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A REVIEW

Phytoseiid mites: Successful biocontrol agents of mite pests in protected vegetables

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Abstract : Biocontrol success has forced several countries to use phytoseiids e.g., Chilean mite, *Phytoseiulus persimilis* Athias-Henriot (Acarina: Phytoseiidae) against mite pests in protected vegetable crops. The characteristics like more oviposition period, sex-ratio (female: male), longevity, consumption capacity, prey searching capability and survival at low prey densities have revealed *P. persimilis* a successful predator of two-spotted mite, *Tetranychus urticae* Koch (Acarina: Tetranychidae). Introduction of prey and predatory mite together or predatory mite slightly late gave better results than in case where predatory mite was introduced much later. Biocontrol failed in case where chemicals were applied except where predators reintroduced and chemicals were not re-applied. Predation took few days to eliminate largest number of mite pests at high temperature. At low relative humidity peak predation was noticed as there was more prey predator interaction. However, prey activity declined to zero while predator activity prolonged at high relative humidity. This review article includes various studies carried out on use of phytoseiid mites as biocontrol agents of various mite pests on protected vegetables.

Key Words : Phytoseiid mites, Biocontrol agents, Mite pests, Protected, Vegetables

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