ABSTRAK

Penelitian ini bertujuan untuk mengetahui keberadaan nematoda parasit *Elaeolenchus parthenonema* pada kumbang penyerbuk kelapa sawit *Elaeidobius kamerunicus* di perkebunan kelapa sawit Desa Aek Pancur, Kecamatan Tanjung Morawa, Kabupaten Deli Serdang, Sumatera Utara. Pengambilan sampel dilakukan pada tiga titik lokasi, masing-masing satu hektar, dengan metode survei pada bunga jantan anthesis dan pengamatan laboratorium. Sebanyak 150 ekor *E. kamerunicus* dibedah untuk mendeteksi keberadaan nematoda parasit. Hasil penelitian menunjukkan tingkat infeksi nematoda berkisar 2,9–4,94 ekor per kumbang, tergolong rendah menurut klasifikasi tingkat infestasi. Rata-rata populasi *E. kamerunicus* di lapangan mencapai 20.624 ekor/ha, memenuhi kebutuhan minimal penyerbukan alami. Namun, efektivitas penyerbukan yang diukur melalui nilai *fruit set* tergolong rendah, yaitu rata-rata 42,28%, diduga akibat infeksi nematoda serta pengaruh faktor lingkungan seperti curah hujan. Penemuan ini mengindikasikan bahwa meskipun populasi *E. kamerunicus* cukup tinggi, serangan nematoda parasit berpotensi mengurangi keberhasilan penyerbukan dan produktivitas tandan buah segar kelapa sawit.

Kata kunci: *Elaeidobius kamerunicus*, *Elaeolenchus parthenonema*, kelapa sawit, penyerbukan, nematoda parasit.

ABSTRACT

This study aimed to determine the presence of the parasitic nematode Elaeolenchus parthenonema in the oil palm pollinating beetle, Elaeidobius kamerunicus, in an oil palm plantation in Aek Pancur Village, Tanjung Morawa District, Deli Serdang Regency, North Sumatra. Sampling was conducted at three locations, each covering one hectare, using survey methods on male flower anthesis and laboratory observations. A total of 150 E. kamerunicus were dissected to detect the presence of parasitic nematodes. The results showed a nematode infection rate of 2.9–4.94 individuals per beetle, considered low according to the infestation level classification. The average E. kamerunicus population in the field reached 20,624 individuals/ha, meeting the minimum requirement for natural pollination. However, pollination effectiveness, as measured by fruit set, was low, averaging 42.28%, likely due to nematode infection and environmental factors such as rainfall. These findings indicate that despite high populations of E. kamerunicus, parasitic nematode infestations have the potential to reduce pollination success and productivity of oil palm fresh fruit bunches.

Keywords: Elaeidobius kamerunicus, Elaeolenchus parthenonema, oil palm, pollination, parasitic nematodes.