

植物保护

玫烟色拟青霉孢子悬乳剂对大棚生菜粉虱的防效及其对昆虫群落的影响

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摘要 对玫烟色拟青霉(*Paecilomyces fumosoroseus*)孢子悬乳剂1000倍液(有效孢子含量为 1.0×10^8 孢子/mL)与3%吡虫啉对大棚生菜温室粉虱的综合防效进行了比较。结果表明:在大棚中使用2次玫烟色拟青霉对生菜上温室粉虱具有良好的防治作用。用菌后5d,生菜植株上粉虱数量开始下降,用菌2次后可明显控制温室粉虱对当季大棚生菜的危害,粉虱虫口密度明显低于3%吡虫啉处理区及对照,虫口减退率和相对防效均达39%和82%以上,第1次用菌剂后第25d(第2次用菌剂后第10d),菌剂处理区粉虱的虫口减退率及相对防效均高于95%。从处理后第10d开始,玫烟色拟青霉制剂处理后的大棚中生菜植株昆虫群落的多样性高于3%吡虫啉处理后大棚,各处理大棚中昆虫群落多样性指数则表现为对照区>生防区>吡虫啉处理区。因此玫烟色拟青霉孢子乳悬剂可用于大棚中温室粉虱的防治。

关键词 [玫烟色拟青霉](#) [温室粉虱](#) [吡虫啉](#) [生物防治](#)

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The Field Efficacy of Emulsifiable Formulations of *Paecilomyces fumosoroseus* Conidia on Greenhouse Whitefly(*Trialeurodes vaporariorum*) Infesting Lettuce and Effect on the Diversity of Insect Community

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Abstract

The emulsifiable formulation of *Paecilomyces fumosoroseus* conidia with a concentration of 1.0×10^8 conidia/mL and low application of Imidacloprid were applied respectively on the lettuce plants in the greenhouse to control greenhouse whitefly(*Trialeurodes vaporariorum*), and their effects on the diversity of the community of insects in the greenhouse was evaluated by the Shannon index. Result showed that emulsifiable formulations of *Paecilomyces fumosoroseus* conidia was capable of decreasing the population of greenhouse whitefly, the number of whitefly on lettuces in the combination of entomopathogenic fungi treated plots were significantly lower than that of in the Imidacloprid treated or untreated plots. In the day 30 after the first application, The whitefly density in the treatment plot of *P. fumosoroseus* decreased more than 39% and the control efficacy was more than 82%, The whitefly density decrease and the relative efficacy came up to more than 95% at the 25th day after the first application (the 10th day after the second application) of emulsifiable formulation. The Shannon index in the emulsifiable formulation of *P. fumosoroseus* treatments was lower than that of in the Imidacloprid treatment, as that in the control plot ranged the first, then in the emulsifiable formulations of *P. fumosoroseus*, and the last was in the treatment plot of Imidacloprid.

Key words [Paecilomyces fumosoroseus](#) [greenhouse whitefly](#) [Trialeurodes vaporariorum](#) [Imidacloprid](#) [biological control](#)

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