

# SPLAT CLM™

## Mating Disruption for the Citrus Leafminer, *Phyllocnistis citrella*

ISCA Technologies is proud to introduce its Specialized Pheromone & Lure Application Technology (SPLAT) for the control of the citrus leafminer, *Phyllocnistis citrella*. Recent research has shown that damage caused by CLM can increase the incidence of citrus canker. SPLAT CLM is an environmentally friendly mating disruption product that provides sustained and controlled release of the citrus leafminer pheromone. Unlike other mating disruption products, SPLAT CLM has been found to be effective even in small plots of less than 1 acre. Collaborative R&D performed by Dr. Stelinski (University of Florida) and Dr. LaPointe (USDA) has shown that one application of SPLAT CLM provides mating disruption protection for up to 15 weeks. As an alternative to insecticides, SPLAT CLM has no impact on non-target or beneficial insects and is especially valuable in preventing the development of insecticide resistance. SPLAT products are less labor intensive to apply than conventional pheromone dispensers. In addition to manual application methods, mechanical applicators have been designed for use with tractors, ATV's and aircraft. A retail kit is also sold for the consumer market (part #SP203-K1) using a syringe dispenser.

Syringe dispensers for home gardens

Mechanical application for commercial growers

(Photo credits: David Haviland, UCCE)

CLM leaf damage

**“This product not only controls CLM, but does reduce the incidence of canker.”**

-Lukasz Stelinski, PhD  
Citrus Research and Education Center  
University of Florida

### Suggested SPLAT CLM Treatment Schedule

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
			Apply	Protection →							
						Apply	Protection →				

**Schedule:** Apply SPLAT CLM just prior to first growth flush in the Spring. Monitor pest populations and apply second application if trap catch thresholds are met. Timing can vary by environmental conditions. Consult your pest control advisor for help to establish damage thresholds and determine application timing.

**Suggested Rate:** 200 grams per acre (more for small areas).

**Active Ingredients:** (Z,Z,E)-7,11,13-Hexadecatrienal: 0.15% (nature identical CLM pheromone)

**Field Duration:** 8-12 weeks depending on environmental conditions.

**Packaging:** Re-sealable plastic buckets at net weight 15 Kg of SPLAT per bucket.

**Storage Information:** Store in air-tight container in cool and dry place. For longer storage life, store in refrigerator at 4 degrees celcius (do not freeze).

**Shelf Life:** 18 to 24 months if properly stored.

**Application Equipment:** See separate brochure “SPLAT Methods of Application”

CLM Traps & Lures  
Available Online!



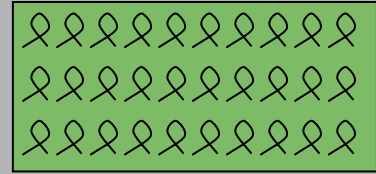
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# SPLAT vs. Traditional Pheromone Dispensers

ISCA's proprietary SPLAT formulation offers many advantages over traditional dispensing technologies:

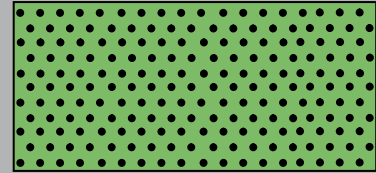
- **Multiple methods of application:**  
Having a wide range of viscosities and application (e.g. applicator sprays, aerial applicator sprays, caulking gun type tubes, etc.), SPLAT increases productivity by mechanizing the application of pheromone dispensing points.
- **Easy application for small-scale and large-scale operations:**  
The amorphous and flowable quality of this highly adaptable product allows for an easy transition from small-scale manual applications to large-scale mechanical applications.
- **Adjustable strategies same amount of AI:**  
A fixed quantity of this material can be applied differently depending on the pest population pressure. The application of this matrix can be tailored by the user to best match the pest distribution and density in the field. Using a fixed amount of SPLAT per area, one can choose:
  - A high density of small point-sources (Figure 1b), thus maximizing the mating disruption effect (recommended for high pest pressure).
  - A low density of larger point-sources (Figure 1c), thus increasing the longevity of the application (recommended for lower pest population pressure).
- **Rain fast, biologically inert and bio-degradable formulation:**  
SPLAT is a biologically inert and bio-degradable matrix. Once cured, SPLAT will not wash off of vegetation while providing rain and UV protection for the pheromone and/or the pesticide.
- **Season-long protection and more:**  
SPLAT can remain effective in managing pest populations for up to a six months.
- **Mixes with kairomones and feeding stimulants:**  
SPLAT can be mixed with a variety of feeding stimulants or attractants including liquids, solids and oils to enhance attraction or stimulate feeding. It is also possible to develop formulations to target more than one pest with the SPLAT formulation mix of desired pheromones and/or pesticides.
- **SPLAT ingredients are safe:**  
A recent EPA review has stated that SPLAT inert ingredients "are cleared for food use."

## Traditional Pheromone Dispensers

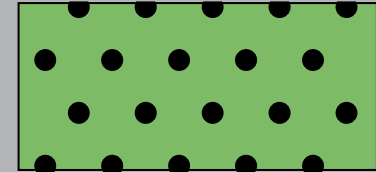


**Figure 1a:** For traditional dispensers, changes in the number of dispensers, changes amount of AI per acre.

## SPLAT Pheromone Dispensers



**Figure 1b:** For high pest pressure, number of applied dispensers can be increased while size of each dispenser is decreased; AI per acre remains unchanged.



**Figure 1c:** For low pest pressure, number of applied dispensers can be decreased while size of each dispenser is increased; AI per acre remains unchanged.

Unlike traditional dispensers (1a), the number of SPLAT point sources can be tailored according to the pest density without changing the amount of AI per acre. For high pest densities, the use of many small point sources (1b) are more effective; for low pest densities, the use of fewer large point sources (1c) will provide adequate protection while providing protection for the entire season.

## ORDER PLACEMENT, PAYMENT AND DELIVERY INFORMATION

- Normal sales tax applies for sales within California.
  - Prices are FOB Riverside, California, shipping fees apply. Delivery cost will be shown in invoice or you may request an estimate. Order is delivered within 14 days after receipt of payment. Please inform us of any special request for delivery, extra charges may apply e.g. for rush deliveries.
  - ISCA Technologies' standard terms and conditions of sale apply, which can be viewed at <http://www.iscatech.com/exec/sales.htm>, or you may request that a copy be e-mailed or faxed to you.
  - To place your order, please send us your purchase order, or you may place your order online at: [www.iscatech.com/ecommerce/](http://www.iscatech.com/ecommerce/)
  - Payment terms : payment in advance.
  - Payment options : credit card, check, or wire transfer.
  - Typographical errors subject to correction.
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