

D3632: Semiochemical attractants for fruit flies of agricultural importance

Thursday, September 29, 2016 09:00 AM - 05:00 PM Convention Center - West Hall C

Introduction: Fruit flies are among the most damaging agricultural pests worldwide. To combat their devastating impacts on a wide variety of crops, most growers rely on organophosphate insecticides to manage these pests in their fields. Overuse of organophosphates has been implicated in secondary pest outbreaks, negative impacts on beneficial insects, environmental contamination, hazards to human health, and resistance development. With increasingly stringent regulations limiting use of these insecticides, growers have been challenged with finding more effective, sustainable fruit fly control techniques.

Methods: ISCA has developed several semiochemical A&K technologies targeting fruit flies. Because A&K pairs a chemical toxicant with a powerful attractant, only a tiny fraction of the former is required, compared to conventional cover spray applications. Furthermore, ISCA's slow-release matrix anchors the active ingredients in place, reducing the likelihood of environmental degradation or soil or water contamination. This attractive capacity enables A&K formulations to be applied in more selective ways, drawing pests away from crops to areas where they may be dealt with more effectively, decreasing risks to non-targets.

Results/Conclusion: Here we describe long-lasting, sprayable A&K formulations designed to target fruit fly pests of global importance: Anamed, designed to attract all fruit fly species responsive to hydrolyzed protein; SPLAT MAT ME and Hook ME+CL, 2 products targeting tephritid fruit flies using the highly attractive lure and phagostimulant methyl eugenol, and a combination of methyl eugenol and another attractive fruit fly parapheromone, cue-lure, respectively; and Trimedlure, an attractant for an additional species of tephritid, the Mediterranean fruit fly, *Ceratitis capitata*.

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