

Blackheaded Fireworm: Sweep, Sweep, Sweep

From information submitted by Dr. Anne Averill, UMASS Cranberry Station

That's the advice from Dr. Anne Averill, entomologist at the UMASS Cranberry Station. Early detection and treatment are critical with Blackheaded Fireworm (BHFV) and early and frequent sweeping is one method to monitor for this pest that seems to be "re-emerging" in importance. The insect over winters as an egg and the first larvae (there are two, sometimes three, generations per year) begin emerging in early May. Because egg hatch is variable, Dr. Averill suggests that careful



BHFV webbed leaves

monitoring is important and she would begin in early May by doing a visual inspection of bogs to look for tiny larvae in webbed leaves.

Monitoring for this insect is difficult because of the very small size of the larvae. Sweeping should be done once per week and intensified if any larvae are found. The infested area/ bog should likely be treated with an insecticide. There is not a good correlation between counts in sweep nets and total population of the small larvae in the bog. The correlation improves when the larvae are larger. Many growers in the past have used a presence/ absence threshold for treatment of the first generation. Not looking carefully or delaying sweeping are not recommended. If the first BHFV detected are already

larger-larvae, or their damage, it may be too late to treat. Larger is a relative term. Mature larvae, 2-3 weeks after hatching measure roughly 1/3 of an inch in length.



BHFV larvae

May is the time to apply insecticides. BHFV is more of a problem next to abandoned bogs or where inputs have been minimal. BHFV is not considered difficult to kill, when materials are applied in a timely manner.

Monitoring for the second generation can be accomplished with pheromone traps (traps set out around the June 1-June 10 and monitored weekly).

When moths are captured, visual inspections and sweeping should follow within two weeks and if larvae are detected, treatment is recommended.

Intrepid, newly registered in 2003, may be a good insecticide for treatment of the second generation (because of its low toxicity to bees). For 2004, Intrepid can be applied as an aerial application or via chemigation. ☞



BHFV adult

Clement Pappas California: Up and Running

Clement Pappas, California is officially up and running. The state-of-the-art processing line is now operational and providing product to our West Coast customers. The 200,000 square foot California facility complements the processing capabilities of the other Pappas manufacturing plants in New Jersey, Arkansas and North Carolina. These plants, plus our co-packers, give the company more economical and efficient access to a coast-to-coast market. Clement Pappas California is especially significant in giving the company easy access to the L.A. and West Coast markets. The plant is located about 30 miles outside of L.A. in Ontario, CA with easy access to I-15, I-10 and CA 60. Warehousing and Distribution operations in Ontario began last summer. The processing line at the California plant has the highest potential processing speed of any line in the company and has significant single-

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Worker Protection Standard (WPS)

By Jayne Sojka, Lady Bug IPM

An unexpected visit to your farm from a state official to insure you are in compliance with Worker Protection Standards is enough to make even the most compliant grower nervous. Federal Rule AG-29, established in the early 1990's for Worker protection standards (WPS) is not a new concept. You need to re-visit these standards to be sure you know what YOUR responsibilities are.

Your supplier can provide posting materials, fact sheets on "How to Comply", flip charts and instructional-videos to assist you in properly training employees. Once employees are trained, legally they do not need re-training for five years. It is in your BEST interest to properly train all your employees and have them sign an affidavit stating that they were trained along with the date of that instruction. This needs to be on file and easily accessible, should you ever be audited. It is advisable to have, in that same file, a copy of the State Certification Card for all handlers of pesticides on you marsh/ bog.

Labels of pesticides are your best source of information on WPS. There is a statement under the new Agricultural Use Directions section of the labeling. This section will tell you if you need respirators, gloves, long sleeve shirts, boots or any other item for protection. Every pesticide is different; please do not take anything for granted in these ever changing times – **READ THE LABEL.**

Before you actually put a pesticide on the bog/marsh you need to properly post the area. The legal signs are in two languages stating KEEP OUT along with a picture of a hand signal for STOP and a face. No trespassing signs will not suffice!

