

PLANT & PEST ADVISORY

CRANBERRY EDITION \$1.50

JULY 31, 2008



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Insect Update

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

Most cranberry growers have completed their insecticide sprays for this year. We have seen (mostly low levels of) fruit infested by **Sparganothis fruitworm, spotted fireworm, and cranberry fruitworm**. At this time managing 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, the 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** – Few 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 soon drop from the fruit and overwinter inside a hibernaculum. One larva can consume several berries to complete its development. In New Jersey, cranberry fruitworm has not been considered a major problem in cranberries. 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 fruit. After eggs

SEE INSECT UPDATE ON PAGE 2

ACGA Meeting

The American Cranberry Growers' Association (ACGA) meeting will take place on Thursday August 21st at the Rutgers Blueberry/Cranberry Center in Chatsworth, NJ. You may find more details at <http://pemaruccicenter.rutgers.edu>. □

Editor's Note: This is the last issue of the Cranberry edition of the Plant & Pest Advisory for the 2008 season. Thank you for subscribing.

IPM UPDATE FROM PAGE 1

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).

This is the last Cranberry Edition of the Plant & Pest Advisory for 2008. Here I present the highlights of this cranberry season:

- This year three new insecticides were registered in cranberries: Avaunt, Assail, and Delegate. We conducted several field and laboratory studies with these insecticides this year and results will be presented at the upcoming growers' meeting.
- Early in the season, we observed high numbers of gypsy moth. Most growers sprayed at least once pre-bloom for this pest. This marks the third consecutive year of gypsy moth infestation.
- Besides high gypsy moth numbers, the 2008 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 in NJ cranberries, such as cranberry fruitworm and bunt-nosed leafhoppers, to prevent them from reaching major pest status. □

Weekly Weather Summary

Keith Arnesen, Ph.D., Agricultural Meteorologist

Temperatures averaged near normal, averaging 73 degrees north, 76 degrees central and 78 degrees south. Extremes were 96 degrees at Pomona on the 22nd and 23rd, and 54 degrees at Charlottsburg on the 26th. Weekly rainfall averaged 2.30 inches north, 2.74 inches central, and 1.63 inches south. The heaviest 24 hour total reported was 2.43 inches at Trenton on the 24th. Estimated soil moisture, in percent of field capacity, this past week averaged 87 percent north, 82 percent central and 61 percent south. Four inch soil temperatures averaged 76 degrees north, 79 degrees central and 79 degrees south.

Weather Summary for the Week Ending 8 am Monday 7/28/ 8

WEATHER STATIONS	RAINFALL			TEMPERATURE				GDD TOT	BASE50 MON	
	WEEK	TOTAL	DEP	MX	MN	AVG	DEP		DEP	%FC
CHARLOTTEBURG	3.14	20.43	.03	88	54	72.	-1	1561	440	89
NEWTON	1.47	18.25	-.44	90	58	74.	0	1789	458	84
NEW BRUNSWICK	2.64	20.95	2.01	93	58	76.	0	1879	158	91
TOMS RIVER	2.30	16.93	-2.52	92	57	77.	2	1830	268	100
TRENTON	3.27	19.73	1.62	92	60	77.	0	1962	173	100
CAPE MAY COURT HOUSE	1.46	13.95	-2.83	93	60	78.	1	1911	247	82
DOWNTOWN	.80	17.05	-.64	93	57	77.	0	1972	171	59
HAMMONTON	2.12	14.98	-3.73	94	58	78.	1	2057	282	100
POMONA	2.69	17.58	.74	96	59	79.	3	2024	370	100
SEABROOK	1.08	16.26	-.85	92	61	78.	1	2105	297	64
SOUTH HARRISON	2.68	16.73	-2.17	91	62	78.	NA	2092	NA	NA
WES KLINE -- GDD BASE 40 PINEY HOLLOW										
LAST WEEK 165 (Ending 7/21/08)										
THIS WEEK 263 (Ending 7/28/08)										

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