

# PLANT & PEST ADVISORY

CRANBERRY EDITION \$1.50

AUGUST 3, 2006



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## Insect Update

*Cesar Rodriguez-Saona, Ph.D., Specialist in Entomology*

**M**ost cranberry growers have completed their insecticide sprays for this year. We have seen fruit infested by **Sparganothis fruitworm, spotted fireworm, and cranberry fruitworm**. Managing at this time for caterpillars is difficult because most of these larvae are in the older instars and may spend their time inside berries or have already completed development.

✓ **Sparganothis fruitworm**- Although in the past this insect was considered one of the most destructive pests in cranberries in New Jersey, numbers of *Sparganothis* fruitworm have declined over the last few years. Numbers of larvae have remained low and this agrees with the low pheromone trap catches observed earlier this summer. Larvae will feed on fruit surface, inside berries, and on foliage. One larva may feed on several berries. A second adult flight is expected to start soon (mid-August) and to continue through September, these adults will lay eggs, and the hatching first instars will overwinter. This insect has 2 generations a year.

✓ **Spotted fireworm** – High numbers of spotted fireworm larvae were seen only in cranberry beds where weeds were present in high density. The second adult flight started in early August, eggs from the second generation will begin to hatch by mid-August, and these larvae will feed on berries and overwinter as second instars. This insect has 2 generations a year.

✓ **Cranberry fruitworm** – Several berries we inspected for insect damage had cranberry fruitworm larvae. At this time the larvae are inside the berries and insecticide sprays will not control them. Cranberry fruitworm, unlike *Sparganothis* fruitworm and spotted fireworm, has only one generation a year. The fully developed larvae will drop from the fruit and overwinter inside a hibernaculum. One larva can consume several berries to complete its development. Larvae are often greenish and feed inside the fruit, filling it with frass (see photos). In New Jersey, cranberry fruitworm has not been considered a major problem in cranberries in the past. This insect however is a major pest in blueberries here in New Jersey and in cranberries in Massachusetts and Wisconsin. The reason why in New Jersey cranberry fruitworm is a pest in blueberries and not in cranberries is not fully understood, but we want to ensure this insect stays away from cranberries. This insect is very difficult to control because insecticide applications require very precise timing and intensive scouting. Eggs are laid on the calyx end of

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fruit. After eggs hatch, early instars move to the stem to enter the fruit. This is the most susceptible stage for insecticide application because the larvae have not yet penetrated the fruit. If you observed high numbers of infested fruit this year you will have to wait until next year to monitor for adult moth populations using pheromone traps. Adult flight will help you time your insecticide application(s).



*A typical fruitworm-infested fruit showing the entry hole made by the larvae. Note the frass left by the larvae near the entrance hole.*



*A look inside a fruitworm-infested fruit. Cranberry fruitworm larvae feed only inside the berries.*

This is the last Cranberry Edition of the Plant & Pest Advisory for 2006. Here I present the highlights of this cranberry season:

- Early in the season, we observed several species of **caterpillars**, however, individually most remained at low populations. One of the most abundant species was **gypsy moth**. I expect to find this species again next year in cranberries.
- The numbers of **leafhoppers** continue to increase and growers need to be aware of this insect as a vector of **false blossom disease**.
- Several cranberry bogs we monitored this year had high numbers of **thrips**. This insect has not been reported as a pest in cranberries. We will identify the species in the near future and conduct laboratory studies to understand its feeding habits. Growers did not report any negative outcomes on fruit set due to high thrips populations.
- We observed fruit infested with **cranberry fruitworm** in several cranberry bogs we have been monitoring. We are conducting studies to better understand the adult moth flight and host-plant preferences of this insect.
- Overall, the 2006 cranberry season was very quiet as far as insect problems. However, as indicated above, we need to be aware and stay on top of several insects currently considered secondary pests to prevent them from reaching major pest status. □