Documentation must be available in an area where all the employees have access. A three ring binder in a managers' truck is not allowed. This chart must include information like: The product name, EPA registration numbers, and active ingredients, location of treated beds, date, and REL.

In the same vicinity the name, address and telephone number of the nearest emergency medical facility must be noted. It would be my suggestion that you have an EPA Worker Protection Standard Poster on the same wall, as it answers all questions that may come up. In your training session please show all the employees this designated area so you are protected from any liability for poor or lack of communication.

Decontamination materials are a MUST. Your supplier may have kits that are available or you could make your own. I have seen a back pack filled with enough water for an emergency whole-body wash and/or eye flushing (Two one- gallon containers), soap, single-use towels, clean

coveralls, gloves, and a dry towel. I have also seen some very complex kits that have everything from soup to nuts! The Department of Ag can and will make spot inspections. This standard for worker protection is more than 10-years old so we should not use the excuse that we, "Did not know" that there was such a law.

Inspectors will be looking for:

- 1) Proper posting
- 2) Correct charting
- 3) File on all employee training, copies of state certification numbers
- 4) Designated area for employee information
 - a) What was applied
 - b) Emergency telephone numbers
 - c) EPA - WPS safety poster
- 5) Current labels (save these for the entire year)
- 6) Decontamination materials
 - a) Bog-side (portable decontamination kit)
 - b) Mixing area (plenty of water, eye-wash center)
- 7) Correct storage of pesticides (locked area, so children or non-employees do not have access)

The BOTTOM LINE is **protecting yourself** with proper posting and a signature from all your trained employees. That signature states that you are in compliance and all personnel are well trained. ☞

Luciano Assumes Additional Leadership Roles

Mike Luciano, V.P. of Technical Services for Clement Pappas & Co., Inc., was recently appointed Chairman of the Technical Committee of the Juice Products Association. The Juice Products Association is the trade association representing the juice industry in the US and overseas. He was also appointed Chairman of the National Food Processors Association's Juice Products Technical Committee. The National Food Processor's Association (NFPA) was mentioned in the last *Cranberry Connection* newsletter. It is the voice of the \$500 billion food processing industry on scientific and regulatory affairs. Luciano has been with Clement Pappas for nearly 11 years. His background includes broad based experience with major food product companies such as PepsiCo and Welch's, both domestically and internationally. ☞



Cranberry Weevil- One tough Critter

Dr. Anne Averill, UMASS Cranberry Station, provided information for this article

For the last several years, Cranberry Weevil has been a serious pest in many Massachusetts cranberry bogs. Resistance to many commonly used organophosphate insecticides and limited alternative chemical and cultural control strategies have added up to a mess for some growers. Cranberry weevil outbreaks are most common adjacent to woody uplands with abundant wild blueberry understory and can spread rapidly if not managed.

Unfortunately for cranberry growers, the Cranberry Weevil comes from a very large family of insects that have proven to be very tough foes on a number of agricultural crops. The family seems to have developed good internal machinery for detoxifying an impressive number of stout agricultural pesticides. A poster-child for insect resistance could be the cotton boll weevil. During the last several seasons, the Cranberry Weevil, with its resistance to popular organophosphate insecticides has proven to be a nasty pest in Massachusetts cranberry bogs. To say that alternative effective insecticides are few and far between would be an understatement. Researchers at the UMASS Cranberry Experiment Station, the Cape Cod Cranberry Growers Association and the Cranberry Institute have been spearheading a cooperative effort to provide alternative control strategies.




Cranberry Weevil spends almost the entire year as an adult. The overwintering adult is about 1/16" to 1/8" long, dark red/crimson or dark red-brown. Females will insert a single egg between the petals of a developing flower blossom bud during June and July. Many of the infested blossom buds (or pods) fall to the ground. Growing larvae will consume all of the internal flower parts. The life

cycle, from egg to adult takes about two months. The rest of the year is spent as an adult. Other hosts include blueberry, black huckleberry, and chokeberry.

