

## Back to the future: SIT in synergism with biological control

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### Abstract

Medfly (*Ceratitis capitata*), spotted wing drosophila (*Drosophila suzukii*) and brown marmorated stink bug (*Halyomorpha halys*) are invasive pest species in Europe. All are multivoltine and extremely polyphagous. For this reason, they are considered among the most severe pests in agriculture. The development of Sterile Insect Technique (SIT) programs, in combination with both classical and augmentative biological control, is in progress to verify the possibility to suppress the populations of these three pest species under a sustainable economic threshold, in two regions of North and Central Italy. Special emphasis is given to enhance the synergism between least toxic agricultural pest management, georeferenced monitoring of the territorial distribution of the pests and their natural enemies, and SIT applications both in area-wide and confined field conditions.