



Intisari

Quadraspidiotus perniciosus (Comstock) merupakan hama penting tanaman apel di dunia. Kutu perisai apel merusak semua bagian tanaman apel sepanjang tahun. Penelitian ini dilakukan di Balai Penelitian Tanaman Jeruk dan Buah Subtropika. Tujuan penelitian ini ialah mengetahui keefektifan dan keefisienan air bertekanan tinggi dalam mengendalikan kutu perisai apel dan dampaknya terhadap artropoda non target. Pengamatan kepadatan populasi kutu perisai dilakukan pada 24 tanaman contoh, setiap hari. Pengamatan artropoda non target dilakukan secara langsung terkendali dengan jarak 1,5 meter mengelilingi tanaman apel. Identifikasi pada tingkat famili. Pengamatan dampak air bertekanan tinggi terhadap tanaman apel meliputi perubahan performa batang tanaman apel. Hasil penelitian menunjukkan perlakuan air bertekanan tinggi terhadap kepadatan populasi kutu perisai apel berbeda nyata dengan kontrol. Rata-rata populasi awal 146-160 individu, setelah aplikasi menjadi 0-20 individu, sedangkan kontrol populasinya tetap tinggi. Keanekaragaman artropoda non target tinggi setelah aplikasi perlakuan air bertekanan tinggi. Perlakuan air bertekanan tinggi tidak berdampak negatif terhadap tanaman apel.

Kata kunci: *Quadraspidiotus perniciosus*, air bertekanan tinggi, tanaman apel, artropoda non target.



Abstract

San Jose Scale, *Quadraspidiotus perniciosus* (Comstock), is one of the most destructive apple pests in the world. San Jose Scale damages all parts on apple crop throughout the year. The research was carried out in Indonesia Citrus and Subtropical Fruits Research Institute. The research was conducted to determine the effectiveness and efficiency of High Pressure Water Rinsing to manage San Jose Scale and its impact on non-target arthropods. The San Jose Scale population was observed daily before and until 32 days after application on 24 sample crop. The observation of non-target arthropods was done visually with a radius of 1.5 meters from the crop. In addition, the effect of High Pressure Water on the stem was observed descriptively. Results showed that High Pressure Water Rinsing applied alone or in combination (Lime sulfur or refuge block) were effective in controlling San Jose Scale. Initial population of San Jose Scale before application ranged 146-160 individuals per tree, while after application the population varied from 0-20 individuals per tree. In contrast, the population in the farmer's method remained high. The application of High Pressure Water did not affect the diversity of non-target arthropods and did not damage the apple stem.

Keywords: *Quadraspidiotus perniciosus*, High Pressure Water, apple, non target arthropods.