Intisari

Penyakit daun keriting kuning pada cabai merah disebabkan Begomovirus dan ditularkan oleh *Bemicia tabaci* Genn. Pengendalian umumnya menggunakan insektisida yang berdampak pada pencemaran lingkungan serta resurjensi dan resistensi vektor. Pengendalian terpadu dengan mengkombinasikan border, mikoriza, *Horticultural Mineral Oil* (HMO) pada pertanaman cabai merah TM-999 dapat menjadi salah satu solusi. Hasil penelitian menunjukkan bahwa penggunaan border dapat menurunkan kejadian dan intensitas penyakit sebesar 15,3% dan 16,98%. Kombinasi border dengan mikoriza tidak dapat menurunkan kejadian dan intensitas penyakit, namun mampu meningkatkan tinggi tanaman pada fase vegetatif awal dan akhir sebesar 2,48% dan 3,38%, pertumbuhan diameter batang pada fase vegetatif akhir sebesar 17,07%, jumlah cabang produktif sebesar 0,58%, bobot buah total dan buah layak jual sebesar 27,58% dan 31,69%, serta meningkatkan jumlah panen buah sebesar 35,17%. Kombinasi border dengan HMO tidak memberikan pengaruh terhadap pertumbuhan tanaman, kejadian dan intensitas penyakit, serta hasil panen, tetapi tanpa border dapat menurunkan kejadian penyakit fase vegetatif akhir sebesar 8,1%. Kombinasi border dengan insektisida dapat menurunkan kejadian dan intensitas penyakit pada fase vegetatif awal dan akhir sebesar 57,19% dan 8,69% serta 61,73% dan 21,46%, sedangkan kombinasi border dengan insektisida tidak memberikan pengaruh terhadap peningkatan jumlah cabang tanaman, bobot buah total dan buah layak jual serta jumlah panen buah, namun dapat meningkatkan tinggi tanaman pada fase vegetatif awal dan akhir sebesar 5,46% dan 5,03%, dan pertumbuhan diameter batang pada fase vegetatif awal dan akhir sebesar 18,42% dan 20,93%.

Kata kunci: Cabai merah, hasil panen, pengendalian terpadu, penyakit daun keriting kuning

Abstract

Pepper yellow leaf curl disease is caused by Begomovirus and is spreaded by *Bemicia tabaci* Genn. The control is commonly using insecticides, which caused environment pollution impact as well as resurgence and resistance vector. Controled by combination between plant border, mycorrhiza and *Horticultural Mineral Oil* (HMO) in chili plant TM-999 may be one solution. The result showed that the border decrease the occurance and intensity of the disease as much as 15,3% and 16,98%. Border combination with mycorrhiza can't decrease the incidence and intensity of the disease, but able to increase plant height at the juvenil and senescens as much as 2,48% and 3,38%, the growth of stem diameter at senescens as much as 17,07%, the number of productive branches as much as 0,58%, total weight and marketable of the chilis as much as 27,58% and 31,69%, as well as increasing the amount of the harvested chilis as much as 35,17%. Combination border with HMO no effect on plant growth, the incidence and intensity of the disease, as well as yield, but without the border decrease the incidence at the senescens of the disease as much as 8,1%. Border combination with insecticides decrease the incidence and intensity of the disease at the juvenil and senescens as much as 57,19% and 8,69% as well as 61,73% and 21,46%, whereas the combination of border with insecticides does not give effect to increase the number of productive branches, total weight and marketable of the chilis as well as the amount of the harvested chilis, but able to increase plant height at the juvenil and senescens as much as 5,46% and 5,03%, as well as the growth of stem diameter at juvenil and senescens namely 18,42% and 20,93%.

Keywords: Integrated control, pepper, pepper yellow leaf curl disease, yield