

INTISARI

Chaetocnema pulicaria dan *Chaetocnema denticulata* merupakan serangga vektor penyakit layu stewart yang disebabkan oleh bakteri *Pantoea stewartii* pada tanaman jagung. Kedua serangga ini belum pernah dilaporkan keberadaannya di Indonesia tetapi penyakit layu stewart telah ditemukan di pulau Jawa dan pulau Sumatera. Penelitian ini bertujuan untuk mengetahui ragam *Chaetocnema* yang ada di pertanaman jagung di daerah Yogyakarta serta statusnya sebagai vektor penyakit layu stewart pada tanaman jagung atau tidak. Serangga genus *Chaetocnema* yang ditemukan adalah *Chaetocnema basalis* dan *Chaetocnema confinis*. *C. basalis* diketahui sebagai populasi dominan pada tanaman jagung di Yogyakarta, akan tetapi belum diketahui secara pasti perannya sebagai vektor penyakit layu stewart seperti halnya *C. pulicaria* dan *C. denticulata*. Uji penularan dilakukan dengan serangga uji berupa imago *C. basalis* yang dikoleksi dari pertanaman jagung di Yogyakarta, lalu dilaparkan selama 24 jam. Pengujian perlakuan dilakukan dengan menempatkan imago *C. basalis* pada tanaman terserang *Pantoea stewartii* selama 72 jam. Kemudian dipindahkan pada tanaman sehat sejumlah 5 ekor per plot tanaman bersungkup (1 plot terdiri dari 5 tanaman) selama 72 jam. Perlakuan kontrol dilakukan dengan menempatkan imago *C. basalis* pada tanaman sehat selama 72 jam, kemudian dipindahkan pada tanaman sehat yang lain sejumlah 5 ekor per plot tanaman bersungkup (1 plot terdiri dari 5 tanaman) selama 72 jam. Masing-masing perlakuan diulang sebanyak tiga kali. Pada hari ke-15 setelah penularan, dilakukan uji PCR daun tanaman sampel dan isolat bakteri. Hasil pengujian semua sampel daun menunjukkan tidak terdeteksi adanya *P. stewartii* pada tanaman sehat yang diperlakukan, sehingga terbukti bahwa *C. basalis* bukan merupakan vektor penyakit layu stewart pada tanaman jagung.

Kata kunci : *Chaetocnema* spp., *Pantoea stewartii*, Vektor

ABSTRACT

Chaetocnema pulicaria and *C. denticulata* are known as vector of Stewart wilt disease which was caused by *Pantoea stewartii* on maize. Their presence in Indonesia has not been ever reported not yet, but Stewart wilt disease has been found in Java and Sumatera Islands. This research was aimed to identify the species of *Chaetocnema* on maize crops in Yogyakarta area as well as their status as vector of Stewart wilt disease on maize. The result showed that genus *Chaetocnema* collected and identified from Yogyakarta were belonging to genus of *Chaetocnema* were *Chaetocnema basalis* and *C. confinis*. *C. basalis* was recognized as dominant population on maize crop in Yogyakarta, however it was not exactly known yet its role as vector of Stewart wilt disease like *C. pulicaria* and *C. denticulata*. Transmission test was conducted using imago of *C. basalis* which was collected from maize crop in Yogyakarta, and then they were starved for 24 h. The treatment was carried out by placing the imago of *C. basalis* on infected-*Pantoea stewartii* plants for 72 h. Five insects were then transferred to healthy covered plants for 72 h (1 plot consisted of 5 plants). Meanwhile, control was prepared by putting five imago of *C. basalis* on healthy plants for 72 h, and then transferred to other healthy covered plants for 72 h (1 plot consisted of 5 plants). Each treatment was repeated for three times. At 15th-day after transmission, the leaf samples and bacterial isolates were analyzed using PCR test. The results of all leaf samples revealed that *P. stewartii* could not be found or detected on healthy treated plants. This will be a strong evidence that *C. basalis* was not vector of Stewart wilt disease on maize crop.

Key word : *Chaetocnema* spp., *Pantoea stewartii*, Vector