life and fecundity. The application method of salicylic acid by foliar or sprinkle has no significant effect on the growth period of the nymph, preoviposition period, oviposition period, imago life and fecundity of mealybug, *P. marginatus*. Salicylic acid with a low concentration, 50 mg/L has the potential to increase the rate of plant growth. The results of this study indicate that the application of salicylic acid with concentration of 50 mg / L in papaya plants has the potential to decrease the growth and development of mealybug, *P. marginatus* through emphasis feeding preference, life span of nymph and fecundity. The results of this study indicate that the application of salicylic acid with low concentration, 50 mg / L in papaya plants has the potential to decrease the growth and development of mealybug, *P. marginatus* and can increase the rate of plant growth. Besides, it can also increase the rate of plant growth. The results of this study are expected to be a component in integrated pest management.

Key words: mealybug papaya, *Paracoccus marginatus*, salicylic acid