Cranberry Weevil adults are monitored by sweeping (25 sweeps per acre) with a 12"-diameter sweep net. The action threshold has historically been an average of 4.5

weevils per 25 sweeps. Sweep deeply into the vine. Sweeping should begin in early to mid-May and should be done weekly.

Flooding has been tried against the weevil and is generally not effective. During flooding, adults may be temporarily moved to the edges of the bog, or fly away for a short while. Lorsban resistance means that other alternatives are needed. Avault has proven effective against overwintering adults. It is not as effective against summer adults. This summer, there may be another second effective material available. In the last four years, Dr. Averill has tested 22 different compounds and 2 have proven acceptable in cranberries. Between the resilience of the pest and ecological concerns surrounding a number of control products, choices are limited. 

Integrated Pest Management and Best Management Practices

By Jayne Sojka, Lady Bug IPM

As the spring unfolds, you will be planning applications of herbicides, insecticides and fungicides. Always remember that it is important to rotate products. We have found that using one product year after year causes the product to become less effective. For example, if you have used Casoron for the past two years, perhaps another herbicide is in order in 2004.

I suggest my clients review the 2003 (prior year) weed pressure and decide which product would be best for this year. For example: If grass seemed to be the number one pest last year, in 2004 we may cut out Casoron and go with

Select or Poast later on in the growing season. If clover were the #1 challenge we would use Casoron or Stinger depending upon what was used previously.

IPM is all about knowing the target pest and timing the control measure perfectly. If you continually use the same OP or growth regulator, will you be comfortable with the results? Insects are especially difficult and unique pests, because often there are multiple generations in the same year. These multiple generations contribute to rapid resistance, often in only a few generations.

Best management practices are well rounded; try rotating products and pay attention to any products that may be in the phase-out cycle so you use them up, before they become illegal to use.

Good luck this growing season! 

Clement Pappas California: Up and Running

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serve capacity. The pasteurizer is the largest in the company and is able to send huge volumes of product to the filler. The plant was designed and configured to minimize labor and physical contact with the product. Finished goods are conveyed to a palletizer in the warehouse, minimizing handling.

The state-of-the-art plant did not appear by itself. It was the result of a concerted application of capital, labor and expertise on the part of some key Clement Pappas employees. Clement Pappas, Mike Strickland, Adiel Reyes, Allen Handy and Tom DeThomas, all supplied a lot of “New Jersey” experience and expertise to construct the processing plant. Numerous other people spent considerable time training new staff both in CA and at their respective location. These people include Tom Poulsen, Michele Hoffman, Matt Heminghaus, Chris Manolis, Al Zeledon, Mike Pietronudo, Steve Larro, Laurie Williams, Angie Yanez, Marisela Yanez, Kim Girylyuk, Stephanie Goodwin, Deronda Phelan, Wanda Mcfadden, Pam Thompson and Kathy Simpkins! It was a big effort!



*Clement Pappas
California facility*

The new group of employees at Clement Pappas California was selected from a very large group of applicants and represent a highly competent team with a great mix of experience and knowledge. There are now approximately 36 employees at the California operation. Clement Pappas, West Coast Director of Operations and acting Plant Manager heads the group. Other key personnel include Brett Burns, Production and Maintenance Manager, Maria Christensen, Q.A. Manager, Arturo Mares, Warehouse Manager and last but not least, Kim Little, Human Resources and Office Manager.

Clement summarized the effort by saying “Overall, I am extremely pleased with the progress we have made in a very short period of time. We have gone from site selection to producing our first case in under a year. As an organization, we have taken everything we know about our manufacturing process and built it into this plant.” 



*The new bottling line at the
Clement Pappas CA facility*

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Clement Pappas & Co., Inc.

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