

Mating Disruption/SIR

MICROENCAPSULATED PHEROMONES:  
IMPROVEMENTS IN RELEASE RATE, STABILITY AND RAINFASTNESS

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3M, in collaboration with research scientists, extension agents, industry representatives and growers, is developing microencapsulated formulations of pheromones for delivery into agronomic and horticultural crops. Although sprayable pheromone formulations were first evaluated in the early 1970s and 1980s, serious problems associated with release rate, stability and longevity limited efficacy and commercial acceptance. In 1999, 3M adopted a comprehensive model for development of sprayable pheromone formulations. 3M has made advances in several critical areas relevant to improved lab and field performance. 3M will provide an update on laboratory and field experiments carried out in 2000. Specifically, lab and/or field data will be presented on release rates, stability, longevity and rainfastness. 3M has also developed proprietary technology to encapsulate all the major classes of Lepidopteran pheromones including acetates, alcohols, and aldehydes.