

INTISARI

Cabai merupakan salah satu komoditas unggulan diberbagai agroekosistem. Permintaan konsumen akan cabai cukup tinggi. Kendala dalam budidaya cabai berdampak pada tidak terpenuhinya permintaan konsumen. Salah satunya disebabkan oleh penyakit karena jamur, bakteri, dan virus. Penyakit utama yang menginfeksi yaitu antraknosa (*Colletotrichum* spp.), layu fusarium (*Fusarium* sp.), layu bakteri (*Ralstonia solanacearum*), dan keriting kuning (*Begomovirus*). Salah satu pengendalian penyakit yang bersifat ramah lingkungan yaitu dengan menggunakan agens hayati *Trichoderma harzianum*. Agens hayati *T. harzianum* bersifat antagonis dan dapat menghambat perkembangan patogen penyebab penyakit. Penelitian ini dilakukan untuk mengetahui pengaruh pemberian agens hayati *T. harzianum* dalam mengendalikan beberapa penyakit penting pada tanaman cabai. Rancangan percobaan yang digunakan pada penelitian ini yaitu RAKL (Rancangan Acak Kelompok Lengkap) dengan 5 perlakuan dan 3 ulangan. Perlakuan yang diberikan yaitu TH0 (tanpa *Trichoderma harzianum*), TH5 (*T. harzianum* 5 gram/lubang tanam), TH10 (*T. harzianum* 10 gram/lubang tanam), TH15 (*T. harzianum* 15 gram/lubang tanam), dan TH20 (*T. harzianum* 20 gram/lubang tanam). Produk *T. harzianum* yang digunakan diperoleh dari Laboratorium Pengamatan Hama Penyakit Tanaman (LPHPT) DIY. Pengamatan insidensi penyakit dilakukan sebanyak 5 kali. Hasil analisis data ANOVA dan uji lanjut DMRT, perlakuan perbedaan dosis *T. harzianum* menunjukkan hasil yang berbeda nyata terhadap insidensi penyakit layu fusarium. Pada insidensi penyakit keriting kuning dan antraknosa menunjukkan hasil yang tidak berbeda nyata. Aplikasi *T. harzianum* terhadap parameter pengamatan pertumbuhan dan produktivitas tanaman cabai menunjukkan hasil yang tidak berbeda nyata terhadap semua parameter pengamatan yang dilakukan.

Kata kunci : Cabai, Layu fusarium, Keriting Kuning, Antraknosa, *Trichoderma harzianum*

Abstract

Chili is one of the leading commodities in various agroecosystems. Consumer demand for chili is quite high. Constraints in chili cultivation have an impact on non-fulfillment of consumer demand. One of them is caused by diseases caused by fungi, bacteria, and viruses. The main infecting diseases are anthracnose (*Colletotrichum* spp.), fusarium wilt (*Fusarium* sp.), bacterial wilt (*Ralstonia solanacearum*), and yellow curly (*Begomovirus*). One of the environmentally friendly disease control methods is the use of the biological agent *Trichoderma harzianum*. The biological agent *T. harzianum* is antagonistic and can inhibit the development of disease-causing pathogens. This study was conducted to determine the effect of the biological agent *T. harzianum* in controlling several important diseases in chili plants. The experimental design used in this study was RAKL (Completely Randomized Block Design) with 5 treatments and 3 replications. The treatments were TH0 (without *T. harzianum*), TH5 (*T. harzianum* 5 grams/planting hole), TH10 (*T. harzianum* 10 grams/planting hole), TH15 (*T. harzianum* 15 grams/planting hole), and TH20 (*T. harzianum* 20 grams/planting hole). The *T. harzianum* product used was obtained from the Plant Disease Pest Observation Laboratory (LPHT) DIY. Observation of disease incidence was carried out 5 times. The results of ANOVA data analysis and DMRT follow-up test, treatment with different doses of *T. harzianum* showed significantly different results on the development of fusarium wilt disease. In the incidence of yellow curls and anthracnose, the results were not significantly different. The application of *T. harzianum* to the observation parameters of chili plant growth and productivity showed results that were not significantly different from all observed parameters.

Keyword : Chilli, Fusarium wilt, Yellow curls, Anthracnose, *Trichoderma harzianum*