



## 2558: The advantages of semiochemical-based attract and kill techniques in insect pest management: agricultural case studies

**Wednesday, September 28, 2016**

**09:30 AM - 09:45 AM**

📍 *Convention Center - Room W314 B*

**Introduction:** While the advantages of semiochemical-based pest control technologies over traditional insecticides are well-documented (reduced hazards to non-targets and the environment, lower risk of resistance, etc.), many strategies employing these behavior-manipulating compounds to protect agricultural crops are relegated to small niche markets, due to their limited applicability. Since most semiochemicals are species-specific, they can usually target only one pest at a time. However, this is not always the case, as we will demonstrate through this discussion of four of ISCA Technologies' attract and kill (A&K) formulations.

**Methods:** Here, we describe four examples of successful A&K strategies against agricultural insect pests. First, we discuss a formulation using ISCA's SPLAT<sup>®</sup> (Specialized Pheromone & Lure Application Technology) matrix to deliver a species-specific attractant—the aggregation pheromone, ferrugineol—to lure and kill the red palm weevil, *Rhynchophorus ferrugineus* Oliver, a major pest in the Mediterranean. Next, we describe three more generalized A&K technologies: Noctovi, a sugar- and plant volatile-based liquid formulation designed for protection of row crops from noctuid moths; Anamed, an A&K product for control of fruit fly species responsive to hydrolyzed protein; and SPLAT MAT ME, designed to target tephritid flies using the powerful attractant and phagostimulant, methyl eugenol.

**Results/Conclusion:** A&K techniques represent an interesting blend of past and future pest control methods, bridging the gap between insecticide-free semiochemical pest control techniques (i.e., mating disruption) and conventional chemical insecticides. As such, A&K may provide a gateway to more robust pest control markets, especially in the case of multi-species formulations like Noctovi and Anamed.

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