**Weather Summary for the Week Ending 8 am Monday 7/31/06**

WEATHER STATIONS	RAINFALL			TEMPERATURE				GDD BASE50		MON %FC
	WEEK	TOTAL	DEP	MX	MN	AVG	DEP	TOT	DEP	
CANOE BROOK	MISSING									
CHARLOTTEBURG	.90	20.56	-.25	87	60	76.	3	1698	508	80
FLEMINGTON	.32	25.91	5.90	90	62	78.	4	1926	333	81
NEWTON *	.77	20.74	1.65	88	55	75.	1	1473	70	81
FREEHOLD	.48	18.88	-.51	92	65	79.	4	1963	254	74
LONG BRANCH	.21	19.07	-.19	92	68	79.	4	1872	241	50
NEW BRUNSWICK	.59	19.94	.58	92	65	79.	4	2056	259	84
TOMS RIVER	.46	16.41	-3.49	94	60	79.	4	1968	331	53
TRENTON	.64	20.91	2.36	92	62	79.	2	2096	226	68
CAPE MAY COURT HOUSE	.07	12.69	-4.44	93	62	79.	3	1988	244	53
DOWNSTOWN *	.51	16.88	-1.22	92	60	79.	2	1857	-25	68
GLASSBORO	.54	17.56	-1.52	91	66	80.	4	2239	382	58
HAMMONTON	1.01	16.11	-3.04	93	62	80.	3	2160	304	79
POMONA	.19	17.70	.46	94	63	79.	4	2039	309	56
SEABROOK	.59	23.60	6.08	94	68	81.	4	2305	416	66
SOUTH HARRSION	4.34	21.68	2.36	91	65	79.	NA	2209	NA	NA
WES KLINE — GDD BASE 40 PINEY HOLLOW										
LAST WEEK	277 (Ending 7/24/06)									
THIS WEEK	272 (Ending 7/31/06)									
* SOME CUMULATIVE VALUES ESTIMATED DUE TO EARLIER MISSING DATA										

## Apply Now for 2007 Farm Bill Funding New Energy Incentives in 2007

*Somerset, NJ - July 21, 2006* - It's not too soon to contact your local NRCS office and start the application process for 2007 Farm Bill Programs according to Tony Kramer, State Conservationist for the USDA, Natural Resources Conservation Service (NRCS) in New Jersey. Contracts for the 2006 applications were awarded in May. "We want to encourage New Jersey farmers and landowners to submit applications for 2007 programs now," Kramer said. "Beginning the process well in advance of application period closings affords more time for applicants to work with NRCS Soil Conservationists to develop conservation plans and decide what they really want to accomplish on their land without the pressure of a deadline."

NRCS accepts applications for all conservation programs the USDA agency administers throughout the year, but establishes funding periods for each program to facilitate application review and contract development. Applications will be grouped for funding consideration earlier this year than in past years. Farmers are encouraged to sign up now before the busy harvest season begins so they don't miss out on their opportunity for 2007 programs.

Over \$5 million of conservation funding was obligated to New Jersey landowners and farmers in 2006 through two programs administered by NRCS, the Environmental Quality Incentives Program (EQIP) and the Wildlife Habitat Incentives Program (WHIP).

Through EQIP, farmers may receive financial and technical help with structural and management conservation practices that address soil erosion, conservation of irrigation water, and livestock-related concerns, including rotational grazing practices. Eighty-one contracts with a value of \$3.9 million were awarded to farmers throughout New Jersey through EQIP in 2006. Livestock operations accounted for 61% of the contracts. With this assistance, 83 farms will be able to improve their operations and install conservation practices that will help protect soil and water quality in their region.

"Practices that focus on renewable energy and fuel efficiency are being considered for next year's EQIP programs," Mr. Kramer said. Farmers who are thinking about converting farm vehicles to ethanol or using biodiesel may be able to apply for cost-share payments through EQIP in 2007.

The second most utilized program in the Garden State, WHIP offers technical and financial assistance for creating, enhancing and maintaining wildlife habitat on non-federal lands. Thirty contracts were awarded with a

value of \$780 thousand to individual landowners in New Jersey in 2006. In addition NRCS established five cooperative agreements with conservation organizations. Through these cooperative agreements, NRCS will contribute \$540,000 toward activities that will enhance over 3,223 acres of grassland, riparian lands, and other habitat throughout New Jersey.

Guidance for the 2007 programs is under development by the State Technical Committee, the advisory group to the State Conservationist. "We expect to finalize the list of eligible practices for 2007 programs later this summer," Kramer said. NRCS program information is available online at [www.nj.nrcs.usda.gov](http://www.nj.nrcs.usda.gov).

Contact the NRCS office serving your county:  
Sussex, Morris, Warren Counties: (908) 852-2576 ext. 3 - Hackettstown Hunterdon, Somerset, and Union Counties: (908) 782-4614 ext. 3 - Frenchtown Mercer, Middlesex and Monmouth Counties: (732) 462-0075 ext. 3 - Freehold Burlington, Camden, and Ocean Counties: (609) 267-0811 ext. 3 - Hainesport Gloucester and Salem Counties: (856) 769-1126 ext. 3 - Woodstown Atlantic, Cape May, and Cumberland Counties: (856) 205-1225 ext. 3 - Vineland Bergen, Hudson, Essex and Passaic Counties: (732) 537-6057 - Somerset

**Note: This is the last issue of the  
Cranberry edition of the Plant & Pest  
Advisory for the 2006 season.  
Thank you for subscribing.**

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