عنوان مقاله:

Management of Cucumber (Cucumis sativus L.) Mildews through Azoxystrobin-Tolerant Pseudomonas fluorescens

محل انتشار:

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خلاصه مقاله:

The compatibility studies of Pseudomonas fluorescens (Pf۱) with azoxystrobin at differ-ent concentrations viz., ۱۰۰, ۱۵۰, ۲۰۰, ۲۵۰ and ۳۰۰ ppm revealed that it was compatible with all the concentrations of azoxystrobin tested and the growth of the bacterium was unaffected even at the maximum concentration of ۳۰۰ ppm. The field experiment revealed a foliar application of Pf۱ (۲.۵ kg ha-۱) and azoxystrobin (۲۵۰ ml ha-۱) combined, reduced downy mildew as well as powdery mildew disease severities more than azoxystrobin (۲۵۰ and ۵۰۰ ml ha-۱) alone. An application of Pf۱+azoxystrobin treatment recorded only ۲.۲۲ and ۱.۰۰ Percent Disease Index (PDI) of downy mildew and ۱.۸۵ and ۰.۵۰ PDI of powdery mildew during the first and second seasons, respectively. The treatment also recorded a maximum fruit yield of ۱۴.۳۰ and ۱۵.۶۵ tonnes ha-۱ for the first and second seasons, re-spectively. Application of Pf۱ along with azoxystrobin significantly increased the survival of Pf۱ in the phylloplane of cucumber crop. In addition, there was multifold increase in peroxidase, polyphenol oxidase, phenylalanine ammonia lyase, ß-۱, ۳ glucanase, chitinase and phenolics in plants treated with Pf۱+azoxystrobin.

کلمات کلیدی:

Cucumber, Erysiphe cichoracearum, Integrated disease management, Pseudoperonospora cubensis

لینک ثابت مقاله در پایگاه سیویلیکا: