

# SPLAT GM™: A Champion Formulation for Area-wide Gypsy Moth Control

Presented By ISCA Technologies

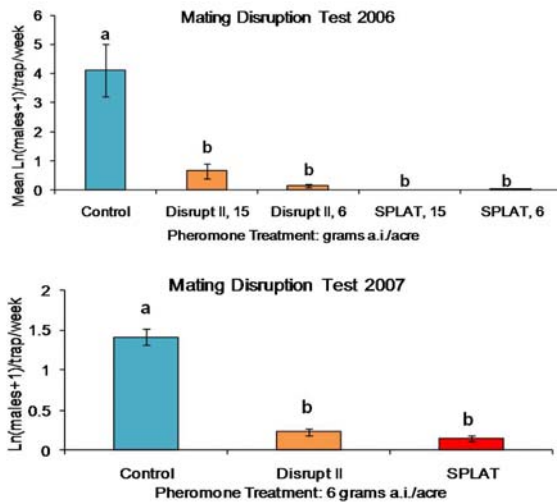


**SPLAT GM™** is ISCA's champion product for mating disruption of *Lymantria dispar*, the gypsy moth. SPLAT GM is an EPA registered product that has undergone four years of efficacy testing in collaboration with Dr. Ksenia Onufrieva of Virginia Tech and the USDA Forest Service Slow The Spread (STS) program for gypsy moth, headed by Dr. Donna Leonard from the U.S. Forest Service. In 2008, SPLAT GM was applied on 20,000 acres and deemed "operational" for STS. In 2009, SPLAT GM was aerially applied on over 100,000 acres as part of the STS program in VA, OH, IL and WI.

## Proven Effectiveness for Mating Disruption

**SPLAT GM™** (Specialized Pheromone & Lure Application Technology) is an environmentally friendly mating disruption product that provides sustained and controlled release of the GM pheromone. Independent field studies have shown SPLAT GM to be an effective mating disruption product, performing equal to or better than the competing pheromone product.

### Male Moth Catches in Pheromone Baited Traps



2006:  $F_{4,4} = 54.75$ ,  $P < 0.0001$ ; 2007:  $F_{2,2} = 121$ ,  $P < 0.0001$ . Treatments with the same letter are not significantly different.

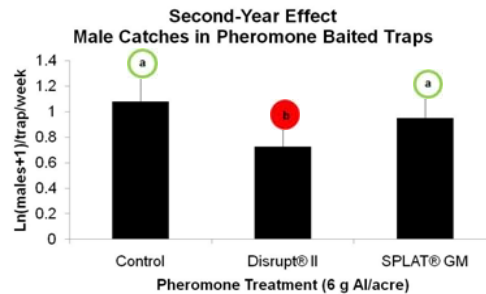
A single application of SPLAT GM has been demonstrated to provide mating disruption protection for the whole season, with a dose as low as 6 grams of pheromone per acre.

## Benefits of Using SPLAT GM™

- **Biologically inert, biodegradable** matrix made from ingredients cleared for **food use** by EPA
- **Provides UV and rain protection** for active ingredients
- **Anchors where it lands** (does NOT need mixing glue), there are **no inhalation issues**, and there is **minimal drift**
- **Cost Savings:** Control can be achieved with less pheromone
- **Does NOT require specialized application equipment.** IN FACT, SPLAT can be applied in a variety of ways including:
  - **Manually** using caulking tubes, metered guns or backpack sprayers
  - **Mechanically** using Gators or tractors
  - **Aerially** using planes or helicopters
- **Efficient pheromone release:** SPLAT does NOT interfere with monitoring next season

## SPLAT GM™ Causes Minimal Interference with Second-Year Trap Monitoring

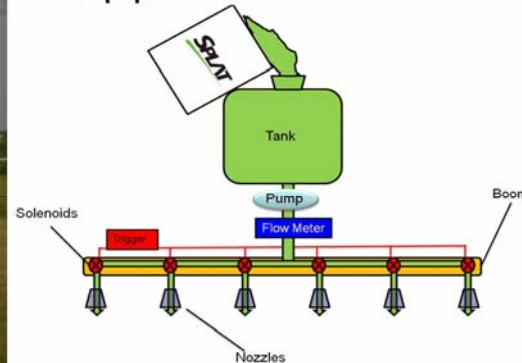
Gypsy moth management programs including STS rely on accurate trap monitoring data as an indicator of GM field populations and the need for management action. For this reason, a successful mating disruption product must release pheromone efficiently throughout the season, without residual activity in the following season. Residual activity might result in erroneously low populations due to male trapping suppression which can affect management decisions. **SPLAT GM™** was applied in Virginia during the 2007 season for mating disruption, along with the competing pheromone product and a control plot which received no treatment. Trap monitoring data was collected in 2008 to determine the residual effects of each product.



$P = 0.05$ . Treatments with the same letter are not significantly different.

Independent data indicates that SPLAT GM interference with monitoring is minimal the following season, as evidenced by trap counts on par with the control treatment.

## Aerial Application of SPLAT GM™ with Off the Shelf Equipment



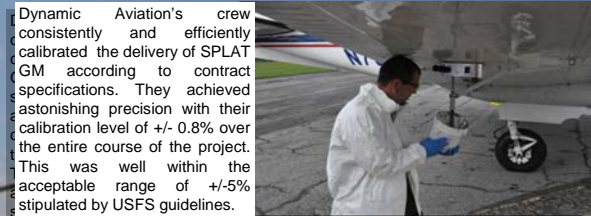
With cooperation from Dynamic Aviation, we were able to add a simple flow meter to their standard equipment using off the shelf components, resulting in a constant output conforming to the STS program guidelines.

## 2009 Aerial Application with Dynamic Aviation

ISCA Technologies and Dynamic Aviation teamed up to apply SPLAT GM as part of the Slow the Spread of Gypsy Moth program. ISCA has been working with Dynamic Aviation for the past four years, and in 2009 this collaboration resulted in an efficient and flawless spray campaign.



SPLAT GM reached the application sites in 55 gallon drums. SPLAT was then transferred from the drum into the plane's tank using a closed pumping system in less than 3 minutes. The transference made the loading process very easy, and eliminated spills.



Dynamic Aviation's crew consistently and efficiently calibrated the delivery of SPLAT GM according to contract specifications. They achieved astonishing precision with their calibration level of +/- 0.8% over the entire course of the project. This was well within the acceptable range of +/-5% stipulated by USFS guidelines.

For the 2009 STS program, ISCA Technologies produced and delivered close to six tons of SPLAT GM in just 2 ½ short weeks. In June and July, Dynamic Aviation applied over 5,500 kilograms of SPLAT GM on over 100,000 acres in VA, IL, WI and MN. During that time Dynamic Aviation far exceeded the Forest Service's expectations, achieving production rates ranging from 1,800 to 3,300 acres per hour; over 1,000 more acres per hour than requested. The efficient operation of both parties saved the STS program time and money.



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