Environmental Horticulture Program Research Project Sheet

https://www.ir4project.org/ehc/ehc-registration-support-research/env-hort-extension-resources/

Project Name: Lepidopteran Efficacy: European Pepper Moth

New		**Ongoing**	X	**Completed**		**Duration if ongoing or completed:**	2020-2021

Project Description:

European Pepper Moth feeds on organic detritus as well as plant roots and, as the larvae age, on lower stems. This pest is cryptic and can easily develop and be shipped without obvious plant symptoms until populations are quite high.

Research Project Abstract (if available):

n/a

Target Species (Phytotoxicity, or common and Latin name of arthropod, pathogen, weed):

European Pepper Moth (*Duponchelia fovealis*)

Target Crops (list tested crops if ongoing or completed project)

Lantana camara

Target Product(s)(list tested products or numbered compounds if ongoing or completed project)

Acelepryn (Chlorantraniliprole)
Bountify (MBI 306) (Burkholderia rinojensis strain A396)
BW133 (BW133)
BW238 ES (BW238 ES)
BW238 WP (BW238 WP)
ISM-555 (ISM-555, A21377X)
Mainspring GNL 200SC (Cyantraniliprole)
MBI 203 SC2 (MBI 203)
Provaunt (indoxacarb)
SP3014 (SP3014)

Product Registration and Research Status

	Fully Screened (also includes standards)	**Partially Screened through IR-4** [1]	**Need Data Across Species?**
Labeled Generally & Commercialized			
Labeled Generally But NOT Commercialized			
Labeled Specifically & Commercialized			
Labeled Specifically but NOT Commercialized			
Not yet registered or Labeled		Acelepryn (Chlorantraniliprole) Bountify (MBI 306) (Burkholderia rinojensis strain A396) BW133 (BW133) BW238 ES (BW238 ES) BW238 WP (BW238 WP) ISM-555 (ISM-555, A21377X) Mainspring GNL 200SC (Cyantraniliprole) MBI 203 SC2 (MBI 203) Provaunt (indoxacarb) SP3014 (SP3014)	
No longer available for development			

* IR-4 Data contributed to registration decision – either adding pest to label or not pursuing further research
1 At least one species screened fully

PROS	CONS
Pervasive throughout Southern region	
Ongoing testing	
Increasing incidence of European pepper moth in (3) MD nurseries, in NC nurseries (many that do a lot of shipping)	
Spear-LEP, is a possibility	
Mainspring results effective	
Reinfestation is a major problem	

IR-4 Efficacy Trials to Date

Average rating on a scale of 1 – 5 with 1 = 0 to about 50% efficacy (not effective) and 5 = 95 to 100 efficacy (very effective); minimum to maximum rating; number of trials (See table on next page). For product/insect combinations that are blank, IR-4 has not screened this combination.

'Labeled' indicates that this disease species or genera is listed on the label. A rating of 2 or lower is considered unacceptable efficacy (*red text*). A rating of 3 or higher is considered commercially acceptable (black text). Non-labeled, completed product/disease combinations (3 or more trials) with an average rating of 3 or higher are highlighted with **green text**. For disease/product combinations that are blank, IR-4 has not screened this combination.

MOA	**Product (Active Ingredients)**	**European Pepper Moth (*Duponchelia fovealis*)**
FRAC NC & IRAC UNB	Bountify (MBI 306) (Burkholderia rinojensis strain A396)	*1.0 (1 - 1) n1*
IRAC 28	Acelepryn (Chlorantraniliprole)	**5.0 (5 - 5) n1**
unknown	ISM-555 (ISM-555, A21377X)	**5.0 (5 - 5) n1**
	MBI 203 SC2 (MBI 203)	**5.0 (5 - 5) n1**
	Provaunt (indoxacarb)	*1.0 (1 - 1) n1*
	SP3014 (SP3014)	**3.0 (3 - 3) n1**